

AN EXPLORATORY CASE STUDY OF THE EFFECTS OF GENDER RELATED COMBAT
STRESS ON ADULT LEARNING IN A MILITARY ACADEMIC ENVIRONMENT

by

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B.B.A., University of North Texas, 1993
M.B.A., University of North Texas, 1995
M.S., Kansas State University, 2013

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Educational Leadership
College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2016

Abstract

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Nine female active duty Army officers who were attending CGSC participated in this research with each having a minimum of two combat tours. In addition, two active duty Army CGSC military instructors with multiple combat tours and two behavioral counselors specializing in military patients were also interviewed.

The findings of this case study indicated that combat experiences affect to a degree the female students who served in the Army in Iraq and Afghanistan. The level of perceived academic stress was contingent upon the impact of the CGSC classroom environment, personal combat experiences, prior education, gender related combat stress, and other factors. Also, the learning experience of female students at CGSC was influenced due to marginalization in the classroom, instructor biases, and two-female limitations. This study contributes the continued research on effects of combat on adult learning, specifically adding to the limited works on being a female serving in the Army.

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Dedication

I dedicate this to my wife, who has walked along my side for over 22 years of military service, four deployments, and ten moves. She has made my life complete and made me a better man.

To my children, Kaela and Logan, who always told me to finish my homework instead of playing video games, because I had to finish my degree before they started college on their own.

To all the female soldiers who serve this country everyday and whom I have had the honor to serve with in the Army, especially in combat. These honorable heroes stand among us everyday and deserve the greatest respect for what they do every day.

Chapter 1 - Introduction

“When we talk about women’s right to vote, it really was I believe the right to have your voice heard, and I think that is critically important; it’s the right to embrace diversity of religion, of ethnicity, of gender, and education; I think that is the power of women’s gains today; celebrating the transformation of women; that’s the fabric of our nation.”

Lt. Gen. Patricia Horocho, Army Surgeon General
Women’s Equality Day Luncheon, Fort Leavenworth (Aug 7, 2014)
First female Army Surgeon General in US Army History

The terrorist attacks of 9/11 caused over 2.5 million troops from the United States to be deployed to Afghanistan as part of Operation Enduring Freedom (OEF), and Iraq in support of Operation Iraqi Freedom (OIF) and Operation New Dawn (OND), which is unprecedented in the history of an all-volunteer force (Veterans for Common Sense, 2014; White House Press, 2013). As of June 2016, more than 3,456 troops have been killed in Afghanistan and 4,822 troops have been killed in Iraq, with over 52,223 troops returning from combat zones with visible wounds (Army Times, 2015; MilitaryTimes.com, 2015). United States military troops were required to support multiple combat tours, and in-between deployments troops had minimal time at home due to increased training requirements to prepare for the upcoming combat tours. This frenzied pace, with regard to deployment schedules, as well as nominal amount(s) of time at home with their families, resulted in an exhaustive accumulation of combat stress on military troops in support of two global military campaigns (White House Press, 2013).

Although both military campaigns concluded with Iraq in 2012 and Afghanistan in 2015, the effects of combat on soldiers are currently not fully understood. These effects will continue to impact soldiers, both while they are in the military and well into their civilian lives (Department of Veterans Affairs, 2014). Many of these combat veterans are attending (or will attend) educational institutions across the United States in unprecedented numbers that compare to post-World War II figures (Sinski, 2012). The Department of Veterans Affairs (2014)

allocated \$1.85 billion dollars to support post 9/11 GI Bill benefits designated specifically for the pursuit of continuing education for two million veterans. Therefore, the potential impact of combat stress on these military students as they return to school needs to be addressed (Veterans for Common Sense, 2014). With regard to combat stress, research indicates women and minorities have been more seriously affected by the consequences of war than male soldiers, and multiple factors account for these disparate effects on the two populations (Department of Defense Task Force on Mental Health, 2007; Hoge, 2008; Luxton, Skopp, and Maguen, 2010; Mattox, Haskell, Krebs, Justice, Yano and Brandt, 2012; Mota, Medved, Wang, Gordon and Whitney, 2012).

This research examined the perceived effects of combat experiences of women on adult learning activities within a graduate-level academic environment. This research focused on female U.S. Army field grade officers who had multiple combat deployments and who had attended the United States Army Command and General Staff College at Fort Leavenworth, Kansas. This first chapter provides an introduction, a background, the purpose of the study, and the problem statement, as well as research questions, methodology, the significance of the study, limitations and assumptions, definitions of terms, and a chapter summary.

Background

“Battle is the most magnificent competition in which a human being can indulge. It brings out all that is best; it removes all that is base. All men are afraid in battle. The coward is the one who lets his fear overcome his sense of duty. Duty is the essence of manhood.”

George C. Patton, 1944

War has always been a part of human civilization, and, as such, it has resulted in burdening soldiers in multiple ways, specifically through its inherent psychological effects. Over two thousand years ago, Homer wrote the *Iliad*, and described how Achilles’ experiences in combat caused (him) psychological trauma (Schiller, 2003). Throughout our U.S. military history there has been evidence of the effects of war on the human psyche and an effort to protect soldiers from it has long been an important struggle (Baker, 2011; Canon, 1915; Freud, 1918a; Friedman, 2014a). During the American Civil War, soldiers’ combat stresses was documented in more detail than in any prior war and early analysis on effects of combat trauma were collected through correspondences, personal letters, and journals (Kobrin & Kobrin, 1999; Marlowe, 2001). In 1871, Dr. Jacob de Costa coined the term *Irritable Heart of the Soldier* to describe reported panic attacks and anxiety among Civil War veterans, which were believed to result from “weakness of the heart” (Bishop, 1942; Friedman, 2014b). During World War I, combat related psychological symptoms were commonly known as *shell shock*. The term *shell shock* was used during much of World War II, however, during the Korean War combat stress became known as *battle fatigue* or *combat exhaustion* (Grafton, 1917; Hyams, 2005; Kardiner, 1941; Marlowe, 2001). In 1952, the American Psychiatric Association revised the term related to combat stress within their Diagnostic and Statistical Manual of Mental Disorders (DSM), from *shell shock* to *stress response syndrome*. Then, in 1968, the APA updated the term from *stress response syndrome* to *trauma related disorders* (APA, 1968). After the Vietnam War, with its

subsequent extraordinarily high prevalence of related combat trauma and stress, the APA officially assigned *Post Traumatic Stress Disorder* (PTSD) as a nationally identified mental health disorder (American Psychological Association, 1980).

Advancement of military technology since the beginning of the Gulf War in 1990, included improvements to armored protection systems for both vehicles and individuals. These advancements were the impetus for historically low casualty rates in Iraq and Afghanistan compared to those within prolonged wars in both the Korean and Vietnam Wars (Tanielian & Jaycox, 2008; Ward, 2006). Presently, the medical evacuation processes for the physically wounded are the most effective and technically advanced that they have ever been in U.S. military history. Now more soldiers are surviving physical attacks within severe combat than ever before (Friedman, Keane & Resick, 2007). However, mental health conditions arising from combat trauma cannot be completely prevented by any physical means of protection. These Iraqi and Afghanistan veteran soldiers continue existence as “hidden casualties of war” often suffering from long-lasting and pervasive mental health conditions brought on by their experiences in military combat (Tanielian & Jaycox, 2008).

Given the aforementioned prolific psychiatric and psychological effects of war, the treatment of psychological and cognitive injuries has become a national concern among the Department of Defense, the Department of Veterans Affairs, the U.S. Congress, and the President of the United States (Tanielian & Jaycox, 2008). In recent years, the Department of Defense and Veterans Administration has dedicated unprecedented attention and resources to address Post Traumatic Stress Disorder (PTSD) and Traumatic Brain Injury (TBI). Evidence suggests that these policies and strategies have had a positive impact, but work still remains to be done (National Council on Disability, 2009, p. 10). The RAND Corporation, a non-profit global

research company, with a division dedicated to research relating to the health care of military veterans, conducted a comprehensive study of the prevalence of their mental health conditions. The RAND study concluded that out of the 1.64 million soldiers who served throughout 2007, over 300,000 individuals were estimated to suffer from PTSD or major depression, and over 320,000 individuals could have incurred traumatic brain injuries (TBI) (National Council on Disability, 2009; Tanielian & Jaycox, 2008). RAND's research indicates that one third of those deployed have (at least) one of the (following) three conditions/symptoms of traumatic stress: depression, generalized anxiety disorder, and substance abuse (Tanielian & Jaycox, 2008). Also, results indicated that 5% of soldiers presented with all three of the aforementioned symptoms (Tanielian & Jaycox, 2008). In addition, the groups most likely to experience trauma exposure were: enlisted personnel, women, reserve soldiers, Hispanics, and older military service members (Blain, Galouski, & Robinson, 2010; Blank, 2008; Boone, 2011; Cater & Leach, 2011; Hambleme, 2013; Litz & Schlenger, 2009; Mattox et al., 2012; Mechacatie, 2014). The National Council on Disability (2009) reported that "an estimated 25-40% (of our veterans) have less visible wounds-psychological and neurological injuries associated with PTSD or TBI which have been dubbed signature injuries of the Iraq War" (p.1).

There are many emotions affecting soldiers who engage in active combat, but fear is the universal emotion that creates combat stress (Beall, 1997; Bishop, 1942; Canon, 1915; Freud, 1918; Grafton 1917; LeDoux, 1996). In the 1920's, Walter Cannon studied bodily responses that occur during states of hunger and intense emotions, leading to the concept of an emergency reaction (Canon, 1915; LeDoux, 1996). Cannon's research concluded that the body creates this physiological response due to an "emergency" physical action, which may or may not occur. This later became officially known as the *fight or flight* response. This *fight or flight* response is

something that soldiers consistently experience—especially soldiers that confront combat forces on a daily basis. The *fight or flight* response results in the physical body shutting down certain systems, while focusing energy to other parts of the body, allowing it to survive an immediate reaction to an imminent threat to survival (Friedman, 2014; LeDoux, 1996; Sapolsky, 2004). This temporary “survival stress” is considered positive if the body survives the threatening situation, yet prolonged chronic stress on the human body can have permanent effects on continuing cognitive abilities, as well as an individual’s overall state of health (Friedman, 2014; Ratey, 2002; Sapolsky, 2004).

Within the Department of Veterans Affairs’ (VA) PTSD FY14 report (2014) covering the years 2002-2013, the VA claimed that 1,759, 433 soldiers left the service after a combat tour in Iraq or Afghanistan, and 311,688 of those individuals were diagnosed with PTSD (Department of Veterans Affairs, 2014). According to current estimates, between 10-30% of service members will develop PTSD within a year of having left combat, and the other 70-90% will exhibit effects of combat stress or trauma and possible Post-Traumatic Stress (PTS), but they do not qualify for the disorder according to the DSM-5. When the research included depression, generalized anxiety disorder, and substance abuse, the number increased to between 16-50% of returning veterans having PTS (National Council on Disability, 2009). There continues to be differences in the most comprehensive research estimates. RAND’s researchers Tanielian and Jaycox (2008) estimated that 26% of returning soldiers would have combat related effects, and Morgan, Doran, Steffian, Hazlett & Southwick (2006) estimated 20% of all returning soldiers from combat would experience effects of combat, while both research projects used pre- and post-combat instrument measurements within surveys. The reality of the situation, when comparing

the research results, was that too many factors existed to be able to determine exact numbers of individuals affected.

Aside from adjusting to the effects of combat tours, these current veterans are increasingly pursuing higher education while on active duty, or shortly after leaving the service. The American Council on Education (2012) indicated that more than two million students with military experiences would attend post-secondary institutions during 2014-2016. This includes veterans who have already left the military as active duty personnel (American Council on Education, 2012). These veterans are eligible to use their post 9/11 GI Bill benefits to finish their college degrees, attend graduate school, and other trade schools (Department of Veterans Affairs, 2010). In the future, these veterans will bring the effects of their combat experiences with them into the classroom (Church, 2009). Universities, community colleges, and professional military education centers must be cognizant of the challenges faced by these veterans. They must provide a structural framework to accommodate the challenges within adult learning that will occur for this special population of students. Shea and Fishback (2012) concluded that combat veterans will have unique academic and classroom requirements that higher education administrators and educators will need to be aware of and prepared for, because of the vast number of veterans transitioning from a military to a student lifestyle. The more educational institutions research on this growing veteran student population, the better colleges and universities can improve classroom environments, and hone faculty development to serve student veterans in the most efficient ways possible. A significant gap in academic research on returning veterans is that of research on the growing female veteran population (Hambleme, 2013; Harrell, 2007; Kasinoff, 2013; Mattox et al., 2012; Mechcatie, 2014).

After 9/11 and the beginning of the Global War on Terror (GWOT), over 150,000 female soldiers have served in combat, 147 women have been killed, and 619 women have been wounded in combat during OIF/OEF/OND deployments (Department of Defense, 2014b; Women's Research and Education Institute, 2016). Thousands of women have combat-related experiences and combat trauma resulting from exposure to combat related violence, sexual trauma, and other gender-related stress during their deployments (Blain et al., 2010; Blank, 2008; Mattocks et al., 2012). Since 2011, the number of veterans diagnosed with combat related trauma conditions has almost doubled nationally, but this number does not reflect the total number affected, as many veterans have not been diagnosed (Mattox et al., 2012; National Center for PTSD, 2014a). Additionally, women have been found to experience significantly higher rates of sexual harassment and assault, both within and outside the military, than men. This, in turn, has contributed to their higher rates of combat related trauma and PTSD. Also, female veterans experience higher rates of homelessness than do to male veterans (Haskell, Mattock & Goulet, 2011; Vogt, King & King, 2005). The focus of this research explored the previous gender research trends with regard to findings as they related to female officers attending a military graduate school at Fort Leavenworth, Kansas.

The Command and General Staff College (CGSC) at Fort Leavenworth, Kansas is the Department of Army's required site for field grade officers to complete their Intermediate Level Education (ILE) requirement for Professional Military Education (PME) (CGSC Circular 350-1, 2015). CGSC is the Army education center for field grade officers who have an average of 9-12 years of military service (Command Brief, 2014). ILE education is required in order to be eligible for promotion to next higher military rank. Through a Department of Army board, 1,104 students were selected to the rank of major. The selection rate for the residential CGSC course at

Fort Leavenworth was 55% (of applicants) for the academic class of 2015 (Command Brief, 2014). The combat demographics of the class include: 81% (850/1104 students) served in combat, 44% (377/1104 students) served in two combat tours, and 36% (360/1104 students) have served in three or more tours (CGSC Command Brief, 2014). The CGSC class of 2015 consisted of 132 students from the U.S. Navy, Marine Corps, and Air Force and included 16 students from civilian government agencies. Women represent 14% (155/1104 students) of the CGSC student population with 1-2 female students in each classroom (Command Brief, 2014).

In summary, throughout human civilization and our U.S. military history, war has been a constant, as has evidence of the effects of war on the soldiers who fight in them. Names used to describe the effects of war on humans have changed throughout the years, shifting from irritable heart during the Civil War, then shell shock, battle fatigue, and combat exhaustion during World War I and II, to PTSD after the Vietnam War. Every soldier is affected by their war experiences, and an estimated 10-30% will be diagnosed with PTS or PTSD. The category with the most diagnoses of PTS and PTSD were female soldiers who served in the military. The majority of research conducted in the last century on combat stress focused on male soldiers. Recently, however, since women are becoming fully integrated into combat roles within the U.S. Army, this research was generated in order to address the aforementioned gender gap.

Problem Statement

Extensive research has been conducted on the effects of academic stress in adult learning, gender and learning, gender, and the effects of combat related stress. Minimal research exists, however, that focuses specifically on gender and combat stress as it relates to the learning environment. The Veterans Administration and Department of Defense have conducted quantitative and qualitative surveys documenting that increased levels of combat directly cause more combat related stress among returning veterans (Department of Veterans Affairs, 2014; National Center for PTSD, 2012; National Council on Disability, 2009; Army Surgeon General, 2008). Army officers who have been selected to attend CGSC bring their combat experiences into the classroom, and they experience additional academic pressure to graduate, and consequently, become eligible for promotion and continued careers in military service. This exploratory qualitative research study is designed to provide additional examination of women's experiences.

Purpose

The purpose of this exploratory qualitative case study is to examine how female Army officers perceive effects of combat stress on adult learning while attending the U.S. Army Command and General Staff College. The intent of this research is further designed to discover any themes that are present among the participants in an adult learning environment that can assist further academic research surrounding women and combat related stress.

Research Questions

This research examined that ways female students at CGSC perceived how combat experiences, academic stress, and additional factors impacted their learning experiences. It was guided by the following research questions:

1. How do female CGSC students perceive their multiple combat experiences to affect their learning experiences?
2. How do female CGSC students perceive the impact of academic stress in the classroom?
3. What other factors due to being a woman affect learning in the classroom?

Methodology

This research used a qualitative case study methodology. Creswell (2007) described case study research as “a qualitative approach in which the investigator explores a case over time, through detailed, in-depth data collection involving multiple sources of information and reports a case description” (p. 73). Merriman (2009) defined case studies as “an in-depth description and analysis of a bounded system” (p. 40).

This case study purposely selected female student participants from CGSC class 2015 for the research, and provided them an avenue to describe their combat and learning experiences. Purposeful sampling was used based “on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (Merriam, 2009, p. 77). The female student population selected initially came from the 155 total female students who enrolled in CGSC. Subsequent screening reduced the number to

139 active duty Army female students. They were contacted by email and invited to participate in the research. Nine female Army students volunteered to be interviewed for this study.

Semi-structured interviews with open-ended questions were used to document personal narration within the research methodology. The intent of the questions was to elicit information and opinions in order to compile descriptive data and personal stories on the phenomenon (Frankel & Wallen, 2006; Merriman, 2009). Interviews of selected female CGSC students took place individually and in private. The sample for this study included women of various ethnicities and minority groups. Chapter 3 provides additional demographic information about participants in this study.

Two CGSC female faculty members and two behavioral health counselors were also interviewed as a part of this research. These interviews assisted with analysis and otherwise contributed to the researcher's overall findings. The researcher conducted all of the additional interviews using the individual interview protocol.

Interviews were digitally recorded and transcribed by the researcher. Transcripts of all interviews were offered each participant to be member checked for accuracy. The content of all interviews was sent to all interviewees to provide an opportunity for them to adjust interpretation of what they said, and/or clarify their intentions within their interviews. The analysis of the data in this research was peer reviewed by a faculty member at CGSC who has a doctoral degree in adult education.

Pilot Study

A pilot study was conducted with two female CGSC students and one female CGSC faculty member. The two female CGSC students and one female CGSC faculty member filled out the informed consent form before participating in the interviews. The two female students and one female faculty member were interviewed using the interview protocol (refer to Appendix B), and the interviews were digitally recorded and used in analysis in this final report. The pilot study validated the protocol questions and also confirmed the average time of the interviews, the interview protocol questions, and the purpose of the questions intent.

Significance of the Study

Understanding the effects of combat related stress on women's learning in a military academic environment is significant to provide information to CGSC leadership and the Department of the Army. This information will help to focus faculty efforts onto additional research on gender studies in the military. A key finding from the RAND research of 2007 is that "it raised more research questions than it provided answers to because the national interest needed a better understanding to the effects of combat trauma to enable health care systems to respond effectively" (Tanielian & Jaycox, 2008, p. 32). The more research that contributes to gender studies and women's experiences in a military educational environment, the better the Army and the CGSC leadership will be able to understand how to improve women's educational experiences within the Army. Due to the changes of military assignment policy in 2015, this study on females' lived experiences is critically important to conducting research on the effects of combat on women, primarily because of the profound effect it may have on future leadership positions for women in the Army. In February 2013, and as a result of Military Leadership

Diversity Commission recommendations, the Department of Defense announced that it would end the ban on women occupying combat positions, and it opened 14,325 positions to women within combat units (Army Times, 2013; Department of the Army, 2013). This research may assist the Department of the Army and CGSC leadership in making future decisions relating to academic curriculum(s), teaching techniques, faculty development, and initiatives within student services.

This research is the first exploratory case study conducted at CGSC focusing on understanding the effects of combat on female students in a military academic environment. This research intends to capture narrative descriptive comments that represent the voice of female officers serving in the Army and attending CGSC. Understanding the effects of combat related stress on female officer students will inform the Combined Arms Center, CGSC, and Department of Army leadership in the body of gender (female) research especially as the Army moves toward the collegiate education system of the Army University in 2015. The results of this research may also improve faculty development programs and gender understanding to improve the academic environment for future female officers attending CGSC. Likewise, it may also provide a better understanding for the faculty through faculty development regarding ways to provide a better learning environment for future female students at CGSC. Finally, this study concentrates solely on female combat veteran students, who are an under-represented group within current research studies focusing on combat stress (Hoge et al., 2002; Hoge et al., 2004; Hoge et al., 2008).

Limitations of the Study

This study had five limitations.

1. The perceptions were limited by the truthfulness of the participants' responses.
2. The researcher only interviewed U.S. Army CGSC students. The researcher did not interview sister services (Marine, Air Force, Navy, or Coast Guard), international military students, or federal government civilians within the project.
3. Only officers were interviewed, and no enlisted personnel were used as study participants.
4. All of the student participants were female military students from CGSC class of 2015 at Fort Leavenworth, Kansas.
5. The researcher's analysis was limited to his ability to be focused, unbiased, and objective in data collection.

Assumptions of the Study

Four specific assumptions were made for the purpose of this research study, and they are as follows:

1. Participants provided honest and accurate responses during personal interviews.
2. The interviewer's military experience, Army military rank, and position as Assistant Professor in CGSC did not affect his credibility or the honesty of students' answers.
3. There were distinct themes specific to women in military combat and subsequent classroom environments.
4. Female students were willing to share their voices and narratives regarding gender issues within their careers, and their experiences within the classroom.

Definitions of Terms

The following definitions were used for the purposes of this female study.

Active Duty: Service members on active duty are those whose military capacity is full-time. Members of the Active Component are considered active duty service members; members of a Reserve Component are not generally considered active duty unless they have been activated or called up to active duty (Tanielian & Jaycox, 2008, p. 42).

Active Guard and Reserve (AGR): Members of AGR are National Guard and Reserve members who are on voluntary active duty providing full-time support to National Guard, Reserve, and Active Component organizations for the purpose of organizing, administering, recruiting, instructing, or training the Reserve Components (Department of Defense, 2009).

Acute Stress Disorder: results from a traumatic event in which the person experienced, witnessed, or was confronted with an event or events that involved actual (or the threat of) death or serious injury, or a threat to the physical integrity of self or others; the person's response involved intense fear, helplessness, or horror (American Psychological Association, 2013).

Branch: A grouping of officers that comprises an arm or service of the Army in which, at a minimum, officers are commissioned, assigned, developed, and promoted through their company grade years. Officers are accessed into a single basic branch, and will hold that branch designation, which could later be augmented between the 5th and 6th years of service with a functional area (Dalessandro, 2013).

Combined Arms Center (CAC): CAC is located at Fort Leavenworth, KS, and it is the higher headquarters for CGSC. CAC operates the doctrine, leadership development, lessons learned, military history, mission command, and training development for the US Army (Combined Arms Center, 2015).

Command and General Staff College (CGSC): CGSC is a 44-week graduate school for U.S. military and foreign military leaders. CGSC is the credentialing course for field grade officers in the operational Army, and it is located at Fort Leavenworth, Kansas. CGSC is the Intermediate Level Educational (ILE) requirement under Army officer Professional Military Education (CGSC 350-1, 2016).

DoD: The U.S. Department of Defense is the federal department charged with coordinating and supervising all agencies and functions of the government relating directly to national security and the military (Dalessandro, 2013).

Field Grade Officer: An officer whose rank is that of major or higher (an officer who usually serves at the battalion, brigade division or higher) (Dalessandro, 2013).

Gender: Identity refers to one's sense of oneself as male, female or something else (APA, 2011).

Improvised Explosive Device (IED): A "homemade" device that is designed to cause death or injury by using explosives. An IED can be almost anything (made with any type of material and initiator), and it can come in a variety of sizes, functioning methods, and containers, and it can be delivered using multiple methods. IEDs are unique because the IED builder has had to improvise using materials available, for the most part, close at hand. Designed to defeat a specific target, they generally become more difficult to detect, and protect against, and become more sophisticated (www.globalsecurity.org)

Intermediate Level Education (ILE): The educational requirement of field grade Army officers to meet their professional military requirements to be eligible to be promoted to the next military rank. ILE is broken into Common Core (14 weeks) and Advanced Operations Course (AOC) (30 weeks). The Common Core provides the baseline instruction in Army,

Joint, and National Doctrine and policy. AOC prepares career field officers to serve on battle staffs of operational headquarters, to lead missions assigned to battalion- and brigade-size units, and to develop the professional skills and competencies they will require as senior field-grade leaders (CGSC Circular 350-1, 2016).

9/11 GI Bill: The Post-9/11 GI Bill is an education benefit program for individuals who served on active duty after September 10, 2001. It includes tuition and fees up to \$100,000+ on the soldier's behalf, a monthly housing allowance, and books and supplies up to \$1,000 a year for a total of 36 months (www.benefits.va.gov).

Joint Professional Military Education (JPME): The joint professional education and development required of all field grade officers for familiarization with the Joint (Air Force, Navy, and Marine Corps) doctrine and training. After graduation from CGSC, all students receive JPME Level 1 credit (CGSC Circular 350-1, 2014).

National Guard and Reserves: National Guard and Reserves forces are comprised of part-time military service members who attend training one weekend a month (two weeks per year) and are eligible to be activated and/or deployed at times of state or national crises or wartime (Dalessandro, 2013)

Operation Enduring Freedom (OEF): Operation Enduring Freedom is the military operation that began in 2001 in Afghanistan (Tanielian & Jaycox, 2008, p.45).

Operation Iraqi Freedom (OIF): Operation Iraqi Freedom is the military operation in Iraq. Although troop buildup began in 2002, the invasion of Iraq occurred in March 2003 (Tanielian & Jaycox, 2008, p.45).

Post-Traumatic Stress Disorder (PTSD): A psychiatric disorder that can occur following life-threatening events (or witnessing life-threatening events) such as would occur

during military combat, natural disasters, terrorist incidents, and serious accidents as well as after physical and/or sexual assault. While most survivors of trauma return to normal given a little time, some people will have stress reactions that do not go away on their own, and these reactions may even become worse over time. These individuals may develop PTSD. People who suffer from PTSD often relive the traumatic experience through nightmares and flashbacks, they may have difficulty sleeping, and feel detached or estranged, and these symptoms can be severe enough (and last long enough) to significantly impair the person's daily life (National Center for PTSD, 2014a).

Professional Military Education (PME): PME is the “product of a learning continuum that comprises training, experience, education, and self-improvement to provide the education needed to compliment training, experience, and self-improvement to produce the most professional competent (strategic-minded, critical thinker) individual possible” (CGSC Circular 350-1, 2016).

Servicemembers: Members of the military services in both the Active and Reserve Components (Tanielian & Jaycox, 2008, p.46).

Staff Group Advisor (SGA): A SGA is a CGSC faculty member from a teaching team who has additional responsibilities in counseling, coaching, and advising students on an individual basis (from a cohort class of 16-students). A SGA has the primary assignment in teaching a specific academic block of instruction depending on the department they teach within (CGSC Circular 350-1, 2016).

Traumatic Brain Injury (TBI): A TBI is an injury to the brain associated with lasting functional impairment. TBI can occur from penetrating injuries, closed head injuries, and exposure to blasts. TBI can “disrupt brain functioning to include a decreased level of

consciousness, amnesia, or other neurological or neuropsychological abnormalities” (Tanielian & Jaycox, 2008, p.46).

U.S. Army Human Resources Command (HRC): HRC, located at Fort Knox, Kentucky, provides a full spectrum of human resource services to soldiers, veterans, retirees, and Army families. HRC manages schooling, promotions, awards, records, transfers, appointments, benefits, and retirement for all U.S. Army personnel, both Active and Reserve (Army Times, 2014).

Veteran: A former member of the armed forces (or someone who served in major combat operations). Whether an individual is considered a *veteran* may depend on “[which] veteran’s benefit or service program the person is applying for, because eligibility criteria for each program (burial/cemetery, health care, disability, etc.) varies by program” (Tanielian & Jaycox, 2008, p.46).

Veterans Administration (VA): The VA is guided by the U.S. Department of Veterans Affairs, and it is an organization that provides (both) patient care and federal benefits to military veterans (Department of Veterans Affairs, 2014).

Summary

The purpose of this exploratory qualitative case study of female U.S. Army CGSC students, who engaged in multiple combat tours, was to explore learning experiences in an academic environment. The research benefit is to further explore women's studies of female combat veterans in the U.S Army. With the DOD policy allowing for women to serve in combat arms military positions, this research could contribute to examining the experiences of female soldiers as well as provide opportunities for future senior military leaders to further understand women's voices within their military service. There have been multiple in-depth studies within the past ten years on combat veterans regarding the effects of combat, but only a small number of qualitative research specifically focused on women's combat stress and its subsequent effect on adult learning in a military academic environment. The primary data collection consisted of semi-structured personal interviews with female CGSC students. Additionally, two interviews were conducted with female CGSC faculty, and two behavioral health counselors. The research interviews recorded student's learning experiences in CGSC classrooms, and identified common themes for research regarding the effects of combat, gender, and the subsequent learning experiences of females in the military.

Chapter 2 - Literature Review

"As Commander-in-Chief, I want all our veterans to know that we are forever grateful for your service and for your sacrifice. And just as you fought for us, we're going to keep fighting for you — for more jobs, for more security, for the opportunity to keep your families strong and to keep America competitive in the 21st century."

*President Barrack Obama
August 5, 2012 (White House Press, 2013)*

Introduction

This literature review examines information about combat stress, women in war, effects of combat stress in learning, gender studies, veteran's G.I. Bill, women's military role, women's war experiences, gender and occupations, effects of combat stress on the brain, brain anatomy, combat stress, barriers to help, and education and the federal government. A literature review's purpose "involves locating, analyzing, synthesizing and organizing previous research and documents related to your specific study area and the goal is to obtain a detailed current knowledge of your research topic" (Roberts, 2010, p. 86). This research topic addresses the effects of multiple combat tours on female students who attend CGSC, and the resulting consequences on adult learning, which continues to expand due to the last decade of war in Iraq and Afghanistan.

Combat Related Stress

“While physical injuries may be easier to see, invisible wounds such as depression, anxiety and post-traumatic stress take a significant toll on our Soldiers”

*LTG Howard B. Bromberg, Army’s Deputy Chief of Staff G-1
March 31, 2013, CGSC Command Brief*

The conflict in support of Operation Iraqi Freedom (OIF) and Operation New Dawn (OND) in Iraq officially ended in 2012. Operation Enduring Freedom (OEF) in Afghanistan is scheduled to end in 2018. The United States deployed between 122,000 and 171,000 troops in Iraq and Afghanistan at any one time since major combat operations ended in May 2003, with over 2.5 million having served and over 565,000 having deployed more than once (ArmyTimes.com, 2014; National Council on Disability, 2009; O’Hanlon & Livingston, 2011; Veterans for Common Sense, 2014; White House Press, 2013).

Technological advances in military weapons, healthcare, and medical evacuations, have completely changed the doctrinal and operational process of the war in Iraq and Afghanistan. The survival rates from enemy close combat in those wars and increased use of improvised explosive devices were the highest in U.S. military history; particularly due to the individual protective gear and vehicular and aircraft protection systems (National Council on Disability, 2009). While the 8,278 soldiers killed in action (KIA) is relatively low compared to deaths experienced in Vietnam, Korea, and World War II, the 52,223 wounded soldiers who survived combat tours are significant especially those with hidden psychological wounds (ArmyTimes.com; Wounded Warrior Project, 2014). Current research has attempted to focus on the million plus soldiers who have combat related stress or acute stress disorder, and the 300,000+ soldiers who have been diagnosed with PTSD that continue to fight the unseen enemy

(Morgan et al., 2006; Wounded Warrior Project, 2014). This number however, is an estimate and the research on numbers affected widely varies.

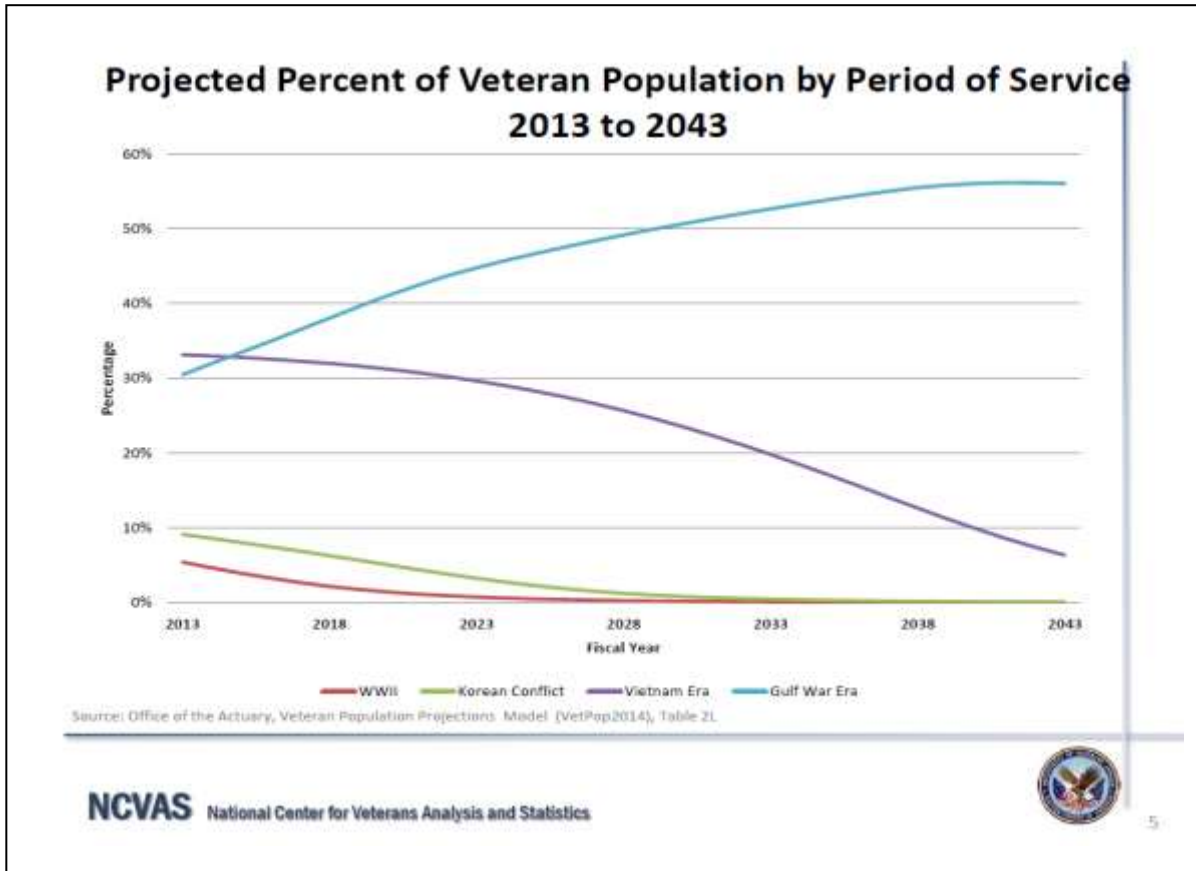
As of 2011, the Department of Veterans Affairs reported that more than 177,000 veterans of the wars in Iraq and Afghanistan received a provisional diagnosis of PTSD using the DSM-IV standards. However this number does not take into account soldiers who are still serving or veterans who seek care outside of the VA system (Boone, 2011). In the Department of Veterans Affairs PTSD FY14 report (2014) covering 2002-2013, the Department of Veterans Affairs reported that 1,759, 433 soldiers have left the service following a combat tour in Iraq or Afghanistan, of this group, 311,688 are diagnosed with PTSD at a Veterans Affairs Medical Center (Department of Veterans Affairs, 2016). Since 2011, the numbers of clinically diagnosed veterans has almost doubled nationally, but it is inaccurate because many veterans are undiagnosed (Cater & Leach, 2011; Department of Veterans Affairs, 2014; Friedman et al., 2011; Luxton et al., 2010).

