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A Wellness Profile of Student-Veterans at 4-Year Higher Education Institutions: The Role of Gender, Combat Tours, and Deployment

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**A Wellness Profile of Student-Veterans at 4-Year Higher Education Institutions:
The Role of Gender, Combat Tours, and Deployment**

A Wellness Profile of Student-Veterans at 4-Year Higher Education Institutions:
The Role of Gender, Combat Tours, and Deployment

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in Counselor Education

by

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Abstract

Afghanistan and Iraq war student-veterans have increased in population on college campuses in the United States (U.S.) as a result of using the Post 9/11 GI Bill. Healthy Campus 2020 (American College Health Association, 2012) highlighted the importance of college student wellbeing, health promotion and disease prevention, while the U.S. Department of Veterans Affairs has called for an approach to services that is strength based (United States Department of Veterans Affairs, 2008). To date, however, wellness studies conducted on Iraq and Afghanistan student-veterans using an evidenced-based model of holistic wellness have not been conducted. This study was designed to address this gap in the literature.

An expo facto study was used in this research. This study received 143 respondents from 17 of the top 30 four-year universities in the U.S. with the greatest number of participants using the Post 9/11 GI Bill. Participants completed several forms on-line to collect data, including a demographics questionnaire and the Five Factor Wellness Inventory (5F-Wel) as the measure of holistic wellness. This study sought to investigate differences among student-veterans in terms of gender, deployment, tours of duty and holistic wellness levels. Out of the 143 student-veterans 132 were included for statistical analysis. This study used a series of two-way ANOVAs that resulted in a significant main gender effect on the Essential Self. Female student-veterans had a significantly higher mean score than male student-veterans, however there was a small to medium effect size.

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CHAPTER ONE: INTRODUCTION

With the passing of the Post 9/11 GI Bill, many veterans of the Iraq (Operation Iraqi Freedom/New Dawn [OIF/OND]) and Afghanistan (Operation Enduring Freedom [OEF]) wars will be entering or re-enrolling in higher education institutions. The influx of veterans into higher education institutions represents a subset of the population that has distinctive experiences and needs that will challenge colleges and universities. Several studies have addressed the mental health issues and concerns of returning veterans, including the utilization of mental health services (Hoge et al., 2004), traumatic event exposure (Hourani, Yuan, & Bray, 2003), and health care utilization (Trump, 2006). Additional studies have focused on adjustment to college among OIF/OEF veterans (Livingston, 2009; Stalides, 2008). However, research on the overall wellness of student-veterans of these wars has not been conducted.

Statement of the Problem

The terrorist attacks on the United States of America (U.S.) on September 11, 2001 were the triggers for the U.S. to plan and implement OIF and OEF. As of August 2011, 2,333,972 military personnel had served in Iraq or Afghanistan (Martinez & Bingham). December 14, 2011 marked the end of the war in Iraq (Kuhn, 2011), although the war with Afghanistan continues. Many service members will be returning to the U.S. after serving overseas. With the issuance of the Post 9/11 GI Bill on August 1, 2009 (United States Department of Veterans Affairs, 2011), higher numbers of veterans from these wars are expected to be enrolling in higher education programs (Lum, 2009). With this increased enrollment comes the importance of providing services to help optimize their personal and academic success.

Higher education institutions must remain cognizant that along with the expected range of adjustment issues to higher education settings, student-veterans as a sub-population often

bring a special set of concerns (Lum, 2009; Hoge et. al, 2004; Shackelford, 2009) to faculty, direct service providers, and administrators (Lum, 2009; Shackelford, 2009). Student-veterans may be at a higher risk for experiencing delayed stress reactions, relationship building difficulties, identity confusion, or hypervigilance as a result of deployment (Rumann & Hamrick, 2010). Professional higher education and military related associations have also recognized the importance of understanding student-veterans' needs and sought to design campus services and programs that serve this unique population (Cook & Kim, 2009). At the Veterans Administration (VA), for example, this includes a call for a strengths-based approach to services (United States Department of Veterans Affairs, 2008) and greater focus on wellness (Goldberg & Resnick, 2010). Consistent with this have been the creation of wellness programs by several branches of the military (Kirtland Air Force, 2007; U.S. Army Medical Department, 2011; & U.S. Army Medical Department, 2009).

Congruent with Department of Defense initiatives is the emphasis in higher education on student health and wellness (LaFountaine, Neisen, & Parsons, 2006). For example, the National Prevention, Health Promotion, and Public Health Counsel of the U.S. government has mandated focusing on a holistic approach to health care, including within higher education institutions ("U.S. Department of Health," 2011). Additionally, Healthy Campus 2020 (American College Health Association, 2012) emphasizes wellbeing, promotion of health, and disease prevention. Thus, it is a reasonable assumption that higher education institutions would offer a supportive paradigm for programs and services dedicated to student-veterans wellness.

Higher education systems and professionals have considerable opportunity to promote the idea of a comprehensive approach to student care (Kupchella, 2009). Central to this notion is the importance of research and programs dedicated to understanding and promoting the holistic

wellness of students. To date, wellness research has been conducted with a number of college subgroups (LaFontaine, Neisen, & Parsons, 2006; Myers, 2004; Gibson & Myers, 2006; Watson & Kissinger, 2007; Spurgeon & Myers, 2010). To date, however, holistic wellness studies conducted on Iraq and Afghanistan student-veterans has remained conspicuously absent. This study was designed to address this gap in the literature.

The implications for student-wellness on campus could be significant, with university counseling centers and other personnel that work with student-veterans as beneficiaries from collective efforts to discover alternative strategies for addressing student-veteran needs and concerns (Hermon & Hazler, 1999). Central to this goal, however, is an understanding of student-veteran wellness. This study utilizes the evidenced-based Indivisible Self (Myers & Sweeny, 2005b) wellness model developed to address this need.

Background of the Study

The U.S has historically endeavored to attend to the needs of war veterans returning to civilian life. For example, Civil War veterans that were disabled, as well as those struggling with alcoholism and poverty, had the opportunity to make use of the National Home for Disabled Veterans, a precursor to the Veterans Administration hospital care system (Frydl, 2009). Still, limited time, if any, was spent in consideration of the holistic wellness of these early veterans. Fortunately, this trend has not prevailed. The most recent wars for U.S. military personnel, triggered by the terrorist attacks on September 11, 2001, occurred in Afghanistan and Iraq. Subsequent research on veterans of these wars has explored the physical and mental health of veterans, a view more in line, yet still short of, a holistic view of veteran wellness. For example, studies indicate that Iraq and Afghanistan war veterans have returned from deployment with significant mental health issues (Reeves, Parker, & Konkle-Parker, 2005) and physical

challenges (Church, 2009; Kang & Hyams, 2005). Researchers found veterans have suffered from PTSD, depression (Kline, et al., 2010; Seal, Bertenthal, Miner, Sen, & Marmar, 2007; Tanielian & Jaycox, 2008), traumatic brain injury (Church, 2009; Tanielian & Jaycox, 2008), substance abuse (Kline, et al., 2010; Seal, Bertenthal, Miner, Sen, & Marmar, 2007), chronic pain (Kline, et al., 2010), and conditions affecting the musculoskeletal and digestive systems (Kang & Hyams, 2005). Still, despite numerous studies exploring Iraq and Afghanistan war veteran health conditions, there has been no research on this population in regards to holistic wellness.

Assessing veteran health status, including wellness, are important endeavors in light of the numerous difficulties they face post-deployment. To that end, the U.S. Department of Defense (DOD) mandates all recently returned veterans take the Post-Deployment Health Assessment (PDHA) and the Post-Deployment Health Reassessment (PDHRA) in order to gauge their the physical and mental health (Milliken, Auchterlonie, & Hoge, 2007). Trends identified by these assessments indicated that younger veterans were at greater risk for emotional problems than older veterans (Seal et al., 2008). This trend is consistent with veterans from World War II (Hastings, 1991) and the Vietnam War (Brooks, S. B. Laditka, & Laditka, 2008). These results also highlight the need for U.S. higher education institutions to be more vigilant to the unique worldview student-veterans bring to campus and to provide services suited to address their distinctive needs (Lum, 2009). In essence, higher education institutions need to be cognizant of student-veteran challenges in order to optimize the personal and academic outcomes of student-veterans. Of particular importance is the need to consider the student-veteran's total wellness, or general sense of well-being. To date, this holistic view of student-veteran wellness has not been examined in any detail and is the basis for this study.

Theoretical Background

The conceptualizations of wellness and health have similarities and differences. However, because of their relatedness it is helpful to have an understanding of health (Myers & Sweeney, 2005a). The World Health Organization's definition of health, for example, recognizes the importance of one's physical, psychological, and social well-being ("WHO definition of Health," 2003). This definition is akin to wellness. While health is a static concept, wellness is dynamic (Myers & Sweeney, 2005a). Dunn (1961), for instance, defined wellness as being dynamic, goal oriented, and involving the whole person striving toward all he or she was capable of becoming. This view is considered foundational to our current framing of wellness.

According to Ardell (1984), the groundwork of the present day wellness movement has been attributed to Halbert L. Dunn. Dunn wrote about the integrated human being in the form of mind, body, and spirit. Influenced by Dunn, physician John Travis became the first medical doctor to provide wellness services and wellness educational opportunities for the public and health professionals (Ardell, 1984). Ardell (1977, 1984), who was influenced by both Travis and Dunn, placed less emphasis on the emotional side of wellness and more on the physical side. Ardell (1977) thus went on to explain that wellness was multidimensional. As such, pursuing a wellness lifestyle with the intention of attaining the highest level of health was seen as a way to minimize the risk of illness while increasing opportunities for well-being.

Robert Allen expanded the understanding of wellness when he created the Lifegain model (Ardell, 1984). The Lifegain model incorporated the perspective of cultural influences within the dynamic of individual wellness intention (Ardell, 1984). The model was employed in corporations and hospital centers. However, within higher education, William Hettler pioneered a student-led model of wellness that was later reproduced to varying degrees at numerous

colleges and universities (Ardell, 1984). Out of Hettler's work evolved an annual wellness conference, which Ardell (1984) suggests has probably had the greatest influence in facilitating the growth of the wellness movement in the U.S. More recently, wellness as a concept has found its evidence base centered within the counseling profession (Myers, 1992). For example, building on wellness definitions from various authors Myers and Sweeney (2005a) conceptualized wellness as a way of living that included the present moment and incorporated the value of achieving a desired outcome. This led them to the conceptualization and design of wellness within the Indivisible Self model. Overall, this perspective provides a solid foundation for studying student-veteran wellness. To date, this is the only evidenced based wellness model and a hallmark of the counseling profession.

Today, wellness is generally viewed and studied through The Indivisible Self model (Myers & Sweeney, 2005a), although this was not the author's first iteration of a wellness model. The first model evolved out of Sweeney's and Witmer's (1991) Wheel of Wellness model, "the first holistic wellness model developed with a foundation in counseling theory" (Myers & Sweeney, 2005a, p. 28). The Wheel of Wellness was founded on Adler's Individual Psychology. Adler (1929) explained that individuals are involved in a "struggle for perfection" (Adler, 1939), which consists of spiritual and physical aspects of life. Adler viewed life as goal oriented, for the individual as well as for the whole society, toward what he termed *social feeling*. Adler's view of the individual was holistic rather than the commonly found reductionistic perspective. Further examination of the Wheel of Wellness involving factor analysis confirmed the essential constructs of the model, but also resulted in the placement of *wellness* at the model's heart (Hattie, Myers, Sweeney, 2004). The effect of this analysis resulted in the development of the Indivisible Self.

The Indivisible Self model consists of one “higher-order wellness factor, five second-order factors, and 17 third-order factors [latent factors]” (Myers & Sweeney, 2005a, p. 272). There are five second order factors that interact and change as a result of effects that may impact another factor. The second order factors and their respective third-order factors/latent factors include: (a) Creative, which is comprised of thinking, control, emotions, positive humor, and work; (b) Coping, which is made up of stress management, realistic beliefs, self-worth, and leisure; (c) Social, which is comprised of love and friendship; and (d) Physical, which is made up of nutrition and exercise; and (e) Essential, which is comprised of cultural identity, spirituality, self-care, and gender identity (Myers & Sweeney, 2005a). Given the Indivisible Self model’s grounding in Individual Psychology’s “emphasis on the whole rather than on elements, and on the interaction between the whole and its parts,” (Adler, 1956, p. 11; Myers & Sweeney, 2005a), it provides a solid framework for exploring the wellness of student-veterans.

Purpose of the Study

There has been little research on student-veterans and no studies that have addressed wellness levels of student-veterans through the lens of a holistic wellness model. Therefore, studying the wellness of this college subpopulation will aid those that work with it by increasing their knowledge base. Although this large gap in the literature offers ample room for study, the purpose of this study is to examine associations between student-veterans in relation to gender, number of combat tours, that is, one tour versus more than one tour, and deployment, that is, student-veterans that stayed in the U.S. versus those that were deployed to Afghanistan and/or Iraq.