Hoge, Terhakopian, Castro, Messer and Engel (2007) stated that the incidence of PTSD among all populations of OIF/OEF veterans is estimated between 16-17%. The National Center for PTSD (2014) reported that 11-20 of every 100 veterans (or 11-20%) who served in OIF or OEF has PTSD in a given year. In regard to the Gulf War (Desert Storm) and Vietnam War, the estimates were 12% and 15% respectively (National Center of PTSD, 2014a). Additionally, Hambleme (2013) indicated that 61% of men who served in combat have seen or witnessed death, and have been threatened by a weapon or the enemy. Only 8% of them were diagnosed with PTSD. In contrast 51% of the women who served in combat have witnessed the same experiences, yet 20% of them were diagnosed with PTSD (Hambleme, 2013).

Other research in the past ten years, including the Tanielian and Jaycox (2008) and Morgan et al. (2006), has estimated that 26% and 20% (respectively) of returning combat soldiers suffer from PTSD, but there are too many factors to know the exact numbers due to the measurements of populations and instruments of pre- and post-combat surveys. According to current estimates, between 10-30 percent of service members will develop PTSD within a year of leaving combat (Department of Defense Task Force on Mental Health, 2007; Greenberg & Roy, 2007; Hoge et al., 2008; National Council on Disability, 2009; Tanielian & Jaycox, 2008). When the estimates include depression, generalized anxiety disorder and substance abuse, the number (men and women) increases to between 16-50% (National Council on Disability, 2009, p. 2).

Since 2012, the Department of Defense has provided care for over 80,000 active duty individuals who have served in the military and are diagnosed with PTSD (Department of Veterans Affairs, 2014). Problems associated with PTSD are investigated by the National Center for PTSD, National Institutes of Health (NIH), Walter Reed Army Hospital (WRAH) and various local clinics and mental hospitals throughout the country (Department of Defense, 2014c; National Institutes of Health website, n.d.). According to trends from 2002-2009, 10-30% of service members developed a form of PTSD or symptoms within the first year of combat. When including other mental health issues like depression, generalized anxiety disorder, and substance abuse, the numbers are between 16-49% (Army Surgeon General, 2008; Department of Defense Task Force on Mental Health, 2007; Hoge et al. 2002; Hoge et al., 2004; Hoge, 2008; Lanius et al., 2012; National Council on Disability, 2009; Tanielian & Jaycox, 2008; Wong et al., 2013). After 2017, according to the Veterans Administration, the OIF/OEF veteran population will exceed that of Vietnam, Korea, and WWII combined (see Figure 2.1).

Figure 2.1 Projected Percent of Veteran Population



(Veterans Administration: National Center for Veterans Analysis and Statistics, 2014)

Multiple research sources agree that there is a significant population of combat veterans with long-term effects of deployments. With the end of conflicts in Iraq and Afghanistan, the problem will fully develop in the next 5-20 years once these veterans return to civilian roles, continuing education, and a new paradigm of military operations (Spoont et al., 2010; Wong et al., 2013). The impact of multiple combat stressors on individuals differ based on a variety of factors, to include: early childhood adversity, previous trauma, low income, ethnic minority,

younger age, gender, and history of mental illnesses (which increase the risk of combat related post-traumatic stress) (Army Surgeon General, 2008; Department of Defense Task Force on Mental Health, 2007; National Council on Disability, 2009; Vogt et al., 2011). As the accountability of combat stress research has matured over 13 years of war, the new research data suggests gender may be a variable that impacts the degree of combat stress (National Council on Disability, 2009; Vogt et al., 2011).

Women in War

“War is hell for everyone, men and women alike, it’s unclear how the unique female experience in the barracks, on the battlefield and back home may affect them differently.”

(Kasinoff, 2013, p.26)

Since the start of combat operations in Iraq and Afghanistan, more than 150,000 United States female service members have been deployed overseas in those combat zones (Women’s Research and Education Institute, 2014). Since 2001, over 147 women have been killed and 619 combat wounded during their deployments (Army Times, 2014). Thousands more have been seriously injured, including an unknown number that suffer significantly from mental health problems as a result of their exposure to combat-related violence, military sexual trauma, and other stressors during their military deployments (Mattocks et al., 2012). Research from the last ten years suggests that more than 15% of service members returning from Iraq and 11% of service members returning from Afghanistan have met the screening criteria for major depression, generalized anxiety, or posttraumatic stress disorder (Hoge et al., 2004; Hoge et al., 2007; Mattocks et al., 2012; Maguen et al., 2012). As of April 2014, 75% of the women serving

are between 20 and 40 years old, representing 15% of active duty, 17.7% of the Reserves, and 15.5% of the National Guard and (National Center for PTSD, 2014).

In the last century of U.S. warfare, male soldiers primarily suffered from combat trauma due to the military restrictions on the role of female soldiers in the military during WWI, WWII, Korean War and Vietnam War (Department of Defense Task Force on Mental Health, 2007; Freidman, 2014; Luxton et al., 2010; Mota et al., 2012). Women did not officially serve in the US military until the Army and Navy Nurse Corps were established in 1901 and 1908 respectively. Prior to that time women served with the armed forces as contract and volunteer nurses, cooks, laundresses, and even disguised soldiers (Women for Military Service for America, 2014). Due to the regulatory policies that restricted roles and military occupations of female soldiers, there were still thousands of female soldiers that served in Vietnam and Korea as nurses, air traffic controllers, support staff intelligence officers, and other vital positions (Women for Military Service for America, 2014). This policy resulted in the minimum deaths of eight military women over the course of the Vietnam War with only one being from enemy combat (Harrell et al., 2007; Tolin & Foa, 2006). As of January 2013, the Department of Defense Directive 2013-19 changed the policy, lifting the ban on women in combat and opening all positions of the military to women, stressing the importance of studying the effects of combat stress on female soldiers (Women for Military Service for America, 2014; Department of the Army, 2013).

The Department of the Army (2013) estimates 12-15% of women served on the front line in forward deployed locations, in Iraq and Afghanistan since 2001. Some of these women returned from Iraq and Afghanistan with Military Sexual Trauma (MST), in addition to the anticipated combat-related trauma. Estimates report between 13-30% of women veterans

experienced a higher percentage of some type of sexual trauma, including rape, which combined with combat trauma makes women far more likely to experience PTSD (Harrell et al., 2007; Jeffreys, 2007; Maguen et al., 2012; Mattacks et al., 2012; National Council on Disability, 2009; Tolin & Foa, 2006).

African Americans, Latinos, Asians, Native Americans, and women veterans not only have higher rates of PTSD, but also face further barriers for mental health assistance and are less likely to use mental health services (Jeffreys, 2007; Litz & Schlenger, 2009; Mattacks et al., 2012). This phenomenon was due in part to “additional increased stigmas from the absence of culturally competent health providers and lack of linguistic accessible support” (National Council on Disability, 2009, p. 4). Many female veterans struggle with the psychological balance between expectations of being a military soldier and those of being a daughter, girlfriend, spouse or mother at home (Hableme, 2013; Kasinoff, 2013; Maguen et al., 2012; Women for Military Service for America, 2014). Female veterans from combat operations in Afghanistan and Iraq are more likely than male veterans to be homeless, divorced, or raising children as single parents (Cater & Leach, 2011; Hambleme, 2013; Lilly, Pole, Best, Metzger & Marmat, 2012; Mattacks et al., 2012). Other research has also shown that depression and PTSD are “major problems among female veterans however, little is known about the association (causation) between combat exposure (CE) and psychological health outcomes for women who have been deployed to OIF and OEF” (Luxton et al. 2010, p. 1028).

In 1988, the Department of Defense established what is known as the “risk rule” in which women were explicitly prohibited from serving in units or missions where the risk of exposure to direct combat, hostile fire, or capture was equal to or greater than the risk in the combat units they supported (Jeffreys, 2007; Mota et al., 2012; Tolin & Foa, 2006; Women for Military

Service for America, 2014). The risk rule was developed by the Department of Defense (1989) Task Force on Women in the Military to state that the "risks of exposure to direct combat, hostile fire, or capture are proper criteria for closing noncombat positions or units to women, providing that the type, degree, and duration of such risks are equal to or greater than that experienced by combat units in the same theater of operations" (p. 10). This rule was developed in an attempt to standardize positions closed to women across services (Department of Defense, 1989).

In the 1990's, Operation Desert Storm changed the policy on women's role in the military because the operational scope of warfare, and enemy engagements of SCUD missiles, caused almost everyone deployed in the region to be physically at risk (Kasinof, 2013). Due to the success and quick military victory in Iraq, Defense Secretary Les Aspin adjusted the risk rule in 1994, opening up all military jobs to women except those below the brigade level, where the primary mission was to engage in direct combat (Harrell et al., 2007; Women's Research and Education Institute, 2014). The adjusted ruling of combat roles lead to an increase in women's role in the US military operations, especially in Somalia and the Balkans in the mid to late 1990's. It was not until post 9/11 and the last decade of combat in Iraq and Afghanistan that female soldiers began filling more roles that put them directly in the line of all enemy fire, mainly because the operational environment was non-contiguous (enemy could be everywhere) and non-linear (no front lines) (Harrell et al., 2007; Luxton et al., 2010; Women for Military Service for America Memorial Foundation, 2014).

In 2011, the Military Leadership Diversity Commission (MLDC) reported to Congress that the ban on women in combat should stop, primarily because the roles women played for the in support of OIF and OEF were not relevant (Military Leadership Diversity Commission, 2011). The MLDC committee addressed the subject of mental health and gender considerations only

long enough to dismiss it, due to a small amount of research that hypothesized women were not more likely than men to develop PTSD (Military Leadership Diversity Commission, 2011). The cited evidence disregarded gender differences and PTSD with a single VA report study that found conflicting, non-conclusive results, about gender differences in PTSD rates, and also included a *New York Times* article quoting DoD officials on the subject (Kasinof, 2013; Military Leadership Diversity Commission, 2011). In addition, the tone of the final report was more on diversity of the military force over consequences of mental health and PTSD effects (Kasinoff, 2013).

As a result of the Military Leadership Diversity Commission recommendations, in February 2013 the DoD announced that it would end the ban on women and opened 14,325 positions to women within combat units (Army News Service, 2013; Army Times, 2015). In January 2014, Defense Secretary Leon Panetta and Chairman to Joint Chief of Staff (JCS) General Martin Dempsey announced the elimination of the ban on women in combat reflecting feelings of many in our society, including civil rights activists and the military, because women were in combat for the last decade doing everything a male soldier was doing in a non-contiguous battlefield (Kasinof, 2013). With the continued research regarding gender in combat, new aspects of effects on learning have emerged.

Women, Combat Stress and Clinical Studies

Since 2010, there has been a steady growth of research studies focusing on effects of combat related stress on women's medical and mental health conditions. However, very few studies have examined women's experiences in war, and their coping mechanisms with

experiences and post war reintegration with their families, jobs, and communities (Mattox et al., 2012). With the changes of DoD policy toward women and combat roles, it is critical to examine gender-based risk differences in both depression and PTSD following deployment to combat zones (Luxton et al., 2010). Luxton et al. (2010) examined if gender would moderate the association between combat experiences, depression, and PTSD symptoms in pre- and post-deployment depression, and PTSD symptoms in soldiers who were deployed in support of Operation Enduring Freedom and Operation Iraqi Freedom. Luxton's results indicated that the "variance of combat experience is a stronger predictor of post-deployment depression symptoms for women than for men" (Luxton et al. 2010, p.1030). His theoretical framework suggests that stressful life events may trigger disorders when an underlying vulnerability already exists, and that stress associated with deployments to combat zones could be sufficient enough to trigger depression and/or PTSD among individuals who have pre-existing vulnerability (Luxton et al. 2010). His research is the first known published study conducted with OEF/OIF service members to find that "women with higher reported combat experiences are at greater risk for depression compared to men," and he argues that "men and women might respond differently to higher levels of combat because women exhibit greater internalizing symptoms consistent with depression, and men exhibit greater externalizing symptoms, such as substance use" (Luxton et al. 2010, p. 1031).

The RAND Corporation conducted research and estimated that 1.6 million troops deployed as part of OEF/OIF. RAND's key findings concluded that most of the 1.6 million service members who deployed would return from war without problems and readjust successfully, but many would return with significant mental conditions. Tanielian and Jaycox (2008) estimated over 300,000 veterans suffer from PTSD (under DSM-IV) or major depression.

For those veterans seeking treatment, only about half (53%) of those who met the criteria for current PTSD or major depression had sought help from a physician or mental health provider. Their study raised more research questions than it provided answers and emphasized that the nation needed better understanding of the full range of problems that confront individuals with PTSD (Harrell et al., 2007).

The RAND (2008) survey key findings were:

- 1) Most service members return home from war without problems and readjust successfully, but some have significant deployment-related mental health problems (p. 10).
- 2) Current rates of exposure to combat trauma and mental health conditions among returning veterans are relatively high (p. 11).
- 3) Some groups are higher at risk for these conditions (p. 12).
- 4) There is a large gap in care for these disorders: The need for treatment is high, but few receive adequate services (p. 13).

The RAND (2008) research also concluded that PTSD, major depression, and TBI could have long-term cascading consequences on veterans (Tanielian & Jaycox, 2008). Another enduring consequence is the estimated cost for two years post-deployment treatment per case of major depression and PTSD, ranging from \$5,904 to \$23,757. A micro economic simulation was used to predict the assistance of 1.6+ million deployed service members could range from \$4.0 billion to \$6.2 billion (Tanielian & Jaycox, 2008). The estimates for 2013 to assist in the PTSD diagnosed veterans were one of the many reasons that the APA redefined the criteria for PTSD in the DSM-5 (Friedman, 2014a; Friedman et al., 2011).

In another study, Mattox et al. (2012) found that many women who served in OEF/OIF experienced substantial stress both during the war and upon return to the United States. The high level of stress occurred through experiencing trauma with caring for critically injured soldiers, enduring sexual harassment or rape from fellow military personnel, or returning to parenting or marital relationships strained by the length of deployment (Mattocks et al., 2012). His study aligned with previous studies (Schell & Tanielian, 2011) that women veterans tend to isolate themselves from others upon return from deployment by refusing to seek social support, and relying on avoidance coping strategies, such as overindulgence in food, prescription drugs, and exercise to alleviate the negative feelings they were having. He also concluded that some women have more positive coping strategies, including moderate exercise, listening to music, breathing exercises, and speaking with other women veterans (Mattocks et al., 2012).

In the Mattox et al. (2012) research, the critical theme that was found indicated that women's experiences in war were not widely understood or recognized upon return to the United States. He also noted that women's roles and experiences in the military are often minimized or misunderstood by family, friends, and healthcare professionals, because women themselves tend to curtail their contributions. Several women in the study indicated that they did not feel their physical and mental health ailments were worthy of VA care (Mattocks et al., 2012).

Academic and other gender research since 2012 has yet to fully analyze why women do not feel worthy of services provided by the VA, or why they do not advocate more strongly to receive services they need and deserve (Jeffreys, 2007; Kasinoff, 2013; National Center for PTSD, 2012). Other academic research has suggested that, like Vietnam veterans, OEF/OIF veterans may have an ongoing "sense of shame which may hamper efforts at self-advocacy, which may arise from perceptions regarding negative American attitudes toward war" (Mattocks

et al., 2012, p. 537). In addition, Mattox (2012) concluded that women who experienced forms of military sexual trauma might be unwilling to utilize VA services because of fear of encountering the same types of individuals who may have perpetrated the sexual trauma. In his final analysis he conclude that many female veterans returning from combat “may feel that, despite their own personal medical or mental health needs, the focus needs to shift away from their own personal needs to the needs of their children and other family members” (Mattocks et al., 2012, p. 537). Though there are research studies regarding women in combat, many questions remain to be analyzed on the effects of combat.

Combat Stress, War and Soldiers

“American service members have sacrificed a great deal in the battles in Afghanistan and Iraq, and many of those who have returned are still battling. Now they are not fighting the enemy around them, they are fighting an even more elusive foe within the psychological effects of war”

(National Council on Disability, 2009, p. 8)

Killing another human being in combat is not a natural or normal phenomenon (Bishop, 1942; Canon, 1915). Throughout our civilized history, humans have fought in warfare and caused physical and mental trauma on those who participated, while leaders have used multiple coping methods to manage the human responses to war (Bishop, 1942; Freud, 1918; Hales & Zatzick, 1997). In combat, soldiers experience stress on a daily basis through combat orders, the constant danger of geographical areas, potential injuries of themselves, loss of fellow soldiers, and the stress of killing (Freud, 1918a; Grafton, 1917; Hams, 2005; Jones, 1921; Kardiner, 1941; Strachey, 1955).

Throughout our U.S. history, there has been evidence of the effects of war on the human psyche and an effort to protect soldiers from it (Canon, 1915; Freud, 1918; Friedman, 2014; Jones, 1921; Ward, 2006). During the American Revolutionary War, General George Washington was abusively critical of those soldiers with signs of combat stress (Ward, 2006). General Washington punished those soldiers who suffered from combat stress by flogging, running the gauntlet, tar and feathering, and shackles in order to deter high desertion rates and prevent low morale (Ward, 2006).

During the American Civil War, both armies documented the stressors soldiers faced in more detail than any prior U.S. war. Stress was intimately documented through battle reports, personal journals, and thousands of letters that reflected all aspects and personal experiences of the war (Kobrin & Kobrin, 1999; Marlowe, 2001). The written documents depicted all facets of combat, including emotions, risk, strategies, and how soldiers lived their daily lives in combat. These personal narratives describe the early documented accounts of combat related stress, which was initially named soldier's melancholy or soldier's heart and described how the effects degraded the soldiers' combat performance (Canon, 1915; Grafton, 1917; Hyams, 2005; Le Fanu, 2003; Marlowe, 2001). In 1871, Dr. Jacob de Costa named *Irritable Heart of the Soldier* to describe reported panic attacks and anxiety in Civil War veterans and was believed to be a weakness of the heart (Bishop, 1942; Friedman et al., 2007; Friedman, 2014b). This definition was still used up through World War II. During World War I, the combat related psychological symptoms were known as *shell shock*, a term used during much of World War II and into the 1960s (Freud, 1918; Grafton, 1917; Jones, 1921; Kardiner, 1941; Marlowe, 2001; Strachey, 1955). During WWII and the Korean War combat stress became known as battle fatigue, or combat exhaustion (Hyams, 2005).

Throughout this period during WWII, Sigmund Freud's model of neurosis, called seduction theory, posited that posttraumatic behavior was the result of external events (Freud, 1918; Wilson, 1994). Freud's student, Abraham Kardiner (1941) studied war related neuroses as part of psychoanalytical theory. He wrote *Traumatic Neuroses of War* and *Neurotic Illness*, which is considered the seminal psychological works of post-traumatic stress disorder (Beall, 1997; Kardiner, 1941; Wilson, 1994;). In 1952, the American Psychiatric Association (APA) revised their Diagnostic and Statistical Manual of Mental Disorders I (DSM-I) by updating the definition of shell shock to stress response syndrome, and listing it under a general category of gross stress reactions (Beall, 1997; Schnurr, 1991; Wilson, 1994).

In the updated DSM-II (1968), the APA updated stress response syndrome to trauma related disorders under situational disorders (Beall, 1997; Wilson, 1994). After the Vietnam War (1965-1973), the U.S. Congress mandated the National Vietnam Veteran's Readjustment Study (NVVRS) to study the prevalence of PTSD and other psychological problems of returning Vietnam combat veterans (Beall, 1997; Kulka et al., 1988; Price, 2007;). The NVVRS study (1988) concluded that approximately 830,000 Vietnam Veterans or 26% of those that served had symptoms associated with PTSD (Friedman, 2014; Kulka et al. 1988; Price, 2007). During the Vietnam War, the symptoms of shell shock were so prevalent that it was officially assigned the name Post Traumatic Stress Disorder (PTSD) in the APA DSM-III (1980) and nationally identified within official mental health disorders. This spread the abbreviation into the American culture of books, magazines, movies, and newspaper headlines.

With the introduction of PTSD as a subcategory of psychological anxiety disorders, an academic and professional controversy emerged debating if PTSD was an anxiety or dissociative disorder. In comparison to Vietnam, Desert Storm (1991) was extremely brief, lasting only 100

days with 100 hours of sustained force-on-force combat. Due to this short time frame there was not enough research data to be conclusive. Desert Storm veterans reported post-traumatic stress signs and symptoms with rates of incidence varying from 9% to 24% (Friedman, 2014a; Wolfe, 1996). In the APA DSM-IV (1994), the Advisory Subcommittee on PTSD unanimously classified PTSD as a new *stress response* category, which caused further debate until the last wars in Iraq (2003-2012) and Afghanistan (2001-2015). As more emphasis was directed toward research in PTSD and combat stress effects of veterans, less was devoted to the effects of academia of the largest surge of veterans back to colleges and universities since WWII.

Effects of Combat Stress and Learning

“Stressed brains don’t learn the same way” (Medina, 2008a, p.195)

While many universities make arrangements for veterans, other higher education systems have no specific programs or incentives to assist veterans in reintegration (Church, 2009; Rumann & Hamrick, 2009; Ryder, 2012; Sander, 2012; Steele et al., 2010). Prior to 2009, there were few published studies examining the challenges that veterans face when they return to college classrooms (Church, 2009; cited in Shea, 2010). These veterans could experience effects of combat stress with symptoms like difficulty beginning new tasks, guilt, personal safety concerns, depression, self-esteem, inability to concentrate, or panic attacks (Church, 2009; Fishback, 2014; Sinski, 2012; Steele, 2013).

Many veterans in college classrooms may experience learning challenges caused by the effects of combat stress, including PTSD (Kerka, 2002). Unknowingly, many educators can expose these students to uncomfortable or distressing situations and not fully understand why

their students are reacting in certain ways (Sinski, 2012). These students bring combat leadership and life experiences into the classrooms, but many must overcome combat stress challenges to take their first step in the classroom (Church, 2009; Department of Veterans Affairs, 2010; Rumann & Hamrick, 2009).

RAND (2010) conducted a study for the American Council on Education researching veteran students' academic expectations while managing combat service-connected injuries, including bodily injuries and PTSD. They discovered some veterans dealing with combat related stress had impairments in cognitive functioning, specifically with tasks requiring attention, verbal memory, and new learning (Steele et al., 2010).

Shea (2010) researched combat veterans' experiences in the classroom environment in a qualitative case study at Fort Leavenworth's Army Command and General Staff College. Dr. Shea examined the effects of combat related stress on the learning of 11 Army majors attending CGSC and documented that the academic environment increases the levels of stress (Shea, 2010). In his analysis, Shea (2010) identified five areas of concern that affect the students' learning: academic stress, sleeplessness and concentration issues, alcohol usage, flashbacks, and dual enrollment. His analysis discussed coping mechanisms that students used to make the pain go away and suggested solutions instructors can support by learning the effects of their teaching methods. Educators may not know if a student is experiencing the effects of combat trauma. The combat related trauma indicators include: missing class, avoiding tests, spacing out, or having inappropriate reactions to class discussions (Kerka, 2002). Teachers can assist learners regain control, connection, and meaning to learning by encouraging inquiry, allowing self-narratives in class, creating a safe learning environment, story-telling, professional development, and student advocacy (Kerka, 2002). Shea and Fishback (2012) discussed how classrooms added stress that

“can emotionally hinder the cognitive processes associated with learning” (p. 59). Because veterans carry the memories and effects of war into the classrooms, schools and colleges need to prepare, plan, and recognize the needs and support of the veterans (Shea & Fishback, 2012).

Veterans and the G.I. Bill

The servicemen’s Re-adjustment Act of 1944 (known as the G.I. Bill) was authorized to WWII veterans as an economic and educational benefit for serving their country in combat during WWII (Department of Veterans Affairs, 2010). The result of the huge influx of new students into colleges and universities required those organizations to change their programs to accommodate veterans (Rumann & Hamrick, 2009; Sander, 2012). In 2014, higher education systems across the country were again involved in the largest entry of veteran students into colleges since World War II. In November 2013, the Department of Veterans Affairs (VA) announced that the Post-9/11 GI Bill had provided educational assistance for the one-millionth student (Department of Veterans Affairs, 2014; Steele, 2013). The Department of Veterans Affairs recorded 541,439 students in 2008, and at the end of 2012 recorded 945,052 students, and projected over 25-45,000 new students each additional year (Department of Veterans Affairs, 2014). Of those million students, many combat veterans are returning to enter higher education and bringing their psychological or physical effects of the war, including combat stress and PTSD. The VA estimates that 3% of all undergraduates in the U.S. represent military veterans, and 43% attend 2-year public institutions while 21.4% attend 4-year colleges and universities (National Center for PTSD, 2012).

There has been a surge of academic research since 2009 regarding veterans returning to the classroom. Most higher education systems are now realizing that there are problems specific

to this group exists, and needs to be addressed (Fontana, 2010; Ryder, 2012). All veterans who have served since 9/11 are eligible for the post 9/11 GI Bill and these students will bring their combat experience, both positive and negative with them (Shea and Fishback, 2012). The American Council on Education (2014) has estimated that more than 2.2 million veteran students with military combat experience could attend postsecondary institutions in the near future. The Post 9/11 VA educational benefits are currently paying for over a million students, and colleges have collected more than \$4.4 billion for their schools since 2003 (Sander, 2012). There are 1.2 million possible students eligible for the 9/11 GI Bill benefits. Each veteran under the 9/11 G.I. Bill has up to \$95,000 worth of benefits for future educational expenses, which equates to \$90 billion worth of education funding by the government projected for the next ten years (Bromberg, 2014; Sander, 2012).

Combat veteran students can use this education opportunity to enhance themselves as they transition back to civilians. Universities and colleges need to prepare, addressing the complicated and unique learning challenges of veteran students who carry combat stress into their classroom daily (Shea and Fishback, 2012). The academic community “needs to be prepared for this influx of students as well as their academic perceptions and needs for veterans of multiple combat tours” (p.27). Many campuses throughout our country are following the research and “building awareness” to university administrators, student affairs, and leaders to “facilitate and educate students, staff and faculty with opportunities to better understand future military students due to their lack of experience and knowledge base” (Rumann & Hamrick, 2009, p. 25).

Women, War and Military Roles

As more research focuses on female soldiers' perspectives of combat experiences, the continuing research assists in framing new problems regarding female veterans, mental health, educational experiences, and combat stress. The current challenges for female soldiers are that they are the extreme minority among their peers and are treated differently on a social and professional level (Kasinof, 2013). Another factor is that women comprise a growing segment in all military services of the Department of Defense. Women experience significantly higher rates of sexual harassment and assault (within and outside the military) than men (Haskell et al., 2010; Sternke, 2011; Vogt et al., 2005). Since 2006, research has primarily consisted of predominately male samples, examining combat related traumatic stress exposure and mental distress in veterans (Mota et al., 2012). Due to the research discrimination, "examining stressors and mental health profiles in military women, including how they differ from those in men, is becoming increasingly important" (Mota et al., 2012, p. 159).

In multiple research studies, women have reported a "higher prevalence of a history of several traumatic events including childhood sexual abuse and intimate partner violence" (Mota et al., 2012, p. 159). Military men typically report more combat exposure, violence related events, natural and manmade disasters, and accidents because of the larger proportion of men over women deployed into combat (Vogt et al., 2005; Vogt et al., 2008). In contrast combat exposure and higher prevalence, there has been no gender differences found for traumatic events, including worries related to life or family disruption, physical abuse, and sudden death of someone close (Mota et al., 2012; Vogt et al., 2008).

Tonlin and Foa (2006) in the APA Psychological Bulletin examined 25 years of research on a wide spectrum of trauma and found that women are about twice as likely as men to develop

PTSD after experiences in trauma. Their study found that women were more likely to develop PTSD after certain types of assaultive violence, such as accidents, conflict, or psychological abuse (Tonlin & Foa, 2006). In comparing genders regarding mental disorders, several veteran studies have shown women to have a higher prevalence of depression, PTSD, and suicidal ideation, while military men typically endorse more alcohol use and related disorders than women (Vogt et al., 2005; Mota et al., 2012; Sternke, 2011; Street et al., 2009). Additionally, some studies have failed to find any such gender differences or have shown opposite higher rates of psychological disorders in males, which contradicts prior research (Mota et al., 2012; Tolin & Foa, 2006).

Working in the military can have negative psychological outcomes due to the occupational environment of the profession but only a handful of studies have examined occupational stress in regards to women's perspective. In previous studies, military women have been found to differ on a number of socio-demographic variables. They are more likely to be single, non-Caucasian, younger, and of lower military rank (Haskell et al., 2010; Mota et al., 2012; Murdoch et al., 2007; Murdoch et al., 2010). Previous research examining sex differences with regard to the military has been limited by several factors: 1) most studies have investigated mental disorders using self-reporting questionnaires instead of standardized diagnostic interviews; 2) the few work stress studies have used one or two self-reported yes/no questions rather than a multi-faceted assessments; 3) previous studies have not adjusted for potential confounding factors; 4) most previous studies have not distinguished between regular and reserve status personnel (Mota et al., 2012, p. 166).

Some women report that they spend their deployments feeling alienated, marginalized or outright threatened by their comrades. Women are disproportionately the victims of rape, sexual

assault and harassment by fellow soldiers (Jeffreys, 2007; Kasinof, 2013; Murdoch et al., 2007). In addition, an estimated 20% of all women who use VA healthcare have been sexually assaulted, abused, or raped during their time in the US military (Department of Veterans Affairs, 2014). These statistics may explain why women react differently to war, and carry different psychological burdens home with them (Kasinof, 2013).

Although most of the published research to date focuses on gender differences in PTSD outcomes, there is currently a gap in knowledge regarding whether the increase in combat experiences among women might place them at higher risk for depression post-deployment (Luxton et al. 2010). Hoge (2008) suggested that there might be differential risk factors for PTSD based on gender (23.6% women compared to 18.6% of men) and reported a mental health concern examining the association between gender combat experience and mental health results (Hoge, 2008; Hoge et al., 2008). The correlation between combat experiences and depression risk among women veterans to OEF/OIF, however, is still not understood (Luxton et al. 2010). Luxton (2010) conducted epidemiological studies that claimed women are at much higher risk for depression than men in the general population. These studies consistently showed an average ratio close to 2:1 with lifetime estimates for depression at 20% for women and 12% for men. Additional studies have also examined gender difference in depression among veterans and found that female veterans were more likely to report depression than their male counterparts (Luxton et al., 2010).

Despite the Army's attempts at convincing women to report assault and harassment, and promoting Sexual Harassment and Assault Prevention program (SHARP), women continue to face negative consequences for reporting abuse and harassment (Bromberg, 2014). In the latest Department of Defense RAND report (2014) regarding sexual abuse and assault in the

Department of Defense, the reports have significantly increased, while the actual incidences have dropped significantly. The RAND executive report (2014) estimates that trust among female soldiers in the military to report inappropriate behavior has provided a better environment and command climate for working. Though any sexual assault or sexual discrimination against women is unacceptable, the Department of Army's multiple programs promoting a safe working environment, and preventing future harassment and assaults, has changed the dynamics in the military culture and climate of women in Army (Department of Defense, 2014a; Department of Defense, 2014b; Wong et al., 2013).

Additional stress toward female veterans are associated with female gender-like phrases such as "acting like a girl" or "being a woman" as derogatory euphemisms for "weakness" during training drills and elsewhere (Sue, 2010, p. 217). Dr. Derald Sue from Columbia University has spent decades researching the effects of these verbal derogatory phrases called *microaggressions*, and has shown they cause long-term stress toward women and other minorities (Sue, 2010; Sue et al., 2007). As a result of these cumulative additional stressors, female soldiers feel the additional pressure to demonstrate that they are just as tough as men. Female soldiers have to mentally break the social connotation that women should be "barefoot and pregnant" in the kitchen, which required females to be tougher physically and mentally than required from male counterparts (Kasinoff, 2013, p. 26). They proved daily that they have a right to be a soldier.