Research Hypotheses (RH)

RH1: There will be a difference in Total Wellness scores between gender and deployment.

- RH2: There will be a difference in Total Wellness scores between gender and number of tours.
- RH3: There will be a difference in *Creative Self* scores between gender and deployment.
- RH4: There will be a difference in *Creative Self* scores between gender and number of tours.
- RH5: There will be a difference in *Coping Self* scores between gender and deployment.
- RH6: There will be a difference in *Coping Self* scores between gender and number of tours.
- RH7: There will be a difference in *Social Self* scores between gender and deployment.
- RH8: There will be a difference in *Social Self* scores between gender and number of tours.
- RH9: There will be a difference in *Physical Self* scores between gender and deployment.
- RH10: There will be a difference in *Physical Self* scores between gender and number of tours.
- RH11: There will be a difference in *Essential Self* scores between gender and deployment.
- RH12: There will be a difference in *Essential Self* scores between gender and number of tours.

Significance of the Study

Research on Iraq and Afghanistan student-veterans is a topic that warrants study when considering the number of student-veterans currently attending college and those projected to enroll. The number of student-veterans enrolled in college in 2013 that used the Post 9/11 GI Bill was 754,229 (U.S. Department of Veterans Affairs, 2013), while 1 million veterans have utilized the Post 9/11 GI Bill since its inception (Jordan, 2013). This study will contribute to the body of knowledge on student-veterans. It will assist those employed in higher education, mental health, physicians, professors, and administrators in having a better understanding of this subpopulation which may, by extension, help them provide more informed and enhanced services for student-veterans. Moreover, this study is among the first to consider a holistic view of student-veteran wellness, a view which could be utilized by higher education and military personnel to enhance collaborative efforts on behalf of student-veterans.

Scope of the Study

This study focused on wellness level differences among student-veterans serving during the Iraq and Afghanistan wars. Wellness relationships were examined in student-veteran demographics that included gender, number of combat tours, and deployment. The Five Factor Wellness Inventory was used to measure the overall wellness level of student-veterans, while the secondary wellness factors including Essential Self, Social Self, Creative Self, Physical Self, and Coping Self among student-veterans were examined. Third order factors/latent factors in this study were not explored. Participants in this study included student-veterans from multiple higher education institutions throughout the U.S.

Definitions of Terms

1. College Student-veteran: A college student who served in the military in either a combat or noncombat capacity.
2. Combat Deployment: A veteran deployed to a warzone. For the purposes of this study the warzones identified include Afghanistan and Iraq.
3. Coping Self: “The combination of elements that regulate our responses to life events and provide a means for transcending their negative effects” (Myers & Sweeney, 2005a, p. 33).
4. Creative Self: “The combination of attributes that each of us forms to make a unique place among others in our social interactions and to interpret our world” (Myers & Sweeney, 2005a, p. 33).
5. Deployment: This is a general category descriptor for veterans that include *combat deployment* and *nondeployment*.

6. Essential Self: “Our essential meaning–making processes in relation to life, self, and others” (Myers & Sweeney, 2005a, p. 33).
7. Nondeployment: This describes a veteran who remained in the United States at the time of the Afghanistan and Iraq wars (i.e., October 7, 2001 and later).
8. Operation Enduring Freedom (OEF): For the purposes of this study OEF refers to military operations initiated in Afghanistan on October 7, 2001 and continue to the present.
9. Operation Iraqi Freedom (OEF): For the purposes of this study OEF refers to military operations initiated in Iraq on March 20, 2003 and ended on September 1, 2010.
10. Operation New Dawn (OND): For the purpose of this study OND refers to military operations initiated in Iraq September 1, 2010 and continue to the present.
11. Physical Self: “The biological and physiological processes that comprise the physical aspects of our development and functioning” (Myers & Sweeney, 2005a, p. 33).
12. Social Self: “Social support through connections with others in our friendships and intimate relationships, including family ties” (Myers & Sweeney, 2005a, p. 33).
13. Total Wellness: “The sum of all items on the Five Factor Wellness Inventory (5F-Wel); a measure of one’s general well-being or total wellness” (Myers & Sweeney, 2005a, p. 33).
14. Wellness: “...a way of life oriented toward optimal health and well-being in which body, mind, and spirit are integrated by the individual to live more fully within the human and natural community.” (Myers, Sweeney, & Witmer, 2000, p. 252).

Summary

The number of veterans returning to the U.S. from the Iraq and Afghanistan wars and entering academia using the Post 9/11 GI Bill since its passing was reported in 2013 to be 1 million (Jordan, 2013). The U.S. Department of Defense (DoD) has indicated that wellness is an area of veteran care that necessitates greater focus (Goldberg & Resnick, 2010). However, no wellness model has been utilized consistently to measure this construct on student-veterans. To address this gap in the literature this study will utilize the Five-Factor Wellness Inventory, an evidence-based instrument widely used within the counseling profession and grounded in Alfred Adler's notion of the Indivisible Self. Results from this study will provide the first empirically based wellness profiles of student-veterans attending U.S higher education institutions. In turn, this information could be utilized to extend and/or redesign the services and programs for student-veterans on campus.

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

The wellness paradigm is a foundational tenet of the counseling profession, while The 5F-Wel is the only wellness assessment instrument that is research based and theoretically based in a counseling theory. There have been numerous studies conducted using the 5F-Wel and the Wheel of Wellness (WoW), the precursor to the 5F-Wel. This study will examine wellness among student-veterans of the Iraq and Afghanistan wars.

Literature reviewed in this chapter will cover veteran compensation, higher education benefits for veterans, returning veteran challenges, veteran health-related quality of life, military wellness programs, college student-veterans of U.S. wars, Wheel of Wellness, and Indivisible Self. Overall, the literature review illustrated that researchers have not adequately addressed the wellness and its implications with college student-veterans.

Veteran Compensation

The history of compensating United States (U.S.) veterans for their military service dates back to 1636 (“CVSRA Training Chapter 1 Study Plan,” 2014). Disabled soldiers involved in defending Plymouth Colony from Native Americans were given monetary payment. Continuing with the effort to pay veterans for their service, during the early period of the American Revolutionary War, in 1775, the first national pension law was passed for veterans. This law also served as a Continental Army recruiting tool. It provided half-pay for life for a serious disability or the loss of a limb; however, funds for the pension were not available thus making the implementation of the law unfeasible. It was not until 1789, at the end of the war, that the pension law was passed again by the Continental Congress, although this time funds were made available (“CVSRA Training Chapter 1 Study Plan,” 2014). Besides pensions veterans were also

given preference for civil servant jobs as remuneration for their services and were permitted, whether disabled, destitute or alcoholic, to live in what would be the predecessor to the Veterans Administration hospital system, the National Home for Disabled Veterans (Frydl, 2009). Benefits were received by Union soldiers as they were considered veterans, whereas it was not until 1958 that Confederate veterans were officially acknowledged (“CVSRA Training Chapter 1 Study Plan,” 2014).

It is evident that the U.S. has a long history of providing compensation to war veterans, beginning with the Plymouth settlement conflicts and the Revolutionary and Civil Wars. Veteran benefits have continued and expanded over the years. Compensation to veterans eventually included assistance with higher education.

Higher Education Benefits for Veterans

The most noteworthy veteran benefit program, the World War II GI Bill (GI Bill; United States Department of Veterans Affairs, 2010), was enacted on June 22, 1944. Benefits for veterans included tuition for higher education, low-interest loans for homes, and unemployment compensation at discharge from the military (United States Department of Veterans Affairs, 2006). Since the enactment of the GI Bill, there have been a number of acts passed by the U.S. government to address educational assistance for veterans of the Korean, Vietnam, and the Persian Gulf Wars (United States Department of Veterans Affairs, 2010).

The Post 9/11 GI Bill is the latest significant benefits bill to be passed by the U.S. government that provides financial assistance to veterans that had served in the military “with at least 90 days of aggregate service on or after September 11, 2001” (United States Department of Veterans Affairs, 2011, para. 2). On August 1, 2009 this bill was implemented to provide funds that paid for tuition and university fees, additionally it awarded a housing allowance, and a

stipend for books for veterans attending state higher education institutions. For veterans desiring attendance at private institutions the Yellow Ribbon Program was also made available to offset tuition costs (United States Department of Veterans Affairs, 2011). As of November 2011, 600,000 veterans have gone on to higher education using benefits from the Post 9/11 GI Bill (Flavin, 2011).

The most significant veteran benefit program has been the GI Bill. Following the GI Bill was the enactment of a number of legislative bills that continued in the tradition of providing veterans with financial assistance for attending higher education. The most recent legislative enactment to provide education assistance to veterans and to assist them with the transition from the military to civilian life was the Post 9/11 GI Bill.

Overview of Returning Student-Veterans

Military personnel returning from war face various challenges as they transition from military culture to civilian life. What follows is a review of potential physical and emotional difficulties veterans are susceptible of sustaining as a result of their military service. Further, many veterans that had served in the Afghanistan and Iraqi Wars will be entering higher education for the first time or re-enrolling with a range of physical, emotional, and/or psychological injuries sustained during deployment. Addressing the needs of veterans as they transition to college life after experiencing war stress can be a challenge to veterans and university personnel (Shackelford, 2009). Thus, awareness and understanding of the range of potential student-veterans' experience is important in order that their transition to, and activities during, their higher education careers is geared to facilitating positive personal and academic outcomes.

For example, higher education administrators, personnel, and faculty should recognize that thousands of student-veterans transitioning to higher education are those with disabilities (Branker, 2009). To date, the two signature injuries sustained by veterans, known as *invisible injuries*, have been traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD; Church, 2009; “RAND,” 2008). Results of a study by the RAND Corporation (“RAND,” 2008) indicated that almost 18.5 percent of veterans had PTSD, while 19.5 percent had TBI. Many veterans of OIF/OND and OEF have had to serve multiple and extended tours, which have increased the chances of sustaining injury and experiencing stress.

The top deployment combat stress for soldiers has involved being separated from family and concern about the length of deployment (Warner, et al., 2007). Contact with home was found to produce increased stress when there were problems occurring at home or at the war site. Compared with other wars (e.g., WWI, WWII, Vietnam, etc.) military personnel have had greater contact with home by way of telephone, live internet video communication, and electronic mail (Warner, et al., 2007), thus creating a situation where opportunities to experience stress are greater than for any other war the U.S. had previously been involved.

For soldiers the second greatest stressor has involved combat situations concerning “receiving incoming artillery, rocket, or mortar fire; knowing someone seriously injured or killed; being near an improvised explosive device or a booby trap explosion; receiving small arms fire; and/or having a member of their own unit become a casualty” (Warner, et al., 2007, p. 911). For female military personnel sexual assault related trauma complaints have increased greatly, 46% from October 2012 to June 2013 (McVeigh, 2013). The potential for concerns veterans will have to deal with is great considering they have to cope with PTSD, TBI, and stress of physical injuries.

Learning to cope with stress is a critical area of concern for veterans as they reintegrate into civilian life as suicide rates reached 22 per day in 2014 (Shane, 2014). Additionally, learning to manage stress within the confines of a family is another area of concern as over 50% of veterans that had recently returned from combat reported engaging in mild to moderate domestic abuse (LaMotte, Taft, Weatherill, Scott, & Eckhardt, 2014). Veterans generally do not want to self-identify as someone dealing with difficulties. This, in part, may be a remnant of military culture in which peers and superiors might view self-disclosure about emotional or psychological problems negatively (Shackelford, 2009). Nevertheless, investigation of veteran health concerns, including mental health, is a necessary part of identifying problems and improving treatment.

Veterans entering higher education bring a unique set of challenges to higher education institutions as student-veterans. PTSD, TBI, physical injuries and other stressors sustained as a result of OIF/OND and OEF potentially may affect student-veterans. The need to address student-veteran concerns is important in order to ensure as much as possible their academic success.

Higher Education and Student-Veteran Care

There currently is not a centrally coordinated program in the U.S. established to address the physical and mental health needs of student-veterans on college campuses (McBain, 2008). Higher education institutions have developed programs to address the needs of student-veterans and/or they utilize services already available to the whole student body. Under the guidance of Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 higher education institutions are prohibited from discriminating against students with disabilities (U.S. Department of Education, 2011). Students with disabilities are provided accommodations

(e.g., notes from lectures, extra time for test taking, large print reading materials, etc.) on a regular basis. Additionally, students on many campuses have available to them counseling services to assist them with mental health issues. However, student-veterans are recognized as a distinctive subpopulation on college campuses that bring with them unique needs. In an effort to support student-veterans higher education institutions have developed or adopted special programs to administer to the needs of student-veterans.

A number of notable programs exist on a national level to assist student-veterans. The American Council on Education sponsors the Severely Injured Military Veterans: Fulfilling Their Dreams Project (SIMV:FTDP), which is charged with assisting severely injured veterans to access higher education institutions (McBain, 2008). Four military hospitals participate in the program including Bethesda Naval Hospital, Walter Reed Army Hospital, Brooke Army Hospital, and Naval Medical Center San Diego. Veterans work with advisors to develop individualized education plans, while they continue to recover in the hospital. As veterans transition to campus volunteers continue to assist them by serving as advocates. While SIMV:FTDP provides supportive services to assist severely injured veterans Student-veterans of America (SVA) offers support to all veterans by way of over 1100 affiliated campus chapters (Student-veterans of America, 2013).

Student-veterans of America provides resources, advocacy and supportive services, while veterans are enrolled in college and post-graduation (Student-veterans of America, 2013). Student-veterans of America has created a number of programs to support veterans within its various chapters, for example it provides scholarships, administers a corporate mentor program, sponsors career fairs, and provides monetary support during internships. Besides the aforementioned programs SVA offers opportunities for veterans to meet other veterans in a

supportive atmosphere. Support offered by SVA affiliated campus chapters provide support for veterans that on some campuses is supplemented by additional programs.

Boots to Books, Citrus College, CA; Combat2College, Montgomery College, MD; and Operation Education, University of Idaho, ID are all examples of support programs specific to certain higher education campuses (McBain, 2008). Boots to Books is an educational program designed to provide veterans, family members, and other veteran supporters information about PTSD, stress in general and other issues affecting veterans transitioning to civilian life (Citrus College, 2011). Combat2College is another program that provides information and student services (Montgomery College, 2011). In this case student-veterans are given resource information and support regarding academic advising, disability accommodations, mental health counseling, and social activities (Montgomery College, 2011). While student-veterans may benefit from programs on their campuses Operation Education is an example of a program that provides comprehensive assistance (University of Idaho, 2011). Operation Education provides scholarship funds for tuition, fees, text books, on-campus housing, child care, medical assistance, and academic support in the form of adaptive technology, note takers, mentoring, internships, and job placement services (University of Idaho, 2011).

A comprehensive nationwide program designed to address student-veteran mental and physical health has not been established. However, various higher education institutions have implemented programs they have created or adopted from existing organizations. The goal of these programs is to provide needed assistance to veterans so they may succeed educationally. However, in these varied programs holistic wellness remains conspicuously absent.

Veterans: Health-Related Quality of Life

Numerous studies have addressed veteran health-related quality of life (HRQOL). HRQOL refers to quality of life as it relates to health care (Ferrans, 2005). Quality of life (QOL) is another term associated with health care, but may additionally extend beyond direct treatment. According to Lehman's (1996) review of QOL literature, a clear definition has not been identified and models of QOL are not uniform. Nevertheless, Ferrans (2005) stated that QOL is associated with "political, societal, or cultural issues generally qualifies as non-health-related quality of life and falls within the domain of fields such as sociology, economics, anthropology, criminology, and demography" (p. 15). According to the World Health Organization, QOL is defined as "a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment" ("WHOQOL," 1997; p. 1). In a general sense, QOL provides outcome measures of an individual's self-perception of his or her functional status, resource environment, and well-being (Lehman, 1996).

Within the literature on veteran health outcomes the terms HRQOL and QOL are used interchangeably. For the purposes of this paper, the term HRQOL will be used unless QOL has been utilized within the context of specific research or other literature on the topic. HRQOL has characteristics similar to wellness, although the manner in which they are conceptualized and the utility they provide are different. While HRQOL measures are utilized to determine levels of health within the medical field (Ferrans, 2005), this study employs the wellness paradigm (Myers, 2001) as its conceptual base and is measured by the 5F-Wel. The 5F-Wel is an evidenced based instrument used for measuring wellness (Myers & Sweeney, 2005b, 2005c). In

essence, while HRQOL is reductionistic and places greater emphasis on pathology, the wellness paradigm provides a holistic and strengths based assessment of one's wellness.

Just the same, studies using HRQOL assessments have provided health related outcomes that are useful for understanding potential student-veteran health related concerns. Acquiring greater understanding of medical treatment efficacy is at the foundation of understanding patient QOL (Lehman, 1995). The HRQOL studies reviewed in this section focus on PTSD (Erbes, Westermeyer, Engdahl, & Johnson, 2007; Lunney & Schnurr, 2007; Zatzick, Marmar, et al., 1997; Zatick, Weiss, et al., 1997), rural and urban veteran differences (Weeks, et al., 2004), veteran-specific utility (a value assigned to a health state based on a common metric that may be used to compare other health states) with and without depression (Zivin, 2008), depression differences between military and nonmilitary personnel (Boehmer, Boothe, Flanders, & Barrett, 2003), chronic physical and psychiatric status on physical functioning (Proctor, Harley, Wolfe, Heeren, & White, 2001), and limb loss (Epstein, Heinemann, & McFarland, 2010).

A number of studies have focused on PTSD and QOL and are areas of concern that also pertain to Total Wellness and the Creative Self factors of the 5F-Wel that shed light on some of the challenges faced by veterans. Erbes, Westermeyer, Engdahl, and Johnson (2007) studied 120 male and female veterans of the Afghanistan and Iraq wars. Several QOL domains were negatively impacted by PTSD, "including general health, energy, emotional well-being, emotional role limitation, and social functioning" (p. 362). Similarly, Zatzick, Marmar, et al., (1997) found in their study of male Vietnam veterans that poorer QOL outcomes were indicated for those diagnosed with PTSD in five of six domains. These domains included currently not working, fair or poor health status, diminished well-being, any physical limitation, and severe violence in the past year. According to the authors, this study extended the understanding of

PTSD beyond symptomology and increased the knowledge of functional impairment associated with PTSD.

Lunney and Schnurr (2007) examined PTSD symptomology, in their research with male Vietnam veterans. The authors found changes in QOL domains (i.e., Achievement, Self-expression, Relationships, and Surroundings) to be associated with significant changes in PTSD symptoms, although directionality could not be determined. Symptom clusters examined included reexperiencing, avoidance, numbing, and hyperarousal. In the pretreatment phase of the study researchers found numbing to be associated with all QOL domains, whereas other symptom clusters were not. Numbing was also solely related with changes in relationships. These results suggest the importance of addressing numbing during therapeutic treatment of PTSD (Lunney & Schnurr, 2007) and may help explain the negative impact PTSD had in social functioning in previous research (Erbes, Westermeyer, Engdahl, & Johnson, 2007).

QOL outcomes in Erbes, Westermeyer, Engdahl, and Johnson (2007) and Zatzick, Marmar, et al. (1997) pointed to the negative impact of PTSD for male veterans. Similar findings were reported by Zatzick, Weiss et al. (1997) in their study of female Vietnam veterans. PTSD was found to impact QOL negatively and to be related to functional impairment. Impairment included decreased subjective well-being, diminished physical health, increased days in bed, physical limitations, and currently unemployed. In comparison with male Vietnam veterans, results of female outcomes suggested little or no differences in the manner PTSD was related to functional impairment, although for males days in bed was not significantly associated with PTSD (Zatzick, Marmar, et al., 1997).

Days in bed is related to mental health QOL and functional impairment. In addition to mental health QOL factors, Weeks et al., (2004) studied physical QOL factors among 767,109

veterans who used Veteran Health Administration services from 1996 to 1998. Researchers sampled rural and urban dwellers and found rural veterans fared less well than urban dwellers in eight QOL indicators (i.e., physical functioning, mental health, role limitation as a result of physical functioning, role limitations as a result of emotional problems, bodily pain, energy/vitality, social functioning, and general health perceptions). Rural veterans tended to be older, Caucasian, male, unemployed, and to have greater comorbidity with physical and mental health concerns. Results of this study confirmed concerns about greater health problems among veterans in rural areas and point to the need to provide easier access to treatment in rural areas (Weeks, et al., 2004).

Comorbidities were also found in a study of veterans diagnosed with depression (Zivin, et al., 2008). Zivin et al. (2008) found veterans diagnosed with depression to have higher rates of substance abuse, psychiatric, and physical comorbidities when compared with veterans not diagnosed with depression. The authors also found veterans not diagnosed with depression to have lower QOL levels when compared to the general population with or without a diagnoses of depression. Results of this study highlight the negative impact of depression on veterans' physical and mental health; and suggest a compounding effect on QOL as a result of military service.

Depression has also been found to be associated with lower QOL among servicemembers with full time service status (Boehmer, Boothe, Flanders, & Barrett, 2003). According to Boehmer, Boothe, Flanders, & Barrett (2003) National Guard and military reserve personnel were found to have reported superior HRQOL scores in comparison to active duty military service personnel. Active duty personnel indicated significantly more days in which they

experienced limited activity, physical pain days, and nights of limited sleep. They also reported more days with poor physical health, anxiety, and depression.

Poorer health moreover has been found to be related to veterans sent to combat when compared to those serving in a noncombat capacity (Proctor et al., 2001). When Gulf War combat veterans were compared with a group of military personnel sent to Germany during the Gulf War researchers found the Gulf War veterans' health status to be significantly reduced. Additionally, greater psychological symptomology and more medical conditions were predictors of poorer physical health. The greater degree of mental and physical problems associated with lower physical health is understandable for veterans of war.

In what was a physical problem that appeared to be counterintuitive, Epstein, Heinemann, and McFarland (2010) found that the impact of limb loss with Vietnam and OIF/OEF veterans and servicemembers to result in greater overall QOL. The Vietnam group with multiple limb loss and greater satisfaction with their prostheses were found to have a higher overall QOL level. Whereas overall QOL was significantly lower for the Vietnam group with depression and those for whom their amputation had a greater negative effect on their life. In comparison, the OIF/OEF group also reported better QOL in the presence of multiple limb loss, but significantly lower overall QOL when assistance was required for daily living, the presence of a combat-associated injury to a non-amputated limb, and combat-associated head injury. The authors hypothesized that the OIF/OEF group was still processing the effects of their injury and had not yet developed coping skills, which in turn resulted in lower QOL. The Vietnam group; however, was older and had a longer time to adapt to their life changes.

The literature reviewed in this section examined the various QOL studies that addressed topics pertaining to emotional, physical, and behavioral health. Other QOL categories explored,

but not as the main research topics included gender, social, geography, achievement, self-expression, and general health. Despite the importance of the research presented it nonetheless is presented from a medical perspective and does not take into account a wellness point of view. The U.S. military is beginning to give greater consideration to veteran strengths in their care programs thus providing treatment from a wellness perspective.

Military Wellness Programs

The U.S. military has recognized the importance working with veterans from a strengths based perspective (United States Department of Veterans Affairs, 2008). In line with this standard has been an increased focus on wellness (Goldberg & Resnick, 2010). In this section wellness programs and resources that are made available by the military to veterans, service members, civilians, and their families are reviewed.

A number of military branches have embraced the wellness paradigm by providing centers for use by civilian staff, service members, veterans, and their families. The Army Civilian Wellness Program, established by the Department of the Army to support and encourage civilian health and fitness, is such an example (“U.S. Army Medical Association,” n.d.). Several wellness centers that represent this initiative include the Mountain Post Wellness Center (U.S. Army Medical Department, 2011), the Fort Bragg Army Wellness Center (Gervasoni, 2010), and the Fort Hood Army Wellness Center (U.S. Army Medical Department, 2009). Moreover the U.S. Air Force has recognized the importance of wellness and has implemented a wellness program, for example, at the Kirtland Air Force Base Health and Wellness Center (Kirtland Air Force, 2007). While the wellness programs documented thus far are affiliated with a specific military branch The Military Wellness Program at Holliswood Hospital serves veterans of all

service branches, servicemembers and their families using researched based treatment that address mind, body, and spirit (The Holliswood Hospital, 2010).

The use of Internet technology has also been used to address wellness within the U.S. Army. Hooah4Health, a website dedicated to wellness and prevention (U.S. Department of Defense, 2011) is an example of such a program. Through this site veterans, servicemembers, and families are encouraged to take responsibility for their wellbeing. The site contains educational information reflective of a holistic approach to wellness. Care for mind (e.g., stress management, suicide prevention, and combat stress), body (e.g., fitness, nutrition, readiness fitness, and readiness nutrition), and spirit (e.g., spiritual fitness) are incorporated into a self-directed approach to self-care.

As was revealed veteran care has included wellness programs. Veteran wellness programs appeared to be suited mostly for those that maintained an affiliation with a military base or military affiliated organization. Many veterans, however, choose to take advantage of the Post 9/11 GI Bill and attend higher education where programs run through the military are either unavailable or difficult to attend due to academic schedules.

College Student-Veterans

Academic achievement is fundamental to education. Among higher education personnel it is well known that there is an association between health and academic achievement (National Association of Student Personnel, 2004). The National Association of Student Personnel Administrators recognizes the need to focus on holistic wellness, in part, to address college student health. In terms of military veterans in higher education, the earliest research focused on academic achievement, while research on holistic wellness as it is defined in this study was lacking. This review will consider these issues from WWII through the Vietnam wars, while

more attention will be given to the literature on student-veterans of the Iraq and Afghanistan wars.