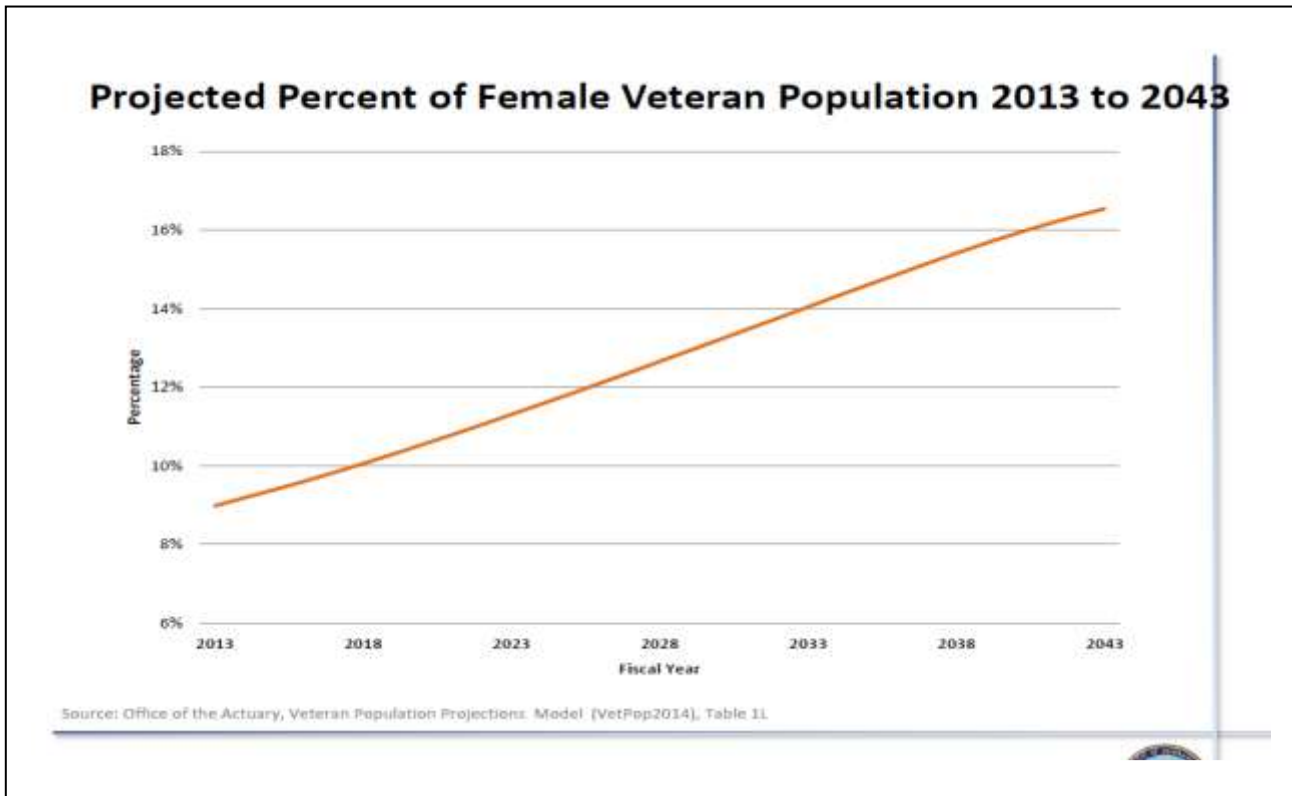
In summary, we owe it to our female veterans to research how women experience war differently than men and to determine what can be done to better support female soldiers. Due to changes in policy, these women and future female soldiers are poised for the first time in history

for deployment in large numbers in every combat position available to defend our country (Department of the Army, 2013; Kasinof, 2013).

Women's War Experiences

Since women veterans represent a minority in the military, they have faced many challenges in their war experiences during reintegration with work, family, and social lives after a deployment. Women's unique experiences are, and historically have been, overshadowed by dominant male experiences (Mattox et al., 2012). The past century of war trauma research has mainly focused on male veterans because they have traditionally represented over 90% of the troops formation and participated in most of the major combat units (Baker et al., 2009; Blank, 2008; Department of Defense Task Force on Mental Health, 2007; Mattox et al., 2012; Maxfield, 2011). According to the Department of Veterans Affairs (2014) estimates of veterans in our future population, women's percentage of total veteran population will double in percentage in the next 30 years (see figure 2-2).

Figure 2.2 Percent of Female Veteran Population



(National Center for Veterans Analysis and Statistics, 2014)

As discussed already, women serving in the military must cope with gender-based violence during a deployment (Cater & Leach, 2011; Department of Defense Task Force on Mental Health, 2007; Kasinoff, 2013; Mattock et al. 2012; Mota et al., 2012). Gender based violence was first introduced in 1993 as the United Nations adopted the *Declaration of Violence Against Women*, which describes violence against women as “any act of gender-based violence that results in, or is likely to result in, physical, sexual, or psychological harm or suffering to women including threats of such acts, coercion or arbitrary deprivations of liberty, whether occurring in public or private life” (Mattocks, 2012, p. 1).

Vogt (2005) researched that when women deploy to combat, their socially accepted gender caregiver responsibilities are given to spouses, family members, or friends, adding further to women's deployment-related stressors. The Department of Defense (2014) reported that over 40% of active duty women deployed in Afghanistan and Iraq have children, and more than 30,000 female soldiers are single mothers (Department of Defense, 2014a; Mattox et al., 2012). Vogt (2008) extensively researched this in addition to specific female stressors, trying to further analyze how women cope with combat experiences. Vogt (2008) concluded that these additional caregiver responsibilities cause more intensified stress to women than men. In past gender research, Hoge (2007) focused on women's relationship with inadequate coping processes and causes of post-traumatic stress disorder while Bruner & Wolfe (2011) focused on physiological responses to stress that caused PTSD.

The Department of Veterans Affairs uses the term Military Sexual Trauma (MST) to refer to any sexual assault or repeated threatening sexual harassment that occurs while the veteran was in the military (Bromberg, 2014; Department of Veterans Affairs, 2014; Lilly et al., 2009; Luxton et al., 2010; Murdoch et al., 2010). The latest research has suggested that out of the OEF/OIF veterans that have been screened, 15.1% of women and 0.7% of men have reported a form of military sexual trauma (Mattocks et al., 2012). Due to MST accountability through the Department of Veterans Affairs, research regarding women in combat has become increasingly more important in the public domain to better understand women's combat experiences.

Research since 2009 has suggested that MST and the threat of sexual trauma is one of the most difficult types of stress faced by women during their military deployments (Luxton et al., 2010; Mattocks et al., 2012). Mattocks (2012) emphasized that combat effects from MST's on men and women are experienced differently because of socially accepted gender responsibilities

of home role definitions. Sexual trauma in combat includes: sexual harassment, sexual coercion, and even rape. A female soldier recounted her daily experience in combat as the following:

We would drive past {male soldiers} on the base and they made hand signals for different sexual things that they wanted to do to somebody. I mean these guys were married and most of them their wives were pregnant, you know, at home with their kids or just had kids and they were deployed. But, you know, they did it even more when I would say, you know, you need to stop. And then I brought it up to my superiors. I was like this needs to stop. This is just getting ridiculous and then it went on even worse and they did nothing. They did absolutely nothing. Every time I got promoted, every single time, they would start by saying 'Oh it's only because you slept with so and so or you gave so and so a blow job or you did that or you did this and it's obviously completely not true (Mattox, 2012, p. 537).

In a similar interview, another female soldier explains her experiences with sexual harassment and rape in the military.

One of the problems over in Iraq for female soldiers is that there is a lot of sexual harassment and rape is huge. And it does not matter if you're 18 or 58. It does not matter. Women serving over there don't have to be worried about enemy fire. They have to be worried about the guy that's next to them, you know, that's supposed to be protecting and taking care of them and a lot of times he becomes like public enemy number one for them (Mattox, 2012, p. 537).

Finally, the last major stressor identified by women was reintegrating into society after a deployment (Mota et al. 2008). The normal and routine tasks of being home became a problem for women suffering from psychological effects of combat, especially explaining to other generations their roles in combat as a women which they could not understand due to their generation (Mattox, 2012). This gap in research of women's experiences in combat will require more qualitative research with personal narratives and allow more detailed descriptions, which may lead to better quantitative research (Hoge et al., 2006; Litz & Schlenger, 2009; Murdoch et al., 2010). As research in MST, combat trauma, and PTSD regarding women veterans has grown since 2007, there has also been parallel research regarding PTSD in women who work in

primarily masculine civilian positions (like law-enforcement) to further study effects of stress in certain professions.

Gender, Combat Related Stress and Other Occupations

Do civilians in high-risk jobs experience trauma that leads to PTSD? Multiple studies cited in this literature review have shown that females are at a higher risk of traumatic stress and PTSD than men (Department of Defense Task Force on Mental Health, 2007; He et al., 2002; Kasinoff, 2013; Lilly et al. 2012). In research involving police and law enforcement, there were no significant gender differences regarding PTSD (Lilly et al., 2012). A study by Dr. Michelle Lilly and Dr. Nnamdi Pole (2012) from the University of Michigan compared 157 female police officers and 124 female civilians on several variables, including trauma exposure, peritraumatic emotional distress, current somatization, and cumulative PTSD symptoms. Lilly and Pole (2012) concluded that despite greater exposure to assaultive violence in the female officer group, female civilians reported significantly more severe PTSD symptoms than female police officers. The female police officers were conditioned to violent behavior due to their professional role. In comparison, the female civilians had increased PTSD symptoms determined by more intense emotional distresses. Their findings concluded that apparent gender differences relating to PTSD could result from differences in emotionality, and coping skills in their role as either a civilian or police officer (Lilly et al., 2012). The female police officers were more psychologically conditioned through training and job experiences to reduce emotionality. Emotionality could be more important than biological sex in understanding gender differences in PTSD. The research between female police and female civilians suggests that risk for PTSD is

not tied to biological sex but rather by factors that define police personnel roles and purpose from ordinary civilians (Lilly et al., 2012).

Emotions potentially provide a powerful explanation for differential risk for PTSD because emotional distress is believed to contribute to PTSD symptoms by consolidating trauma memories and facilitating the conditioning of trauma cues (Bruner et al., 2001). In the past decade, women's research studies have reported women experiencing more intense emotions than men in mainly the categories of: anxiety, fear, and helplessness (Lilly et al., 2012). Thus, gender peritraumatic emotions may be more important factor is analysis of gender differences in diagnosing PTSD toward women (Lilly et al., 2012).

Dr. Carol Gilligan (1982) *In a Different Voice: Psychological Theory and Women's Development* explored how most women established moral frameworks differently than men. Her research found that women determined morality based on care. Relationships and responsibilities were a key factor in making moral decisions for women and while not gender specific she claimed this was gender related (Gilligan, 1982). Women talked more about feelings.

In regards to women's feelings, *Women's Way of Knowing* (Belenky et al., 1997) described that even though women's rights and opportunities have historically increased, many women feel silenced by their family, friends, and their societal environments. The importance of voice, mind and self are connected to silence. Received and subjective knowledge is a valuable source for women, that truth is intuitive, while procedural knowledge creates confidence and makes the individual voice more critical. The listening of women to their inner voice assists in a deeper meaning and reflection of women's learning (Belenky et al., 1997).

Feminist scholars have claimed that gender differences are likely caused by gender roles, gender socialization, and social context rather than biological sex (Brody, 1985; Fischer, 1993; Lilly et al., 2012). Early gender research from the 1970's concluded that females who occupy traditional male gender roles express less emotion than those who occupy more traditionally female gender roles (e.g., homemakers) (Clifton et al., 1976). On the reverse side, men who become the primary caretaking for their children, portraying socially and traditionally female tasks, exhibit more tension than traditional men (Radin, 1994). This leads to the idea that if you play a masculine or feminine role, you become more or less emotional because of the societal norms and roles.

The established culture of police, security, and law enforcement agencies encourages members to adopt a masculine gender role and to minimize their emotional reactions during life-threatening duty-related experiences (Reiser & Geiger, 1984). Female police officers that conform to their male occupational roles exhibit less emotion, reducing the risk of PTSD and increasing resiliency. Research argues that because these women psychologically act like a male, they tend to exhibit male coping mechanisms to emotional stress and tend to drink alcohol as much as their male counterpart (Ballenger et al., 2011). The research conducted in 2012 concluded that female officers reported less severe cumulative PTSD symptoms and less emotional distress than the female civilian comparison groups. The key factor between the police and civilian groups was the statistical difference in traumatic emotional distress in PTSD symptom severity (Lilly et al., 2012).

Female police officers and women in the military are a distinct minority in their organizations and encounter cultural pressure to conform to the traditional male norm (He et al., 2002). Both groups also fear that openly expressing their emotions could lead to ridicule,

ostracism and potential harassment from male peers (Kasinoff, 2013; Lilly et al., 2012). Research indicates that “females in male-dominated professions tend to develop male values, attitudes, and behaviors over time,” especially in regards to emotions (Lilly et al., 2012, p 12). This does not claim that women are *more emotional* than men for biological reasons, but that women, who work in male dominated occupations and accept male characteristics display less emotion. The analysis on how emotionally women react to traumatic stress events is not “biologically determined, but more psychosocial influenced” assists in future gender research in understanding causes and effects of social influences regarding PTSD (Lilly et al., 2012, p 12). Since biology does play a role in the stress reaction in both males and females, further discussion in the anatomy of brain is required in this literature review.

The Anatomy of the Brain

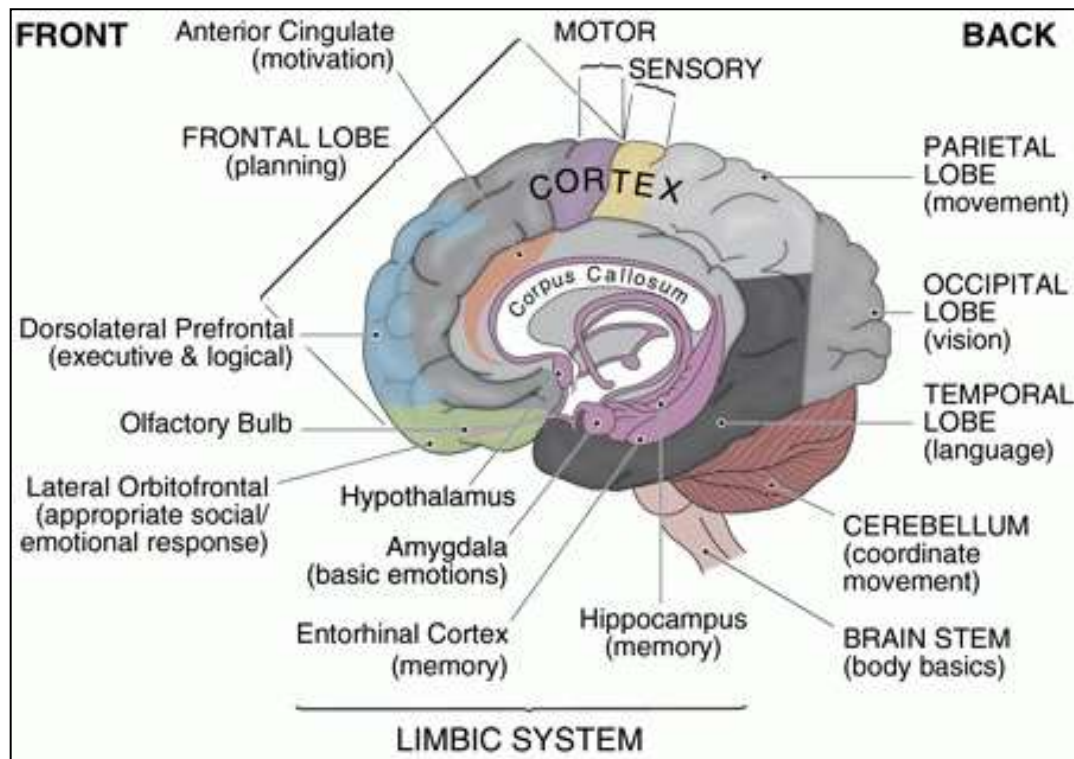
To fully analyze effects of combat on soldiers, the biology of the brain must be examined. The brain is the most complex part of the body. Our brain is on average a three-pound organ and the intellectual seat that interprets the senses, initiates body movements, and controls our behavior. It controls the abilities to think, talk, feel, see, hear, remember things, effectively walk and control our breathing. This complex organ is the source of all the qualities that define our humanity and the crown jewel of the human body, consuming 20% of our calories (Medina, 2008b; National Institute of Mental Health, n.d).

Our central nervous system is comprised of the brain, the spinal cord and nerves. There are three components of the brain: the cerebrum, cerebellum, and the brain stem (see figure 2.1). The cerebrum is divided into left and right hemi-spheres, each composed of the frontal, temporal, parietal and occipital lobes (Johns Hopkins Medicine, 2014; Society of Neuroscience, 2012).

The cerebral cortex provides us with functions associated with conscious thought. The cerebellum creates automatic programs so we can make complex movements without thinking. The brain stem provides us with automatic functions that are necessary for survival (National Institute of Mental Health, n.d.).

The brain areas affected by combat stress responses include the amygdala, hippocampus and prefrontal cortex. Traumatic stress can cause lasting changes to these brain areas (National Institute of Mental Health, n.d.; Johns Hopkins Medicine, 2014). The key areas of the brain in regards to stress in this literature review are the cerebral cortex, frontal lobe, temporal lobe, occipital lobes and the limbic system.

Figure 2.3 The Simple Brain Diagram Labeled



<http://health-advisors.org/simple-brain-diagram-labeled/>

The cerebral cortex is the gray area of the brain, and provides the ability to understand, be conscious of our thinking, and experience emotions (BrainFacts.org; National Institute of Mental Health, n.d.; Sousa, 2011). The frontal lobe is part of the four major parts of the cerebrum, located on the front side of the brain. It coordinates behavior, executive functions, problem solving, verbal communication, and makes us consciously aware of our physical movements. The unique function of the frontal lobes is that they are the rational and executive control center of the brain that contains our self-will area, also called our personality (Johns Hopkins Medicine, 2014; Society of Neuroscience, 2012). The temporal lobes' main function is to process auditory signals or stimuli, such as speech and language patterns, and memory functions associated with visual or auditory stimuli. They deal with face and object recognition, and some parts of long-

term memory. The parietal lobes support spatial awareness, calculations, sensory processes, language, and certain types of recognition (Johns Hopkins Medicine, 2014; Society of Neuroscience, 2012). The occipital lobes are located at the lower central back of the brain just above the cerebellum. The occipital lobes exclusively process visual information based on previous visual memory experiences (Johns Hopkins Medicine, 2014; Society of Neuroscience, 2012).

The limbic system, located in the center of the brain, consists of the thalamus, hypothalamus, amygdala, pituitary gland, and the hippocampus. The limbic system is involved in the creation and expression of emotions and emotional memories (Johns Hopkins Medicine, 2014; Society of Neuroscience, 2012). The thalamus receives all sensory information first (except for smell) where it directs the signal to the other parts of the brain for additional processing. The thalamus is involved in other cognitive activities, receiving signals from the cerebrum and cerebellum. Due to these activities, the thalamus is included in the processing of memories (Johns Hopkins Medicine, 2014; Society of Neuroscience, 2012).

The hypothalamus is located between the thalamus and the hypothalamus, monitoring the internal systems to maintain homeostasis (the normal state of the body) (BrainFacts.org, 2014; Johns Hopkins Medicine, 2014).. It controls the multiple bodily functions to include sleep, temperature, and digestive functions. If there is interference in these functions from the environment the individual will have difficulty in learning in an academic setting (Johns Hopkins Medicine, 2014; Society of Neuroscience, 2014).

The hippocampus is located at the base of the limbic system and plays a critical role in learning and converting information from working memory via electrical signals to the long-term storage regions, a process that may take days or months to complete (BrainFacts.org, 2014;

Johns Hopkins Medicine, 2014; Sousa, 2011). This continuous relay between working memory and stored experiences is essential in the creation of meaning and learning. The hippocampus is the key in permanent memory storage.

The amygdala is located next to the hippocampus and processes emotions such as fear, and regulates body's affect for survival, escape, sex, and requirements of food. Research suggests that due to its location near the hippocampus that the amygdala "encodes an emotional message, if one is present, whenever a memory is tagged for long-term storage" for an emotional memory storage area (Sousa, 2011, p. 19). While cognitive memory of facts, people, places and things are stored in other portions of the brain, strong emotional memories are located near the hippocampus, ensuring severely strong emotional experiences are stored for long-term memory. (Society of Neuroscience, 2014). The system in which strong emotional memories are stored can recall the person through the emotion again, in vivid detail, causing them to re-experience the event. The cerebrum is the largest part of the brain and includes almost 80% of the volume weight and looks like the normal pale brain matter (BrainFacts.org, 2014). The cerebellum consists of the two-hemispheres located below the rear of the cerebrum and consists of highly organized containing more neurons than all the rest of the brain (BrainFacts.org, 2014; Society of Neuroscience, 2014). The cerebellum controls movement and monitors impulses from nerve endings to muscles, and controls timing of complex motor tasks (Sousa, 2011). The cerebellum also stores automatic muscle memory like opening doors, swinging a baseball, touch typing, and tying a shoelace.

Neurological Conditioned Effects and Responses of Combat Stress

Dr. John Medina (2008) described the two most enduring mysteries surrounding combat related stress and PTSD, which are “why PTSD does not develop in so many persons who experience trauma, and for those in whom the condition does develop, why the experience can be so variable” (Medina, 2008a, p. 71). In the past decade, neuroscientists and researchers have worked to connect Pavlovian behavioral theory to study combat stress and PTSD (Medina, 2008a). The trauma from horrific combat experiences can affect the amygdala, prefrontal cortex, and medial temporal lobe memory systems like an unconditioned stimulus. An additional traumatic or combat experience could also relate to a previous (prior to military service) unconditioned response as a combat tour continues. The soldier may exhibit fear responses of combat trauma without the actual traumatic event occurring. Like Pavlov’s theory, the dog salivates when the bell is rung for food without the food being present. A soldier can react to a stimulus, like smell, sight, or sound of the combat experience even though the soldier is not in combat (Medina, 2008a). The soldier’s biological and psychological responses are heightened when he or she is exposed to a specific environmental cue (smell, visual, sound, or action) that they associate with the previous combat trauma.

As discussed earlier, the amygdala’s role is responding to fear conditioning and damage can inhibit the ability of the human brain to become conditioned to fear (Bremner, 2006; Medina, 2008a; Morgan et al., 2006). Dr. John Medina studied rodents to experiment how chronic stress can lead to hypertrophy in the amygdala and dendritic hypertrophy in the prefrontal cortex (Medina, 2008a). He proved that exposure to chronic stress can lead to a crippling of the brain’s circuits involved in certain behaviors, which creates a neurologically “perfect storm” for patients with PTSD (Medina, 2008a, p. 72). Medina (2008a) argues that there is purely a biological,

causal explanation why some soldiers have combat related PTSD and others are not affected by combat stress and it is how the biological responses of the brain reacts to chronic stress.

Medina (2008a) argues specifically that the way in which the hippocampus physically reacts to horrific memory experiences can determine if a person actually gets the disorder or not. His theory is based on how traumatic memories cause cortisol to act like a toxic agent to the hippocampus due to overexposure. However, proving that an external combat trauma experience will cause a biological change (hippocampal shrinkage) to all the different types of combat is difficult. This leads to his original research questions on why some soldiers react differently to combat than others, but there are too many other variables for conclusion (Frodl & O'Keane, 2013; Medina, 2008a; Vogt et al, 2011).

The previous research studies on Vietnam veterans is proving a correlation but not a causal effect that veterans who had a smaller hippocampus than normal were more likely to have PTSD (Bremer et al., 2003; Bremner, 2006; Frodl & O'Keane, 2013). The correlation of traumatic combat stress resulting in certain brain damage was high. Other neuroscientists argued that reduced hippocampal volume in normal people has been associated for decades with lower intelligence (IQ), and people with lower IQ tend to be more susceptible to PTSD because their hippocampus is smaller (Medina, 2008. p.72). This additional argument causes renewed dialogue toward a potential genetic predisposition for future PTSD. Dr. Medina and other leading neuroscientist suggest that hereditary research studies do not provide any evidence that explains reduced volume, but future research might.

Effects of Combat Stress on the Brain

“Many service members were operating under constant threat of death or injury and seeing the violent death of their comrades and others, enemies and civilians are often indistinguishable and service members are asked to play dual roles of warrior and ambassador”

(National Council on Disability, 2009, p. 14)

With the campaign of the Global War on Terror (GWOT) including OEF and OIF, the effects of combat related stress on soldiers is once again showing in combat veterans. In combat, there are many emotions affecting soldiers, but fear is the universal emotion regarding combat stress (Medina, 2008b; Ratey, 2001). The constant theme soldiers confront is the flight-or-fight situations that force the physical body to begin shutting down some systems while focusing energy to other parts of the body to survive. The process in which the body directly reacts to combat stress from the brain to the body is called the fight or flight response (LeDoux, 1996). This is automatic and immediate to the event, and the brain and body react to either confront or evade the stressor for means of pure survival. The response is the body’s primitive, automatic, and innate reaction to the perceived danger (Medina, 2008a; National Center of PTSD, 2014). Harvard psychologist Walter Cannon (1915) was the first researcher to discover and write about the fight or flight response in his book *Bodily Changes in Pain, Hunger, Fear and Rage*. This temporary survival stress is considered positive in which the body survives the situation, but prolonged chronic stress on the human body can have permanent effects on future cognitive abilities and their general health (Ratey, 2001, Sapolsky, 2004).

During this fight or flight response the heart increases, which causes the blood flow to increase and signals the brain to prepare for survival. In the body, the muscles receive the increased blood pressure, the pupils dilate to focus, and blood vessels restrict in preparation to

fight or flee (Bremner, 2006; Jaffe-Gill et al., 2007; Medina, 2008). Meanwhile in the brain, the amygdala is considered the fear center and is the key area in learning what to fear, feeling fear, and expressing fear, anger and other emotions (Bremner, 2006; Medina, 2008a; National Center of PTSD, 2014). The amygdala sends a signal to the hypothalamus when perceived or imminent danger is received. Next the hypothalamus receives the signal and sends a “red alert” to the pituitary gland, which indicates to the adrenal gland to introduce adrenaline into the body (Jaffe-Gill et al., 2007; Medina, 2008a). This type stress can be considered effective stress for soldiers by causing alertness and preparedness for combat, resulting in the body taking responsibility for survival to the immediate danger. The body will automatically protect itself. The key to this stress is how long it occurs on the human body before negative results happen to the brain and the body. Most fight or flight responses are short and temporary; therefore there should be no long-term effects (LeDoux, 1996; Medina, 2008a).

An additional physicality of combat trauma is that the hippocampus can decrease in mass due to the over-reactive amygdala from combat stress. This damage to the hippocampus can cause soldiers to be unable to incorporate new information and their expectations of the world can be fundamentally altered (Bremner et al., 2003; Medina, 2008a; Morgan et al., 2006). The amygdala and hippocampus are the key components of human memory and could affect learning and remembering new information, as well as learning what to fear. Sapolsky (2004) researched stress on the brain and concluded that the hippocampal neurons no longer work as well due to the stressors disruption of long-term potentiation in the hippocampus, causing long-term depression. Sapolsky (2004) also noted that the “amygdala plays a central role of the emotional memories involved in anxiety and stress and causes damage to the hippocampus which leave stress signatures on the brain” (p. 216).

There are two other critical factors to traumatic stress reactions. First, the body is unable to make the distinction between actual physical threat and a psychological threat and second, the body has difficulty turning the reaction off (Medina, 2008a; Morgan et al., 2006). Some combat operations are 24-hours a day with soldiers sleeping an average of only five and half hours daily (National Council on Disability, 2009). If the traumatic combat events are prolonged from multiple deployments with minimum recovery periods, research has discovered that the brain's increase cortisol and norepinephrine responses to stressors show "patients with PTSD have smaller hippocampus and anterior cingulate volumes, increased amygdala functions, and decreased medial prefrontal/anterior cingulate functions" (Bremner, 2006, p. 445). These physical changes to the brain are the results of continued and prolonged stressors to the body as a result of multiple combat tours.

After Operation Desert Storm, Grossman (1994) wrote the book *On Killing*, which was one of the few books describing the psychology of killing. Soldiers are suffering from PTSD and combat stress due to an over active amygdala that causes the prefrontal cortex in the frontal lobe to shut down because the two systems cannot operate at the same time (LeDoux, 1996). The trauma from the combat experience and stress complicates brain functions because the prefrontal cortex is responsible for rational thought and decision-making. This overactive amygdala causes "hyper arousal" symptoms in the brain for the soldier suffering from combat stress. The amygdala causes the brain to establish a connection between fear producing situations from the past (i.e. traumatic events) with a stimulus in that present that may be safe (LeDoux, 1996).

Dr. J. Douglas Bremner was the first researcher to use magnetic resonance imaging (MRI) of the brain to study the effects of PTSD. He found that combat veterans had an 8% reduction in volume in their right hippocampus. This volume reduction was associated with deficits in short-

term memory in PTSD patients (Bremer, 1999). Dr. Bremer also found that PTSD affected the medial prefrontal cortex of the brain. Imaging of the brain while inducing PTSD related stressors to patients showed an inhibition of the medial prefrontal cortex to react to signals from the amygdala (Bremer, 1999). In short the brain no longer responded to fear.

There are many factors associated with combat trauma that correlates to hippocampal volume reduction, but some of the variable amounts contradict the causal research. These factors include the “different kinds of trauma (sexual abuse/rape, physical abuse, witness to violence, combat), the duration of the trauma (repeated episodes over years or single event), the severity of the trauma and the timing of the trauma that effect and depends on the degrees of severity” (Friedman et al., 2007, p. 157). Other studies identify possible hereditary identifications associated with tendencies of lower hippocampal volumes, but research is still inconclusive with the multiple factors (Friedman et al., 2007; Scheeringa et al., 2011).

Combat Stress Reaction (CSR) and Barriers to Help

Combat Stress Reaction (CSR) is defined as the combat trauma soldiers experience while deployed in combat (National Council on Disability, 2009). There are multiple reports from the Department of Defense that reveal that “a substantial number of military personnel were experiencing emotional problems during their service in Iraq” (National Council on Disability, 2009, p. 17). Out of the screened surveys included, 15% were positive for “acute stress symptoms” and 18% screened positive on “a combined measure of acute stress, depression, and anxiety,” while “others may have symptoms immediately upon return from combat... or experience a delay of six months to many years” (National Council on Disability, 2009, p. 17).

Military service members continue to face barriers through stigma and refusal to access mental health care. These barriers include three forms of stigma. The first stigma is public stigma, which is a perception of weakness by peers from the chain of command, the perception of being treated differently, or being blamed for the problem by supervisor or peers. Public stigma also refers to the public misconceptions of individuals with mental illnesses (Department of Defense Task Force on Mental Health, 2007; Hoge et al., 2004). The second stigma is self-stigma, which refers to the individual internalizing the public stigma and feeling weak, ashamed and embarrassed about their combat service (Department of Defense Task Force on Mental Health, 2007). The last stigma is structural stigma, where soldiers believe their career will suffer if they seek psychological services and refers to the institutional policies or practices that unnecessarily restrict opportunities because of psychological health (Hoge et al., 2004). They believe that seeking care will lower the confidence of others in their ability, threaten their career advancement and their security clearances, and possibly cause them to be removed from their unit or service (Department of Defense Task Force on Mental Health, 2007).

An additional barrier for soldiers receiving mental health assistance is the challenge to find the right provider at the right time. There are consistently factors that lose “windows of opportunities” for assistance due to long waiting lists, a lack of information on where veterans can go for assistance, long travel distances to facilities, and limited hours of operations (National Council on Disability, 2009, p. 4).

Education and the Federal Government

“Since September 11, 2001, more than two million service members have deployed to Iraq or Afghanistan with unprecedented duration and frequency. Long deployments and intense combat conditions require optimal support for the emotional and mental health needs of our service members and their families. The Obama Administration has consistently expanded efforts to ensure our troops, veterans and their families receive the benefits they have earned and deserve, including providing timely mental health service. The Executive Order signed today builds on these efforts.” (White House Press, 2013)

In 2013, President Obama signed an executive order to promote mental health research and development of more effective treatment methodologies for veterans. The executive order directed the Department of Defense, the Department of Veterans Affairs, the Department of Health and Human Services and the Department of Education to develop a National Research Action Plan that will include strategies to improve early diagnosis and treatment effectiveness for TBI and PTSD (White House Press, 2013). The Executive Order further directs the Department of Defense and Department of Health and Human Services to conduct a comprehensive mental health study with an emphasis on PTSD, TBI, and related injuries to develop better prevention, diagnosis, and treatment options (White House Press, 2013). Regarding health care, 135 medical schools committed to exchanging leading research on PTSD and TBI and will also train future physicians to better understand veteran health needs.

DSM-V (2013) Changes

Though this dissertation research is focused on combat related stress, a discussion of DSM-5 (2013) needs to be addressed. The Diagnostic and Statistical Manual of Mental Disorders (DSM) provides the standard criteria and common language for the classification of all mental disorders and is published by the American Psychiatric Association (APA). The fifth revision (DSM-5) was released in May 2013 and included changes to the diagnostic criteria for PTSD and Acute Stress Disorder (ASD) (American Psychiatric Association, 2013; National Center for PTSD, 2014). The main reason the PTSD diagnostic criteria were revised is to address topics professionals, researchers and academics have learned from scientific research and clinical experience (Miller et al., 2012; National Center for PTSD, 2014).

Due to the first year's analysis of the new DSM-5 criteria, the prevalence of PTSD will be similar to the DSM-IV standards, but research also suggests prevalence will be higher among women than men, with that prevalence increasing due to multiple traumatic event exposures (Miller et al., 2012; National Center for PTSD, 2014). In addition, early estimates suggest that DSM-5 rates of prevalence will be slightly lower than DSM-IV, which will create fewer veterans diagnosed due the more restrictive criteria.

There is also a mechanical paradox of the DSM-5's new definition of PTSD that a person inputs a sufficient degree of combat stress, and you get rewarded the disorder; in which creates a new challenge for most veterans (Boone, 2011). The paradox is revealed if "you react normally to trauma, you have a disorder; if you react abnormally, you don't have the disorder, which makes patients want to have PTSD; unlike all other psychiatric conditions, which imply defects of some kind, a diagnosis of PTSD confirms the patient's normality" (Boone, 2011, p. 76). Dr. Boone identifies PTSD as a paradox, because "the only way not to be called crazy is not to be

bothered by trauma, but in some ways you'd have to be crazy not to be" (p. 77). The challenges with the DSM's symptoms is that they are generally broad, like sleep disruption, anxiety, and depression, which are common among multiple forms of psychic distress, and "those criteria lack adequate means of distinguishing symptoms of genuine disorder from their normal analogues" (Boone, 2011, p. 78).

In summary, the revision of the DSM-5 restricts the diagnosis of the disorder for a smaller group of veterans with serious and chronic coping mechanisms that are unable to live a normal life. The majority of the veterans are effected by traumas and combat stress, but will only require counseling and therapy for coping skills and self-awareness, not prescription drugs to make it through the day.

Summary

This literature review examined and included effects of combat stress, women in war, effects of combat stress in learning, gender studies, veteran's G.I. Bill, women's military role, women's war experiences, gender and occupations, effects of combat stress on the brain, brain anatomy, combat stress and barriers to help, and education and the federal government. The researcher's process for this literature review started with research with published books on psychological war effects, PTSD research, and gender journal articles. In addition, the researcher included medical and educational journal articles related to OIF and OEF veterans, combat stress studies, gender effects, and adult learning. The research then moved to attending national education conferences, educational and military symposiums, Department of Army resiliency training sessions, discussions with Army military instructors and military mental health counselors, and current gender military researchers to assist in framing combat related

stress, gender, and adult learning. Due to the changes in Army policy and the opening of thousands of military positions to women in the Army, this research topic on the effects of combat on female CGSC students and their effects on adult learning should continue to grow and expand due to the last decade of war in Iraq and Afghanistan.

Chapter 3 – Methodology

Introduction

The purpose of this chapter is to describe the research methodology used in this study. Specific topics covered in this chapter include: case study methodology, data collection and data analysis, student population, sample selection, the role of the researcher, standards of quality and verification, as well as the practices for the protection of the confidentiality of the participants, and a summary.

The purpose of this case study was to explore how female Army officers perceive effects of combat stress on adult learning while attending the U.S. Army Command and General Staff College. It is also designed to examine women's military and adult learning experiences to assist CGSC, the U.S. Army, and the Department of Defense, to better understand women's voices, perspectives and roles in the future of the military. The intent of this research is to discover gender themes among the participants in an adult learning environment, that can assist further academic research surrounding gender and combat related stress.

Research Questions

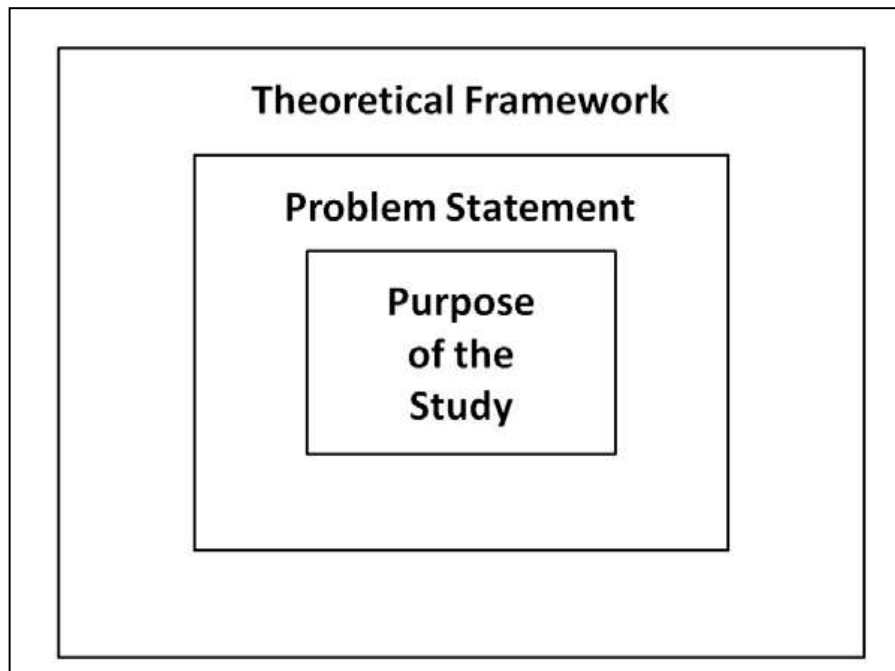
This research examined how female students at CGSC perceive the impact of combat experiences, academic stress, and additional factors that impact their learning experience. The subordinate questions for this research are:

1. How do female CGSC students perceive their multiple combat experiences to affect their learning experiences?
2. How do female CGSC students perceive the impact of academic stress in the classroom?
3. What other factors due to being a woman affect learning in the classroom?

The Theoretical Framework

Merriam's (2009) theoretical framework was used to guide this research. Merriam (2009) described a framework as a guide through the process of identifying a problem, establishing research questions, what specific research needed to be gained, and most important: how to interpret the findings. There are multitudes of research on effects of combat and clinical diagnosis of trauma, but a majority of the research is based on men's experiences. While research in gender studies and educational effects have examined women and learning, few are focused on women's experiences in combat. The purpose of this research was to explore women's perceived effects of combat stress and adult learning. Merriam (2009) stated that a theoretical framework "reveals and conceals meaning and understanding and that researchers should give serious thought to what is being concealed as the choice of a theoretical framework clearly delimits a study" (p.70). The framework places the body of work in broader context (Figure 3-1).

Figure 3.1 The Theoretical Framework



(Merriam, 2009, p. 68)

The theoretical framework for this research is adult education grounded consists of the impacts of combat stress on learning and women's unique additional stressors.

Research Methodology

A qualitative research design was selected to gain a greater knowledge of the personal experiences of female Army officers with multiple combat tours and the effects on adult learning. This research was exploratory in nature. Creswell (2007) defined a qualitative study as exploratory in nature to further understand a phenomenon, and an inquiry process to explore social and human problems. Therefore qualitative research was the best fit for collection and data analysis regarding the research subject. In addition, the interviewing process allows for the data gathered with the qualitative approach, to be analyzed through the perspective of the

participants with their narratives, stories, and experiences (Creswell, 2007; Frankel & Wallen, 2006; Merriam, 2009). Merriam described qualitative research as “understanding the meaning people have constructed, that is, how people make sense of the world and the experiences they have in the world” (p. 13). Merriam (2009), also portrayed qualitative research as “focused on discovery, insight and understanding from the perspectives of those being studied offers the greatest promise of making a difference in people’s lives” (p. 24), which is the goal of this research.

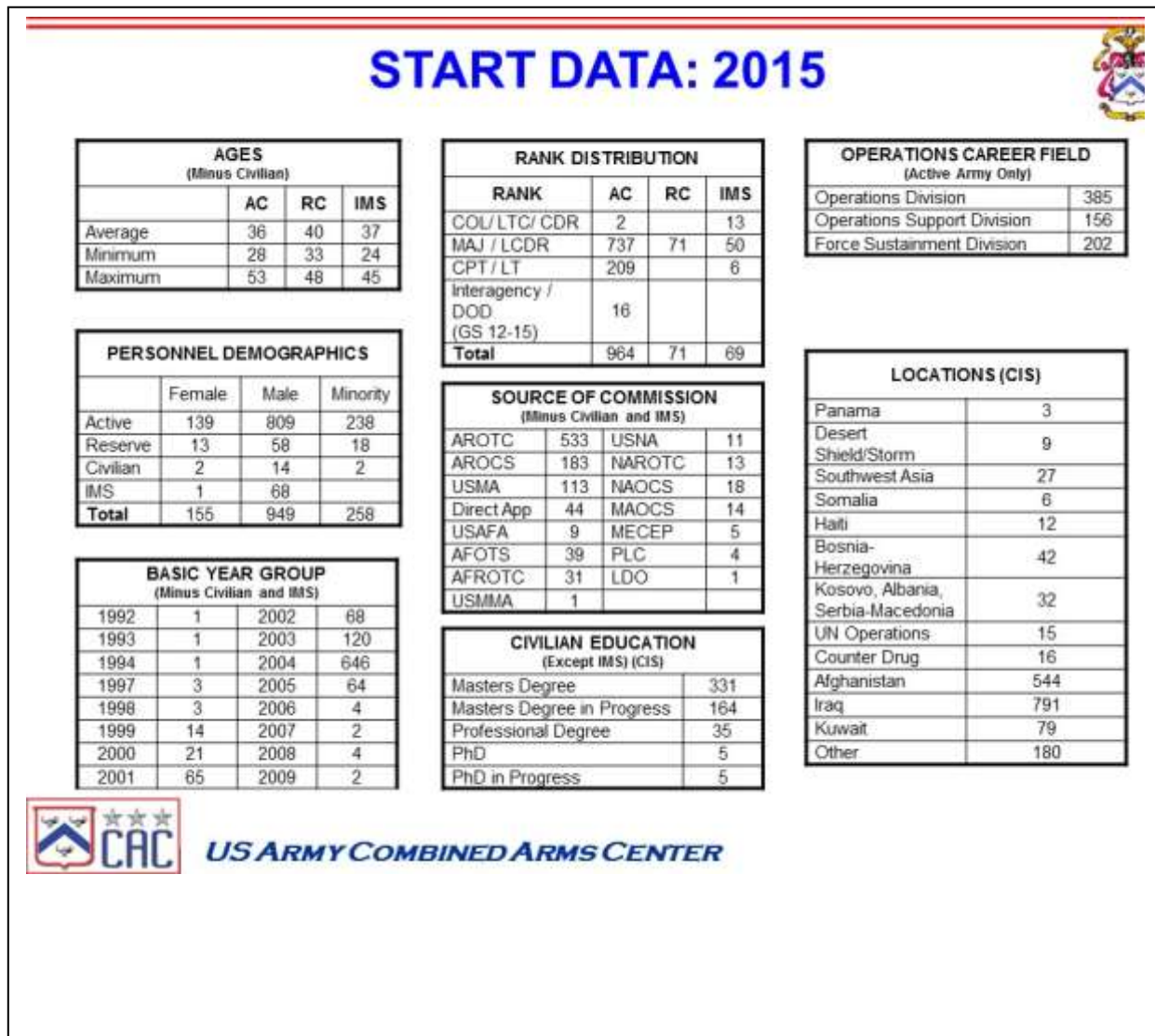
Case Study Methodology

Merriam (2009) defined a case study as “in-depth description and analysis of a bounded system (p. 40).” In relation to the purpose of this research, Creswell (2009) explained case study methodology “as a qualitative approach in which the investigator explores a bounded system (case)... over time, through detailed, in-depth data collection involving multiple sources of information and reports a case description” (p. 73). Merriam (2009) also described case study methodologies through particularistic, descriptive, and heuristic characteristics. Particularistic characteristics focus on particular events, programs, phenomenon, or groups. Descriptive characteristics focus on detailed end results. Heuristic characteristics focus on how each individual helped shed light on the phenomenon being studied. In addition, Merriam (2009) stated that “case studies create a means of investigating complex societies with complicated multiple variables to define, analyze and better understand a phenomenon rich” and “holistic descriptive accounts that create new and insightful meaning to the reader” (p. 41).

Population

The population for this research was the 155 female students attending the U.S. Army Command and General Staff College (CGSC) Class of 2015 at Fort Leavenworth, Kansas. CGSC's mission is to educate and develop leaders for the nation's future combat operations requirements, and to advance the art and science of the profession of arms to support the operational requirements of the US Army (Command Brief, Combined Arms Center, 2015). CGSC has one ten-month session that begins in August and graduates in June. The CGSC Class of 2015 had 1,104 students and was comprised of to: 817 Army officers, 133 officers from the U.S. Navy, Air Force, and Marine Corps, as well as 16 civilians from various government agencies (see Figure 3.1). In addition, 69 International Military Officers attended under international military exchange programs. The 155 female CGSC students include: 139 were active Army officers, 13 were U.S. Army Reserve officers, two were civilians, and one was an international military student. Chart Figure 3-2 shows the specific student breakdown by service-members. The entire CGSC student population is divided up randomly into 18 teams of 64 students, selected into four small groups of 16 students. Each small group of 16 students has a minimum of one female officer, one joint officer (Air Force, Navy or Marine), one foreign military officer, and multiple Army officers from different military branches.

Figure 3.2 CGSC Class Composition



(Command Brief, Combined Arms Center, 2015)

Sample

The student sample for this research was purposefully drawn from female Army students within the CGSC class of 2015 population. All of them hold the rank of major. Navy, Marine, Air Force, civilian, and international military students were included in the sample. Because of this, the final sample consisted of 109 active duty Army students. Only female officers with two

or more combat tours were included narrowing the sample. An email from the CAC-E CGSC Quality Assurance office was sent out to the qualified population of 109 female active duty Army students requesting volunteers that qualified for the research study. An additional questionnaire was used for screening at the time of the interview (see Appendix C). The qualified sample for interviews included nine female Army students. More students were not required because saturation was reached. The researcher included two Hispanic female students and two African American female students for this research.

The second interview group for this research was CGSC faculty members. There were 112 CGSC faculty members in support of CGSC class 2015. The faculty members were purposefully selected on the following criteria: 1) female instructors and 2) Team Leader or Small Group Advisor role. The researcher interviewed two female faculty members individually to examine perceived incidences of gender combat stress, female students' dynamics in the classroom and the impact on their students' learning.

The third research group consisted of behavioral counselors who supported CGSC students at Fort Leavenworth. The researcher interviewed two counselors to provide background, opinions, and comments with respect to combat stress in reference to CGSC students. They were interviewed together, per their request.

Pilot Study

A pilot study was conducted with two female CGSC students and one female CGSC faculty member. The two female students and one faculty member were personally interviewed using the interview protocol questions, and the interviews were digitally recorded and used in analysis in this final research. The interview protocol was used to validate the questions for future interviews. The two students and one faculty member filled out the informed consent form prior to the interview. The pilot study confirmed the question format, the length of the response times between 18-30 minutes, and confirmed the intent of the follow-on questions. The responses from the pilot study were used in the final analysis.

Interviews and Data Collection

Personal interviews were the primary method of data collection for this qualitative research study. Merriam (2009) defined semi-structured interviews as a guide to include a mix of more or less structured questions, allowing all questions more flexibility. For that reason, semi-structured interviews were the primary means of data collection for this qualitative research case study. All interview questions were asked, but follow-on questions were added, deleted, or modified based on previous participants' responses. Merriam (2009) best described the personal interview as "the key to getting good data from interviewing is to ask good questions" (p. 95) and good interview questions, "are those that are open-ended and yield descriptive data, even stories about the phenomenon" (p. 99). Semi-structured interviews allowed the researcher more flexibility to search for common themes and factors (Creswell, 2007).

The researcher conducted one-on-one interviews and allowed up to an hour per interview if needed. In addition, the participants had the opportunity to discontinue the process at any

time during the interview. The researcher digitally recorded each of the interviews and personally transcribed each one. The researcher also took extensive field notes during the interviews to assist in the audio recording analysis. The participants had the opportunity to review their individual transcripts for accuracy, and remove any material they felt uncomfortable answering. After each interview, the researcher read the debriefing statement to each interviewee. The researcher added field notes after the subjects departed, during transcription of the audiotapes, and the final review of the transcripts. In addition, the researcher continued to take field notes and made journal entries throughout the writing process.

Role of the Researcher and Subjectivities

The researcher conducted all of the interviews, and was the single source of data collection and data analysis. The researcher is an active duty U.S. Army male lieutenant colonel with over 22 years of active duty service. In his military career, the researcher was a military instructor at the Aviation Basic Officer Leadership Course (ABOLC) and the Aviation Captain's Career Course (AVC3) at Fort Rucker, Alabama, and an Assistant Professor at the Command and General Staff College at Fort Leavenworth, Kansas. The researcher taught leadership in the Department of Command and Leadership (DCL) at CGSC, and also served as a Team Leader Supervisor for 11 instructors and 64 students. He has deployed to combat four times to include: the invasion of Afghanistan in 2002, the invasion of Iraq in 2003, a combat tour in Kirkuk, Iraq in 2009, and a combat tour to Sharana, Afghanistan in 2011. The researcher always identified himself to the interviewees as a Kansas State University doctoral student, but some of the students presumed that he had military rank and prior combat experience. The researcher was purposively objective during interviews to reduce biases.

Confidentiality of Participants

The identities of the participants of this research remained confidential. In regard to the interview transcripts, the researcher used fictitious names for the respondents. Each sample participant signed the Consent Forms before any interview was started. The researcher conducted every measure to maintain confidentiality for all interviews. The recordings were secured at the researcher's security location. The Kansas State University and Department of the Army CGSC IRB requirements were complied with at all times. The researcher took every measure to prevent correlation of someone's identity with the final research product. Anonymity was the most important aspect of the research and was assured throughout the entire process.

Data Analysis

The purpose of using qualitative designed research was to identify themes that emerged throughout the process. Dey (1995) described data analysis in qualitative research as not structured but "intuitive, soft, and realistic," and that qualitative analysis falls back on the three "I's – insight, intuition, and impression" (p. 78). Merriam (2009) explained how a researcher might personally know every interviewee, be an expert in the interview questions and his field of study, and think they know the answer. The patterns in this research only emerged once all the data was collected, grouped, coded, and analyzed.

The interview process allowed the analysis to start on the first interview, and continue throughout the entire set of interviews. For each interview, the researcher took interview notes during the interview process, took field notes after each of the interviews, transcribed the voice recordings, continued field notes during the transcription process, and took additional notes on

the transcripts for further analysis of each of the interviews. The combination of the three note taking practices increased the depth of the analysis of each interview. Merriam (2009) identified this process as “simultaneous data collection and analysis occurs both in and out of the field and can be done during and between data collections” (p. 171). Bogdan and Biklen (2007) had some helpful suggestions for this qualitative data analysis:

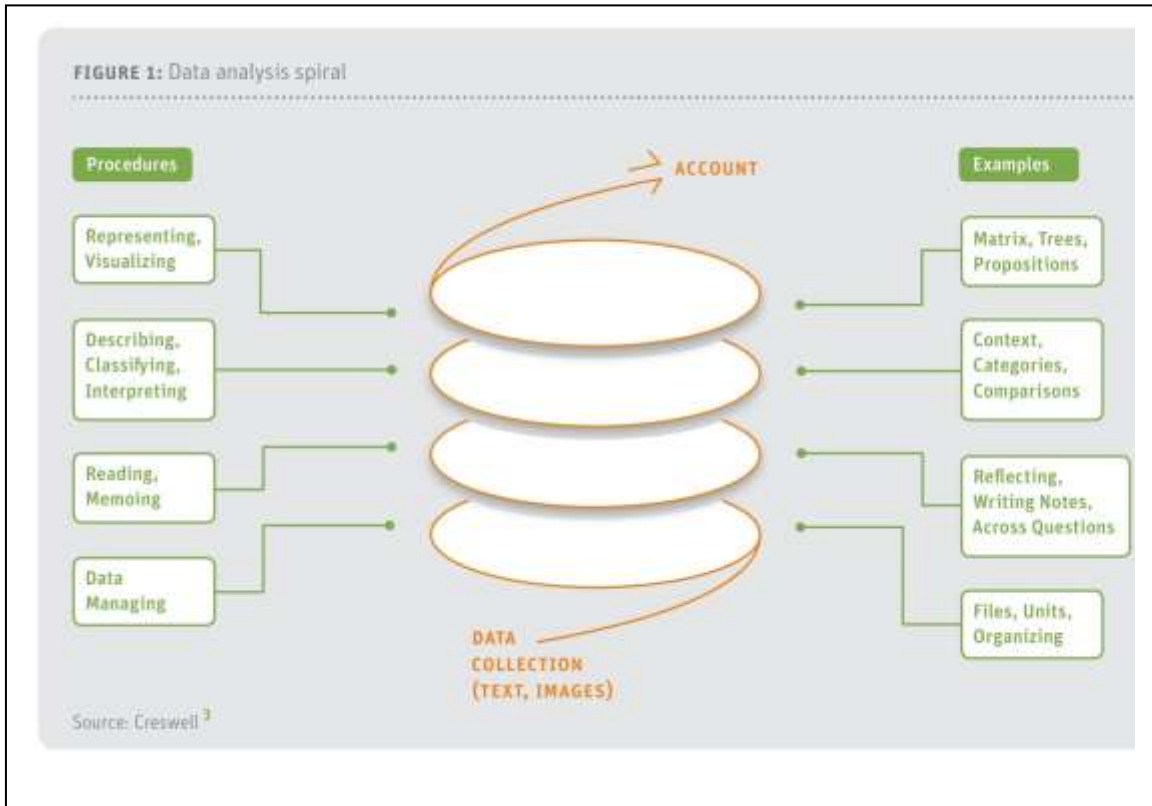
1. Force yourself to make decisions that narrow your study (p. 161).
2. Force yourself to make decisions concerning the type of study you want to accomplish (p. 161).
3. Develop analytical questions (p. 161).
4. Plan data collection sessions according to what you find in previous observations (p. 163).
5. Write many “observer’s comments” as you go (p. 163)
6. Write memos to yourself about what you are learning (p. 165).
7. Try out ideas and themes on participants (p. 165).
8. Begin exploring the literature while you are in the field (p. 169).
9. Play with metaphors, analogies, and concepts (p. 169).
10. Use visual devices (p. 171).

Merriam (2009) recommended a researcher understands the system for organizing and managing the data before any interview process begins. The most recommended method for organizing qualitative data is called coding, which is assigning names to data for easier access. The researcher gave titles to groups of data, which he tailored for the best and easiest retrieval of their data.

In addition to the analysis conducted by the researcher, the interview transcripts were run through NVivo10 for Windows for further analysis of qualitative outcomes. The computer program analyzed all the narratives to identify themes more easily, and also uncovered some additional subtle connections. This computer analysis was an additional evaluation for the researcher to use, but not the primary analysis tool.

The framework for data analysis that the researcher additionally used was Creswell's Data Analysis Spiral (2007), which is a tool to analyze qualitative data (see Figure 3-3). Creswell (2007) described the circles as the researcher engaging in the process of entering an analytical circle. The process starts from the bottom up, entering each subject area and leaving as a personal narrative to move to the next subject area of analysis. This continuous format kept the analysis process in a procedural format.

Figure 3.3 Creswell's Data Analysis Spiral



(Creswell, 2007, p. 151)

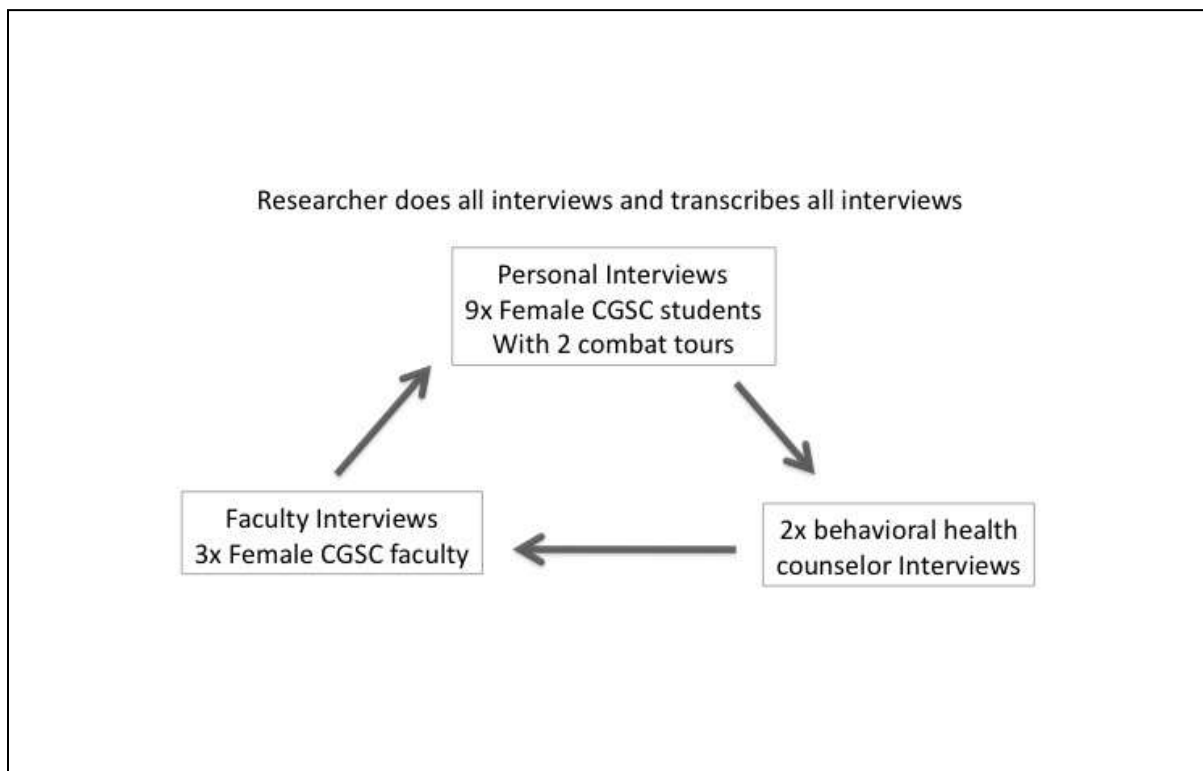
Standards of Quality and Verification

The data for this study were collected from multiple interview groups to ensure quality control over the process. The researcher was the only interviewer and personally transcribed all of the interviews (students, faculty, and behavioral counselors). He also personally secured, and stored all digital transcripts to ensure confidentiality. The interviews were recorded with a digital recorder and remain secure with the researcher. After each transcription of the interviews, the researcher provided the interviewees the opportunities to check their transcripts (known as member checking) for any additional comments or interpretations if needed. This process of

member checking also verified the research qualitative data. Finally, specific comments from the interview transcripts were used for the final dissertation, and pseudonyms were used to ensure confidentiality.

In order to increase the credibility of the qualitative research, the researcher used triangulation to increase the reliability of emerging themes between research and reality. Merriam (2009) defined triangulation as using multiple sources, multiple perspectives, and multiple theories to confirm findings, because no single source of information is the perfect solution. The use of triangulation validated and strengthened the explanations. The initial data from student interviews revealed important themes; the faculty and mental health specialist data contributed, and questioned the reliability of some of the themes. The triangulation process that was used by the researcher is shown in Figure 3-4.

Figure 3.4 Triangulation of Research



(Created by researcher, 2015)

Triangulation and standards of data collection alone were not enough to fully confirm reliability of this research, and other means were needed to confirm validation for the qualitative data.

Reliability and Trustworthiness

Following the transcription of the audiotapes and writing of field notes, the researcher had one professor peer review the work to offer confirmation of the analysis. Finally, the researcher continued until any emerging patterns or themes appeared, and saturation occurred with respondents.

After the interviews and transcripts were completed, the researcher had academic peers look at the researcher's initial analysis. The faculty and behavioral counselor interviews supported the emerging trends from the student interviews, which ensured reliability. The contradictions among emerging themes were further researched to explore and examine the phenomenon further.

Summary

Qualitative research was selected for this dissertation's purpose, because it allowed for in-depth, detailed, and emerging findings to occur. The qualitative perspective also allowed personal narratives, and their voice and perceptions of life experiences to be included in the analysis. In addition, the researcher chose to use case study methodology, because the exploratory research examined a particular group of students in CGSC. The researcher also chose to use purposeful sampling from the CGSC student population to gain the most advantageous data, and continued to conduct sampling until saturation had been achieved. The

researcher finally conducted data analysis to observe any themes or patterns that emerged from the interviews. The researcher personally transcribed all interviews and was the primary interviewer.

Chapter 4 - Findings

Overview of the Study

This chapter presents the results of this study. It also describes the participants' personal perspective on learning, their combat experiences, and findings regarding female students' combat related effects on their adult learning. Perspectives of CGSC faculty and behavioral health counselors are also presented.

Demographics

The researcher collected demographic information when the female CGSC student participants arrived for their interviews, and personally filled in the demographic background data sheet (Appendix C). The demographic data sheet included students' military branch, source of commission, educational levels, number of combat tours, ethnicity, marital status, being a geographical bachelor and children/dependents.

Demographic data about the participants displayed in Table 4.1.

Due to the low number of CGSC faculty and behavioral health counselors at Fort Leavenworth, those interviewed did not fill out the demographics sheets in order to assure anonymity. Their backgrounds were generalized and limited, but key professional, branch, and duty background notes were taken during the interviews that were relevant to their point of views to their responses. In this chapter, direct quotes from interview transcripts will be in quotations to describe the participants' exact words from the interviews.

Qualitative Methodology

A qualitative case study methodology was selected due to the purpose of this research. Case studies, by definition, are “a qualitative approach in which the investigator explores a bounded system (case)... over time, through detailed, in-depth data collection involving multiple sources of information and reports a case description (Creswell, 2009, p. 73).” In addition, Merriam (2009) defined case studies as “in-depth description and analysis of a bounded system (p. 40).” Merriam also explained that “case studies create a means of investigating complex societies with complicated multiple variables to define, analyze and better understand a phenomenon” and are “rich and holistic descriptive accounts that create new and insightful meaning to the reader” (Merriam, 2009, p. 41).

Participant Profiles

Participant profiles give insight into each of the demographic and professional backgrounds, combat experiences and its effect on their adult learning. Each participant had unique combat and educational experiences, which were an important aspect of combat effects on their learning. There are several different elements of combat, including: deploying to a combat zone, seeing the wounded and dead, and being personally and physically wounded in combat. This research therefore was less interested in the number of deployments, and more concerned with their role in combat, the type of units they served with in combat, and what they physically saw and experienced in combat. Participants’ prior collegiate education level before serving in a combat zone and before joining the Army had an effect.

Nine female CGSC students were purposively selected out of a 109 female

student population and additionally screened for at least two or more combat tours. The researcher assigned fictitious names to assure identity protection and full anonymity, to abide by the Kansas State University IRB and Department of Defense Human Protections regulations. The student demographics are presented in the order the students were interviewed. No profiles were provided for the faculty and behavioral specialists, to assure anonymity due to the fact their populations were so low.

Julie

Julie was a Medical Service (MS) officer, a qualified UH-60 helicopter aviator, and received her commission from Reserve Officer Training Corps (ROTC) program at a Division I university. She has three combat tours. Her first deployment was as an enlisted medic personnel in Afghanistan, her second deployment as a medical service officer in Afghanistan, and her third deployment as a medical service brigade staff officer in Iraq. She is Caucasian (non-Hispanic), and is married with two children. She came to CGSC having already earned a master degree. Her husband, a major on active duty, was also a student in her CGSC class. Due to her medical profession, she has repeatedly seen and provided medical treatment to wounded soldiers.

Hannah

Hannah was a Combat Service Support (CSS) officer in the logistics branch, focused on quartermaster operations. She was a prior service enlisted Noncommissioned Officer, and received her commission through Officer Candidate School (OCS). She has three combat tours, to include her first tour as an enlisted transportation specialist for mortuary affairs in Iraq, her second deployment was as a battalion level logistical officer in Iraq, and her third tour was as a brigade level logistical officer in Afghanistan. She is an African American, divorced, single parent, and has two teenage sons who are teenagers. She has a Traumatic Brain Injury (TBI) from an Improvised Explosive Device (IED). She served as a mortuary specialist in her first combat tour, seeing dead soldiers on a daily basis. She is a recipient of the Purple Heart due to her combat wounded status.

Amy

Amy was a Judge Advocate General (JAG) officer and licensed lawyer for the Army. She received her commission from the Reserve Officer Training Corps (ROTC) program from a private Division I university. In addition, she also attended law school through a Division I private law school. Amy has two combat tours, and her first tour was as a lawyer for a battalion staff in Iraq. Amy's second tour was as a lawyer for a brigade staff in Afghanistan. She is Caucasian and married to another military lawyer who lives on another post. She was a geographical bachelor because she chose to live away from her spouse for this tour as the Department of the Army could not schedule them to attend CGSC at the same time. She has no children. Most of her combat experience was in a Forward Operating Base (FOB), which she seldom left.

Brittney

Brittney was a Judge Advocate General (JAG) attorney and licensed lawyer for the Army. She received her commission from Reserve Officer Training Corps from a private Division I university. She has deployed twice to combat, once in Afghanistan and once in Iraq, and both tours at the battalion and brigade level staff officer. She is Caucasian (non-Hispanic), and married with no children. She had a master degree prior to CGSC and is extremely physically fit. Brittney's Army husband attended a satellite CGSC last year.

Cheryl

Cheryl was a Military Intelligence (MI) Army officer, and a graduate of the United States Military Academy (USMA). She has deployed three times to combat, including one tour in Afghanistan and two tours in Iraq. She deployed two tours as a battalion staff officer and one tour as a brigade staff officer at a division level-planning cell. She is Caucasian (non-Hispanic), single, and has no children. She is prior enlisted as a Noncommissioned Officer in Military Intelligence, a 38-year old CGSC student, and during the school ended her relationship with her partner.

Debby

Debby was an Ordinance Branch (OD) officer focusing on quartermaster operations, and received her commission from Officer Candidate School (OCS). She earned her bachelor degree through an online for-profit university. She has three combat tours to include one combat tour as an enlisted Soldier, one tour as a battalion staff officer in Iraq, and one tour as a brigade staff officer in Afghanistan. She is African American, married, and has two children. She has a Traumatic Brain Injury (TBI) due to an Improvised Explosive Device (IED). She received the Combat Action Badge (CAB) for her actions in combat. She was a geographical bachelor during CGSC. Her husband and two children were back at her prior military post. During CGSC, she achieved a Master of Military Science (MMAS) from CGSC.

Emily

Emily was a Medical Service (MS) officer and a physician. She received her commission through the United States Military Academy and went to medical school for an additional four years after graduation. She went to combat twice, one tour in Afghanistan and one tour in Iraq, working in Army hospitals on the front lines in forward deployed locations. She is a Latino/Hispanic and married to another service member, who is also a doctor in the Army. They have no children.

Gayle

Gayle was a Military Intelligence (MI) officer and received her commission from the United States Military Academy. She has deployed on two combat tours, one tour in Iraq and one tour in Afghanistan, where she served on division level staffs. She is Caucasian (non-Hispanic), single, and has no children.