WWII Through Vietnam

One legislative response by the U.S. government to WWII veterans was the enactment of the GI Bill, which for the first time supported and encouraged veterans to attend higher education institutions (Smole & Loane, 2008). Results of the GI Bill left colleges and universities unprepared for the influx of student-veterans arriving on campuses (Atkinson, 1949; Justman, 1947). At the end of the war, for example, almost one million student-veterans had enrolled in colleges across the U.S. (Friederiksen & Shrader, 1951). As higher education institutions dealt with the increased numbers of veterans, some educators questioned the academic preparedness of student-veterans (Atkinson, 1949).

In a study comparing WWII student-veterans to nonveterans, older veterans of WWII were found to perform better academically than nonveterans (Owens & Owens, Jr., 1949). However, the longer veterans were in the military service the poorer they performed, as measured by their grade point average (GPA; Owens & Owens, Jr., 1949). Alternatively, Garmezy and Crose (1948) found that younger veterans performed slightly better academically (mean GPA of 2.20 versus 2.05). The authors additionally noted a trend of student-veterans performing better academically than nonveterans, although results were not statistically significant.

Clark (1947) also found veterans achieved academically higher than nonveterans; however his study focused on student-veterans who entered college as freshmen rather than the age of the veteran as done in Garmezy and Crose (1948). Clark concluded that higher achievement levels were the result of veterans working harder and being more motivated than

their nonveteran counterparts. Atkinson's (1949) research with World War II student-veterans revealed similar results regarding academic achievement. When student-veterans' and nonveteran students' GPAs were compared, in five out of six academic areas and across two consecutive semesters, student-veterans outperformed nonveterans.

It is evident that early research on student-veterans demonstrated a trend toward higher academic achievement of student-veterans in comparison to nonveterans. Frederiksen and Scharder (1951) also found similar results in their study of sixteen colleges and approximately 11,000 students (veterans and nonveterans combined). However, they expanded their investigation to student-veteran adjustment to college in comparison to nonveterans. Results indicated that student-veterans performed at a slightly higher academic level, they were more mature, more worked while enrolled, more were sure of their vocational goals, they spent more time studying, and veterans were motivated to obtain better jobs rather than preparing themselves for a profession as nonveterans were.

Several of the positive findings from early student-veteran studies are akin to third-order factors/latent factors found in the 5F-Wel. For example, *work* student-veterans engaged in to meet financial needs and *thinking* as demonstrated by the desire to learn (Myers & Sweeney, 2005c) are viewed as strengths utilized by student-veterans that enhanced holistic wellness. Additionally, motivation to achieve academically that was reported in several of the early studies suggest strengths in the second-order factor the Coping Self as student-veterans demonstrated the ability to persevere and cope with the challenges of higher education (Myers & Sweeney, 2005c). Despite the positive qualities attributed to student-veterans and wellness inferences made as a result holistic wellness as a concept was missing from the studies.

Additional research by Frederiksen and Schrader (1951), Atkinson (1949), and Clark (1947) found veterans to be more academically advanced than nonveterans, Vincour (1947) found student-veterans to be more mature than nonveterans (as did Frederiksen and Schrader [1951]) and dissatisfied with their educational experience. Student-veterans indicated that they desired course work that had greater utility, professors that were more competent, and greater involvement in university decision-making that directly affected them. The desires on the part of student-veterans seem to be related to their advanced maturity level in comparison to nonveterans. Despite the lack of a focus on holistic wellness academic achievement on the part of student-veterans reflects a desire to learn and thus is synonymous with *thinking* a component of holistic wellness (Myers & Sweeney, 2005c). Thinking, in part, might be thought of as a growth oriented activity related to cognitive development that occurs in conjunction with the learning process.

Research on student-veteran achievement continued with veterans of the Cold War. Paraskevopoulos and Robinson (1969) studied Cold War veteran students in comparison to nonveteran students on measures of academic potential and achievement. The authors noted that student-veterans significantly outperformed nonveterans as measured by GPA in the first term of college, which led the authors to conclude that precollege projections underestimated student-veteran academic potential.

In an effort to replicate earlier research findings that demonstrated higher student-veteran academic achievement levels in comparison with nonveteran students Joanning (1975) investigated veterans of the Vietnam War. Results indicated that student-veterans earned higher grades than nonveterans, while reenrolled student-veterans earned much higher GPAs when compared to veterans entering college for the first time. Whereas Joanning found Vietnam War

student-veterans achieving higher than nonveterans Peter (1975) found Vietnam War student-veterans achieving at a lesser degree than nonveteran students as determined by GPA.

Peter (1975) assessed student-veteran freshmen performance resulting from entrance into one university under Project More Education, More Opportunity (MEMO). MEMO was intended to attract the enrollment of Vietnam War veterans into Michigan State University; however, as the author observed, admission requirements were dismissed and therefore student-veterans had lower GPAs and entrance exam scores than what the university would usually accept. Additionally, remediation for deficiencies in academic areas and skills was not provided.

Participants in Peter's (1975) study were randomly selected, although they were not matched, thus making accurate comparability untenable, whereas Joanning's (1975) utilized randomized sampling and matching according to scores obtained on the American College Testing composite. Results of Peter's research suggest that veterans enrolled in higher education institutions may need social support and financial assistance to be successful. Research on Gulf War veteran students confirms that disabled veterans would benefit from additional income and social supports to be successful in college (Smith-Osborne, 2009).

These studies point out challenges veterans of previous wars have met in regards to academics. Understanding veterans of past wars from a wellness perspective would have provided greater knowledge and insight on strengths veterans possessed while adjusting to higher education. Using the 5F-Wel as the wellness assessment instrument in these studies might have reflected elevated wellness levels among veterans in comparison to nonveterans if achievement were determined to be positively related to wellness; however, research focused on student-veterans' holistic wellness is sorely missing with service members from WWII through Vietnam and it has not increased with research on the Iraq and Afghanistan wars.

Iraq and Afghanistan Wars

As veterans increase in numbers on college campuses, assistance for student-veterans may be needed while they adjust to campus life (Branker, 2009). Despite challenges, student-veterans are a population with unique experiences and training. Moreover, student-veterans are recognized as having several traits consistent with success in higher education settings, including perseverance, self-confidence, integrity, and team orientation (Hassan, Jackson, Lindsay, McCabe, & Sanders III, 2010). Previous studies of student-veterans indicated that they perform at a higher academic level than nonveterans (Clark, 1947; Frederiksen & Scharder, 1951; Joanning, 1975; Owens & Owens, Jr., 1949; Paraskevopoulos & Robinson, 1969); however, the research on student-veterans of OIF/OND and OEF remains limited. Similar to research with student-veterans from previous wars a focus on holistic wellness was found lacking, although elements associated with holistic wellness were apparent.

Studies have addressed the transitional issues of Iraq and Afghanistan student-veterans, the relationship between PTSD, and student-veterans' needs. Research reviewed includes three qualitative studies on Iraq and Afghanistan student-veterans focused on college transition (Livingston, 2009; Rumann and Hamrick, 2010; Stalides, 2008), while a fourth, a quantitative study, focused on the relationship between PTSD and health related behaviors, and lastly a mixed methods study conducted to assess the needs of community college students (Persky & Oliver, 2011). These studies provide greater understanding to some of the complexities encountered by college student-veterans during the period of adjustment from the military to civilian life in higher education.

Stalides (2008) used a constructivist/interpretist model to investigate five college student-veterans' transition to college. The study consisted of participants who had been in the military a

minimum of three consecutive years. The author found that the primary transition concerns were feelings of isolation as a result of the cultural differences student-veterans experienced in academia that were not present in their previous military life. For example, many found that they needed to refrain from aggressive behavior that was previously reinforced and encouraged in the military. Student-veterans reported that social adjustment was difficult particularly when socializing with students who did not have military experience. Adding to the difficulty of connecting with non-veterans were age and maturity gaps; veterans were older and felt more mature. Regardless, some veterans joined campus organizations that provided social support and for one veteran an avenue to release aggression.

Stalides (2008) also discovered that the military provided a unifying experience and espoused a single vision of purpose that was not found on college campuses, in part, due to multiple goals and values inherent to college environments. While the collectivist experience created difficulties with socialization in college, military training gave veterans a work ethic that was transferable to academia.

Understood from the perspective of the 5F-Well, isolation experienced by student-veterans is an attribute found within the secondary factor Social Self (Myers & Sweeney, 2005c). As social connectedness increases so does wellness, whereas isolation has a negative impact on wellness. The secondary wellness factor Essential Self incorporates identity (Myers & Sweeney, 2005c), for which student-veterans exhibited challenges. The implication of this study is highlighted by the significance and helpfulness of understanding student-veterans from a wellness point of view.

Whereas Stalides' (2008) study focused on military veterans who attended college for the first time, Livingston's (2009) qualitative research concentrated on re-enrolling veterans.

Participants in Livingston's research consisted of 15 re-enrolling veterans, of which one was female. Grounded theory guided Livingston's methodology, while snowballing and convenience sampling were used to select participants. Both Stalides and Livingston found socialization to be a challenge for student-veterans, although Livingston (2009) found the transition from military to college not as difficult for the participants in his study.

Similar to Stalides' (2008) findings, Livingston (2009) discovered that veterans returning to college experienced difficulties transitioning from a military environment where structure was fundamental to a college setting that was generally unstructured. The military also provided a format whereby coherence of identity was systemic, whereas in college life the veteran's identity was subject to fragmentation. A veteran in the college environment is subject to diverse opinions and values, hence multiple identities, while military life tends to subscribe to the notions of unity of thought and purpose, or one identity.

Identity challenges among student-veterans were found with Stalides (2008) and Livingston (2009). Another area found in their research was that student-veterans faced challenges pertaining to connectedness. Livingston characterized student-veterans as *invisible*, suggesting that veterans were not well known on campus. This term appears to be commensurate with Stalides's term *isolation*. Stalides and Livingston found student-veterans to be more mature and older in age in comparison to nonveteran students. These characteristics of student-veterans may contribute to thoughts of being invisible. According to Livingston, for some veterans being invisible was a result of living off campus and lacking involvement in campus activities. While veterans embarked upon a new life within academia they naturally were impelled to make the shift toward making connections with others who might be dissimilar

from themselves. Student-veterans were challenged as they moved toward connecting with others while at the same time losing past military connections.

Contributing to the disconnect student-veterans experienced with nonveteran students was the perception that nonveteran students did not have the same financial struggles as student-veterans (Livingston, 2009). Veterans also were found to be more focused on academics than their nonveteran peers and required little academic support. Being academically self-reliant was attributed to their military experience, which was a source of pride. Nonetheless, student-veterans found social support particularly amongst each other and with employers, administrators, faculty, and family.

From a wellness perspective, specifically the 5F-Wel, the concept of social connection falls within second order factors Social Self and Essential Self (Myers & Sweeney, 2005c). Student-veterans' sense of isolation or invisibility is a reflection of their level of connectedness. Higher degrees of connectedness may be viewed as indicators of greater degrees of wellness, while lower degrees of connectedness may be viewed as indicators of lesser degrees of wellness (Myers & Sweeney, 2005c). In regards to Essential Self student-veterans, in Livingston's (2009) study, experienced challenges associated with their identity; military culture versus higher education culture. Student-veterans experienced challenges of being more mature than their non-veteran peers and having to adjust to the less structured role of student life when compared military life. It is evident that student-veterans' transition adjustments may be expressed in terms of wellness. Research on student-veteran wellness is needed in order to understand the strengths veterans bring to a college campus during the transition process.

Student-veterans transitioning back to higher education from military service after having already been to college also present challenges to campuses. Rumann and Hamrick (2010)

investigated re-enrolling student-veterans' transition to higher education after experiencing military service within a war zone. The authors conducted a qualitative study that utilized "an interpretive theoretical perspective grounded in constructionist epistemology" (p. 436). This research employed semi-structured interviews with five men and one woman. Combat deployment distribution varied with four having gone to Iraq, one to Afghanistan, and another to Kuwait. Many of the findings of this study are similar to those of Stalides (2009) and Lvingston (2008). For example, most student-veterans expressed concerns about their temper; all participants found military life to be oriented toward daily routine, however they did not find the same within academic life; student-veterans perceived themselves as more mature than their nonveteran peers; and they discovered developing new friendships and resuming old ones to be a challenge.

Despite student-veterans' reported struggles with developing friendships and feeling as though they might be lagging behind their friends that had already graduated they felt their military experience provided them with the motivation needed to graduate (Rumann & Hamrick, 2010). Processing past and present experiences was a perceptible theme as student-veterans also experienced identity renegotiation in an effort to understand who they were post-deployment in relation to pre-deployment. Student-veterans navigated changes in emotionality, maturity, goal orientation, and social life. In adjusting to college life military experience resulted in most participants in the study being more accepting and interested in others. Interaction with another culture and with service members of varying backgrounds provided an opportunity for student-veterans to examine their preconceptions of people with dissimilar backgrounds.