Helen

Helen was a Military Intelligence (MI) officer and received her commission through Reserve Officer Training Corps (ROTC) program from a public university in the Midwest. She also completed a graduate school program from a public Division I university. Helen has two combat tours, one in Iraq and one in Afghanistan, and she worked both tours on a division staff level. She is Latino/Hispanic, and married with two children. She also had marital issues during the CGSC academic year.

Other Demographic Information

The demographic background information for the interviewed female CGSC students is described in Table 4.1. This information established initial perspectives of the interview population that volunteered for this study. All of the students had two or more combat tours, a bachelor degree, and other levels of prior collegiate education before attending CGSC.

There were also other key aspects of the female students that are noteworthy. None of these female students were in the combat arms (Infantry, Armor, Artillery and Aviation). The female student participants were in Combat Support (CS) and Combat

Service Support (CSS) branches in the Army. Just six months after these interviews, on December 3, 2015, the Secretary of Defense, Honorable Ash Carter, made all jobs in the Army open to women (Vergun, 2013; www.militarytimes.com, 2015).

Another critical aspect during their combat tours was the position held during their combat tours. Even though all of the female students had two or more combat tours, only three students had actually seen dead or wounded soldiers; one student was combat wounded, and three students spent their entire combat tour in a highly secure and physically safe location on a staff or in a hospital.

Other important demographic facts (see Table 4-1) worth noting are four out of nine female students were dual military (married to another service member), four of the nine female students were geographical bachelors (which means their spouse and family were at a different location), five of the nine females students already had a masters degree or higher professional degree prior to starting their CGSC academic year and four out nine had children. These demographic characteristics enhance the students' interview responses, adding further details for analysis to understanding the perspective of combat stress, and effects of their adult learning.

Table 4.1 Participant Demographics

Military Branch	Combat Arms-0	Combat Support (CS)-5 <i>Ordinance-2 Intelligence-3</i>	Combat Service Support (CSS)-4 <i>Medical Service-1 JAG-2 Medical Doctor-1</i>
Commission	USMA- 3	ROTC-4	OCS-2
Combat Tours	2 tours- 5	3 or more tours- 4	
Ethnicity	Caucasian-5	African American- 2	Hispanic/Latino-2
Marital Status	Married-6	Single-2	Divorced-1
Children	No children-5	1 child -0	2 or more children -4
Master’s degree	Masters-5	In process-0	No Masters-4
Professional degree	M.D.-1	P.A.-2	
Geo-Bachelor	4		
Dual Military	4		
Prior Enlisted Service	Prior enlisted-3	None-6	

Analysis and Findings to the Research Questions

Though the demographic profiles of these nine female CGSC students give insight into their experiences, the research questions through the interview protocol give more detailed, and rich responses to how combat stress affects their adult learning. The analysis included over 191 pages of interview transcripts, with another 179 pages of interview notes, field notes, journal notes, and additional analysis notes. In this analysis, quotes are depicted verbatim in order to share the exact student's responses, providing emotion and honesty in their responses. Every female student interviewee was given the opportunity to member check for accuracy and intent. The pilot interviews provided the researcher with the opportunity to validate questions, establish additional follow-in questions, and estimate length of interviews to assure depth and richness of responses. The interviews on average ran between 25-35 minutes each. During the initial interview process, anonymity and participant protection was the most important discussion with the students, who required reassurance prior to the interviews due to their fear of reprisal by the government, and their military chain of command. If at any time during the interview process the student became distraught or exhibited superfluous emotions, the interviewer avoided additional stress by moving to the next question, or avoiding certain follow-on questions. The comments from the two female CGSC faculty members and two behavioral counselors are added to provide additional insight to responses.

Research Question #1

How do female CGSC students perceive their multiple combat experiences to affect their learning experiences?

This research question explored the effect of multiple combat experiences on female students' learning during CGSC. Participants indicated that combat stress appeared to affect all soldiers in varying ways, determined by where they were working, their job position in combat, and what they experienced. In addition, other themes, experiences, and characteristics prior to military combat service, affected how the students adapted to combat experiences while learning in the classroom. The researcher identified four themes that impacted combat experiences in relation to learning at CGSC, including: effects of the combat experiences, impact of prior education before attending CGSC, impact of the CGSC faculty and classroom experience, and gender related factors.

Theme #1 - Effects of Combat Experiences

During the interviews, the researcher asked approved questions regarding combat experiences, with specific limitations in place to avoid adding undue stress to the CGSC female students. The Kansas State University IRB and Department of Defense Human Protections specifically restricted any action by the researcher that caused undue stress (which could trigger combat related stress), or use any psychological diagnostic instruments toward diagnosing post-traumatic stress. The specific intent was to avoid any questions that could evoke combat emotion, and if so, then stop the inquiry and move to another question. This restriction was due to this project's classification as adult education research, and not medically tracked psychology sponsored research.

The interview protocol only examined the effects of combat in the classroom, and did not attempt to diagnosis any combat related stress or psychological disorder. The aspects and events of combat shared by the students were in the context of the adult learning process at CGSC. The researcher's data concluded that the degree of trauma (psychological and physical), and the depth each student shared during the interview process, determined the level in which each student's learning was affected by their combat experience. Some of the students shared more combat experiences and gender combat stress than others during their interviews, but the researcher did not probe in order to remain within IRB compliance. Therefore, some possible factors regarding combat and stress were never revealed.

In addition, during this research, the two components themes that affected combat experiences were physical and psychological. The combat psychological components were: memory, attention, and anxiety. The combat physical components included: physical damage to the brain from Traumatic Brain Disorders caused by improvised explosive devices, other enemy explosions, and other combat wounded factors.

Student's Combat Experience and Affect on Learning

Five of the nine students commented that they learn differently since combat. Many of the students said "memory and attention, attention deficit, attention span ability, and inability to learn new concepts" are now common concerns in a classroom environment. The other four participants indicated that they did not learn differently since combat. The research population included three female CGSC students who had earned professional educations (Emily, Brittney, and Amy) but also did not see or

experience traumatic events in combat; while three other students (Hannah, Debby, and Julie), with lower academic degrees, had traumatic war experiences related to combat, and also had the most academic difficulty while attending CGSC.

Changes in Memory, Attention Span, and Anxiousness Since Combat

This research also probed deeper into CGSC students' memory changes, attention span differences, anxiety, and other factors that affected them after their combat experiences. Julie said, "I don't know if I learn differently but it takes more for me to remember things and need to take more notes." Hannah, Amy and Debby also commented that their memories were "horrible," and they had to take extensive notes to comprehend what they were being taught in class. Debby said, "like I can read something, now and then not remember what I just read and before combat when I deployed I could see something one time and know it, like songs on a radio, I know songs on a radio, from years ago, but now it is different, I can't remember the song from this morning."

Amy and Debby also referred to "hyper-vigilance," where they noticed everything in their physical environment. Debby commented that if she drives down the road in her neighborhood she would notice, "if a neighbor puts in a new wreath on their door" because she notices any changes right away. Julie commented that she was "more anxious" since she returned from combat, especially in the classroom. Debby also commented that, "new learning was extremely difficult and [she] just could not learn some new subjects no matter how hard [she] studied." In addition, Julie said:

I don't know if I learn differently but it takes more for me to remember things and need to take more notes, I think I am a better student because I really want to

learn because I made it home and some of my friends did not. I lost thirteen friends in war. I guess it is like feeling guilty of living and making back when my friends did not make it home. I have more purpose to be here.

Another interesting observation was Hannah's preference for the same seat in class, allowing her to avoid having her back to the door, which is a common reaction to soldiers in confined urban areas in Iraq and Afghanistan. Julie also commented that she likes seats that allowed her to "visually see the doors of the room," which is a habitual strategy in combat. Other similar comments were on the differences in memorization, recalling, and remembering.

Physical Effects of Combat

Several students had physical injuries during their combat tours, including traumatic brain injuries (TBI). Hannah commented, "that learning is much more difficult since she attended college ten years ago, but [her] traumatic brain injury (TBI) from an improvised explosive device (IED) physically damaged [her] brain therefore [she] has to read and reread everything and she feels like [she] has Attention Deficit Disorder." Hannah also reflected on her first paper written after getting back from a deployment in Iraq, when her former college professor asked her, "what [she] had experienced in combat because [her] writing was totally night and day in [her] papers." A second order effect for those students with TBI were that they had to become extensive note takers in class and review notes to remember, and retain their learning.

Reflections of Combat During Class

The experiences female students had in combat, influenced how the student would react when they reflected on combat during class. Five out of nine female students acknowledged that they reflected on combat during class, two of the nine students slightly agreed in a general term, but did not describe it as an important reflection. Lastly, two out of nine female students (Amy and Debby) never reflected on combat, mainly because they never saw anything to reflect on.

The students that reflected on combat did so during classes with specific lessons on Iraq or Afghanistan, and also in classes that showed combat video footage. The subject matter in discussion or certain video clips caused memory recall. Most of the students also commented that their male cohort peers were also affected when recalling combat experiences. In particular five of the nine female students recalled combat memories particularly during leadership classes (L100 and L200), and history classes (H100, H200, and H300), which used video clips during class.

In addition, when students were reflecting about combat in class, their participation in class differed. Julie commented that when she reflected on combat during class, she became much quieter and that, “when I think of combat during class, I then have to determine if I want to share my experiences with the class, I have to determine if it is relevant.” Hannah had a much different perspective as she explained that she reflected on combat more than her peers due to the fact she has TBI. Hannah was also an enlisted mortuary affairs sergeant during the invasion of Iraq in 2003, and commented that, “I saw too many dead bodies.” Hannah also commented that she never shared her combat stories within her class discussions, because she was not ready to tell

her classmates her personal stories.

Cheryl commented that her most intense reflection of combat in class was when her instructor showed the video clip of Colonel Steele, the 3rd Brigade Commander from the 101st Airborne Division, who was charged with violations of war crimes in Iraq. She was on his staff and commented she “physically saw the death of the war crimes his soldiers had done while on the tour.” Cheryl commented that “they were not flashbacks on combat but purely short memories, because I had seen first-hand the UAS (unmanned aerial systems) video coverage of the brutal war crimes.”

Emily commented on the second and third order effects of combat due to her treating patients, but she was never a firsthand witness to combat while she spent 95% of her time in a hospital. Due to her medical profession, the combat experiences she heard from patients did not impact her combat experiences in combat or her academic stress at CGSC.

Does the Perceived Combat Experience Make the Student Better?

The researcher inquired if combat experiences made the female CGSC students better at academic learning. Six of the nine students commented that combat did not make them better students, but made them “more motivated to be better officers,” mainly due to their abiding by the Army profession. Three out of the nine students were not motivated to become better students, because they were already excellent students before combat due to their prior academic rigor in college. These three students were the lawyers and doctor whom had extensive college experience going through medical and

law school, prior to their military service and combat experiences. Gayle best described another point of view, saying:

I was a good student before combat... I think it makes me more appreciative of being in the Army... I know what it means to be a Soldier more than ever because I went to combat twice... I am a better person because I went to combat but I would not say I am a better student.

Julie said, "I think I am a better student because I really want to learn because I made it home and some of my friends did not... I lost thirteen friends in war... I guess it is like feeling guilty of living and making back when my friends did not make it home and I have more purpose to be here." Julie also said she was a better student, "because I have more of a purpose to be here and to study and to want this education... I am applying my vast combat experience with application of doctrine and history and leadership classes." Her combat experience gave her more of a purpose to learn, and to be a better student. Helen commented that combat had made her a worse student due to inattentiveness and memory issues. She commented, "I would say I am a poorer student now than I was before my combat tours."

Career Risk for Students

There is also a career risk in divulging any combat effects to behavioral health counselors, because they inform the military chain of command if hospitalization or drugs are required for treatment. In the aviation branch specifically, aviators will be grounded (unable to fly) if any combat related diagnosis is found. Julie had not seen a behavioral specialist because of this. She commented that she "just has to deal with it" and her supervisors would give her advice to just "suck it up." For this reason, the

researcher assumed there are higher numbers than what is currently being researched, on all categories of those affected by combat especially regarding women.

Summary

The perceived effects of combat depended on the students' experience and if they were affected psychologically or physically. Combat stress appeared to affect all soldiers in varying ways, determined by where they were working, their job position in combat, and what they experienced. Many students indicated they were affected by combat through memory loss, reduction in attention span, anxiousness, and ability to conduct new learning, while some students remained unaffected. As we discuss the effects of combat experiences of female CGSC students, we must also analyze what CGSC instructors' perspective of effects of combat.

Instructors' Perspective with Combat Stress in the Classroom

LTC Janet and LTC Elizabeth were CGSC Associate Professors and had two or more combat tours. LTC Janet commented that she does not know what kind of learner they were in the past, but only what they are now. LTC Janet and LTC Elizabeth both agree effective teachers must know their students and know the classroom emotions during certain subjects. In her classroom, LTC Janet allows all her students to share combat experiences, encouraging emotions in class, and she believes the best learning occurs "when they work through their emotions in class." LTC Janet explained, "most students keep their combat experiences inside themselves until they feel safe." This comment best describes LTC Janet's classroom:

It is very healthy we all need to talk about our experiences. Some of the combat stories are stupid and have no point to the subject of the class, some students love to hear themselves talk about their war stories, but the really good war stories are the students who are selective in participating and they wait until the right moment and really tell everyone a tough and horrific story that happened to them and it shocks the class. I as an instructor can tell they have been holding that story back and waiting until the right time to share. I love it when they share those great stories.

LTC Elizabeth also allows her students to work it out emotionally in class, but she doesn't allow anyone to be ostracized, creating an environment that does not invalidate anyone from sharing combat stress experiences. LTC Elizabeth gave a specific example when one of her students quietly shared an emotional experience. She said once the student shared everyone seemed to listen, because they were also waiting to the right point to talk about it. She also commented that "it becomes a cascade effect where one tears up and the other students then shares and we have an emotional experience.... it is so moving and the learning is tagged with emotion will make the students reflect on emotion." LTC Elizabeth emphasized the importance of encouraging, "it's just good to cry so it lets out the emotion like a funeral when all you need is the one crier and now the entire church is crying, I seek that emotion in class" and if she could get one to open up and another will follow, "like field of dreams if you build it they will come." In addition, LTC Elizabeth and LTC Janet know that some of their male and female students have combat issues but never shared their experiences to the class the entire year, commenting, "I hope they get help when they are ready."

Instructor Comments on Combat Effects of Female Students

LTC Janet and LTC Elizabeth both agreed that they feel combat affected female students more than male students, but could not discuss psychological combat diagnoses. LTC Janet, in her opinion, commented that if her female students saw the dark combat (most traumatic combat experiences) equal to an infantryman role in combat, then females would be affected more. LTC Janet also commented on sexual assault in combat with her statement, saying “I feel most women are more afraid of their male counterpart in the FOB/COP due to sexual harassment and assault, going to bathroom at night alone or being in an uncomfortable location and really being the only female in a room, that fear is different.” LTC Janet and LTC Elizabeth admitted most of their female students repress this more than male students. In addition, LTC Janet commented,

Sometimes a female student will be distraught and start crying and leave and we as a class respect that and give them time and the next day a student a male one will do the same thing, the key for me is to provide a positive classroom environment of dignity and respect to allow the emotions to come out in class discussion. It’s good to cry sometimes.

LTC Janet also commented, “as a female instructor I provided a more equable classroom environment to support the female students better; than they would with a retired old infantry officer instructor who still believes women should not be in the Army.” LTC Elizabeth also commented regarding how females had more combat stress due to sexual assault and harassment in combat by saying, “I have to have eyes in the back of my head at night on the FOB, it just made me almost high vigilant, I carried a knife with me to the bathroom or shower at night just in case.” LTC Elizabeth was also the first one to comment on how females have additional stress due to being mothers and commented, “the stress of leaving children behind especially the stress of being single mothers and

having to technically give up your children so someone else can care for them while they are in combat... that's just so difficult to comprehend for me.”

Summary

In summary, the instructor was essential for students dealing with combat experiences in the classroom, establishing a safe learning environment in the cohort allowing for a positive academic atmosphere. If the instructor provides a safe environment with dignity and respect encompassing all students, then the students have freedom to share their combat experiences with their classmates. As we finish the discussion of combat effects of students under the instructors' perspective, we must also include the behavioral counselors' perspective.

Behavioral Counselor Perspective on Combat Stress Impact on Student's Learning

Dr. Dan and Dr. Paul were behavioral specialists who had treated students from CGSC. Dr. Dan explained that stress impacts learners from their learning perspective, “if the student had experienced a lot of intense combat but it depends on the student and also the combat and it goes back to specifically what happened and how horrific or traumatic it was to them psychologically.” In addition, Dr. Paul also agreed that combat impacts their learning and commented:

I have seen many students who have multiple combat tours but they don't see me for combat stress, they see me for other stressors. Stressors like family, marriage and career stress. The students with the more severe combat stress, and close to being diagnosed with PTS or PTSD, will have the most difficulty in class and not be able to adapt to being a student. This year we pulled out two students in their first week due to psychological diagnosis. They needed help and school would have been the worst thing for them at that time.

In addition, Dr. Dan commented, “that it also goes back to resiliency, because some folks are just tough and able to adapt and cope. There are some students who I think need help, but their family and the mindset and faith is so strong that they are able to adapt to horrific war experiences and still act normal.” Dr. Paul expanded on this, noting that:

Many students have combat stress but don’t seek help unless they have additional stress from family, marriage, or career stresses due to male military norms, but it all goes back to resiliency because some students are just mentally tough and able to adapt and cope, and even though they clinically might need behavioral help, their family and their mindset and faith is so strong that they are able to adapt to horrific war experiences and still act normal.

Dr. Dan observed that from his prior experiences counseling CGSC students, female officers have more difficulty after combat than men, but men actually observe more horrific experiences. In contrast, Dr. Paul stated that, “even though men may observe more horrific scenes, the female soldiers must deal with traumatic sexual assault and harassment back in the FOB’s which could double or triple their chances of traumatic stress or PTSD.” Dr. Dan added, “the specific combat experience could determine future learning, but determining it depends on how horrific or traumatic the event was and also how resilient the officer is.” Dr. Dan also commented that it “goes back to internalization, because people are affected by combat in different ways and it starts with their identity or experiences before the combat experiences” and it goes back to toughness, resiliency and coping mechanisms.

Summary of Effects of Combat

This research question explored the female students' effect of combat experiences with adult learning while attending CGSC. From the students' perspective, combat stress appeared to affect all soldiers in varying degrees, determined by where they were working in combat, their job position in combat, and how traumatic their combat experiences were. Students commented that effects of combat included issues with memory and attention, attention deficit, attention span ability, and inability to learn new concepts, and most reflected on combat during class. Other factors included students' adaptability to combat experiences, which were effected by their prior experiences and their professional background. The CGSC instructors explained that a supportive classroom environment was significant for CGSC students to feel secure enough to share their combat experiences. When the environment is unsafe the students' voices, especially women's voice, were silenced. The behavioral counselors emphasized that resiliency was essential in the internalization of female students' combat experiences. The counselors also shared that their patients during the school sought help when there was an imbalance between academics stress and other stressors, not due to combat experiences. In summary, the instructors were one of the most important factors with students dealing with combat experiences in the classroom by establishing a safe academic environment.

Theme #2 - Impact of Prior Education

This research indicated that students with experience in a highly rigorous collegiate experience prior to combat influenced the results of the effects of combat on

their learning in CGSC. The academic stress was minimized if the students received professional degrees prior to combat. The academic rigor of CGSC was not equivalent to the requirements of law or medical school. Even though there were many other interlocking effects, combat would not make the female students better or worse (unless physically wounded), because they already had excellent student academic skills prior to attending CGSC. This was especially evident with the two lawyers and one doctor who were not academically challenged due to their intensive prior educational experience. These three women also did exceptionally well academically at CGSC with the new learning they had to accomplish. Any additional stress like geographical bachelors, additional master degrees, or family separation, did not create any further academic stress to these professional students.

The students with less rigorous academic degrees (i.e. general studies and bachelor online degrees) had to learn graduate academic skills for the first time at CGSC, because they had not learned them in their prior collegiate experiences. The only relationship that this research could determine was that prior student academic skills were unchanged due to combat, unless physically altered through combat trauma or combat wounded actions. In addition, the students with lesser academic skills indicated they had more academic difficulty with any additional stressors during their time at CGSC, such as being a geographical bachelor, having family separation, other career stressors and additional stress factors.

The key alternative theme to this connection was motivation to learn after combat and professionalism. The events that happened to the lesser academic students in combat

affected their desire to learn at the graduate level, but they were still limited to academic achievement by their prior academic collegiate experiences.

Another theme that emerged was perceived power and class load. The female students with professional degrees had power over their peers and instructors due to their professional degrees. Also, any additional workload during peak academic times did not cause any additional stress to female students' with professional degrees, while the female students with lesser degrees over stressed during those academic periods.

In summary, this finding that prior academic rigor preceding combat affected the combat related stress in the classroom. This finding was not expected by the researcher but emerged after the interviews. The students who were in professional fields prior to combat indicated they had minimum academic stress during CGSC, while the other students who had not learned academic skills had the most educational challenges. This finding was only evident due to the sample population that happened to have three students who were lawyers and doctors, and without this sample, this finding would not have been found. As prior academic experience is important, the faculty and classroom experience must also be included.

Theme #3 - Impacts of CGSC Faculty and the Classroom Experience

CGSC faculty and the classroom atmosphere impacted how much the students shared their combat experiences in class discussions. The effectiveness of the instructor in establishing rapport of the cohort and a safe classroom, created an environment for students, who were struggling with re-experiencing combat memories, to share their combat experiences. Many students needed to talk about and share their combat

experiences, but required trusted student peers and faculty. Students did not feel safe in discussing their opinions due to the lack of dignity and respect in the classroom, and some students never shared or voiced their opinions at all.

What Specific Classes Triggered Students' Combat Reflections

During this research there were certain classes that repeatedly triggered combat memories in class. Certain video content in their lesson plans triggered combat reflections during their instructions. Julie had a detailed response where she said:

In one particular case we were watching a scene from *We Were Soldiers* and it was the landing zone (LZ) scene where soldiers were fighting and wounded were all around and I was remembering my past combat tours in Taji and Mosul where I witnessed wounded soldiers coming off a MEDEVAC helicopters. The scenes triggered the memories. The brutal wounded scenes and the crying scenes of losing soldiers mainly caused my memories, because I have been to many memorials. I have lost too many friends. There are a lot of emotions in my memories, and I haven't really thought about or mainly dealt with it over in combat or back here in garrison. Someday I will get all those emotions out and get better. I just compartmentalize those memories. It's just the way I am. It's the way I have to be.

Additionally, Julie loses her place in class while deep in thought, zoning out when reflecting on combat. Several students re-experience their combat events in class where they are "back in Iraq, in the heat, in the streets, with that smell, and then all of a sudden I am back in the classroom." Three of the nine students don't know why it is happening at the time; just something in their mind triggers the emotion. Multiple students commented on the same triggering mechanism of "visual cues" but their memory goes back to "the smell of the sand of Iraq" and also "that bad Iraqi cigarette smell."

12 O' Clock High (1949)

There was one particular leadership class (L109) that had multiple comments as causing reflection of combat, which was the movie *12 O' Clock High*, starring Gregory Peck. *12 o'clock High* (1949) is a movie during early WWII about an Army Air Corps unit stationed in England, with a plague of problems until a new squadron commander arrives with tough leadership and turns the unit around. The scenes that cause the most emotions are when some of the fellow aviators die in combat, and also the last scene where the tough commander is finally overcome with combat fatigue. Hannah said that “*12 o'clock high*, where the commander, who has been tough as nails, finally comes to grip with shell shock or what we call combat stress... that final scene bothered me the rest of the day... someday, I might be unable to untie my boots and just sit in my chair catatonic, just because I have had my fill of combat.”

Helen additionally talked about the same scene causing an emotional trigger within herself, saying “with the last scene where the main character has a mental breakdown, because I felt we all have kept our emotions inside about our combat tours inside so long that someday we will have to let it all out like when a dam breaks.” This movie was in the capstone leadership class and has been used at CGSC for over 12 years. The leadership instructors have the option, depending on their class dynamics, not to show the last seven minutes of the movie if it is too much for some students.

Summary

The research findings emerged from the students' perspective that instructors are one of the most important factors in establishing a safe academic environment for

students affected by combat. In addition, certain lessons and video clips in the CGSC curriculum could cause re-experiencing for some students. As the discussions continued regarding effects of combat with students in the classroom, the CGSC Faculty's perspective must also be discussed.

CGSC Faculty Comments on Students' Combat Stress and Learning

These findings, from the instructor's perspective, were connected to the main purpose of the research questioning if combat stress affects students' learning. The faculty members are not licensed counselors and have limitations toward psychological combat stress assessment of the students, but each student is evaluated by a military medical licensed counselor for 30-minutes prior to in-processing for class. All students went through a screened psychological review, and if recommended, were prevented from starting classes due to their psychological state.

LTC Janet and LTC Elizabeth both commented that they really do not know how combat has affected their students, unless their students actually informed them. LTC Janet and LTC Elizabeth remarked that good instructors must know their students to teach them effectively, and also be adaptable and flexible as a teacher. During class discussion, that include current combat topics and measuring students' emotion, LTC Elizabeth said, "it's difficult to say if it effects their learning unless there was a physical effect of combat like PTSD or TBI." LTC Janet also commented that her students with physical scars, Purple Hearts, and TBI were easier to identity possible combat effects. She also said:

I have one student who has TBI, who actually has damage to his brain. It's the equivalent of 10-15 concussions. He just had to survive the explosion around him

during combat. That student has great difficulty remembering and must take extensive notes because he physically can't learn like he did in college, but he lets me know... well he let me know the first week of class and showed me his physical scars.

LTC Elizabeth also remarked that, "it really goes back to what happened in combat that determines what [their] students bring to the classroom." LTC Janet said, "[she] feels some of [her] students saw horrible things in combat by their physical reactions [in their body reactions and face expressions] in class, but they never share any of their experiences in class, probably because they are not ready to share them." LTC Elizabeth also said, "that one of [her] students had so much combat stress that the counselors recommended the student dis-enroll after the first week of class."

CGSC Instructor Perspective if Combat Experiences Were Positive or Negative

The researcher also explored the concept that combat experiences brought to the classroom could positively affect the CGSC learning process. LTC Janet said, "that most of the time it was positive due to my classroom dynamics, which I had created due to my [instructor] influence." LTC Janet also said:

Because I established a classroom environment each student respects one another when another one shares something personally or maybe traumatic, when they share, most fellow students allow the student to share and respect them for sharing, the awkwardness, and quiet moments are actually really neat for the learning process.

In addition, LTC Elizabeth said, "most of the experiences were positive in learning and I had created a respectful classroom environment so that all [my] students respected each other's personal and emotional combat experiences that they shared."

Instructor Perspective on Adjusting Teaching Styles

The researcher also explored how female CGSC instructors have adjusted teaching styles due to students' combat experiences. LTC Janet and LTC Elizabeth have not had to adjust their teaching styles, but they both must be aware of their students' emotions and adjust breaks or allow students to leave the room (with no repercussions) when they are too emotional. LTC Janet commented that, "it goes back to being an effective teacher and knowing your students." LTC Elizabeth additionally said, "I allowed the awkward silence moments to happen and let the students work out the situations to enhance their learning domain." In her classrooms, her technique created excellent learning moments and she said, "when the sadness and the so called tears came out in class, even the men when they got choked up helped in learning and further shared respect with other students."

Summary

Instructors found that combat did, to a degree, affect students' learning, but was dependent on the classroom environment and if the students felt like they could share their combat experiences. If the students shared their combat experience with a trusted class, then there were effective and emotional discussions in class. Another key finding was that instructors must know their students to adjust the class dynamics and emotions. As instructor interviews emerged certain findings, the behavioral specialist findings were also important factors.

Behavioral Specialist Comments on Teaching Students with Combat Experiences

These behavioral specialist findings suggest effective teaching methods to CGSC students with combat experiences. Dr. Dan commented, “I would tell a CGSC instructor just to know their students... if they really know their students, then they can help them the most when the student acts different due to combat stress in class.” Dr. Paul and Dr. Dan both agreed the best individuals in the CGSC process to identify students struggling with combat stress are the instructors, and the CGSC faculty are “our first line of people that can help those students” deal with and help with coping to combat stress. In addition, Dr. Paul said:

Some students no matter how good their instructor is will never show any signs before they do something. Some keep the stress in so tightly in their brains, that no one sees it coming. Most of our suicides are surprises to most instructors and counselors. The suicides we have here sometimes even surprise us. There was a chaplain in 2007 that committed suicide that no one saw it happening. The suicide in 2010 was the same thing. At the end all we can do is do our best to help people.

The behavioral specialists did screen the CGSC students during the two-week in-processing period. They also shared their contact information with instructors if they students needed to be referred. If the students referred themselves to behavioral health there was no retribution, but if the supervisors and instructors referred the students, then there could be possible career ending issues. Among all CGSC instructors, the behavioral specialists highly encourage self-referral to protect the students’ military career. The counselors’ key point was even though the faculty were not licensed counselors, they are the first line of action for helping the students.

Theme #4 - Gender Related Factors

This research also explored gender related factors of combat. During the protocol questions, the female students shared gender stress experiences during combat and how gender caused additional stressors while on deployments. The interview findings exhibited a distinct combat stress outside the wire, and a gender-related combat stress inside the FOB regarding sexual harassment and sexual assault. During the interviews, five out of nine students described “loneliness and isolation while being a female officer in combat” and also described how “physical security on a Forward Operating Base caused heightened stress due to being afraid on the base from sexual assault, military sexual trauma and other trauma.” Brittney said, “that being a female soldier in combat was a different combat stress especially in the Forward Operating Bases where women were always an extreme minority.” Hannah commented, “that gender combat stress was an additional stresses [*sic*] in combat for all female soldiers.” Hannah also said:

I think the worst time to be a woman in the Army is in a combat zone. Because the male to female ratio is like 1:50 I never relaxed in combat. I was afraid in combat especially on the FOB at night. I was always on alert. It’s very sad that sometimes I felt my biggest threat was not the enemy but the male soldiers assaulting me.

Brittney emphasized gender combat stress, as a woman, in a combat zone was the most difficult. Similarly, Emily said, “we [women] have to protect ourselves from being assaulted and raped, am I safe, or can I walk in the dark to the bathroom without being afraid.” Helen said, “what I remember the most...well that’s kind of difficult to answer... It is hard to say... I felt alone and isolated when I was reflecting on those memories and afraid...that is what I remember most.” Helen added:

Well, when I think about combat I feel alone because I am mostly the only female

officer in the organization or staff. It gets tough to always be the only woman all the time. I feel afraid because I am always the only female on staff. In combat at night, I am afraid to walk in the dark to go the bathroom, I am afraid to do my laundry at night, I am afraid to take a shower at night, because I never know who is lurking around or waiting for that single female to be a victim.

Tailhook 91'

In the CGSC Department of Command and Leadership (DCL) curriculum, a case study called *Tailhook* was used to discuss sexual assault and harassment regarding senior Naval officers. This CGSC class triggered gender specific combat experiences in five of the nine students interviewed. The *Tailhook* scandal was during September 8-12, 1991 in a hotel in Las Vegas that involved over 100 Naval aviator officers that were alleged to have assaulted 83 women. The aviators lined the third floor hallway and forced women to walk a gauntlet of men who sexually assaulted the women. The investigations from the Department of the Navy and Department of Defense did not charged any Naval male officers or take any disciplinary actions toward any officer, which caused a maelstrom in Congress and started the process to allow more opportunities for women in the Armed Services (Ogden, n.d.)

Brittney said, “that case study brought more combat memories of [her] personal experiences in combat of [her] walking alone at night in combat afraid.” Britney also said that, “it reminded me of all the precautions you would have to do downrange to make sure that no one assaulted me.... it was right here in history like a carbon copy of what women experience in OIF and OEF.” Britney and Cheryl also agreed that the *Tailhook* case study regarding sexual assault reminded them of “always having to be over protected and always aware of the situation in the FOB.” Hannah said, “the *Tailhook* case study, now that brought emotions back from Iraq due to the stress of being a women in a

FOB, and the fear of being assaulted on the way to the bathroom at night... I don't know if that was a combat fear or just a normal fear of being a women in the Army.” Four of the nine students agreed it was the most emotional they became in class, which was not about combat, but with the *Tailhook* case study about sexual assault.

Another key comment was the anger that three out of the nine students felt toward fellow students during the *Tailhook* case study. Hannah and Helen were most angry with their male peers in the classroom when discussing the *Tailhook* case study regarding sexual assault. Hannah said that “some of the men just really did not get it, it pissed me off and sent me to the red zone is what I call it.” Helen said, “the only reason I was angry was the rude comments from some of the male students when they didn't get the whole point of the class with respect to sexual assault... I was really angry with the instructor who allowed the rude comments to even be said.”

Instructor and Counselor Comments on Gender-Related Combat Stress

The CGSC instructors and behavioral counselors had similar comments regarding gender-related combat stress. The instructors answered limited protocol questions regarding gender-related combat stress, but most of their questions were toward gender stress in the Army profession and the classroom. LTC Elizabeth and LTC Janet discussed stress as a woman in the Army profession and always having to excel to be treated equal, but they made specific comments about combat-related gender stress. The counselors had more detailed answers to the combat gender-related protocol. Dr. Dan said, “the idea of gender is unique and I would say it is more difficult to be a female soldier in combat than a man but the men are the ones who have seen more of the most

horrific combat experiences.” Dr. Dan further said, “females are usually second hand witnesses for example seeing the effects of combat like combat wounded or dead after the combat event, but the men are mostly... I would say 95% are the trigger pullers [in combat operations].”

Dr. Dan commented that, “the gender role in combat also has the safety effect of possible assault or rape in combat.” He added that, “some of my patients were assaulted and those experiences are traumatic but in a different perspective because it is actually worse because it was from their own unit.” Dr. Paul additionally said, “women are unable to relax at the FOB and on the FOB is where they are the most afraid of at the time.”