The positive effects as a result of increased exposure to other cultures may be recognized in terms of the 5F-Wel secondary factor Social Self. Even though participants reported

difficulties developing connections their openness to accept others despite differences may be greater because of their exposure to diverse cultures. Additionally, identity renegotiation, as a result of student-veterans processing their military experience, may be conceptualized as being associated with Essential Self of the 5F-Wel. Research in the area of wellness would further the understanding of how Social Self and Essential Self, as well as other wellness factors, manifest in student-veterans.

While wellness is viewed as a strengths based paradigm health risk behaviors are also an important characteristic of college students to investigate. Widome, et al. (2011) studied the association between PTSD and health risk behaviors of student-veterans. The authors utilized subjects, selected randomly, from 14 two and four year colleges and universities from Minnesota. Their research consisted of secondary data obtained from the University of Minnesota's Boynton Health Service's College Student Health Survey. The authors found a significant positive association between PTSD and physical fights (i.e., engagement in a physical fight in the past 12 months) and a marginal positive association between PTSD and high risk drinking (i.e., consumption of five or more drinks at one time in the past two weeks). A significant association was not found between PTSD other health risk behaviors including, cigarette smoking, motorcycle riding, and driving or riding in a vehicle with an alcoholically impaired driver. The results of this study suggest that student-veterans may benefit from campus counseling programs developed specifically to address PTSD. Higher education mental health professionals, employed within counseling services clinic, may also benefit from additional education about the increased risk for alcoholic consumption and physical fighting among student-veterans diagnosed with PTSD.

The examination of student-veteran health risk behaviors and PTSD from a wellness perspective has not been conducted. Nevertheless, health risk behaviors and PTSD may be thought of in terms of a number of 5F-Wel secondary wellness factors including, for example, Coping Self, which addresses stress management and Essential Self, which addresses self-care. PTSD is a signature injury for veterans of OIF/OND and OEF, therefore understanding the impact PTSD has on student-veteran wellness would be a significant piece of information to have in order to provide comprehensive treatment and support services on college campuses.

While the research reviewed thus far has addressed student-veteran achievement, transition, health risk behaviors, and PTSD, Persky and Oliver (2011) sought to examine veteran needs. A mixed methods study conducted to assess the needs of community college students from Afghanistan and Iraq consisting of 60 participants produced five major themes (Persky & Oliver, 2011). The first entailed credit streamlining; meaning student-veterans determined that their transition to academia would be more efficient if they were allowed to receive academic credit for military experience and coursework obtained while in the military. Participants reported that some of the courses taken in college were redundant because they were already taken while in the military. Student-veterans additionally reported on the importance of having programs and services specifically targeted for student-veterans; such programs and services would help facilitate camaraderie and enhance the campus' veteran friendly culture. In addition to providing programs for student-veterans participants recognized the need to provide training for staff to offset an antimilitary bias among some instructors and to enlighten staff on the higher maturity level found among student-veterans as compared to nonveterans (Persky & Oliver, 2011). One significant area of concern for veterans of OIF/OEF has been PTSD. There is abundant research on PTSD, although research specific to student-veterans in this area is limited.

The student-veterans in Persky and Oliver's (2011) study demonstrated, in part, the attribute of self-care, which corresponds to the secondary factor Essential Self of the 5F-Wel. Considering student-veteran needs from a wellness viewpoint would add another dimension of understanding to the literature on student-veterans.

The studies reviewed demonstrated the need to address student-veterans' social, emotional, and psychological needs. However, there have been modest efforts to consider student-veteran needs holistically. A holistic perspective would include an analysis of the integration and interaction of strengths and weaknesses. In order to fill the gap in this area of research this study utilizes the wellness paradigm, a construct that is evidenced-based and fundamental to the counseling profession.

Wellness

Introduction

Wellness is a concept founded in medicine that has evolved to become a common part of the counseling discipline. The historical conceptualization of wellness, from a Western perspective, is rooted in ancient Greece (Myers & Sweeney, 2005a). Before the Greeks expounded on their philosophies of health and wellbeing, a holistic perspective of health had already been conceptualized in ancient China (Johnson, 2000). In this study, however, wellness will be discussed in relation to its historical and theoretical roots. Wellness research associated with military veterans, college students, and college student-veterans are examined. Within the counseling profession wellness may be measured utilizing the Five-factor Wellness Inventory, the only theoretically based counselor assessment instrument, and it is the instrument of choice for this study.

History

For more than 5000 years Chinese doctors (Johnson, 2000) practiced treating people from a holistic and preventative view point (Hou & Wiley, 1999). According to Kit (2002), the Chinese medical system is the longest continuous medical system in the world. From this perspective wellness may be viewed as an ancient tradition. Traditional Chinese medicine incorporates such concepts as *qi* and *yin-yang*. Whereas yin is known for the representation of feminine properties yang is known for masculine qualities. Qi may be thought of as energy that permeates everything including the human body. It is considered the life force that is the animating essence of existence including the physical and mental (Beinfeld & Korngold, 1991). Qi, yin, and yang interact within and outside the human body creating a unified interrelated model of individual well-being and wellness. Medical doctors from Asia may feel comfortable with this paradigm of wellness; however, western trained medical doctors may find this paradigm of wellness to be difficult to comprehend and would probably be more comfortable with allopathy.

The western medical model originated in Ancient Greece. Before the scientific era was established, Asclepius, a physician, utilized a number of therapeutics including baths, exercise, and intervention by “the god of healing” (Kit, 2002, p. 4). Asclepius lived about 1200 BC and was eventually deified. Asclepius was also known to have a staff around which a snake was wound. This later became the modern day symbol for the medical profession. It was not until Hippocrates, who lived approximately from 460 BC to 377 BC, established the teaching that disease was naturally rather than supernaturally caused that the scientific viewpoint of medicine was established. He is probably most commonly known for founding the Hippocratic Code and

less for his collection of almost seventy books on medicine. One of Hippocrates' teachings was that medical treatment included the whole person (Kit, 2002).

While Hippocrates wrote and practiced medicine reflecting a holistic perspective it was Aristotle who during his lifetime originated in his writings and lectures the concept of wellness (Myers & Sweeney, 2005). In his writings (i.e., lecture notes) he proposed that people are goal directed with the final destination being *eudaimonia* (Johnston, 1997). *Eudaimonia* may be interpreted a number of ways including happiness, flourishing, or well-being ("Stanford Encyclopedia," 2007). *Eudaimonia* was achieved by way of contemplation (Sim, 1995). Contemplation, in part, involved focusing on living according to a balanced life, which meant refraining from deficiencies and excesses that lead to a way of maintaining health ("Aristotle's Doctrine," n.d.). Wellness embraces the concept of individuals achieving and maintaining high levels of health and wellbeing and is associated with more recent perspectives of wellness.

Modern Wellness

Several notable figures in the modern wellness movement include Halbert Dunn, John Travis, Donald Ardell, and William Hettler (Swinford, 1989). Ardell (1984) pointed out in *The History and Future of Wellness* that the movement began with the lectures of physician Albert Dunn in the 1950s. Dunn (1961) lectured on the holistic nature of human beings, where mind, body, and spirit (Dunn, 1961; Ardell, 1977) are interconnected. He introduced the term *high level wellness* (Swinford, 1989) that characterized wellness as dynamic, where people move toward optimizing their potential (Dunn, 1961). John Travis, MD was influenced by Dunn (Leafgren & Elsenrath, 1986). He became the first physician to provide wellness services and education to health professionals and the public.

Ardell (1977), formerly a health planner before focusing his efforts on the wellness movement, was motivated to some extent by Dunn's and Travis's writings. Ardell became disillusioned with the lack of impact health planning had on the health system in which he worked professionally for about 10 years. In *High Level Wellness: An Alternative to Doctors, Drugs, and Disease* Ardell (1977) encouraged individual self-responsibility for health and well-being and provided information on how the reader might engage in a healthier lifestyle.

Similar to Ardell, William Hettler changed his professional focus. A physician at the University of Wisconsin, Stevens Point (UWSP) and the director of the University Health Service, he made the transition in his professional work from following a disease model of health to a wellness model (Swinford, 1989). Two significant influences Hettler had on modern wellness were in the establishment of an annual international wellness convention at the UWSP and the introduction of the wellness paradigm to the university setting (Swinford, 1989). In the article *Wellness Promotion on a University Campus* (Hettler, 1980), Hettler outlined a comprehensive wellness program situated at the UWSP. Hettler (1980) described wellness as "an active process through which the individual becomes aware of and makes choices toward a more successful existence" (p. 77). Wellness programs on college campuses present an opportunity for students to take proactive responsibility for their overall well-being (Leafgren, 1986).

Conceptually based on the concepts of Individual Psychology (Adler, 1956) Sweeney and Witmer (1991) created the Wheel of Wellness (WoW). Yet, while Individual psychology serves as the central theoretical base, Sweeney and Witmer drew inspiration from multiple disciplines, including education, anthropology, psychology, and behavioral medicine. Essentially, Witmer and Sweeney (1992) envisioned the WoW as a wellness paradigm in which the holistic nature of

human well-being is presented. The Wellness Evaluation Lifestyle (WEL) was developed to assess wellness based on the WoW (Hattie, Myers, & Sweeney, 2004). Over time, a data-base grew from data collected from the WEL. Hattie, Myers, & Sweeney, (2004) then analyzed this database of 3,043 children and adults, the largest grouping being university students. The results of their factor analysis confirmed the original 17 dimensions of the WoW, but revealed five second order factors (i.e., Coping Self, Creative Self, Essential Self, Physical Self, and Social Self) and an overall higher order factor Wellness. These findings led to the creation of the Indivisible Self: An Evidenced Based Model of Wellness (IS-Wel) and the Five Factor Wellness Inventory, an assessment instrument for measuring wellness based on the IS-Wel (Myers & Sweeney, 2007). This model has been used in research with numerous college aged individuals and is used to assess the wellness of student-veterans in this study.

College Student Wellness

Literature on college student wellness dates back to 1987 with Archer, Probert, and Gage's (1987) study of college student wellness attitudes. In their study 3,190 students from 11 higher education institutions were surveyed. Researchers used Hettler's (1980) model of wellness that consisted of six dimensions of wellness including Physical, Emotional, Spiritual, Occupational, Social, and Intellectual. Students assessed each dimension using a 5-point Likert-type scale to determine their (a) current wellness level, (b) how their health and wellness were affected, and (c) where they needed more assistance. Results indicated that students perceived that the Physical dimension affected their wellness most and the Spiritual dimension affected their wellness least. Students indicated that they needed the most assistance with the occupational dimension of wellness, while they believed Physical wellness was the dimension where the least assistance was needed. Behaviors beneficial for wellness noted by students were

close relationships, exercise, and socializing. The detrimental activities rated highest were worry and poor sleep habits.

The results of this study suggest that students believed that the physical dimension of wellness impacted their level of wellness the most and that it is also the factor in which they had the greatest self-efficacy. Students additionally perceived the behaviors that contributed the greatest wellness benefits were, in order, close relationships, exercise, and socializing. Students' belief that having close relationships is more beneficial to their level of wellness contradicts the belief that the Physical dimension of wellness has the greatest impact on their level of wellness. The results of this study point to the need for further wellness research specifically among college students' perception of wellness, behavior that leads to greater wellness, and the effect of belief in facilitating behavior toward greater wellness.

Hybertson, Hulme, Smith, and Holton (1992) also used Hettler's six dimensions of wellness to measure wellness levels, in this case, among non-traditional and traditional college students. The authors found, as did Archer, Probert, and Gage (1987), the Physical dimension was perceived to have the greatest effect on wellness among traditional students. However, among non-traditional students (those older than 25 years) the Social dimension was perceived to have the greatest impact on wellness. The top three dimensions for traditional and non-traditional students were the same, but ranked differently. For traditional students the Emotional and Social dimensions were ranked two and three respectively, while for non-traditional students Physical and Emotional were ranked two and three respectively. This study suggests that wellness programs made available to students might focus differently depending on the subpopulation being targeted. Programs that seek to attract non-traditional students may be more

social in content, while programs for traditional students may involve more physical activities (Archer, Probert, and Gage, 1987).

Using a sample size of 1,049 students Olenckno and Blacconiere (1990) studied wellness in relation to gender, race, and class standing. They used the Health-Promoting Lifestyle Profile (Walker, Sechrist, & Pender, 1987) to measure six dimensions of wellness on a Likert-type scale consisting of Stress Management, Interpersonal Support, Nutrition, Self-Actualization, Health Responsibility, Exercise, and an overall wellness score. Results indicated that females reported significantly higher levels of wellness than males. On the six dimensions of wellness females scored significantly higher when compared to males on Health Responsibility and Interpersonal Support. Racial differences revealed that whites exhibited significantly higher levels on three scales including Exercise, Interpersonal Support, and Self-Actualization. As class standings increased wellness levels also tended to increase.