Dr. Dan remarked, “gender effects in combat [*sic*] also dependent on where they are in combat and how few or how many females were co-located with them.” In the interview discussion, the consensus was that an individual’s identity and experiences are internalized long before combat; therefore influencing how combat affects each person exclusively. Dr. Dan also said, “if they had a tough life, then they already have coping mechanisms to adapt to tough life decisions like death and other things... if the female had a sexual trauma prior to joining the Army it will increase their percentage for PTSD and depression after combat.” There are a lot of experiences before military duty that can affect females during combat. It also goes back to their support system, both familial and social.

Summary

This research question inquired if female students perceived their combat experience affected their learning at CGSC. The findings were divided between students,

female CGSC instructors, and behavioral counselors. Combat stress appeared to affect all soldiers in varying ways determined by where they worked, their job position in combat, and what they experienced.

The four themes from this research question were combat experiences, impact of prior education, impact of CGSC faculty and classroom experiences, and combat related gender factors. The CGSC students were characterized with memory recall, attention deficit, attention span, ability to remember or recall, and ability to conduct new learning. Students who had more difficult combat tours with trauma, experiencing and witnessing death, and those physically wounded from combat, had the most difficult time in learning at CGSC. Instructors were essential in establishing a positive and respectful classroom environment to allow students to share their combat experiences. The two most quoted classes (*12 O'clock High* and *Tailhook*) that caused stress due to emotions related to death of fellow soldiers, sexual harassment, and sexual assault in the context of a deployment to Iraq and Afghanistan. Another factor was that prior education (professional degrees) before combat determined the acquisition of successful academic skills already established before starting CGSC. Lastly, gender does have an effect on students' combat experiences due to threat of sexual assault and being an extreme minority on combat bases.

Research Question #2

How do female CGSC students perceive the impact of academic stress in the classroom?

This research question focused on academic stress in the CGSC classrooms and explored learning experiences. The researcher identified three determining themes regarding academic experiences that affected learning at CGSC, to include: the impact of the CGSC faculty and classroom environment, the impact of prior education before attending CGSC, and additional stress supporting factors in the classroom.

Theme #1 - Impact of CGSC Faculty and Classroom Environment

The majority of the female students (78% of the sample) had a positive learning experience during CGSC. Many of the students related their positive learning experience to the opportunity of having a small group of officers from different military branches in their class. The occasion to hear different points of views in the class discussion enhanced the learning experience. Another observation was the ability to organize study time, time management, and life balance their positive learning experience. Brittney said, “overall it was a great learning experience, especially to learn about me personally and understand what reflection is.” In addition, other significant observations for a positive learning experience were the teacher and peers self-policing the cohort, and the instructors setting classroom rules of conduct early in the academic year.

While most students had a positive learning experience, there were multiple comments that the faculty instructors were the key difference in the classroom

experience. Gayle had mentioned that, “the majority of the instructors were great but there were two very poor and weak instructors where their classes were terrible.” Julie said, “the instructors made all the difference in the learning.” There were additional comments, but overall there was a direct relation between positive learning experiences and well prepared, and professional instructors. It further validated the importance of instructors in the learning process.

Helen reported having a negative learning experience because of her relationships with her instructors and peer classmates. Her experience was so bad she dreaded the classroom because her classmates had isolated her, and the majority of her instructors were ill prepared and non-professional. Additionally Gayle reported negative experiences as well saying, “combat sometimes was easier than class.” Gayle was also the first female student to comment on gender discrimination among her peers and instructors.

The Learning Environment in the CGSC Cohort

Overall five out of nine students agreed that their cohort improved their learning. Many students had a cordial and respectful cohort of peers, and having a respectful disagreement was a common factor in an effective cohort with regard to positive learning. It was noted multiple times that the disagreement among peers helped critical thinking, but respect among the peers was crucial in furthering the discussion. Amy said, “we don’t always agree, but we definitively listened to each other.” Brittney said, “we tolerated each other’s strengths and weaknesses but not to a point of personally disrespecting or offending anyone.”

Another theme was how the small group self-policed in respect to group discussion and learning. Five of the nine students commented that there were difficult students who would disrupt the class discussion, but classrooms with positive learning self-policed through a class leader or certain instructors, that would purposely steer the class back in the right direction. This point goes back to the importance of the instructor in the overall dynamics of the class. Emily said:

We had different personalities, we had introverts and extroverts, everyone was different, but because everyone was non-confrontational, they were actually too nice and too PC [politically correct], we never truly got to the norming stage [stage 2 of Tuchman's teambuilding model]. I think the confrontation would have enhanced our learning. As long as we were respectful we should have fully disagreed more and argued more and been more critical thinkers. My class was over too PC, always worrying about offending a woman or a minority.

Overall the cohort classrooms that policed themselves toward learning with dignity and respect were positive even with a few bad students who attempted to derail the class.

On the other side, the dynamics were poor if their peers or their instructors did not police the disruptive students. The learning in the class declined if those students kept the classroom power. The crucial step in preventing a negative learning environment was the early establishment of classroom rules by the instructors, setting the foundations for positive learning. Pondering classroom and instructor dynamics triggered comments by female students who were silenced by their peers, especially in cohorts where the dynamics were poor. Hannah said:

If we had a good instructor, then these instructors could develop the dynamics of the class to improve the learning, they had a way of sidelining the negative students and inspiring the rest of us to learn more... the worst was when we had poor instructors then class was horrible, we had this one instructor Mr. XXXX, who was horrible and we all dreaded when we knew he was going to teach, it was sometimes unbearable.

Helen reported other dynamics in the classroom saying, “I felt isolated due to some male students [in my cohort] who insulted [her] or plainly ignored [her] comments.”

Additionally three of the nine students commented on “trust and respect among the male peers” in the cohorts caused the female students to “second-guess their responses.” If the female students felt that their comments in class discussion were not respected, then they would second guess any future comments or be a silent voice for the rest of class.

In conclusion, the majority of the female students had positive dynamics in the classroom, mainly due to self-policing by peer groups and having excellent instructors who developed the class. Even in circumstances where mild insults or slight discriminations were occurring the learning was challenged, but the students were overall self-directed to learn.

The Cohort and the Learning Experience

Overall, eight out of the nine female students generally commented that the cohort increased their learning experience. This was due to the demographics of each of the students in the cohort, allowing for diversity in the classroom the female students could learn from. Though there were multiple comments of certain students who tried derailing the class discussion, the overall consensus was everyone wanted to learn the subjects. The measure of healthy conversation and trust among peers helped determine the level and quality of learning, in addition to the environment of the classroom and the profession in the Army. It was a self-directed philosophy.

Another important factor students noted that enhanced their learning experience

was reflection, because they had never talked or discussed specific methodology of reflective thinking in their military careers. This reflective thought process was part of the critical thinking model taught in the C100 foundations class in the first three weeks of class, and then concluded toward the end of the school year in L210.

Helen and Cheryl said, “their cohort decreased their learning, mainly due to the instructors who failed to provide a classroom environment of dignity and respect because the instructors were unable to control their classroom dynamics.” Some instructors attempted to be friends with the students instead of being the instructor, leading the learning. The best comment regarding good instructors came from Julie when she said:

Overall, I learned more from my fellow students than my instructors. I don't know; the good learning was when the instructor just let us really talk, we really connected. Those moments were the best, when we had left and right boundaries but we just talked. Those tough critical questions, those were the fun classes. We felt like we could really change things in the Army. I really remember those classes the most when we got in heated debates and we could not have gotten there without trust among my peers in the classroom.

Other comments from students included Amy's comment, “my small group was awesome... we were lucky we all got along, we were always respectful of each other opinions, being able to talk, and have respect, freely and openly, without worrying about, what someone is going to talk about you.” Amy added that, “it validated how important her cohort dynamics were to her learning.” In addition, Cheryl said, “my self-reflection during my academic year and the importance of being able to reflect on shortcomings and cognitive biases, and how the process helped me to develop professionally made me grow as a human.”

CGSC Instructor Comments Regarding Classroom Stress

LTC Janet and LTC Elizabeth both commented that, “good instructors must know their students to teach them effectively and also being adaptable and flexible in teaching.” LTC Janet said her advice to a new instructor was “to not to talk about your self and let the student’s tell their stories, because those are the ones that really matter” and “to never segregate the combat veterans from those who have not gone into combat because every student has something important to contribute and facilitator’s job to enable them to share.” In regard to so few female instructors teaching CGSC, LTC Elizabeth recommended to not be afraid of “the male mafia of instructors” in the CGSC Army culture.

Summary

The CGSC faculty and the classroom experience impacted the students’ academic stress in several ways, including the learning experience, cohort, effectiveness of the instructor or cohort self-policing students, and having the instructor set rules early to ensure dignity and respect in the classroom. Though the faculty and classroom experience affected learning, prior education before attending CGSC was also critical to the level of academic stress of the students

Theme #2 - Prior Education Before Attending CGSC

All of the female students had received a bachelor degree as a requirement for a commission in the U.S. Army, five of the nine students had received a master degree or

higher prior to attending CGSC, which included two lawyers and one doctor. Due to the past educational experience of academic rigor, some CGSC students were not as academically challenged or stressed as others. The curriculum of CGSC was oriented toward a graduate level collegiate military student with no prior graduate school experience. If a student already experienced 2-4 years of a highly academic graduate program, such as medical or law school, then they would have to educationally step backwards to a lesser graduate school program.

The three professional students who were doctors and lawyers, reported having a positive learning experience, but Amy said, “I thought the school was academically easy because I had already went through law school.” Emily (who is a doctor) said, “I had a positive learning experience, but because of my prior medical school background I preferred a different teaching style.” Emily also said, “different professors’ teaching styles affected her learning and it became frustrating, and medical school was easier because every student was the same type of learner and every professor taught the same way.”

For two of the students (Hannah and Debby), the course was more difficult due to the subject material and personal conflicts with the cohort small groups. They did not have a graduate degree, and they had not experienced any graduate level work in their career until coming to CGSC. In addition, the prior enlisted students (Cheryl, Debby, and Hannah) had the most difficulty overall in CGSC with academics, which could be related to their lack of academic experience prior to arriving, or their different bachelor degree standards in their previous college education.

The finding concerning preceding academic experiences before CGSC became

evident after the interviews regarding academic stress in the classroom. The students who had gone through a professional school had an advanced knowledge of the requirements of graduate work, which was much different than the students who had no graduate level experience. By looking at academic stress from prior academic achievement, it became evident this was a determining factor in the overall academic stress, which also lead into additional stressors that happened during the CGSC academic year.

Theme #3 - Additional Stress and Supporting Factors

There are many forms of additional stress that affected students attending CGSC. Some of the stress factors were geographical bachelor, marital issues, additional graduate school, and familial stress. In the findings, some of the additional stress factors were positive, while some were negative.

There were four of the nine female students who were geographical bachelors, and they all commented on the stress of separation from the family. Generally, however, schoolwork kept them occupied in the evenings, distracting them in the quiet times in their apartments or homes. This factor was not as crucial as the researcher originally assumed.

Two students had stress caused by marital issues or separating relationships during the academic year. Cheryl had a 3-year relationship end during the academic year, but she said, "I had excellent military instructor who took the time to make sure I was doing ok and he guided me into counseling." Helen had marital issues that were worked out by the end of the academic year.

While attending CGSC, students had the opportunity to attend graduate schools with several local universities. Normally, additional graduate school in addition to CGSC should cause additional stress, but this was not the case in these research findings. Amy completed her MMAS for fun, despite having a law degree, mainly to keep her busy because her husband was at another location. Hannah also completed a MMAS, and her comments were positive due to the fact her thesis committee of faculty members fully supported her work and assisted her through the entire process.

Helen also attended graduate school during the academic year with a local university program that met two nights a week. Though graduate school added additional pressure to her CGSC requirements, her graduate school was a positive stress experience during the CGSC year:

The good thing was the students in my master's degree program were great and really kept me energized. If it were not for my graduate school classmate's support, I would have not made it through CGSC. The respect I lacked from my CGSC classmates I received from my graduate school classmates. They were great. Another thing was my instructors in graduate school were great and were so much better than my CGSC instructors. They saved me, they proved that instructors could care and be great teachers and enrich my lives while my CGSC instructors were terrible...my graduate school instructors were my mentors and helped me so much to get through CGSC, they were mainly female instructors with PhDs and they had lived through gender biases and they were my support. I will never forget them.

Helen's graduate school assisted her in coping with her CGSC academic stressors, such as her faculty and cohort. Helen had a difficult student cohort, poor instructors, and marital issues, but her graduate school environment saved her emotionally. Helen commented, "I loved my graduate school time, it was great, all the bad things that happened in CGSC went away, when I went to graduate school at night, it was the right atmosphere and I totally loved that academic stress."

Other stressors that caused additional stress outside of the classroom were: single parent stress, being divorced, and family stress. Although Hannah was a geographical bachelor, her situation was different because her teenage boys cared for their house, encouraged her to study, and motivated her to learn. Hannah commented that, “I sleep well at home and it is nice having two teenagers in home to protect their mother if you know what I mean.” Though she had the most stressful factors in her academic year, she found a way to make them all possible and a positive learning experience.

The common stress of parenting was minimally mentioned during the interview process, most likely due to most of the female students not having children under the age of ten. Julie commented, “there is always the stress of being a parent to an elementary child, but having my husband in the class helps out the schedule.” Those parents with older children had less or no additional stress due to parenting, or they just did not comment about it in the interview process. Overall the researcher expected academic and family stress to cause sleep deprivation or sleep problems, but only one student had mild sleep issues; mainly due to marital issues and not from academic issues. Physical fitness was another common theme that reduced stress for five out of nine students. Four of the students commented on church services and religion assisting them in reducing stress.

Collectively the students were not stressed to a large degree outside the academic environment, and during the interviews the comments were not as significant as expected. In the responses regarding outside academic stress, eight of the nine female students had no additional stressors they had not previously mentioned. Most of the additional stressors were geographical bachelors, not physically located with their children, or marriage issues, but all were already brought up during prior interview questions. Some

of the students commented on slight sleep issues but they acknowledged that their physical fitness, family life, and resiliency countered any sleep issues.

Summary

This research question focused on academic stress in the CGSC classrooms. The three determining themes included the impact of the CGSC faculty and classroom environment, the impact of prior education before attending CGSC, and additional stress supporting factors in the classrooms.

The CGSC faculty and the classroom experience impacted the students' academic stress in several factors, to include: the learning experience, cohort, effectiveness of the instructor or cohort to self-police students, and having the instructor set rules early to ensure dignity and respect in the classroom. The findings concluded the relationship between the instructor and student was key to a positive learning experience; secondary was the relationship between the student and peers in the classroom. The classmates contributed to the positive learning environment when peers gave dignity and respect. The negative learning experience happened when peers were negative or discriminatory.

The affect of prior academic experience before attending CGSC became evident after the interviews regarding academic stress in the classroom. The students who had gone through a professional school had advanced knowledge of the requirements of graduate work; much different than those students that had no graduate level experience.

The students, overall, were not stressed to a sizeable degree outside the academic environment, and during the interviews the comments were not as significant as expected. In the responses regarding outside academic stress, eight of the nine female students had

no additional stressors that they had not already mentioned. Most of the additional stressors were geographical bachelors, not physically located with their children, or marriage issues, but all were already discussed during prior interview questions. In conclusion, all the students knew they needed to learn the material to be successful in their careers so they were going to learn it despite the obstacles.

Research Question #3

What other factors due to being a woman affect learning in the classroom?

The research findings that emerged with this exploratory question were that gender could affect learning in the classroom, but it depended on several factors, such as gender effects on learning, marginalization in the classroom, instructor biases, the two female limitations, and the Army profession. Five of the nine students commented that gender does affect their learning at CGSC. In addition to finding gender factors that influence the CGSC classroom, there were further findings under the Army profession that the researcher did not anticipate, but fully emerged in the interviews and corresponded with the classroom and women serving in the military.

Does Gender Affect the Learning Experience at CGSC?

In this research, gender does affect the learning experience at CGSC, but it depended on biases and gender harassment in the classroom, equality in the classroom, and that women must prove themselves in the classrooms. These were the themes that emerged out of the interviews.

Biases and Harassment in the Classroom

The interviews identified that women described biases toward them serving in the military and gender harassment in the CGSC classrooms. The biases were negative toward women in the class due to combat arms branches excluding women, and the harassment toward women due to a male dominated culture in the military. Julie said, “I experienced gender harassment through derogatory jokes [from her male peers], and her

[male] instructor did not control it ... and having only two female students in a class of 14 male students did not ever help the situation.” Four of the nine students responded that they were treated differently due to the military branches, rather than their gender. In addition, Hannah felt bias from her peers due to her military branch (perceived lesser branch than combat arms) and harassed by male peers due to her race. Hannah angrily said, “the males’ [male students] initial biases of us were that we were stupid female logistical black officers.” Helen said, “her classmates disregarded her input into class discussions mainly because of military branch [logistics] and being a female officer.” The researcher assessed that the male students’ bias assumed all the female students were initially regarded as “weak females,” who got to CGSC because of their gender and not merit. This also refers to prior comments regarding the importance of the first weeks of class for the female students to establish their justification for attending CGSC. Lastly in regard to the harassment, there was no evidence of actual sexual harassment that occurred in the classroom, but generalized gender harassment. Though Debbie, Emily and Gayle did not think gender affected their learning at CGSC, they did acknowledge that gender affected the dynamics of the class due to the minority of female students.

Equality in the Classroom

There are usually only two female students in a cohort of 16 students, because of the low number of female students attending CGSC. Female participation may be lessened with the high male to female ratio in the classrooms. Due to her masculine classroom environment, Julie said “my participation decreased in the class because when I tried to contribute, I would get harassed by my peers and when I stood my ground in the

class discussion my male peers called me names.” Hannah also said, “having only two female students affected my class discussion and I believe my ethnicity [being African American] was a contributing factor.” Hannah added, “I think it is difficult being a woman in the Army, but even more difficult being a black woman serving in the Army and attending CGSC.” Hannah specifically implied that it was more difficult being a black woman than white women in the Army.

Women Must Prove Themselves in the Classroom

The majority of students commented that they had to prove themselves early in the academic year to be accepted and treated equally by the cohort in the classroom. Hannah said, “We had to immediately prove ourselves.” Amy said, “I internally made myself work harder to succeed over my male peers” because she identified herself as highly type A personality and self-motivated. She added that she was “pushing myself harder to belong.” In particular Gayle commented, “once I was accepted by my peer groups in my class [after she proved herself], it was easy to be in the classroom.” Gayle also commented, “there is always that gender test or what the men say ‘measure test’ and once done; we become all equal...like dogs sniffing butts, we just have to do that primal human thing...[due to her competence] I put the boys in their place if required.” Debby said, “I felt cautious when I raised my hand because I was afraid and tired of the sarcastic comments that would follow from my male peers.” She also mentioned that she felt silenced and only contributed if she absolutely knew the correct answer. Julie said, “once I proved myself to my class, I received respect from my class.”

Summary

Even though five of the nine students said gender affected their learning at CGSC, four female students said that gender affected learning in addition to an individual test by competence, branch, and individual ability. Brittney said, “most women at CGSC have an identified personality as alpha male roles that are also predominant in the Army.” Overall the majority of the female students did not perceive their peers treated them differently due to only gender. There are biases and gender harassment in a male dominated culture, and continued inequality when 85% of the class population were white males, and women must continue to prove themselves not only in the Army, but also in society.

Marginalized in the CGSC Class Cohort

This research also specifically examined the act of marginalization in a CGSC cohort. Of the nine female students, five acknowledged that they had been marginalized in class. They commented that it was from a small group of students, mainly the combat arms branches of the military (infantry, armor, and artillery).

Julie said, “two students had marginalized me on a daily and weekly basis in my small group.” She said their typical comments were “you can’t understand” or “you’re a woman, how would you understand” or other derogatory comments. In addition, Julie said, “the worse situations were when the instructor marginalized female students, and they don’t even know they [the instructors] are doing it.” Julie said:

I wish they actually had training about how a woman feels in class or the big question is to tell them how a female soldier actually feels while serving. Some of the men just won’t get it and never will. It’s like; it’s frustrated that the entire CGSC class is taught by old white guys, I think there are only 4 females

instructors working in the building. The former infantry guy instructors were the worse and some of them have that “Archie Bunker” attitude that woman should not serve and we should be home “barefoot and pregnant” stuff. When I get marginalized, it is when my contributions go against the normal and I ask a critical thought provoking questions and I get quickly disregarded because I am not combat arms, and I am a woman and would not understand real Army planning. After I get marginalized, I don’t participate anymore in the class and get quiet because why should I participate if no one is interested in what I have to say. Now the good day I really had in class is when we had a class over sexual assault and harassment and the instructor used the *Tailhook* case study. For the first time all year, I got to marginalize THEM, because the subject of sexual harassment and assault is something I deal with all the time in my career and I marginalized them in their comments because they did not have a leg to stand on.

Debby was also marginalized but from a different perspective. Some of her classes required group work, and she would be discouraged when the instructor continuously put her with the same male students who always marginalized her. Her instructor was never aware of the class dynamics between her and those specific students. So when she was assigned to do group work with those particular students, she was silenced.

In an opposing perspective Emily never felt marginalized, but she admitted that in her staff group the men were too nice, and said, “it would have been fun if they were or even tried to marginalize me, because we could have had some good discussions.” Emily thought due to the diverse backgrounds of the students, they should have argued more, but the men in our class were too nice and were way too politically correct.

Gayle said because of she was a lawyer, “the men tried to marginalize me and they failed, and they did not try again, but I had been guilty of marginalizing some of the weaker male students in my small group.” In addition, Gayle went even farther when she said, “I did reverse gender jokes on my male counterparts and would tell them, well even I know that, to purposively make the male combat arms officer feel more stupid.”

Instructor Biases

Most of the female students (eight of the nine) did not feel like their instructors treated them differently due to gender, and could not remember any specific examples if they did. Only Emily thought that her instructors had treated her differently, but could only remember one specific event. Emily also believed the instructors treated her better than the other female students, because she was a doctor. Emily explained her example of poor instructors, when she said, “when other male students made derogatory comments in class demeaning women, my older white retired combat arms instructor would just sit there and never correct the male derogatory comments especially when they went over the line.... the instructor never said anything directly to me or to the other female in class that treated us differently.” She added, “my instructor was either gender biased and had no idea it was derogatory or just stupid on how women feel.” Julie a similar statement when she said, “what is most difficult is when the instructors don’t stop the harassment, and sometimes they carry slight discrimination or say it’s an artillery, infantry or armor joke.” Julie generalized that those actions did not prove they were biased but just clearly not a good instructor.

Though eight out of nine students initially commented they did not feel their instructors were biased or treated them different due to their gender, there were three highly negative comments regarding instructor inactivity during gender biased classroom discussions. The researcher concluded that the female students has been conditioned to accepted military branch biases as the accepted norm, even though their additional answers clearly identified their instructors had prejudicial biases against female students.

Two Female Student Limitation in a Cohort

Does the two-student limitation in the CGSC cohort classroom affect female student learning in the classroom? Seven of the nine student participants answered that the two female student limitation did not affect learning, but the idea of having more than three would increase the dynamics of the class. There were several elective classes with three or more female students in class, and four of the students responded, “it all depends on the type of female students in the class.” Gayle commented, “two women were good, but I would prefer three female students...I was lucky because both of us were strong females in our class academically and physically...it was nice to have her back and she had my back.” This inquiry explored that the number of female students in a class was less important than the type of female student.

Gender and the Military Profession

The researcher added an open-ended question for the students that inquired about gender in the military in general. The responses were more than the researcher expected and are essential to the findings adding how the dynamics of gender in the classroom related to the serving in the military. The answers revolve around the Army Profession, which is defined as “a unique vocation of experts certified in the ethical design, generation, support and application of landpower, serving under civilian authority and entrusted to defend the Constitution and the rights and interests of the American people” (ADRP 1, 2015). Every one of the students sampled said gender has an impact in their profession and job. Though all of the students agreed, their answers were unique within the Army. The researcher discovered five common themes in the female students’

responses to serving in the Army, including the right as a woman to serve, the double standard, proving themselves in a male dominated Army, acting like a male, and ethnic and feminine roles.

Right as a Woman to Serve

While only 14.4% of the Army consists of women, they have every right to serve their country like any male soldier does. In this research, 100% of the students sampled discussed their personal right as a female to serve in the military and defend their country. Five of the nine female students said they are proud to be a women serving in the military despite the difficulty of serving and being a female student in CGSC. The most emotional response came from Hannah regarding her struggle as a woman in the military when she said:

Sometimes, it is so hard to be a woman serving in the military, but damn it I have just the same amount of rights as serving as any man. I have not really ever talk about gender this way, I have really never reflected back and felt how fucking difficult it is to be a woman in the Army. I have served for over 20 years, and I can say this; that we have changed a lot of things in the Army regarding gender in the last 20 years, but we still have a way to go.”

In a different perspective Gayle commented that gender was woven into society and an individual must adapt to succeed “it is like everything else. I am a woman in a male dominated profession. I am in the Army, it was just like West Point, and it’s just like society. There will always be more men in my profession than women.” She then commented how she had to adapt to male roles:

I had to be physically fit, I was near top of my class at West Point, and I know how to deal with the male dominated Army. I have to be smart and highly athletic to be accepted but once accepted I am one of the guys. It is tough, but it was known since day 1 at West Point, I dealt with it there and I deal with it here and I will deal with it my entire career.” Her perspective was clear that she had to fall in the male dominated role and characteristics to be successful in the Army.

In addition, Julie commented about being a woman in the Army and job restrictions:

I am proud to be a woman and don't want to be a man in the Army...why did we have restrictions in certain units just because we are women? It's what I call the private pride of being a woman in the military, act like a man and fit in but only be a woman during certain times. I say no to that, be proud to be a woman, and mean it and I wish the Army would recognize us as equals and not as subordinate roles.

In regard to her right to serve in the army, Gayle mentioned “gender does have a piece in everything we do, but society does too, I have every right to be in the Army, I wish there were more combat arms openings for us, I wish there were no limitations, we all fight together, someday we will have female rangers and female special forces.” Gayle's interview took place on May 22, 2015 and just three months later on August 20, 2015, 1LT Shay Haver and CPT Kristen Greist became the first two female rangers in U.S. Army history. On October 20, 2015, MAJ Lisa Jaster became the first female U.S. Army Reservist to complete the coveted school (ArmyTimes.com, 2015).

The Double Standard (must be exceptional to be treated equal)

Even though the Department of the Army abides by equal opportunity, there was evidence in this research of the perception of a double standard between men and women serving in the military. All of the female students commented that they always have to be

better than the men to be treated equal.

Julie commented that, “I have had to always work harder to prove myself and do more for respect from my male peers...I am usually the only female officer on staff or in command and there is always that guy male macho culture.” In another point of view, Brittney agreed with the double standard and said, “because they think you are going to be a certain way, they have this perception of what a female is supposed to be like, but then once you show up ... you have to break them from thinking in that box.” Amy said, “I would not say exactly that the standards are different, but I place higher standards on myself internally,” meaning it was her internal drive to not have her voice silenced.

Other comments addressed preventing perceptions that women are weaker or lesser than men. Hannah stated, “my fear every day is being seen as weaker than the men because that would just isolate us and disregard us.” Helen said, “gender is a huge factor in the Army, the standards are different, I have to be great to be equal and I am usually the small minority or the only woman in a group.” Helen added, “I have to be perfect to be normal... I am always on guard toward the men, because I don’t want them to have anything on me that they can say that I weak or fit a girl mode... I always have to be tough as the guys mentally and physically.”

Prove Themselves in Male Dominated Army

Due to the military being 85% male and 15% female, the culture of military becomes male dominated, where women are usually the extreme minority and must prove them to be accepted in the norm. All of the female students sampled made the same comment of having to “prove themselves more than their male peer for their entire

military career” because they work in a highly male dominated military environment.

Britney said, “there is inappropriate behavior by men toward women all the time.”

Brittney said:

That it depends on what unit you are in, if you are in are one of the first females in an all-male unit, and you are the only female, it is kind of a culture shock, for the males in the unit if they are not used to that, and sometimes things can go over the line and you have to be vocal and speak up, you must say something, When you get an inappropriate comment you to say something immediately as soon as it happens, in front of other people, to make sure that it is known, that they crossed the line.

Amy commented differently, saying “that there were no gender differences in being a lawyer in the Army, but huge gender differences in being in the Army.” Amy clearly described how the gender environment of the Army causes women to always have to prove themselves by saying, “it’s a male dominated institution, it makes absolutely everything harder, you are constantly having to prove yourself, because I am a women, not male, so I always feel I have to do that much better than anyone else just to prove myself.”

Emily described her professional perspective, “as a doctor, there are no issues in the medical field being a woman... but because I am in the Army that is the huge difference, a women in the Army has to prove themselves immediately to the chain of command.” Emily also said, “my male peers who are combat arms don’t trust woman until they prove their worth, but once I was credible, I had their trust and became an equal.” Her unique experience as a trusted female doctor actually allowed her to open more doors than her male peers, and gave herself a professional advantage over the combat arms officers due to her expertise as a doctor. Emily said:

Once I was accepted. I would say being a woman is good in combat because the

men psychologically needed to talk to a woman. Because that was what the men were lacking in combat because their spouses were gone. I would say it helped the dynamics. Men were missing the female dynamics from home. The men were feeling hindrance because their spouses were not with them. I would also say it is very healthy for men and women to talk in combat. Another note, because I was a female doctor in a combat zone, I would say I had power that would not have gone to men.

Act Like a Male

The Army is a male dominated culture, causing many women to feel that they must act masculine or act like a male to be accepted by the men. Of the students sampled, five of the nine said, if they acted like a male, the Army environment was easier to be accepted in. Three of the female students felt that if they were male, their career would be easier because there is a double standard in the Army. Cheryl commented about male and gender stereotypes, and roles regarding the work environment, saying, “I think when women try and adapt, attitudes or behaviors, I think they think men are successful, by being outspoken or gregarious or we when we try to be outspoken, I don’t think we are well received, by our peers.” Hannah said, “sometimes I wish I was just a guy and could relax some and not have to work so hard every day to just be accepted... We have to always do better than the men to just be accepted and treated as equals.” Helen agrees that when she acts like a man she gets accepted into the group norm. Helen mentioned, “acting like a male helps being accepted by especially saying derogatory jokes toward women which got me accepted quicker but then became the norm in discussions.” Helen also said:

When I put down other women the guys accept me into the circle of trust...it is such a male thing to make fun of women or make jokes and when a woman makes fun of other woman while drinking with men, noting she is the only female in the group that is drinking, it becomes the easiest way to be accepted into the group. It is simple, if I act like a guy, I get in the group, if I act like a feminine women, and I will never get in the club.

Ethnicity and Female Roles

During the research, ethnicity emerged as an additional female factor in the Army. Hannah was the first to add that her ethnicity of being an African American plus her gender as a woman serving in the Army caused a more difficult career. Hannah commented, “it affects me every day...to make matters worse, I am a black woman in the U.S. Army.... I am a minority in the Army being a woman, and also a minority being black... Every day I have to prove that I deserve to be here serving in the army and every day I fight against biases against women and especially black women in the Army.” The researcher did not probe into race in the interview process, but Helen fully discussed the added difficulty of being an African American women serving.

Another female stressor that was not anticipated in the research was the biases toward single female officers. Cheryl said that she was ostracized by her peers for being single, and not stereotypically married, “like there is a some idea that I am supposed to be married and have kids, because I don’t have that [kids and husband] so I must have something wrong with me.” Because of her personal choice to be single, her male instructors and male cohort peers treated her with biases.

Summary

The research findings that emerged with this research question were that gender could affect learning in the classroom, but it depended on several factors, to include: gender effects of learning, marginalization in the classroom, instructor biases, the two female limitations, and the Army profession. Five of the nine female students commented that gender does affect their learning at CGSC. In addition to finding gender factors that affect the CGSC classroom, there were additional findings under the Army profession that the researcher did not expect to find. These findings emerged in the interviews and corresponded with the classroom environment and women serving in the military. These classroom findings included biases and gender harassment, lack of gender equality in the classroom, and that women must prove themselves in the classroom. Other findings included women's right to serve, the double standard, proving them self in a male dominated military, and ethnic and feminine roles.

Faculty Comments Regarding Teaching Female Students

The female CGSC faculty comments, specifically regarding female students and learning, were similar to the students' gender perspective. Many factors emerged during the interviews, specifically regarding female instructors teaching other female students and the findings were unexpected. LTC Janet and LTC Elizabeth attempted to teach objectively to all students in their classrooms, but they had to adjust their teaching styles due to the level of participation of the two female students in their class, especially class topics on sexual harassment and assault. The instructors expected their female students to lead the class discussions during topics on gender, but they found that it depended on

the type of students in the class.

Both female instructors admitted that they were tougher on grading and classroom treatment of their female students as opposed to their male students. They expected higher academic performance from their female students than the male students. The female instructors had higher expectations of their female students, because of over 20-years of experience in which they had to deal with inequality. They believed all females must be better than their male counterpart for equal future treatment.

In regard to CGSC faculty, LTC Elizabeth explained that female CGSC instructors must also be better than male instructors for equal treatment, and they had to employ self-awareness on how female instructors treat female students.

How Female Students Participate

The most important factor for CGSC female instructors was the expectation that their female students be better than their male counterparts. This expectation caused the female instructors to push more and have their female students work harder. The female CGSC instructors also had higher standards with grades for their female students, in comparison to male students. All of the dynamics in the classroom involving gender equality depended on the female students either being exceptional, or non-participatory, because there were no female students in the middle. LTC Janet and LTC Elizabeth both commented that it depended on the female students and their history of participation in class. LTC Janet explained further:

A well-educated female officer can hold their own and actually exceed the standard against their peer male students, but I would say that is a 1:3 ratio, forever one top 10% female student there are two female students who are passive students that barely participated or raised their hand and they let their male

students isolate them or just ignore their inputs to the class discussion.

Additionally, LTC Janet commented that, “I don’t appreciate the traditional female role in the Army, because it’s traditionally weak.” LTC Janet commented, “I believe that females in the Army don’t need to step back, but step up and equally input ideas into our Army.” LTC Janet additionally commented that, “there really are only two types of female students, those that are top 10% and those in bottom third.” LTC Janet fully appreciated the female students that are “smart, athletic, and instantly get respect.” When she taught the weaker female students, she commented that it is “tiresome because those female students are weak, and they struggle and are not confident.”

During the research, the consensus was that participation revolved around the type of female students in the classroom. LTC Elizabeth had a unique opportunity to teach two small groups that included two female students each, and two small groups with three female students. In her two classes with only two female students, both classes had one fully confident female student and one overly passive female student, so it was like the top 10% of female students were really alone in the class, without support of additional female students. LTC Elizabeth said, “the worst students were the female ‘wallflowers’ that never said or contributed to class discussions.” Her most important comment was that her classrooms with three female students were far better because “all three female students talked more and contributed more even the quiet females” because the three females “inspired each other to talk more like electrons, just having one more women in a class made a significant difference in the participation and voice of the women, there is a thing with the numbers game.”

Additional Factors that Affect Female Student Participation

LTC Janet and LTC Elizabeth explained that highly educated female students, especially lawyers, aviators, doctors, and others with tier I college backgrounds never hesitated to participate, because they were equal to or far better intellectually than their male peers. In addition, LTC Janet added that certain African American females who are prior enlisted with low rated online bachelor's degree have the most difficult time. LTC Elizabeth commented that combat experience was also a large factor if one female had not served in combat, and the other had.

Summary

The female faculty comments about teaching female students were similar in nature to the students' gender perspectives. A unique factor that emerged through the research process was the female instructors were harder on their female students in class. This behavior depended on if the female student was a top 10% officer or an un-participatory student. Their expectation of female students was exceptionally high. The type of female student in the classroom also determined the dynamics of the learning environment, allowing female students to participate more. As the findings of the female faculty connected to the students' perspective, the last notable addition in this research was the behavioral specialists' perspective on gender in the Army.

Behavioral Specialist Comments on Gender and Academic Stress

The behavioral specialists' findings regarding gender and roles in the Army were similar to the students and faculty perspectives, but added additional factors to the

research. Both behavioral specialists were limited in their responses to this research question. Dr. Dan and Dr. Paul commented that overall female CGSC students have more psychological stress than men in the classroom, due to low numbers in the classroom, societal gender norms, working in a male-dominated environment, and certain stressors attributed to ethnic identity.

Dr. Dan said, “female students have more stress in the class because there are so few females [only 2-3] in the class compared to males.” Dr. Dan additionally discussed that “females had to prove that they belong in the Army and fight against male prejudices and biases.” Dr. Dan did include specific examples and said, “the additional main factors that also affect their [females] stress is if they are single, married, a parent, separated, or other societal stresses.” He concurred female students carry more stress mainly because they are in a male dominated profession.

Dr. Paul specifically commented, “the Army profession is very male dominated and also white male dominated at the field grade level.” He summarized that, “the females have stress just being in the Army as a woman and also competing in a classroom full of men... in that profession, there are very few instances where the female officers are not the only female in the meeting or the only female in classroom.” Dr. Paul described most of his patients struggle between “being a woman and being a military officer.” Sometimes they say, “if they were only a guy, things would be easier in their career and they would not have to work so hard and discrimination... I believe it is greater on African American women than Caucasian women.” Dr. Paul emphasized “there is stress in being a women in the military, but there is more stress being a female black officer.” In addition, Dr. Paul references trauma and stress on the type of feminine

identity they hold, who they are and what they believe in.

The behavioral specialists' comments added to the themes from female students and female CGSC instructors in regard to gender in the military. They agreed that female students have more stress than men, ethnicity plays a part, and that the Army is a male dominated environment.

Gender and the Military Summary

In summary of gender's effect on career in the military, most of the female CGSC students and CGSC female instructors agreed they had to perform at a higher level than their male peers, that they could never show any weakness which would put them in traditional weaker female roles, and they had to act masculine if they wanted to be accepted into the group norm of men. The female CGSC students, the female CGSC instructors, and the behavioral specialist all commented that the culture of the Army marginalized the feminine and espoused the masculine characteristics due in part to the male dominated culture, and the exclusion of women in certain positions. They all commented that the culture was not going to change in the near future, even with all the policy changes and major culture movements of the Army.

Chapter Summary

This chapter included findings from the exploratory qualitative research through personal interviews with nine female CGSC students, two female CGSC instructors, and two behavioral specialists. This chapter presented participant profiles and demographics of the nine CGSC students, analysis, and findings to the research questions, research

question themes, and included additional perspectives from the two female CGSC faculty members and two behavioral specialists. This chapter included full quotes and opinions from all participants. The researcher made his best effort to include the female students' voices to fully include their own personal stories.

The three research questions had unique and similar themes that emerged during the data collection and analysis of the research transcripts. Themes that emerged were effects of combat experiences, impacts of prior education, impacts of CGSC faculty and the classroom experience, gender related factors, additional stress and supporting factors, and gender in the profession. Many themes were common among students, faculty and behavioral specialists, but some were unexpected by the researcher, but emerged in the data and were so significant that they were included in the chapter and the research analysis. These additional themes suggest future areas of research regarding gender research in the military. The interviews with female CGSC students answered the research questions and also provided a perspective of not only females in combat and in the CGSC classrooms, but women's perspective serving the Army. The themes that emerged revealed unexpected perspective of women's combat experience, women's CGSC classroom experiences, and their overall experiences serving in the Army.

Chapter 5 - Analysis, Discussion, and Implications

Overview of the Study

This chapter provided an analysis; discusses the research findings, and present implications from this qualitative exploratory research. This chapter also includes a restatement of the research problem, a review of the research methods, discussion of the findings, an analysis of each research question, implications of the findings, and recommendations for further research.

Restatement of the Problem Statement

Numerous studies have been conducted on the effects of academic stress in adult learning, gender and learning, gender, and the effects of combat related stress. There is minimal research, however, focused specifically on gender and combat stress in a learning environment. The Veterans Administration and the Department of Defense conducted quantitative and qualitative surveys, documenting that increased time in combat directly caused more combat related stress among returning veterans (Department of Veterans Affairs, 2014; National Center for PTSD, 2012; National Council on Disability, 2009; National Institute of Health, n.d.; Army Surgeon General, 2008). Army officers who are selected to attend CGSC bring their prior combat experiences into the classrooms, as well as academic stressors to graduate for promotion eligibility and a continued career in the service. This research also indicated women may face additional stress related to gender, due to the small number of females in each cohort and working in a male-dominated organization. This qualitative research study was designed to

provide additional examination of women's experiences while serving in the military in a learning environment.

Review of the Research Methods

This research used an exploratory qualitative case study method. The case study methodology examined female CGSC students' voices and narratives, to receive depth and insight into their perspective. The researcher interviewed nine female CGSC students, two female CGSC military instructors, and two behavioral health counselors.

The CGSC class of 2015 began with 105 enrolled female students. The female student population was contacted and asked to volunteer for participation in this research through an email invitation; from which nine female CGSC students volunteered for the research. Semi-structured interviews with open-ended questions elicited information, and opinions to allow the gathering of descriptive data and personal stories. The research questions served as the primary data collection vehicle. Interviews were conducted until saturation had been achieved. The interviews of selected female CGSC students took place privately and individually. The sample for this study included women of different ethnicities and minority groups. The researcher additionally triangulated the research by interviewing two CGSC female faculty members and two behavioral health counselors. The primary researcher conducted all of the additional interviews.

Interviews were digitally recorded and transcribed by the researcher. The transcripts of all interviews were offered to each participant to review for accuracy and content validity. During the analysis phase of this research, one CGSC faculty member, with a doctoral degree in adult education, reviewed the analysis in order to identify and confirm themes and findings.

Discussion

Ninety-five percent of the students in the CGSC class of 2015 came into the Army during a time of war after 9/11 and 75% went into combat during their first duty station. This CGSC class was the first class since 2003 chosen by a Department of Army selection board, resulting in selection, on average, of the top 55% of the officer year group. This selection process of the resident course of CGSC created a competitive environment within the CGSC classrooms.

The researcher originally anticipated these students would suffer from academic and combat stress, because this class had cumulatively experienced a great deal of combat and the difficulty of the curriculum had increased due to the high quality of attendees. The researcher found that combat stress impact on learning depended on the nature of the combat experience. Specifically because combat tours varied both physically and psychologically, with combat experiences ranging from seeing the wounded, being shot at, or seeing dead bodies, to working behind a computer screen 12-16 hours a day. The female CGSC interviewees who expressed having the most academic difficulty had been combat wounded or combat wounded with traumatic brain injury. Two of the nine students interviewed had traumatic brain injuries, and one student was injured in combat and received the Purple Heart. These students had the most trouble with memory and attention issues in class. Academic stress varied based on the prior academic background of officers. Three of the female students interviewed were doctors or lawyers (Amy, Brittney, and Emily) and felt the academics were too easy, while the two students who went to OCS (Debby and Hannah) felt less prepared due to their education at a community college and online degree program.

A final finding was that faculty (due to curriculum) could cause re-experiencing and combat reflections in class. The majority of the students commented that the movie *12 o'clock High* caused stress in the classroom, especially if the last scene was shown in class. Another movie that was concerning to the students was *We Were Soldiers*, where particular scenes showed soldiers wounded and being loaded up on helicopters to be evacuated. Many students reacted to those scenes, reflecting on their own personal combat experiences.

Those interviewed appreciated the competitive achievement of attending the resident course and the richness of their education over the other two options, which were the satellite courses (Common Core only) or Distance Learning (2-year course). The students enjoyed the challenge and could visualize the importance of their education for the next 10 years of their military career. The visiting lecture general officers repeatedly emphasized the students' superiority by comments such as, "the Chief of Staff of the Army for year 2030 is sitting in Eisenhower Auditorium right now" (CGSC Brief, 2015). Due to the selection of CGSC students, academic probations were significantly lower in 2015 than the past three years, mainly because of the higher quality of officers selected. Just as the students' individual perspective was important, the instructors were also a key element in the learning process.

Those interviewed stated that the instructor was critical in facilitating discussions and developing a safe learning environment for the students to share their combat experiences. An effective instructor controlled classroom dynamics from the beginning, and also enforced dignity and respect among the cohort. In addition, the instructor could adjust a class when students were having episodes of re-experiencing combat or reflecting on combat experiences. The relationship the instructor had with their students was key to the dynamics and learning in the

classroom. Though instructors were important in the learning environment, other stress factors affected learning, adding to the challenges facing the female students.

Three of the nine students while attending CGSC also attended a graduate school program. Graduate school stress was identified as a positive stress, even though it caused additional reading and academic work. Two students, found that their graduate school workload in addition to CGSC course work was stressful, but they both enjoyed the positive academic stress. Helen did graduate work with one the university programs and that experience was better than her CGSC experience. Debby completed an MMAS (Masters of Military Arts and Science) and despite the additional work and stress, she viewed it positively due to the support and mentoring received from her MMAS committee. Amy worked on her MMAS just for fun and to keep her busy because she was geographical bachelor.

Gender differences were internalized among the female students through prior military and cultural experiences. They believed they had to be better than the male students or officers to be accepted and treated with equality. Due to the masculine characteristics of the military culture and the low representation of women (12% of the officer corps), females always represent a minority. In the female student's perspective, they were usually the only female on the battalion or brigade staff, or the only female commander in the organization. They all accepted it as part of the culture, but they felt pressure to be tougher, stronger, smarter, and more adaptable than their male peers in order to be treated as an equal. In addition to stressors regarding gender and academic pressures, further stress from geographical location and children was examined.

Of the nine CGSC female students interviewed, four students were geographical bachelors, meaning their spouse and/or family were not located with them at Fort Leavenworth.

Separation depended on a variety of factors such as if the female student was married to another military member who was assigned at a different location, or they were returning to their last duty station and did not want to move the entire family. Because the separation was a thought out, practical, and logical decision, the geographical distance did not cause as much academic or personal stress as expected in the research findings.

Five of nine female students interviewed did not have children. Due to the fact that selection to resident CGSC happens at the first year of the rank of major, most students are captain promotable, in the Army less than ten years, with two or more deployments, and have not had the actual time or opportunity in their career to have children. The researcher did not ask additional questions specifically regarding stressors of children in the protocol, or the type of stress children had on their personal routine. Four of the nine students with children were located with their children during their academic year at CGSC. The assumption that children would add additional stress to students was not evident in the data. While this general discussion provides an overview of the research findings, more detailed analysis will be given by the research questions.

Research Question One

How do female CGSC students perceived combat experiences affect their learning experience?

Combat stress appeared to affect all soldiers in varying ways, determined by where they were working, their job position in combat, and what they experienced. How the prior combat experiences influenced their learning experience at CGSC included four themes 1) the effects of combat experiences 2) impact of prior education 3) impact of CGSC faculty and classroom experiences and 4) gender related factors. Each of these themes influenced how combat effected learning.

The Effects of Combat Experiences

All of the interviewed female students had two combat tours (18-24 months of combat) but their combat experiences varied from never leaving the FOB (Forward Operating Base) to having traumatic experiences, seeing multiple dead bodies or being combat wounded. Every student had some effects from their combat experience. Among the females students, three of the nine students interviewed never left the FOB for months at a time and five students worked on battalion, brigade, or division level staff where they spent between 12-16 hours a day in an office behind a computer. In addition, there were no questions asking about prior-experiences before military service regarding traumatic experiences. Overall, five of the nine students agreed they learned differently since combat due to changes in memory, attention deficit, and inability to learn new knowledge. This finding aligned with prior studies conducted by the Center of PTSD and other researchers on patterns of behavior after combat (Department of Defense Task Force on Mental Health, 2007; Hoge, 2008; National Council on Disability, 2009; Tanielian &

Jaycox, 2008). Due to the intent of this research and restrictions by the IRB and DoD, the depth of exploring combat effects was focused specifically toward learning at CGSC. After the interviews were completed, the researcher assumed that much more trauma (physical, psychological and gender) occurred than what emerged in the interviews. Due to the researcher's prior combat and leadership experiences, he identified physical behavioral body signs by the students during the interviews of acute duress during certain questions regarding combat experiences. The researcher assumed the students could have more traumatic combat experiences or other gender specific combat experiences, but did not explore to remain within the framework of the IRB guidelines.

Although all soldiers have potential degrees of stress, the effects of combat varied according to the individual. Prior psychological and combat research concluded that individuals (soldiers and civilians) who went to a combat zone, whether exposed to combat or not, had some combat effects (to include trauma) through the process of deployment, family separation, the living experience, and time exposed in a foreign country (Department of Defense Task Force on Mental Health, 2007; Hoge, 2008). What these students experienced in combat determined the impact of combat, and this research demonstrated that students with more traumatic combat experiences had the most difficulty academically in CGSC. In addition to gender, the intersecting factors (race and class) must be included in the totality of the experience. As the researcher collected data from the students on the effects of combat, the reference of instructors in the classroom and behavioral counselors were used for triangulation.

Instructors interviewed claimed it was a challenge to know if combat stress was affecting learning. LTC Elizabeth and LTC Janet commented that they did not know how combat had affected their students unless their students actually told them, especially students with no

physical signs of combat. Another factor that impacted this research was that some video clips caused re-experiences and reflections of combat in the classroom. The CGSC instructors may not be aware of the prior combat experiences but could observe differences in discomfort during certain students' reactions to the videos. The researcher identified that some students re-experienced combat events during class, and multiple students commented on the triggering mechanism of visual cues that recalled their combat memories back to the smell of the sand of Iraq or bad Iraqi cigarette smell. As mentioned earlier, CGSC instructors should be aware the 1951 movie *12 o'clock High* caused intense emotion regarding PTSD, especially if the final scene was used during instruction. The *Tailhook* case study also caused intense emotions among the female students regarding the prevention of sexual assaults and harassment in the military.

CGSC instructors and behavioral counselors acknowledged that many students who saw horrible things in combat may never share any of their experiences in class, because the students are not emotionally ready to share, the memory was too intense, or the students were still processing the experience. LTC Janet and LTC Elizabeth stated that what happened in combat determines what their students bring to the classroom, provided the classroom is a safe environment. Dr. Paul noted that resiliency effected the impact of combat experiences, because some "students are just mentally tough and able to adapt and cope, and even though they clinically might need behavioral help, their family, and their mindset, and faith is so strong that they are able to adapt to horrific war experiences and still act normal." Dr. Paul's comments that students' combat experiences brought into the classroom discussions were positive in the learning process if the classroom dynamics had the students' respect, and instructors' established a safe learning environment. It was unclear, if the female students self-silenced or were only silenced when marginalized, but behavioral health specialist could conclude that the most

sharing within cohorts happened in a safe classroom environment established by the instructor and enhanced by the cohort. In this research, the behavioral counselors discussed the effects of stress as individual characteristics, while faculty members assessed the effects due to the classroom environment. Even though personal psychological characteristics influence recovery and ability to adapt, the classroom effects were also an important factor in the adult learning.

The Impact of CGSC Faculty and the Classroom Environment

Many factors affected a student's physical and psychological ability to deal with combat stress and the ability to learn in the classroom, to include: the student's relationship with the instructor, their relationship with the cohort, and the effects of the classroom environment. The most important finding was how deeply the CGSC faculty, and the classroom experience impacted the amount students shared regarding their combat experiences in class discussions. Many students reflected on combat during class in different ways, which included zoning out, feeling anxious or alone, and simply losing track of time.

The Impact of Prior Education

The students with professional degrees prior to combat described lesser effects of combat experience on their learning in CGSC than others which was not expected. The prior academic experiences with rigorous graduate school experience especially influenced how combat affected learning. A follow-up consideration emerged that the females with professional degrees due to job position (legal and medical) locations experienced lesser amounts of traumatic combat experiences compared to other students based on normal military duty positions during combat.

Gender Related Factors in Combat

The researcher explored combat gender related factors during the findings and analysis regarding combat experiences. Students explained additional combat stress was caused by being a female in combat, with the constant stress of sexual assault, sexual harassment or rape. These findings regarding gender emerged during generalized questions, and at no time did the researcher ask follow-up probing questions due to research restrictions, but the topic came up repeatedly with all students. These findings coincided with prior research that women experience significantly higher rates of sexual harassment and assault (within and outside the military) than men (Haskell et al., 2011; Vogt et al., 2005). The researcher did not intend to explore these specific combat gender issues (sexual harassment, sexual assault, being only woman in a FOB, fearing physical safety) but the findings suggested gender combat stress was more feared, and caused more intense emotions during the interviews than when the students were discussing actual combat experiences against an enemy force.

Summary

The research interviews explored if female students appeared to perceive that their combat experiences affected their learning. Those who experienced combat stress were affected, but the variation depended on the individual person. Of the nine female students, five commented they learned differently after combat, but not always better. Depending on combat experiences and prior academic rigor, three students (with only bachelor degrees and the most combat) identified with attention problems, attention span ability, and inability to learn new concepts, while three of the nine students (with professional degrees and minimal combat experience) did not learn differently.

Combat affected the female students individually, but how combat experiences were impacted by the CGSC learning environment was also critical. An instructor and cohort that facilitated an environment of dignity and respect during classroom dialogue enhanced deep discussion and critical thinking development in the classrooms. The instructors were identified as key (linchpin) in the development of a positive learning environment. Overall, the female students learned in spite of bad students, poor classroom environments, and poor instructors mainly because of their professionalism to the Army, their duty as military officers, and their motivation to learn.

Research Question Two

How do female CGSC students perceive the impact of academic stress in the classroom?

This research focused on the perceived academic stress in the CGSC classroom. The researcher identified that the perceived stress came from the impact of the CGSC faculty and the classroom environment, the impact of prior education before attending CGSC, and additional stress supporting factors. The majority of the female students (seven of nine) claimed they had a positive learning experience during CGSC. Due to the initial answers, the students did not identify the instructors' biases, but after further additional negative responses, the students revealed that some instructors were biased against females.

Impact of CGSC Faculty and Classroom Environment

The impact of faculty and the classroom environment caused academic stress for the female students. However 80% of the students described a positive learning experience even though it was stressful. From this inquiry emerged a paradox, where the students automatically

commented their instructors were not biased, however every additional question revealed that some instructors were actually highly biased toward women. This paradox encountered by the female students could be explained through normalization of multiple military prior educational schools where female students learned to play the game to succeed in a male dominated field. They were accustomed to bias and they no longer saw it as anything but the norm. The majority of the academic stress came from poor and ill-prepared instructors who were unable to control their students, and difficult cohorts that were disrespectful and prejudicial toward women.

Instructors were essential in establishing rules of conduct in the classrooms and creating a safe learning environment. In addition, the cohorts that self-policed improved the learning environment. If the classroom discussions challenged paradigms and had intense disagreements and emotions, the cohorts that had respect for one another learned through the discussions and increased their critical thinking. Amy said, “we don’t always agree, but we definitively listened to each other.” If the instructors were poor and the cohort was disrespectful, then female students were silenced and did not contribute, which caused them additional academic stress. The amount of additional stress for the female students was a balance between relationships with the instructors and the classroom environment. In spite of challenges with instructors and peer groups, cohorts still could create a positive learning environment due to the diversity of students from other military branches and other joint/international countries.

Prior Education Before attending CGSC

Prior academic education directly affected the perceived academic stress among the nine female CGSC students. The researcher did not anticipate this finding in his initial assumptions but the findings indicated that students’ prior academic performance prior to attending CGSC

had an impact on how well they would do academically in CGSC. Five of the nine female students had already received a master's degree before attending CGSC, including two with a law degree (Amy and Britney) and one with a medical degree (Emily). The female students with a master's degree did not have as much perceived academic stress as the four students with only a bachelor degree. The prior enlisted students (Cheryl, Debby and Hannah) who did not attend traditional 4-year college program, but attended online and satellite campuses through Officer Candidate School, had the most academic difficulty at CGSC.

Additional Stress and Supporting Factors

There were many forms of potential stress that affected students, such as being a geographical bachelor, marital and family issues, and enrollment in a graduate program. The researcher's initial assumptions were that these additional stressors would have more affect, but overall these factors were more positive than negative. Though four of the nine students were geographical bachelors, it was not as an important factor as the researcher assumed. The family's decision to be separated was made with the best interest of the family and the children. In addition, only two students had minor marital stress and neither of them were geographical bachelors.

Another conclusion was that students from the interviews were not as affected in their learning as expected from being single parents, divorced, or having other family stressors. The researcher concluded the students were not stressed to a large degree outside the academic environment as expected. In contrast, the researcher concluded that many other primary stressors were established prior to combat experiences, however family and graduate school related

stressors were generally positive in nature. This supportive influence resulted in greater satisfaction and intellectual stimulation during the learning process at CGSC.

Summary

The perceived academic stress was determined by the impact of the CGSC faculty and classroom, the impact of prior education before attending CGSC, and additional stress supporting factors. The researcher assumed the CGSC faculty and the classroom environment would affect academic stress, which showed in the findings. The prior education factor emerged from the findings and was accepted as a relationship during the analysis. Predictably, prior academic experience affected CGSC graduate work. The researcher did expect additional stress factors (geographical bachelors, graduate school, marriage issues, and being a single parent) to play a bigger role. At the end of the CGSC academic year, all nine students graduated from CGSC with four in the top 20% and those who went to graduate school also received their additional degrees on time.

Research Question Three

What other factors due to being a woman affect learning in the classroom?

The research findings demonstrated that gender could affect learning in the classroom but it depended on several factors, to include: gender effects of learning, marginalization in the classroom, instructor biases, the two female students in a classroom limitation, and the Army profession. Every one of the students (100%) interviewed said gender impacted their profession and the classroom to a degree. They all agreed that their answers were unique by ethnicity and military branch within the Army.

Does Gender affect the Learning Experience at CGSC?

In this research, gender does influence the learning experience at CGSC, due to factors that include biases and gender harassment, inequality in the classroom, and the perception women must prove themselves. The research identified that there are still gender biases toward women serving in the military and some gender harassment in the classrooms. Biases were enhanced due to women being a minority, and the Army being a traditional male-dominated organization. The biases and discriminatory comments caused many females students to be silenced, which affected their learning and participation in the classroom. The researcher also found that female African American students interviewed felt even more harassed than Caucasian students, which could also be related to small numbers of African American students in the CGSC class and the Army as a whole. In addition, all of the interviewed students agreed they felt they had to prove themselves immediately to be accepted in the classroom, which relates back to “acting like a male” for acceptance in a traditionally male-dominated organization.

Marginalization in the Classroom

Five of the nine students felt they had been marginalized in their CGSC classrooms. They claimed marginalization occurred because the instructor had not established ground rules, and the cohort did not self-police the class. The students assumed marginalization was caused by Army combat branch discrimination, due to women being excluded from certain branches and knowledge/training where their instructors came from. In the female students’ perspective, the worst situation was when the instructor marginalized female students and did not know they

were doing it, assuming it was due to their past male-only military combat arms careers. The instructors were critical in preventing marginalization in the class and this theme was repeated throughout the interviewing process.

Some female students like Emily and Gayle often ridiculed and discriminated against the men because they held power (as females) in the classroom due to their professional education as lawyers and doctors. Gayle and Emily actually enjoyed flipping the coin, and conducted reverse gender jokes on their male counterparts. Gayle and Emily relished putting down men due to their years of being personally marginalized by men in the military and previous educational environments.

Instructor Biases

The researcher did not anticipate that eight of the nine students would initially state that their instructors did not treat them differently due to gender, even though the students' answers showed evidence of instructors' non-actions of implied biases, allowed derogatory comments by male students, and did not stop harassment in the classrooms. In the female students' perspective, the retired combat arms instructors were perceived to have the most biases personally, even though they may not verbally say anything. The instructors' biases may have originated from their military careers (22 plus years) of being in an all-male inclusive organization, which did not allow women to serve in those military branches. The researcher observed that female students were resistant to believe their instructors were biased, despite all further comments pointing to them as biased. Another assumption was that the female students were conditioned to accept the biases because of a career of working in a male-dominated

organization, and there was nothing they could do to affect a change in the instructors' actions or bias.

The Two Female Student Limitation in the Classroom

Due to the limited number of females serving in the Army, the CGSC classrooms had a minimum of two female students in a cohort of 16 students. The initial assumption was that the two female limitations in a cohort could affect female students learning, but the research concluded (from seven of nine students' comments) that it did not limit learning. Another factor emerged that everything depended on the type of female in the classroom. If there were two strong academic females, then there were fewer issues with female students being heard in class discussion, and each supported each other in class discussions. If one of the two females were passive, then the strong female felt like she was alone in class because there was no female assistance from the other student.

The Army Profession

The analysis of the findings regarding gender and military profession were not in the initial intent of the research, but the last open-ended interview question was so rich in context and emotion, that it had to be included in the findings and analysis of this research. All nine of the students agreed that gender had an impact in their career and five factors emerged, to include: the right as a woman to serve, the double standard, women must prove themselves in a male-dominated Army, women must act like a male, and females roles.

All women have the right to serve in the Army. Restrictions of military positions frustrated the female students as they felt this led to unequal treatment, but during the time of this

research the Department of Defense and Department of the Army have opened up all positions to the military to qualified women in the services. Though the Army has a policy of equality and diversity, the organizational culture has a perceived double standard toward women serving in the military. All students discussed having to work in a highly male dominated environment, all discussed their right as a female to serve, and all discussed that they had to always to be exceptional to be treated equal. In the end, the female officers perceived they have to be perfect to be accepted as an equal. The culture of the Army also required females to prove themselves to be accepted in the male-dominated organization. All nine of the female students interviewed discussed having to prove themselves more than their male peers for their entire military career.

Five of the nine students commented that if they “acted like a male” the Army environment was easier. Many women felt if they acted masculine, then the males would accept them more readily. Due to gender stereotypes, women serving in the Army as a strong female can be misperceived by the majority of men and can affect their work environment. An important finding was the perception that women, who discriminated against other women by acting masculine, were accepted into male groups quicker.

Ethnicity also emerged in the analysis because the African American students felt they had an additional stressor on top of being a female serving in the Army. Though race was not the intent of the research, two African American students described higher stress levels due to Army service.

Summary

The researcher concluded that gender does affect learning in the CGSC classroom, dependent on gender effects of learning, marginalization in the classroom, instructor biases, the

two female limitations, and the Army profession. The open-ended concluding questions resulted in a wealth of narrative on serving in the Army and being in a profession. The analysis of serving in the Army profession supported the academic classroom research by further describing biases and gender harassment, gender inequality, women must prove themselves, the right to serve, the double standard, and ethnicity and female roles.

Implications of Findings

This research was complicated, contradictory, and not easy to analyze. Multiple factors impacted what among women, educational levels, family situations, ethnicity, effectiveness of instructors, classroom environment, and the military organization. This research barely began to touch on deeper matters, due to research restrictions; however, the well of undiscovered factors that remain could potentially further the understanding of this research topic.

The United States Army trains under high academic stress to prepare officers for future combat stress situations, but female officers have additional gender stressors that don't enhance their military training. This additional gender stress occurred in the military performance environment, the classroom, and in combat. The male-dominated Army culture caused women to have additional internalized stress because of having to out-perform their male peers to be considered equal. Women serving in the Army have a double dose of stress, including the stress of serving in the military and the stress of being a woman serving in the military. This is affected on the educational and training level of the military, and every other facet of the organization. The framework of the Army's military training and education programs uses a masculine stress inoculation focusing on teaching a male officer, by a male instructor, in a all-male military branch.

Other implications included that other military combat arms branches were more privileged than others (combat arms over service support), women felt discriminated due to their military branches, and some branches excluded women until the past year when policy changed on female roles in combat and the combat arms. In addition, the research had difficulty in observing and recording some additional biases toward all military branches and other types of gender biases.

Implications for Practice

This research specifically explored female CGSC students with two or more combat tours and their effects of combat and their academic learning during CGSC class 2015, which resulted in the following implications for practice. The first implication for practice was that what occurs in combat is more important than how many combat tours a student has, which implies one can't make easy assumptions about women due to number of combat tours. Even though all nine female students had two or more combat tours, the effects of combat were dynamically different which is parallel to current research from the National Center of PTSD.

The second implication for practice was that there are still gender discriminations in the classroom among peers, cohorts, and instructors. The instructors must be aware of the classroom dynamics and set ground rules early in the academic year. Due to the fact several branches at the time of this research restricted women from their branches, some instructors still acted and spoke as if they were still in an all male organization and recognizing the insults or microaggressions they were saying to female students. Most of the gender discriminations were from the instructors who were combat arms and still carried the old discriminatory (male-only) ways of their past military branches, and never knew they said or did things that offended women.

The third implication for practice reinforced prior research that students who were physically wounded with traumatic brain injuries, or combat wounded, will more than likely have some affect on learning. Instructors should know all aspects of their students through prior prescreening. A traumatic brain injury usually comes from explosions, being hit by mortars, or coming too close to hand grenade devices and is the equivalent of 25 concussions. These physical injuries caused physical damage to the brain, including the pre-frontal cortex or the hippocampus, which could impair their ability to remember and recall, causing an inability to learn new material.

The fourth implication for practice was that stress from the classroom and cohort can decrease learning opportunities. The CGSC instructors should be able to acknowledge stress in their classroom to adjust their teachings styles. The dynamics of the cohort and how the peer students treat each other are key to creating a positive learning environment. The better the cohort, especially in regards to dignity and respect, in permitting everyone to freely contribute, with the ability to self-control allows for a positive learning environment. The more difficult and poor the dynamics are, the worse the learning environment is.

The fifth implication for practice was that the instructor was the most important person in developing a safe learning environment. The instructor controlled the dynamics to affect class discussion by establishing rules on day one and had the power to enforce dignity and respect among the cohort. The relationship the instructor has with his/her students is key to the dynamics and learning in the classroom. The instructor guides the overall environment of the classroom.

The sixth implication for practice was academic stress at CGSC had a relation with prior university academic rigor. The instructors should acknowledge students with prior academic experience to address classroom stress. If a student was already a lawyer or a doctor, then the

CGSC academic stress was no comparison to what those students have already gone through, and they were not challenged. If a student barely passed an online undergraduate program or made it through a less rigorous college, then the academic stress could be greater to them because they had not previously faced graduate school rigor in their experiences.

The seventh implication for practice was that graduate school stress in addition to CGSC is not always additional negative stress. The instructors must be aware of the effects of additional graduate school workload on their CGSC students. Three students completed a graduate school program while attending CGSC, but they had a positive experience in doing it despite what it added to their CGSC academic requirements. The graduate school experience enhanced the CGSC academic year in regards to learning.

The eighth implication for practice was that the attitude, professionalism, and toughness (masculinity) of the female student could determine if their voice was heard in the classroom. The instructors must assure all students' voices are heard in the classroom. If the female students in CGSC were highly athletic, highly intellectual, had effective combat experiences, and could hold their own in a class discussion, then they would be heard among the men in their cohort. The female students (Amy, Brittney, & Emily), who had professional degrees, could intimidate the men so they could be heard. Emily commented that, "if the female students were passive, not physically fit, pregnant, nonintellectual, and a wallflower in class, then the male students could marginalize them because nothing they said would be heard as relevant or credible through their perspective." This point goes back to the notion that females had to be better than men to be treated as an equal. This also implies that the more masculine attributes a female student had, the more accepted they would become by the males.

Recommendations

The findings and implications from this exploratory qualitative research caused the researcher to suggest the following recommendations with the suggestion of future research being conducted on the students at CGSC. Due to this exploratory study, further research in this specific female population is highly recommended because of the large changes in the role of women in the Army with all restrictions removed.

The first recommendation is to add gender specific academic classes to the CGSC faculty development program to challenge instructors' belief systems on gender perspectives, gender discriminations, and microaggressions. Most of the 90% all-white faculty has had minimal to no academic classes on gender studies, gender biases, or social foundations. Those classes could enhance the faculties' perspective on how they view their classroom dynamics. This recommendation was the most important due to an Army culture of limited women and the inability of some senior instructors to adjust teaching styles to include female students in their classrooms.

The second recommendation was to continue psychological screening of all arriving CGSC students to continue the effort to help those students who need assistance. Early psychological screening was one of the first indicators of the combat stress those students could bring to class, and if the CGSC curriculum could overwhelm them.

The third recommendation is to continue the ability of graduate school opportunities for CGSC students, and allow them a choice to choose from the MMAS and other local universities. This additional schooling, although causing additional academic stress, was actually more positive for all three students who were enrolled in a master degree while attending CGSC. The outlet enhanced all the learning that each student brought back into the CGSC classroom.