Overall, college students demonstrated approximately an average level of wellness. College students demonstrated above average levels of wellness for the subscales Self-Actualization and Interpersonal Support. On the subscale Health Responsibility, results were below average, while results were close to average on Stress Management, Nutrition, and Exercise. The sample size was robust for both studies and the results were meaningful within themselves. However, the scales used in the two studies did not use consistent measures of wellness dimensions. This made comparative analysis difficult. Nonetheless, the Social dimension in Archer, Probert, and Gage's (1987) study appears to correspond with Interpersonal Support dimension in Olenckno and Blacconiere's (1990) study. In both studies these dimensions were rated as the highest wellness level. The Physical dimension of wellness in

Archer, Probert, and Gage's study was rated above average. Similarly Exercise and Nutrition dimensions, which approximate the physical dimension, were also rated above average.

While these studies are important additions to the literature on college student wellness they lack a foundation that is established within a counseling theory. This study uses the Indivisible Self, a model of wellness based on Individual Psychology (Adler, 1956) to assess the wellness of student-veterans.

Wheel of Wellness and Indivisible Self

Introduction

There have been numerous studies conducted with college students using the theoretical models the Wheel of Wellness (WoW) and the Indivisible Self: An Evidenced-based Model of Wellness (IS-Wel). While each wellness model is based in counseling theory the IS-Wel is the only evidenced based model of wellness developed for counselors (Myers & Sweeney, 2005). The WoW uses the Wellness Evaluation of Lifestyle Inventory (WEL) to measure its different components. The Five Factor Wellness Inventory (5F-Wel) is used to assess the various components of the IS-Wel (Myers and Sweeney, 2007). This research will use the 5F-Wel. The structural arrangement that this section follows is consistent with Osborn's (2005) study of undergraduate student wellness research in which she categorized studies into two groups that included those utilizing the WEL and those using the 5F-Wel.

WEL: First Year Students

There have been many studies, including doctoral dissertations that utilized the WEL to analyze characteristics of college students in relation to wellness. In a study of first year West Point cadets Myers and Bechtel (2004) found that there was a significant negative correlation "between perceived stress and wellness in the areas of work, realistic beliefs, and stress

management” (p. 479). Results suggest that Cadets found work and self-regulation to be stabilizing factors and their thinking process to accurately reflect reality (Myers & Bechtel, 2004). Additionally, the highest measures of wellness found were Friendship, Love, and Exercise. Friendship and Love point to connections with others, although when measured against a norm population Friendship scored significantly higher, while Love did not. According to the authors these results might be indicative of the strong camaraderie engendered by the military environment. Love, which is more closely related to intimate and familial relations are not as immanent as in the civilian population. As for Exercise being rated significantly higher than the norm population it may be the result of its importance within the military culture (Myers & Bretchel, 2004). Results of this study suggest that the cadets perceived social connections and physical exercise to be helpful in terms of maintaining wellness.

Further research investigating wellness of first year college students revealed Love and Sense of Worth as the areas rated highest on the WEL (LaFountaine, Neisen, & Parsons, 2006). The sample used in this study, of 1,007 students, when compared to a national normative sample scored significantly higher on Exercise, Stress Management, and Nutrition. Authors reported that 46.9 percent of the sample indicated that they did not have a sexual partner; therefore the high Love indicator may be reasoned to have occurred because of relations involving friendships, family, and other non-sexual connections. Results of this research suggest the importance that connections with others contribute to wellness. While authors found Stress Management and Nutrition to be two significantly high scoring factors this has not been the case with other research.

According to Choate and Smith (2003) Stress Management and Nutrition were factors in need of the greatest change in their study of first year college students. In a study of 59 students,

who participated in a class that contained wellness components from the WoW as part of the curriculum, Stress Management and Nutrition were two areas students most frequently targeted for change. As a result, students significantly increased their ratings in the wellness areas targeted for change over the course of a semester and subsequently this resulted in increased overall wellness scores. This study suggests that as college students increased their awareness in relation to wellness they were also making adjustments to their self-perception. As students made adjustments to their self-perception they were also impacting their identity formation (Herman, 2008). This study exemplified that college can be a time when students are able to make changes on their wellness level while they continue to develop their identity.

Adolescence is a time of identity formation (Herman, 2008). When college students acquire experiences they help facilitate the individuation process. They continue to maintain some of the foundation of their family identity as well as develop their own. Many first year college students have been found to have a diffused identity, in which lifestyle or values have not been solidified (Louden, 2005). Louden (2005) found in her study that freshmen and older adults (over sixty years) scored highest on Work and Leisure and both identified as having diffused identities. These results suggest that work and leisure activities were the most enhancing for maintaining wellness and identity that was in a state of being developed. For both the older adult and the traditional college student adjustments to life changes are taking place.

For the college student assistance with adjustment to college life will help enhance wellness (Enochs, 2001). There is an interactive effect between adjustment and wellness that was shown to be significant in Enoch's (2001) study of 511 first year students. She demonstrated that first year students living in a Freshmen Experience residence hall experienced higher levels of adjustment and wellness than freshmen living in a traditional residence hall.

Freshmen Experience halls were specifically intended for traditional aged students and provided special programs to enrich their first year experience. Additionally, Enochs (2001) found that there was not a significant difference in the level of wellness between males and females despite males having slightly higher levels of adjustment.

The freshman year is a period of adjustment for college students. Research with freshmen college students has provided insight on WEL factors that enhance wellness. Studies that address psychological constructs in relation to wellness are also informative.

WEL: Psychological Constructs

Several studies have focused on psychological, social, or behavioral aspects of undergraduate college students. Warner (2000) found in his study that college students who were identified as alexithymic (i.e., poor emotional development) to have scored significantly lower on total wellness than college students who were nonalexithymic. Congruent with this finding the author found among non-college students who were nonalexithymic substance dependent subjects, when compared with alexithymic substance dependent subjects, that Total Wellness was significantly higher with the nonalexithymic substance dependent group. The author proposes that emotional development is potentially an important feature of Total Wellness and that substance dependence may be understood and targeted for treatment by addressing alexithymia.

Research suggests that focusing on emotional regulation in clinical practice is one possible means of affecting positive change in a client's overall wellness. While happiness in a study by Granello (1999) utilizing 100 undergraduate college students demonstrated that it correlated with Total Wellness. Additionally, WEL variables Self-regulation, Work, Recreation, and Leisure, and Friendship had been found to be the best predictors of psychological well-being

for college students in an analysis of 155 undergraduates (Hermon & Hazlor, 1999).

Implementing higher education programs that promote self-regulation (i.e., stress management, nutrition, exercise, emotional responsiveness, etc.), assist students with meaningful vocational pursuits, and support free time activities, facilitates movement toward well-being (Hermon & Hazlor, 1999).

A number of researchers using the WEL focused on psychological constructs. Results of studies suggest that there may be a relationship between Total Wellness and emotional regulation and Total Wellness and happiness. Targeting either variable, emotional regulation or happiness, in clinical practice may affect Total Wellness. Other studies using the WEL may provide insight into the application of wellness for clinical use.

Other WEL Research

Other WEL research are not easily grouped and will therefore be presented in no particular order. Steigerwald (2000) found in her study of undergraduates and their family-of-origin structure (i.e., intact, nuclear, single parent, blended, remarried, step family) and the association with Total Wellness did not produce significant results. In other words family-of-origin did not impact an individual's overall level of wellness. The author points out that previous research has produced mixed results about the negative impact of family structure on offspring. Further research in this area is suggested; however, results suggest family structure should be viewed as not contributing negatively to the overall level of wellness (Steigerwald, 2000).

Sinclair (2001) also did not find, in her study of 190 females, a significant relationship in her investigation of objectified body consciousness and Total Wellness. This would suggest that college women who may experience body shame, body surveillance, and appearance control

beliefs, all associated with body objectification, do not experience significant wellness loss. Although, when appearance control beliefs were examined separately the author found that it was related positively with Total Wellness. This suggests that the college women in this study gained psychologically from feeling that they were in control of their appearance, which in turn positively impacted their wellness.

College students are involved in making choices that facilitate the sense of control, both minor and significant, throughout their experience in higher education. One of the areas that may be of interest to college student decision-making involves spirituality. Vecchione (1999) found in his study of 160 undergraduates that there was a negative relationship between career development attitude and Spirituality on the WEL. The author found this to be confounding and attributed it, in part, to developmental aspects college students may be experiencing (e.g., a time of exploration) and the nature of the questions that addressed spirituality may not have clearly presented spirituality as it was understood by the students.

Another group of students that have received research attention are those in counselor training programs. Research with graduate students of counselor training programs revealed that doctoral level students scored higher on Total Wellness than counseling students at entry-level (Myers, Mobley, & Booth, 2003). Wellness may contain a developmental component and therefore doctoral students may have been more developmentally advanced in comparison to entry-level students (Myers, Mobley, & Booth, 2003). When both groups of students were compared to the WEL's normed population counseling students scored higher on eight out of nineteen scales. This difference may be attributed to counseling students having developed greater awareness by having taken counseling courses and being exposed to others (e.g., counselor educators) who may have served as wellness role models (Myers, Mobley, & Booth,

2003). When within group analysis was conducted authors found that female students scored higher on Gender Identity than males and non-Caucasian students scored higher than Caucasian students on Cultural Identity. These results may reflect greater awareness among minority groups in the U.S. that have experienced a history of discrimination and thus are more sensitive to issues involving gender and culture. Despite the authors' caution about interpreting the results, because of varying sample sizes, information from this study is revealing about counselors in training.

Research that compares traditional and nontraditional students may also be informative to counselor education programs because counselor education programs consist of both subpopulations. Hermon and Davis (2004) compared wellness levels between traditional (17-23) and nontraditional students (24-51years). Nontraditional aged students scored higher on Self-Care and Realistic Beliefs than traditional aged students, while traditional aged students scored higher on Physical Exercise. This study is a reminder that different wellness strengths can be found among different college age groups. However, it is not always the case that differences are found between two groups. For example, there was no significant difference found in Total Wellness when African American males in a historically Black college or university (HBCU) were compared with African American males of a predominately White institution (PWI; Spurgeon, 2009). The author found that African American males from an HBCU scored significantly higher in WEL areas of Friendship, Love, Sense of Control, and Gender Identity than did African American males in a PWI, while students from the PWI scored significantly higher in the area of Sense of Self Worth. As can be seen by the number of wellness areas omitted (i.e., Work, Leisure, Realistic Beliefs, Emotional Awareness and Coping, Problem Solving and Creativity, Sense of Humor, Exercise, Nutrition, Self-Care, Stress Management, and

Cultural Identity) it is apparent that African American males from an HBCU when compared to African American males from a PWI have more wellness areas in common than not.

The studies just reviewed represented a number of research topics using the WEL. Several topics considered included family of origin, objectified body consciousness, and career development attitude, while participants included counselor education students, undergraduates, and nontraditional college aged students. Research using the WEL has been informative, but since the development of the WEL the 5F-Wel was developed. The 5F-Wel has been used in many studies including those involving undergraduate female students.

5F-Wel: Undergraduate Women

Sinclair and Myers (2004) studied the relationship between objectified body consciousness and wellness in a sample of 272 undergraduate women. Their findings resulted in subjects scoring highest on the Social Self and Physical Self scales of the 5F-Wel. A correlation calculation revealed a significant negative relationship involving Creative Self and Coping Self with Body Shame (the feeling of shame that occurs when recognizing the body does not adhere to societal standards). Additionally, a significant negative correlation was found between Coping Self and Body Surveillance (viewing the body as though one is on the outside). Positive correlations were found between Body Surveillance and Essential Self as well as between Appearance Control Beliefs (the degree of control one believes she has over appearance) and Creative Self, Social Self, Physical Self, and Total Wellness scales. One of the important aspects found in this study is the connection discovered between how women view their bodies, through the lens of societal values, and as the authors pointed out, how women may be encouraged to resist societal scrutiny so that levels of wellness may increase.

Related to societal values is the pressure some women feel to be thinner (Castle, 2008) than they are currently. According to Castle (2008), in her research of 563 undergraduate females, Creative Self was correlated with disordered eating, while anxious attachment style was indirectly associated with disordered eating. Moreover, women's Coping Self levels were found to predict disordered eating. Results of this study suggest that increasing Creative Self and Coping Self wellness levels may mediate disordered eating behavior among women.

Other wellness research involving women has focused on career motivation (Booth, 2005). Booth (2005) included 246 subjects in her research, for which results indicated that career motivation was predicated by multiple role planning attitudes (i.e., orientation, attitude, and planning for different life roles, such as parent, spouse, and employee) and wellness (Booth, 2005). Additionally, multiple role planning attitudes and wellness were found to have greater variance with the Caucasian sample than the African-American sample. African-American women were found to be "more knowledgeable, certain, and committed to a multiple role planning lifestyle and had greater career motivation than their Caucasian counterparts" (p.250). This study highlighted the challenges undergraduate women faced regarding multiple role planning attitudes and wellness and the effects they have on career motivation. Lastly, as the author emphasized, this study confirms findings of previous research that indicated African-American women learn from a young age that they will work.

A number of studies focused on using the 5F-Wel with undergraduate women. The literature in this area addressed apparent topic areas historically of concern to women including objectified body consciousness, disordered eating, and career motivation in relation to wellness components. Certainly this is not the full extent of needed research regarding women's concerns in relation to wellness, but it is a start. As was demonstrated a number of researchers have

advanced the knowledge of wellness regarding female undergraduates, while others have continued with this college subpopulation and have further narrowed their focus to student athletes.

5F-Wel: Undergraduate Athletes

Student athletes are a unique subpopulation on many college campuses. Student athletes have demanding roles as athletes and traditional students (Williams, 2007). There have been two studies that have used the 5F-Wel to measure wellness among student athletes.

Williams (2007) sampled 160 student athletes to examine athletic identity, sport commitment, time in sport, social support, life satisfaction, and wellness. He found that sport commitment, life satisfaction, and social support predicted Holistic Wellness (i.e., Total Wellness). These results suggest that student-athletes that have a lot of dedication to their sport, contentment with their lives, and support from others for their participation in sport may contribute to higher levels of overall wellness. Moreover, Williams (2007) found that females scored higher than males on Holistic Wellness, suggesting that females may have experienced a higher level of overall wellness than males. While an analysis of differences between African-Americans and Caucasians revealed that African-Americans scored higher on Essential Self, specifically the Spirituality and Cultural Identity elements, suggesting that African-Americans may have experienced a greater sense of spirituality and identity. However, Caucasians scored higher than African-Americans on Social Self and the corresponding elements Friendship and Love, and on Physical Love and the corresponding element Exercise. These results suggest that Caucasian athletes in relation to African-American athletes, in this study, may have experienced greater degrees of support from connections with others and a higher degree of maintaining physical activity and conditioning.

The second study that focused on wellness and student athletes included 62 student athletes and 95 nonathletes (Watson & Kissinger, 2007). Researchers found that nonathletes received higher wellness scores across 22 of 23 factors on the 5F-Wel (Watson & Kissinger, 2007). The results were consistent with the researchers' hypothesis that student-athletes' experience demands related to their activities in sport that it would have a negative impact on their wellness. Nonathletes also scored higher than student-athletes on Essential Self. When analyzing second order factors nonathletes scored higher on Social Self and Essential Self than student-athletes. The authors stipulate that athletes spend significant amounts of time involved in athletic related activities including, but not limited to, traveling to sporting events, training, and participating in sporting events. These activities may be detrimental to athletes developing social connections and thus may have contributed to lower Social Self scores in comparison to nonathletes. Additionally, the amount of time student-athletes commit to their respective sport may hinder their ability to focus more on developing meaning and purpose in their lives (Watson & Kissinger, 2007), which is characteristic of Essential Self.

Each of the above studies bring into view the complexity of student-athletes' wellness profiles. Both studies emphasize the need for further research in order to understand why student-athletes' wellness profiles present as they do. Additionally, research would contribute to understanding implications for counseling treatment and the necessity for services focused on their unique needs and concerns.

Other 5F-Wel Research

There have been a number of studies conducted using the 5F-Wel as a measure of wellness among college undergraduates. The following studies do not conform easily into a distinct category other than the utilization of college undergraduates as subjects. In a study of

234 first year military academy cadets of The Citadel, another unique subpopulation, Gibson & Myers (2006) sought to investigate wellness levels and to compare these levels to West Point Cadets. Overall wellness factors were negatively skewed for the Citadel cadets, although compared to nonmilitary undergraduate students Citadel and West Point cadets scored higher on Self-Worth. The authors speculate that students in military colleges may share similar experiences that help enhance their confidence, while nonmilitary college students may not feel the camaraderie that is derived from a common experience, which may in turn quell their sense of confidence. Confidence appears to be affected by a person's ability to successfully manage life challenges, which Coping Self represents, and was the highest rated secondary factor. Whereas Essential Self represented the lowest rated secondary factor, suggesting that Citadel cadets may have experienced difficulties deriving meaning and purpose for their lives. In comparison to West Point cadets, Citadel cadets scored higher on Thinking, a third order factor/latent factor. This was an unanticipated finding for which the authors suggest further research is warranted, although results suggest that thinking processes play a more significant wellness role in the lives of Citadel cadets than in the lives of West Point cadets. In another area of interest involving Citadel cadets was the finding that Perceived Stress was positively correlated with Exercise. This may be the result of the demanding nature of exercise at the Citadel and that it is mandatory rather than recreational and self initiated (Gibson & Myers, 2006). This is also a unique study given the military perspective of this study.

In another study of undergraduates Shurts and Myers (2008) analyzed liking, love styles and wellness using a sample of 168 students. Their findings revealed that Social Self resulted in the highest secondary factor wellness mean score, while the Eros (i.e., romantic love) received the most endorsements for love style on the Love Attitudes Scale. Total Wellness was found to

be predicted by Liking and Mania love styles (i.e., obsessive love). The authors also found positive correlations between positive love styles (e.g., Eros, romantic love; Pragma, practical love; and Agape, altruistic love) and Total Wellness, whereas negative correlations occurred between negative love styles (e.g., Ludus, game-playing love; and Mania). The correlation findings of negative love styles and positive love styles with wellness make intuitive sense and can be helpful in understanding how college students' love relationships affect their wellness. Wellness among this group of undergraduates appears to be impacted positively by positive love styles and negatively by negative love styles.

Wellness so far has focused on undergraduate students in four-year institutions. McNeely (2010) examined 223 students in a community college on the dimensions of wellness. The author found that Hispanic-Americans, African-Americans, and other (noncategorized) ethnic groups scored significantly higher than European-Americans on Essential Self, suggesting that minority students, within this study, presented with a an enhanced level of identity. Additional analysis of this research revealed that males scored significantly higher than females on Coping Self, and Physical Self, while there was no difference between males and females on Total Wellness. The author suggests that society places great demands on women, which may have been reflected in Coping Self and Physical Self scores, whereas women have other strengths that augment weaknesses. Lastly, the medium socioeconomic group was found to have a significantly lower Total Wellness score than the high socioeconomic group and the low socioeconomic group was lower than the high socioeconomic group but it was not significant. McNeely (2010) points out that students from higher socioeconomic families have greater income, which may allow them to develop more positive wellness behaviors. According to the

author these results suggest that students from moderately ranked socioeconomic level families may experience the greatest challenge in sustaining wellness behaviors.

The literature just reviewed demonstrated the diverse populations that have been studied using the 5F-Wel. Participants represented ranged from undergraduate West Point Cadets to community college students. Counselor education students are another subpopulation that has been a frequent area of research focus.

5F-Wel: Counselor Education Students

Psychological distress is the most frequently occurring impairment among counselors (Smith, Robinson III, & Young, 2007). Studying wellness, what may appear to be a mediating variable to distress, makes it an important phenomenon to investigate.

Smith, Robinson III, and Young (2007) found in their study of 204 entering master's level counseling students that a negative relationship existed between Psychological Distress and Wellness. These results suggest that wellness may be useful as a measure of counseling student distress and potential impairment (Smith, Robinson, & Young, 2007). While wellness and distress levels of a counseling student may seem to be factors that influence counseling effectiveness, research by O'Brien (2007) suggests otherwise. In O'Brien's (2007) dissertation on the relationship between master's level counseling students' wellness and treatment outcomes of clients a significant relationship was not found (i.e., counselor student wellness did not predict client treatment outcomes). The author noted the small sample size (N=58) was one of the limitations of her study. The impact of counseling student wellness on performance, clinical or otherwise, appears to warrant further exploration. Understanding variables that impact wellness may prove helpful.

Several researchers have attempted to discover variables that are capable of predicting counselor education student wellness. The relationship of self-efficacy to wellness was investigated by several researchers (Curry, 2007 & Nunnery, 2011). Curry (2007) analyzed wellness, in isolation of other variables, but did not find it to be predictive of self-efficacy among counselor education students. Similarly, Nunnery (2011) examined Total Wellness and academic factors (i.e., internship hours, clinical hours completed, supervised hours completed, and GPA) and found that they did not predict counselor education student self-efficacy. However, a negative relationship between counselor education student grade point average and Total Wellness (Nunnery, 2011) was reported. Nunnery (2011) found as students' grades increased their level of wellness decreased. These results suggest that the better a counseling student performed, as measured by GPA, the worse his or her wellness became. A possible explanation is that greater effort was needed to attain better grades, however the effort exerted had a negative impact on students' lives. Furthermore, Perepiczka (2008) analyzed potential wellness predictor variables among counselor education doctoral students. Variables the author investigated included age, matriculation in a doctoral counselor education program, and relationship status. Results did not find the variables to be predictive of counselor education doctoral student wellness. These studies point to the difficulties in discovering variables that are predictive of counselor education students and levels of wellness and they demonstrate the need for further research in this area.

Roach and Young (2007), in a sample of 204 subjects, sought to investigate the healthiness (i.e., wellness) of counselor education programs by measuring students in the programs at three different points (i.e., beginning, middle, and end). Results indicated that all groups (i.e., beginning, middle, and end) demonstrated higher Total Wellness mean scores and

higher second order mean scores in the areas of Social Self, Essential Self, Creative Self and Coping Self when compared to the norm group. However, results did not confirm a trend among groups based on the amount of time in counselor education programs. The results indicated by the authors illustrate the consistent nature of wellness across different time periods for counselor education students. Results additionally identified Physical Self as the factor that was relatively weak. Counselor education students might have benefit from focusing on exercise and nutritional (Myers & Sweeney, 2005) dimensions of their lives in order to improve their overall wellness and Physical Self.

Another strategy for increasing wellness levels among counselor education students may involve working with students to develop a higher level of gratitude (Kahlo, 2009). Kahlo (2009) found a moderate positive relationship between gratitude level and Total Wellness among counselor education students. Secondary factors of the 5F-Wel revealed that Coping Self, Creative Self, Social Self, and Essential Self had moderate positive relationships with gratitude, while Physical Self had a weak relationship.

The wellness literature reviewed in this section represented a variety of participants from higher education institutions. Wellness research included use of the WEL and 5F-Wel. College student subpopulations studied included, in part, cadets from several military academies, freshmen, nontraditional, females, and athletes. There have not been any studies using the WEL or the 5F-Wel to study student-veterans. This study will utilize the 5F-Wel to study student-veteran wellness and it will help fill the gap in the wellness literature on higher education students.

Summary

A review of the literature revealed a number of research areas associated with veterans and wellness that warrant mention. There had been a number of studies that addressed veterans and health related quality of life (HRQOL). Health related quality of life is conceptually similar to wellness. Health related quality of life was found to be negatively associated with depression, PTSD regardless of veteran gender, and veterans that lived in rural areas versus those that lived in urban settings.

Veterans have a long history of receiving educational assistance and as a result many veterans have entered higher education with challenges due to their combat experiences. A number of studies were conducted to investigate the adjustment of World War II veterans attending higher education institutions. Research revealed that they academically outperformed non-veterans, they tended to be older, and more mature than their non-veteran classmates. Currently, as a result, in part, of the Post 9/11 GI Bill veterans returning from the wars in Afghanistan and Iraq have enrolled in colleges and universities across the U.S. in great numbers. Results of studies that focused on veterans from the Afghanistan and Iraq wars similarly revealed student-veterans to be older, more mature, more academically focused, and being challenged with acclimating to a less structured university environment after having been in a more structured military environment. Missing from early studies on student-veterans is research related to wellness.

Wellness is a concept that is fundamental to the counseling profession, while the 5F-Wel is a wellness assessment instrument that is research based and theoretically grounded in a counseling theory. There have been numerous studies conducted using the 5F-Wel and the Wellness Evaluation of Lifestyle Inventory (WEL) the precursor to the 5F-Wel. There have also

been a number of early studies that have used other wellness instruments to investigate student wellness.

Early wellness studies used instruments such as Hettler's six dimensions of wellness (Hybertson, Hulme, Smith, and Holton, 1992) or the Health-Promoting Lifestyle Profile (Walker, Sechrist, & Pender, 1987). Findings from these instruments suggest that college students found wellness to be impacted by the degree of socialization, while different student subpopulations indicated varying wellness perceptions. In terms of gender females were found to have a significantly higher level of wellness compared to males (Walker, Sechrist, & Pender, 1987).

A number of studies involving first year students utilized the WEL (Myers and Sweeney, 2007). Several wellness constructs were found to be areas of strength for students including love, exercise and self-worth, while freshmen were found to have diffused identities. Additionally, no significant wellness differences were found between male and female first year students, although this finding was different than earlier research that did not use the WEL. Lastly, research that focused on psychological constructs found that happiness and emotional development were associated with Total Wellness.