The fourth recommendation is to establish a system to track educational levels among privileged education and lesser academic degrees among CGSC students. This system could establish trends and analysis on predictions of future academic outcomes of CGSC students.

The fifth recommendation is to establish a tracking of the CGSC pre-test doctrinal exams to identify students with poor military education and identify them for remedial program. This could early identify possible poor academic performances among some CGSC students.

The sixth recommendation is to establish a writing center to assist students during the academic year. During the writing of this dissertation, CGSC established a pilot writing improvement program to assist students.

The seventh recommendation is to provide women's support group sponsored by senior female Army officers to provide a channel for female students to get guidance or advice of conduct in the classrooms and mentorship of continued Army service,

The eight recommendation is to brief the senior leadership of the Combined Arms Center of this research to provide the current leaders a perspective of female students classroom experience during their CGSC academic year.

In conclusion, the intent of this researcher's findings and recommendations could serve to initiate the starting foundation of future research regarding women in the Army on a larger scaled, longitudinal research study. Especially due to all the changes and opportunities to women in the Army in the upcoming years.

Recommendations for Future Research

The researcher would recommend further explorations regarding women serving in the Army to include other military ranks and other demographics. The key inquiry would be to determine if there were parallels in these findings to a larger sample of women serving in the military. Another recommendation would be to further explore the study of women serving in the Navy, Air Force, and Marine Corps, and to further use combat stress instruments to explore psychological effects of combat more deeply.

The first recommendation would be to fully open for research the sample population and broaden demographics to incorporate more women who serve in the Army, including all ranks, demographics, and ethnicities, in order to explore if all women are affected by combat in schooling as this sample was, and if the findings generalize to all women in the Army. If the findings of this research could apply to the majority of women serving, then the Army could learn and adjust to further treat and assist women who choose to serve in the Army, and improve adult education processes in military education.

The second recommendation would be explore other female majors attending CGSC from the Navy, Air Force and Marine Corps for similar findings, and explore the differences in other Department of Defense militaries.

The third recommendation would be to include a combat stress instrument to further explore the level of psychological affects of combat to further explain the psychological meanings of actions in the classroom. If a combat stress instrument were used in the research method, then mental health professionals would have to conduct the research. Due to the limitations of the Kansas State University IRB and the Department of Defense Human Research requirement, no combat psychological instruments were used in this research to fully analyze the

psychological affects of combat. By using an instrument recommended by the Center of PTSD like the PCL-M, a researcher could better explain actions of combat related in the classroom.

Reflection

Before concluding this research, there are some points of reflection that need to be included from the perspective of the researcher. The researcher's decision to use a qualitative approach revealed perspectives and narratives that would not have emerged in detail through other methods but was daunting, complicated, and highly challenging. Though the workload of conducting all the interviews, transcriptions, and protocol, was solely on the researcher, the analysis and depth enhanced the researcher's transformation as a researcher, writer, and educator. It was worth it to discover the findings, and the researcher would not have done it any other way. The emerging themes that were unexpected were the key factors that made this research unique and groundbreaking. In certain interviews after reflection, there was more the researcher would have liked to explore and ask one more follow-on questions. This topic was complicated even to an officer who has served over 22 years in the military. The relationship the researcher had with the students motivated him to tell the full story, not just for researcher but for all female soldiers who serve. The researcher, who has served side by side with women in four combat tours, was forever impressed and given new respect to all women who serve. Finally, the researcher was forever changed and humbled as a soldier, instructor, officer, leader, and father, an experience that he will be grateful for the rest of his career.

In Closing

This exploratory qualitative research case study examined how experiences from combat affect adult learning of female officers attending CGSC. The findings confirmed prior theories of gender research, physical effects of combat stress on the brain, and adult education theories, but many other factors emerged; for example the importance of prior education, gender combat stress, and power in the classroom. The rich detail of this research could have only been done through the qualitative research methodology. An online questionnaire would have never discovered the in-depth narrative findings of this research. This research found the experiences of combat affects all of the students interviewed, but the level depended on what actually happened individually in combat. This research also established that these students serving in the Army felt that they must outperform their male peers to be treated equal, they continue to struggle against gender norms, and they must continue to face prejudices in the Army and the classrooms. Additionally, this research confirmed the importance of the instructor on establishing class rules and facilitating a classroom of dignity and respect to provide a safe environment for students to share their combat experiences with their classmates. Also, this research identified that being a woman serving in combat was more stressful than serving as a man in combat, due to the stress of always being the only female, fear of sexual assault, and being such a small population of women serving in the Army.

Lastly, this research shared the female students' voice in their narrative included in findings and analysis. Their voice and their emotions were the most important facet of doing this research. Of the students, all nine had never in their military career been asked how they felt as a woman serving in the Army. Five of the students had never really reflected on being a woman

serving, but only as an officer that happened to be a woman serving. Some of the students asked the researcher to fully tell their story in its entirety, using their own words, and emphasizing the importance of dignity and respect in the Army. Julie made an important comment to the researcher and accentuated, “what you are doing in researching female Army officers is very important, please tell this story accurately and make it well written, we are counting on you to do it right.”

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Appendix A - Kansas State University IRB Application

FOR OFFICE USE ONLY: IRB Protocol # _____	Application Received: _____
Routed: _____	Training Complete: _____

Committee for Research Involving Human Subjects (IRB)

Application for Approval Form
Last revised on January 2011

ADMINISTRATIVE INFORMATION:

- **Title of Project:** (if applicable, use the exact title listed in the grant/contract application)
The Effects of Combat Related Stress on Adult Learning in a Military Academic Environment: A Gender Case Study
- **Type of Application:**
 New/Renewal Revision (to a pending new application)
 Modification (to an existing # _____ approved application)
- **Principal Investigator:** (must be a KSU faculty member)

Name:	Dr. Jane Fishback	Degree/Title:	PhD/Associate Professor
Department:	Educational Leadership	Campus Phone:	(785) 532-5554
Campus Address:	355 Bluemont	Fax #:	
E-mail:	jfishbac@ksu.edu		
- **Contact Name/Email/Phone for Questions/Problems with Form:** Paul Berg/pteborg@k-state.edu/254-702-3094
- **Does this project involve any collaborators not part of the faculty/staff at KSU?** (projects with non-KSU collaborators may require additional coordination and approvals):
 No
 Yes
- **Project Classification** (Is this project part of one of the following?):
 Thesis
 Dissertation
 Faculty Research
 Other: _____
Note: Class Projects should use the short form application for class projects.
- **Please attach a copy of the Consent Form:**
 Copy attached
 Consent form not used
- **Funding Source:** Internal External (identify source and attach a copy of the sponsor's grant application or contract as submitted to the funding agency)
 Copy attached Not applicable
- **Based upon criteria found in 45 CFR 46 – and the overview of projects that may qualify for exemption explained at <http://www.hhs.gov/ohrp/policy/checklists/decisioncharts.html>, I believe that my project using human subjects should be determined by the IRB to be exempt from IRB review:**
 No
 Yes (If yes, please complete application including Section XII. C. 'Exempt Projects'; remember that only the IRB has the authority to determine that a project is exempt from IRB review)

If you have questions, please call the University Research Compliance Office (URCO) at 532-3224, or comply@ksu.edu

Last revised on January 2011

not covered by their own IRB and assurance with OHRP. Consequently, it is critical that you identify non-KSU collaborators, and initiate any coordination and/or approval process early, to minimize delays caused by administrative requirements.)

Name:	Organization:	Phone:	Institutional Email:
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Does your non-KSU collaborator's organization have an Assurance with OHRP? (for: Federalwide Assurance and Multiple Project Assurance (MPA) listings of other institutions, please reference the OHRP website under Assurance Information at: <http://ohrp.eit.nih.gov/search>).

No
 Yes If yes, Collaborator's FWA or MPA # _____

Is your non-KSU collaborator's IRB reviewing this proposal?

No
 Yes If yes, IRB approval # _____

C. Exempt Projects: 45 CFR 46 identifies six categories of research involving human subjects that may be exempt from IRB review. The categories for exemption are listed here: <http://www.hhs.gov/ohrp/policy/checklists/decisioncharts.html>. If you believe that your project qualifies for exemption, please indicate which exemption category applies (1-6). Please remember that only the IRB can make the final determination whether a project is exempt from IRB review, or not.

Exemption Category: _____

XIII. CLINICAL TRIAL Yes No
 (If so, please give product.)

Export Controls Training:

-The Provost has mandated that all KSU faculty/staff with a full-time appointment participate in the Export Control Program.
 -If you are not in our database as having completed the Export Control training, this proposal will not be approved until your participation is verified.
 -To complete the Export Control training, follow the instructions below:
 Click on:

<http://www.kstate.edu/research/ceeply/ecp/index.htm>

1. After signing into K-State Online, you will be taken to the Export Control Homepage
2. Read the directions and click on the video link to begin the program
3. Make sure you enter your name / email when prompted so that participation is verified

If you click on the link and are not taken to K-State Online, this means that you have already completed the Export Control training and have been removed from the roster. If this is the case, no further action is required.

-Can't recall if you have completed this training? Contact the URCO at 785-532-3224 or cmphv@ksu.edu and we will be happy to look it up for you.

The protocol will be conducted through personal interviews by the researcher. The researcher will be the only person transcribing the digital recordings of the interviews. In addition, the digital recordings, transcripts and personal notes will be secured by the researcher and only be assessed by the researcher. In the dissertation, any reference to a participant will be named with an alternate name.

Further Details:

The researcher will:

- 1) only use civilian email addresses (non-military, non-government) during correspondence
 - 2) minimize interview times
 - 3) use secure locations for interviews
 - 4) determine secure locations
 - 5) wear civilian clothes
 - 6) have participant enter one way and exit another
 - 7) secure digital recordings, field notes, and interview notes in secure safes located at personal residence
 - 8) only conduct research analysis and writing at personal home residence using an encrypted separate external hard-drive for further protection
 - 9) further correspondence with participants will use encrypted email.
- If needed, the researcher will use more techniques to assure the identity of the participants are secure and information remain confidential.

VIII. INFORMED CONSENT: Informed consent is a critical component of human subjects research – it is your responsibility to make sure that any potential subject knows exactly what the project that you are planning is about, and what his/her potential role is. (There may be projects where some forms of “deception” of the subject is necessary for the execution of the study, but it must be carefully justified to and approved by the IRB). A schematic for determining when a waiver or alteration of informed consent may be considered by the IRB is found at

<http://www.hhs.gov/ohrp/policy/consentckls.html>

Even if your proposed activity does qualify for a waiver of informed consent, you must still provide potential participants with basic information that informs them of their rights as subjects, i.e. explanation that the project is research and the purpose of the research, length of study, study procedures, debriefing issues to include anticipated benefits, study and administrative contact information, confidentiality strategy, and the fact that participation is entirely voluntary and can be terminated at any time without penalty, etc. Even if your potential subjects are completely anonymous, you are obliged to provide them (and the IRB) with basic information about your project. See informed consent example on the URCO website. It is a federal requirement to maintain informed consent forms for 3 years after the study completion.

Yes No Answer the following questions about the informed consent procedures.

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | A. Are you using a written informed consent form? If “yes,” include a copy with this application. If “no” see b. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | B. In accordance with guidance in 45 CFR 46, I am requesting a waiver or alteration of informed consent elements (See Section VII above). If “yes,” provide a basis and/or justification for your request. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | C. Are you using the online Consent Form Template provided by the URCO? If “no,” does your Informed Consent document has all the minimum required elements of informed consent found in the Consent Form Template? (Please explain)
<u>I will not use an online consent form but a paper copy during the interview.</u> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | D. Are your research subjects anonymous? If they are anonymous, you will not have access to any information that will allow you to determine the identity of the research subjects in your study, or to link research data to a specific individual in any way. Anonymity is a powerful protection for potential research subjects. (An anonymous subject is one whose identity is unknown even to the researcher, or the data or information collected cannot be linked in any way to a specific person). |

Post Approval Monitoring: The URCO has a Post-Approval Monitoring (PAM) program to help assure that activities are performed in accordance with provisions or procedures approved by the IRB. Accordingly, the URCO staff will arrange a PAM visit as appropriate; to assess compliance with approved activities.

If you have questions, please call the University Research Compliance Office (URCO) at 532-3224, or comply@ksu.edu

INVESTIGATOR ASSURANCE FOR RESEARCH INVOLVING HUMAN SUBJECTS

(Print this page separately because it requires a signature by the PI.)

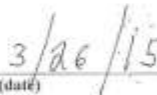
P.I. Name: Dr. Jane Fishback

Title of Project: The Effects of Combat Related Stress on Adult Learning in a Military Academic Environment: A Gender Case Study

XIV. **ASSURANCES:** As the Principal Investigator on this protocol, I provide assurances for the following:

- A. **Research Involving Human Subjects:** This project will be performed in the manner described in this proposal, and in accordance with the Federalwide Assurance FWA00000865 approved for Kansas State University available at <http://ohrp.osophs.dhhs.gov/polasur.htm#FWA>, applicable laws, regulations, and guidelines. Any proposed deviation or modification from the procedures detailed herein must be submitted to the IRB, and be approved by the Committee for Research Involving Human Subjects (IRB) prior to implementation.
- B. **Training:** I assure that all personnel working with human subjects described in this protocol are technically competent for the role described for them, and have completed the required IRB training modules found on the URCO website at: <http://www.k-state.edu/research/comply/irb/training/index.htm>. I understand that no proposals will receive final IRB approval until the URCO has documentation of completion of training by all appropriate personnel.
- C. **Extramural Funding:** If funded by an extramural source, I assure that this application accurately reflects all procedures involving human subjects as described in the grant/contract proposal to the funding agency. I also assure that I will notify the IRB/URCO, the KSU PreAward Services, and the funding/contract entity if there are modifications or changes made to the protocol after the initial submission to the funding agency.
- D. **Study Duration:** I understand that it is the responsibility of the Committee for Research Involving Human Subjects (IRB) to perform continuing reviews of human subjects research as necessary. I also understand that as continuing reviews are conducted, it is my responsibility to provide timely and accurate review or update information when requested, to include notification of the IRB/URCO when my study is changed or completed.
- E. **Conflict of Interest:** I assure that I have accurately described (in this application) any potential Conflict of Interest that my collaborators, the University, or I may have in association with this proposed research activity.
- F. **Adverse Event Reporting:** I assure that I will promptly report to the IRB / URCO any unanticipated problems involving risks to subjects or others that involve the protocol as approved. Unanticipated or Adverse Event Form is located on the URCO website at: <http://www.k-state.edu/research/comply/irb/forms/index.htm>. In the case of a serious event, the Unanticipated or Adverse Events Form may follow a phone call or email contact with the URCO.
- G. **Accuracy:** I assure that the information herein provided to the Committee for Human Subjects Research is to the best of my knowledge complete and accurate.


(Principal Investigator Signature)


(date)

Appendix B - Interview Protocol

Interview Protocol

The researcher will use semi-structured questions during the personal interviews with participants, the faculty and the behavioral health specialist. In the semi-structured interview process, the following questions will be the start point to assist and guide the researcher in the interviews. Some questions are intentional open-ended and some questions can be follow-on questions if needed.

Questions for the CGSC students

1. Tell me about your learning experience at CGSC?
2. In a typical day in your cohort classroom at CGSC, can you describe the dynamics of the group. How is the learning environment in your cohort?
 - a. Does your cohort increase/decrease your learning?
 - b. Are there any other stresses (ie. family, sleep patterns, graduate school etc).
3. Are there times you remember or reflect on your prior combat tours during class?
 - a. Which classes? What is triggering that memory?
4. Do you learn differently since your combat tours?
 - a. Have you had to adjust?
 - b. Any changes in your memory, attention span, anxiousness, etc?
 - c. Have there been any examples during CGSC classes or presentations that caused you additional stress or anger?
5. Does your combat experience make you a better student?
6. What impact do you believe your gender has had on your job?

7. Does gender affect your learning experience at CGSC?
 - a. How does it affect you in your classroom cohort? Is two women in a cohort effective?
 - b. Have you ever been marginalized in class? If yes; why?
 - c. Do your peers treat you differently due to gender?
 - d. Do your instructors treat you different due to gender?
 - e. Can you tell me an example in class when gender affected your participation in class?
8. What other factors in your life affect your learning? (ie. Family, Health, Sleep, Academic rigor)
9. What advice would you give a female Major who is attending this school next year?
10. Is there anything else you would like to share about your learning experience in CGSC?

Questions for the faculty

1. Do you believe that combat stress has an impact on student learning?
 - a. Do you have any examples?
 - b. Were they positive or negative?
2. How have you had to adjust your teaching style due to your student's combat experiences?
3. Have you had to adjust your teaching style by gender? Why?
4. In your opinion, how do your female students participate in your cohort classroom?
 - a. Are there any factors that affect their participation?
 - b. Do you feel combat affects your female students more or less than your male students?
 - c. Do you have an example?
5. Does having only 1-2 females in a cohort of 16 students silence their participation or voice?
6. How do you assist your student's learning that have challenges with combat stress in the classroom? Any examples that are positive or negative?
7. What advice would you give to a new CGSC instructor regarding teaching these combat veterans?
8. Is there anything else you would like to share about teaching experiences in CGSC?

Questions for the Army Behavioral Specialist:

1. Do you believe that combat stress has an impact on student's learning?
2. What impact does gender have on combat stress?
3. In your opinion, do female students have more stress that they carry into an academic classroom than male students? Do you have any examples? What are the main factors?
4. What advice would you give a student attending CGSC coping with combat stress?
5. What advice would you tell a current instructor that is teaching that student?

Appendix C - Additional Interview Screening

Survey for KSU research and dissertation support

May 2015

Name: _____

Branch: _____

Source of Commission: USMA ROTC OCS

Combat Tours: (circle) 1 2 3 4 5

What kind of unit deployed with on combat tours and units (i.e. medical,, transportation, etc)

1.

2.

3.

Which ethnicity best describes you (circle):

African American (non-Hispanic)

Caucasian (non-Hispanic)

Latino/Hispanic

Native American

Asian

Pacific Islander

Other _____

Marital Status: (circle) single married divorced

Number of Dependents: _____

Appendix D - Informed Consent

INFORMED CONSENT

Research Title: The Effects of Combat Related Stress on Adult Learning in a Military Academic Environment: A Gender Qualitative Case Study

Principal Researcher: Dr. Sarah Jane Fishback; *Co-Investigator:* Paul E. Berg

You are invited to participate in a study to examine the effects of combat related stress on adult learning. The research will explore, examine, and describe how combat related stress effects adult learning for female Army officers attending CGSC. This study also meets the doctoral degree requirements for Kansas State University.

Participation requirements. Participants in this study will include personal interviews with 10-15 females assigned to CGSC from 1-28 May, 2015. If you decide to assist in this project, you will take part in a semi-structured interview lasting 45-60 minutes. Your participation is VOLUNTARY. You are free to withdraw your consent and stop both the process and your participation without consequences.

Anonymity/Confidentiality. Your personal identification will be protected by the use of fictional names for any portion of the interview used. The interviews will be digitally voice recorded, personally transcribed by the researcher, and then securely stored. Additionally, voice recordings and transcripts will be secured separately from signed informed consent forms to ensure confidentiality. Your transcript will be made available for you to ensure accuracy and you will have the opportunity remove anything you wish. No one in the chain of command will be allowed access to interview recordings, transcripts or identification of participants in this research. Representatives of AHRPO (Army Human Research Protections Office) may review research records to ensure participants are properly protected.

Potential Benefit. There is no expected direct benefit for participation.

Potential Risk/Discomfort. The researcher will provide a copy of the questions prior to interview process. The questions are not intended to make a participant uncomfortable. You may decline to answer any question at any time during the interview. If you show any intent to hurt yourself or others, a chaplain and a behavioral health provider are on call during the interview. Because I am an active duty Army Officer, I am bound to report violations of the Uniform Code of Military Justice if they are shared with me.

Problems or Questions. If you have any questions about the study, please contact:

Paul Berg, Lewis & Clark 4531, ptcberg@k-state.edu or (254) 703-3094.

Dr. Sarah Jane Fishback at Kansas State University, Department of Foundations and Adult Education, 355 Blumont Hall, 1100 Mid-campus Drive, Manhattan, KS 66506 or by calling (785) 532-5554.

The institutional review Board of Kansas State University approves all research conducted with human subjects. If you have questions about the manner in which this study is conducted, concerns about your rights, or have complaints or problems that happened in the research, please contact:

- Dr. Rick Scheidt, Chairman, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.
- Dr. Jerry Jax, Associate Vice president for Research and Compliance, 203 Fairchild Hall, Kansas State University, Manhattan, Kansas 66506, (785) 532-3224.
- Dr. Maria Clark, CAC-E Human Protections Administrator (HPA) at (913) 684-7332, located and Lewis and Clark Center Room 4521, Fort Leavenworth, Kansas.

I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

Participant Name: _____

Researcher's Name: _____

Participant Signature: _____

Researcher's Signature: _____

Date: _____

Appendix E - Department of Army Letter of Support



DEPARTMENT OF THE ARMY
U.S. ARMY COMBINED ARMS CENTER
LEADER DEVELOPMENT AND EDUCATION
100 STIMSON AVENUE
FORT LEAVENWORTH, KANSAS 66027-2301

REPLY TO
ATTENTION OF

ATZL-SWA-QA

17 April 2015

MEMORANDUM FOR: LTC Paul E. Berg, Doctoral Candidate, Kansas State University under the supervision of Sarah Jane Fishback, Ph.D.

SUBJECT: Proposed Research Protocol – The Effects of Combat Related Stress on Adult Learning in a Military Academic Environment: A Gender Case Study

1. Your protocol, "The Effects of Combat Related Stress on Adult Learning in a Military Academic Environment: A Gender Case Study" was received in this department on 19 March 2015, and has been reviewed by Maria L. Clark, Ph.D., CAC-E HPA.

2. The Command and General Staff College leadership is supportive of faculty seeking continuing education. Research submitted for doctoral dissertation must abide by the terms of the 32 CFR 219 and the DoDI 3216.02. Provided the K-State IRB conducts the review and approval of the protocol and the research procedures (particularly recruitment process) conform with the DoD requirements, CGSC leadership will support the conduct of this research. Once the K-State IRB completes the review and determination, a DoD review will be conducted to ensure all requirements are met. If changes to the protocol are required those amendments will be submitted to the K-State IRB as well as to the researcher.

3. Once all final reviews have been completed, a command letter of approval will be provided. You were provided DoD documents that must be signed and returned to this office in order to complete this approval process. The *CAC LD&E Research Responsibilities as the PI* must be signed by you and the *DoD Institutional Agreement* must be signed by the IRB after they have reviewed the *CAC LD&E DoD Unique Requirements*. You must provide a signed copy to this office. All investigators will be expected to adhere to these policies. Failure to follow these guidelines could result in the termination of the approval or your protocol. You may NOT begin work prior to receipt of the K-State IRB approval and the final CAC-E command approval letter.

A handwritten signature in black ink, reading "Maria L. Clark", is positioned above the typed name and title.

Maria L. Clark, PhD
Human Protections Administrator
IRB Manager, CIP

Appendix F - Department of Army Research Responsibilities

CAC LD&E Research Responsibilities



DEPARTMENT OF THE ARMY

U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE
100 STIMSON AVENUE
FORT LEAVENWORTH, KANSAS 66027-2301

RESEARCH RESPONSIBILITIES AS PRINCIPAL INVESTIGATOR


The Office of the Under Secretary of Defense for Personnel and Readiness requires that all research investigators (principal investigators as well as associate investigators) engaged in research with one of its institutions explicitly acknowledge and accept responsibility for protecting the rights and welfare of human research subjects as stated therein.

1. I understand that the rights of the subjects take precedence over the needs of the research and I will protect the rights of human research subjects and will comply with the following: the Belmont Report, 32 CFR 219; 10 USC 980; DoDI 3216.02; where applicable 45 CFR 160 and 164; where applicable 45 CFR 46 (Subparts B, C, and D) under the authority of the Department of Defense (DoD); and other Federal, State and local laws as they may relate to proposed human subjects research.
2. I am aware of the Joint Ethics Regulation, DoDI 5500.7-R, specifically areas addressing investigators relationships with sponsoring companies including monies received for research protocols. I understand that financial and other conflicts of interest must be reported to the CAC LD&E Human Protections Administrator (HPA) and/or Institutional Review Board (IRB).
3. I understand that I must have either (a) a written exemption determination from my Exemption Determination Official (EDO) AND (b) an approval letter from a DoD IRB, or written DoD concurrence with a nonfederal IRB review prior to initiating research AND an approval letter from CAC LD&E.
4. I shall promptly report to the approving authority (EDO or IRB) AND the DoD IRB, AND the CAC LD&E HPA proposed changes in a research activity and shall ensure that such changes in approved research, during the period for which approval has already been given, are not initiated without proper authority review and approval except when necessary to eliminate apparent immediate hazards to the subject.
5. I will ensure that all subjects, or their representatives, are fully informed of the nature of the research to include potential risks to subjects and I will obtain informed consent from each as required.
6. I will maintain study records for 3 years after the study is closed or for 6 years if the study is regulated by the Health Insurance Portability and Accountability Act.
7. I will respect the privacy of subjects. I shall protect confidential information given to me and advise subjects in advance of any limits upon my ability to ensure that the information will remain confidential.

CAC LD&E Research Responsibilities

8. I am aware and will complete the training required by the CAC LD&E HRPP prior to initiating research.
9. I will report immediately to the approving authority (exempt determination official (EDO) or IRB) AND the DoD IRB, AND the CAC LD&E HPA any unanticipated problems involving risks to subjects or others in research.

With my signature, I acknowledge that I have read and understand the responsibilities stated above and will comply with them. I understand that if I fail to comply with any of these responsibilities, all protocols for which I am an investigator may be suspended.


Investigator Signature _____ Date 03 APR 15

PAUL E BERG
Print (First Name) (Middle Initial) (Last Name)

100 Stinson Drive
Mailing Address _____

Fort Leavenworth KS 66027
(City) (State/Province) (Zip/Country)

254-702-3074
Phone Number ptcberg@ksu.edu
Email Address ~~ksu.edu~~

Appendix G - Kansas State University Approval Letter



University Research Compliance Office

TO: Jane Fishback
Educational Leadership
355 Bluemont

Proposal Number: 7654

FROM: Rick Scheidt, Chair
Committee on Research Involving Human Subjects

DATE: 04/24/2015

RE: Approval of Proposal Entitled, "The Effects of Combat Related Stress on Adult Learning in a Military Academic Environment: A Gender Case Study."

The Committee on Research Involving Human Subjects has reviewed your proposal and has granted full approval. This proposal is **approved for one year from the date of this correspondence, pending "continuing review."**

APPROVAL DATE: 04/24/2015

EXPIRATION DATE: 04/24/2016

Several months prior to the expiration date listed, the IRB will solicit information from you for federally mandated "continuing review" of the research. Based on the review, the IRB may approve the activity for another year. **If continuing IRB approval is not granted, or the IRB fails to perform the continuing review before the expiration date noted above, the project will expire and the activity involving human subjects must be terminated on that date. Consequently, it is critical that you are responsive to the IRB request for information for continuing review if you want your project to continue.**

In giving its approval, the Committee has determined that:

- There is no more than minimal risk to the subjects.
 There is greater than minimal risk to the subjects.

This approval applies only to the proposal currently on file as written. Any change or modification affecting human subjects must be approved by the IRB prior to implementation. All approved proposals are subject to continuing review at least annually, which may include the examination of records connected with the project. Announced post-approval monitoring may be performed during the course of this approval period by URCO staff. Injuries, unanticipated problems or adverse events involving risk to subjects or to others must be reported immediately to the Chair of the IRB and / or the URCO.

Appendix H - Debriefing Statement

Debriefing Statement

Thank you for your participation in this qualitative gender case study research. The purpose of this research is an attempt to explore, examine, and describe the influences of combat related stress, and its effects on adult learning for female Army officers attending CGSC. In this qualitative case study, you were personally interviewed regarding combat stress effects and your adult learning as a student in CGSC class 2015.

The interview was digitally voice recorded and the researcher will personally transcribe and also secure to ensure confidentiality and the integrity of the research. A secure transcript will be made available for you to check for accuracy and you will also have the opportunity redact anything you feel uncomfortable with. The only person with access to the digital recordings and the transcribed interviews will be the researcher. The military and CGSC civilian chain of command will not be allowed any of these interview recordings, transcripts or any identification of any participant of this research.

Your personal identification will be protected by the use of fictional names if any portion of the interview is used in the final dissertation report. Your confidentiality is paramount to the success of this research.

Your participation in this research is greatly appreciated by the researchers involved. The goal of this research is to provide a descriptive analysis of women's combat experience and its effects on their adult learning to inform adult educators, CGSC and the Department of the Army to the needs of future female officers and inform to inspire additional quantitative research for future gender research

If you have any questions about this study, please contact me, Paul Berg at (254) 702-3094 or ptcberg@k-state.edu or the principle researcher, Dr. Jane Fishback at (785) 532-5554.

Finally, we urge you not to discuss this study with anyone to ensure confidentiality and integrity of the research.

Thank you!

Appendix I - Recruitment Letter

CGSC Participant Recruitment Letter

You are invited to participate in a research study, entitled *The Effects of Combat Related Stress on Adult Learning in a Military Academic Environment: A Gender Qualitative Case Study*. The study is being conducted by Paul Eric Berg, a doctoral student of Kansas State University.

The research will explore, examine, and describe how combat related stress effects adult learning for female Army officers attending CGSC. This study also meets the doctoral degree requirements for Kansas State University. Approximately 10-15 female participants will participate in this study. The screening requirement to participate is to have served two combat deployments.

Your participation is VOLUNTARY. If you agree to participate, you will be asked to participate in a semi-structured interview lasting 45-60 minutes. You are also free to withdraw and stop your participation without consequences.

Your information collected for this study is completely confidential and no individual participant will ever be identified with her research information. The interviews will be digitally voice recorded, personally transcribed by the researcher, and then securely stored. My advisor, Dr. Jane Fishback, and I are the only individuals who will have access to the information. Your transcript will be made available for you to ensure accuracy and you will have the opportunity remove anything you wish. No one in the chain of command will be allowed access to interview recordings, transcripts or identification of participants in this research. Representatives of AHRPO (Army Human Research Protections Office) may review research records to ensure participants are properly protected.

There is no expected direct benefit for participation.

Risks that you may experience from participating are considered minimal. The researcher will provide a copy of the questions prior to interview process. The questions are not intended to make a participant uncomfortable. You may decline to answer any question at any time during the interview.

You may choose not to take part in this study, or if you decide to take part, you can change your mind later and withdraw from the study. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with the Command and General Staff College.

If you have questions about the study or study procedures, you are free to contact me, Paul Berg, ptcberg@k-state.edu or office 4531 of Lewis and Clark Center; you can also call me at (254) 702-3094.

You may also contact the principle researcher, Dr. Jane Fishback, 355 Bluemont Hall, 1100 Mid-Campus Drive, Manhattan, Kansas 66506 or call her at (785) 532-5554.

Thank you!

Appendix J - Memorandum of Agreement



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY COMBINED ARMS CENTER
LEADER DEVELOPMENT AND EDUCATION
100 STIMSON AVENUE
FORT LEAVENWORTH, KANSAS 66027-2301

ATZL-LDA

4 May 2015

MEMORANDUM of AGREEMENT

SUBJECT: Non-DoD Supported or Non-DoD Conducted Research Involving Human Subjects Institutional Agreement

1. This is a DoD institutional agreement provided to the Combined Arms Center - Education (CAC-E) in order to receive approval for the conduct of research involving human subjects.
2. The research for this agreement will be conducted at:
 - Command and General Staff College (CGSC) in the Command and General Staff School located at Fort Leavenworth, Kansas.
 - CGSC in the Command and General Staff School located at _____ Satellite campus.
 - CGSC in the School of Advanced Military Studies (SAMS).
 - CGSC in the School of Command Preparation (SCP).
 - CGSC in the School of Advanced Leadership and Tactics (SALT).
3. The Department of Defense (DoD) has specific and unique requirements for research involving DoD Personnel as human subjects. DoD personnel include active duty Military and DoD civilian employees.
4. This agreement verifies the receipt of the document titled Department of Defense (DoD), Army Specific and Unique Requirements for Human Research Protections Combined Arms Center - Education CAC-E. The non-DoD Institutional Review Board (IRB) agrees to refer to these and the referenced DoD unique requirements during the conduct of research reviews and determinations. The non-DoD IRB agrees to verify compliance with these requirements in the conduct of all research involving human subjects within the CAC-E schools and DoD Institutions covered by the CAC-E DoD Assurance.
5. This agreement also verifies all investigators agree to comply with these requirements during the research conduct and in securing all data or other information acquired from the research participants. The Primary Investigator agrees to the

ATZL-LDA

SUBJECT: Institutional Review Board Approval to Conduct Human Subjects Research

researcher responsibilities provided by the Office of the Under Secretary of Defense (Personnel & Readiness) and has supplied a copy of the signed Researcher Responsibilities to the non-DoD IRB or Institution and all other members of the research project.

Kansas State University

University or Non-DoD Organization requesting or reviewing research involving DoD personnel.

Gerald P. Jaax (HPA)



Primary Contact (Human Protections Administrator, IRB Chair, Exempt Determination Officer)

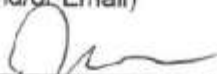
203 Fairchild Hall, Kansas State University, Manhattan, KS 66506

Address

785-532-3224

Contact Information (Phone and/or Email)

K-State



4 MAY 2015

Non-DoD University or Organization Approving Signature

Dr. Jane Fishback

Primary Investigator (Primary Investigator is obligated to ensure all other researchers or other individuals performing research activities are aware with these requirements and comply)

354 Blumont Hall, Kansas State University, Manhattan, KS 66505

Primary Investigator Contact Information

Primary Investigator Signature

Maria L. Clark, Ph.D. CAC-E Human Protections Administrator or
Dale F. Spurlin, Ph.D. CAC-E IRB Chair

Contact Information: Maria.l.clark.civ@mail.mil or dale.f.spurlin.civ@mail.mil