Wellness research that utilized the 5F-Wel investigated numerous college student subpopulations including athletes, females, gender, and counselor education students. In general nonathletes scored higher on wellness than athletes, while sport commitment life satisfaction and social support predicted Holistic Wellness; females were found to have a significant negative relationship involving Creative Self and Coping Self with Body Shame and career motivation was predicated, in part, by wellness; males scored relatively higher than females on Coping Self, and Physical Self, while there was no difference between males and females on Total Wellness; wellness and treatment outcomes were not related for counselor education students, while

wellness was not predictive of self-efficacy, a negative relationship between counselor education student grade point average and Total Wellness, and a moderate positive relationship was found between gratitude level and Total Wellness among counselor education students.

This literature review showed that there has been an interest in student-veterans since WWII. Research on wellness and college students has been conducted; however, studies on student-veterans holistic wellness as defined in this research has not been done. The current study on student-veteran holistic wellness will help fill this gap in the literature.

CHAPTER THREE: METHODOLOGY

Participants

Participants in the study were student-veterans from the Afghanistan and Iraq wars located at colleges and universities across the United States that represented the top 30 institutions with the largest number of participants in the Post 9/11 GI Bill. Access to these students was obtained by obtaining approval for research by the participants' IRB office and through the assistance of participants' university veterans support services office. All participants were enrolled (at least part time) in 4-year colleges and universities in the United States. Upon online receipt of their informed consent, participants were asked to complete the Five-Factor Wellness Inventory (Myers & Sweeney, 2005c) and a demographic data form. Based on an alpha level of .05, a power of .80, and medium effect size, the minimum number of participants was determined to be 198 (Hair, Anderson, Tatham, & Black, 1998).

Research Design

An expo facto study was conducted in order to explore wellness factors among college veterans. An expo facto study has been identified as one in which subjects have a common condition through which they may be identified (Kirk, 1995). With this type of study experimental conditions are not used and independent variables are not manipulated. Convenience sample was used as the means to obtain data from preexisting groups (Crosby, DiClemente, & Salazar, 2006). Two surveys utilized in this study included the Five Factor Wellness Inventory (Myers & Sweeney, 2005) and a demographic questionnaire.

Instruments

Demographic Questionnaire

The demographic questionnaire was created by this author to obtain data for the

investigation of demographic variables among student-veterans in relation to wellness factors. Demographic data was requested first followed by the completion of the 5F-Wel. Information sought from the demographic questionnaire included sex, age, race/ethnicity, college classification (freshman, sophomore, junior, senior, graduate student), college enrollment status (first time attending college or re-enrolled after serving in military), part time or full time enrollment, major area of study, cumulative grade point average, total number of tours in Iraq, total number of tours in Afghanistan, other tours, last/current military rank, military branch, marital status, and housing status (off-campus or on-campus).

Five-Factor Wellness Inventory

The Five Factor Wellness Inventory (5F-Wel; Myers & Sweeney, 2005c) is an assessment instrument based on the Indivisible Self: An Evidenced-Based Model of Wellness (IS-Wel; Myers & Sweeny, 2005a). The IS-Wel was developed from an exploratory factor analysis of the Wheel of Wellness (WoW; Myers & Sweeney, 2007). The Wellness Evaluation Lifestyle is the assessment instrument used to measure WoW components. Structural equation modeling, involving an analysis of 3,043 individuals ranging from 10 to 56+ years (Hattie, Myers, & Sweeney, 2004) who had been assessed using the WEL, resulted in the creation of the IS-Wel (Mysers & Sweeney, 2007). The pool of subjects consisted of 1,347 university students (Hattie, Myers, & Sweeney, 2004), almost one half of the sample size, which makes it particularly meaningful considering the subjects used in this study are higher education students. Two hundred thirteen were 10- to 18 years old, 1,186 were 26 to 55 years old, and 184 were 56 years old and older. Fifty-four percent were male and 46% female. Racial make-up consisted of 81% Caucasian and 9% African-American (Hattie, Myers, & Sweeney, 2004).

Seventeen original components of the WoW remained viable in the new IS-Wel and 5F-

Wel. There are three versions of the 5F-Wel including adult (5F-Wel-A), teenage (5F-Wel-T), and elementary school (5F-Wel-E). For the purposes of this study the adult form will be the focus for this review and will be identified as 5F-Wel. The 5F-Wel is comprised of three levels of factors. Higher-order Wellness, the first-order factor, is comprised of all other factors (Myers & Sweeney, 2005a, 2005c). The five second-order factors each have third-order factors/latent factors associated with them as follows (third-order factors/latent factors are in parenthesis) Creative Self (Thinking, Emotions, Control, Work, and Positive Humor), Coping Self (Leisure, Stress Management, Self Worth, and Realistic Beliefs), Social Self (Friendship and Love), Essential Self (Spirituality, Gender Identity, and Cultural Identity), and Physical Self (Exercise and Nutrition).

The 5F-Wel was created to be self-administered, with an average time for completion of 10 to 20 minutes (Myers & Sweeney, 2005c). Test items consist of a four-point Likert-type scale ranging from *strongly agree* to *strongly disagree*. The 5F-Wel is comprised of 90 test items, which include 17 contextual items. Contextual items provide additional information about the testee from the viewpoint of her interaction within her institutional, global, and local environments. The reading level required for adults is a maximum ability at the 9th grade level.

Myers and Sweeney (2005c) report on a number of studies that have provided evidence of divergent and convergent validity. Studies in which first-order and second-order factors were found to discriminate among population variables, in part, have included: mattering and acculturation (Rayle & Myers, 2004), happiness (Granello, 1999), liking (Shurts & Myers, 2008), gratitude (Kahlo, 2009), and spirituality, (Webster, 2004). Construct validity was examined using assessment instruments with similar component characteristics. Over a period of four years Myers administered the WEL and other assessment instruments to a sample of 299

students (Hattie, Myers, & Sweeney, 2004). Instruments utilized included the Testwell, derived from Hettler's wellness model; Coping Resources Inventory, CRI; Measures of Psychosocial Development, MPD; Inventory of Self Actualizing Characteristics, ISAC; and Developmental Counseling and Therapy, DCT. Correlations ranged from a low of .28 ($p < .05$) between Problem Solving and Creativity, a third-order factor/latent factor, on the 5F-Wel and Initiative, a factor, on the MPD to a high of .74 ($p < .01$) between Nutrition, a third-order factor/latent factor, on the 5F-Wel and Nutrition, a factor, on the Testwell.

Myers and Sweeney (2005c) reported reliability, in the 5F-Wel manual, as measured using alpha coefficients, for first-order wellness and the five second-order subscales as follows: Total Wellness (.94), Creative Self (.93), Coping Self (.92), Social Self (.94), Essential Self (.91), and Physical Self (.90).

After the creation of the 5F-Wel-A (adult form) a new database was developed from a sample of 2,093 individuals to measure internal consistency (Myers & Sweeney, 2005). Internal consistency as measured by alpha coefficients for the first-order factor and the five second-order factors were: Total Wellness (.98), Creative Self (.96), Coping Self (.89), Social Self (.96), Essential Self (.95), and Physical Self (.90). Racial makeup of the sample consisted of 52% Caucasian, 29% African-American, 4.3% Asian Pacific Islander, and 32% Hispanic. Fifty-two percent were male and 48% female, with a range in age of 18 to 101.

Data Collection

Institutional Research Board (IRB) approval was obtained from the University of Arkansas (U of A). After receiving IRB approval the 10 public four-year universities with the greatest numbers of Post 9/11 GI Bill recipients were contacted in the Fall of 2012. The IRB offices for each university was contacted in order to obtain approval to conduct research with

student-veterans attending their institution. Once IRB approval was obtained the university student-veteran support service office(s) was contacted to seek assistance with the distribution of an introduction letter to student-veterans for participation in this research. Six out of the ten universities sought for participation in this research were used. Twenty-nine student-veteran participants were obtained.

As a result of the low number of participants the next 20 public four-year universities with the greatest number of Post 9/11 GI Bill recipients were solicited during the Spring of 2013 using the same procedures that were previously used. Eleven out of the twenty universities participated in this research. Veteran support services offices solicited students for participation mostly through e-mail, although there were two universities that used a newsletter, two universities used a Facebook posting and one solicited research participants through their website. The number of participants totaled from the eleven universities was 114 for a total of 143 participants.

The list of top Post 9/11 GI Bill institution participants was obtained from the United States Department of Veterans Affairs (2012), Office of Policy and Planning, National Center for Veterans Analysis & Statistics. The 5F-Wel was purchased through Mindgarden ("Mindgarden," 2010). The 5F-Wel and the demographics form were administered online. Results from the two instruments were collected by Mindgarden and saved for this researcher for statistical analysis.

Statistical Treatment

Descriptive (e.g., mean and standard deviation) and inferential statistics were utilized in this study. Two-way Analysis of Variance (ANOVA) were used to analyze data obtained from student-veterans who completed the 5F-Wel and the demographics form. Two-

way ANOVAs “allow the joint effect of the independent variables on the dependent variable(s)” (Stevens, 2002; p. 322) and allow for “more powerful tests by reducing error (within cell) variance (p. 323). The dependent variables consisted of Total Wellness, Creative Self, Coping Self, Social Self, Essential Self, and Physical Self. The independent variables consisted of gender, number of tours (i.e., one tour and more than one tour) and deployment (i.e., student-veterans that stayed in the U.S. and those that were deployed to Afghanistan and/or Iraq).

Limitations

There were several limitations involved in this study. Randomization was not used as a strategy to obtain data. The target population in this study was student-veterans. Student-veterans that were enrolled in 4-year colleges and universities that received funding through in the Post 9/11 GI Bill were available for participation in this study, thus those student-veterans in higher education institutions that did not meet these guidelines were not considered for this study. The results of this type of sampling will make generalization less tenable. Another limitation of this study involves situational factors (Crosby, DiClemente, & Salazr, 2006). Situational factors such as responding in socially desirable ways and the perception of the level of privacy and confidentiality held by participants may affect responses. The perceptions of participants is beyond the control of this researcher, nevertheless informing participants about confidentiality and anonymity that is assured as much as possible may help mediate situational factors. Limitations in this study are important and as such have been given consideration regarding their impact.

Summary

The methodology presented in this chapter provided organization through which this study was accomplished. The 5F-Wel, the instrument of choice for this study, is the only

wellness assessment instrument in the counseling profession that is research based and theoretically founded on a counseling theory. Information obtained from the 5F-Wel and the demographics form was analyzed using two-way ANOVAs. This analysis provided a strong statistical design for analyzing the data. Limitations for this study have been considered. The results of information from this study are reviewed in chapter four. This study will provide mental health professionals, medical personnel, higher education staff, and other individuals who work with student-veterans the opportunity to gain a better understanding of this unique population from a strengths based perspective.

CHAPTER FOUR: RESULTS

This chapter presents descriptive and data analyses of the research questions in this study. This study examined the association of student-veteran gender the number of combat tours, and deployment on holistic wellness. The top 30 universities in the U.S. with the largest populations of student-veterans using the Post 9-11 GI Bill were solicited for participation in this study. Two-way analyses of variance (ANOVA) tests were used to study the research hypotheses.

Research hypotheses 1 states: There will be a difference in Total Wellness scores between gender and deployment for the sample as a whole. A review of the data revealed that there were eight participants that served only in the United States. As a result of the low number of participants that had served only in the United States research hypotheses 1 could not be analyzed. The low numbers of participants that had only served in the United States, additionally, did not allow statistical analysis of the other five research hypotheses that included student veterans that had only served in the United States. Additionally, three participants' responses were inconclusive as to whether they served only in the U.S. or were deployed to Afghanistan and/or Iraq and therefore they were not included for analysis.

Levene's test of equality of error variance did not reveal a significant difference for Creative Self, Coping Self, Physical Self or Total Wellness at the .05 alpha level, however, significant differences at the .05 alpha level for Social Self $F(3, 128), p = .019$ and Essential Self $F(3, 128), p = .007$ were found. Error variance may be the result of sampling error and therefore caution is warranted when interpreting the results. What follows are the descriptive analysis and the results of the data analysis of the research hypotheses.

Descriptive Analysis

Demographic data collected for this study included gender, age, race, and the number of tours student-veterans reported. A total of 143 student-veterans completed the questionnaires, of which eight indicated that they had not been deployed to Afghanistan and/or Iraq, while another three participants' responses were inconclusive regarding deployment to Afghanistan and/or Iraq. Thus a total of 11 participants were not included for further analysis. The results of descriptive statistics are displayed in Table 1.

The total number of participants was 132 and included 35 females (26.5%) and 97 males (73.5%), of which 68 (51.5%) deployed to Iraq and/or Afghanistan one time only, while 64 (48.5%) deployed more than one time. The largest age group ranged from 20 to 29 years old ($n = 73$; 55.3%), while the smallest age group consisted of 50 years old or above ($n = 2$; 1.5%). The majority of participants were Caucasian ($n = 81$; 61.4%), while Hispanics ($n = 29$; 22.0%) made-up the next largest number consisted of Hispanics ($n = 29$; 22.0%).

Table 1.
Demographic Statistics for Participants (n = 132)

Variable	n	%
Gender		
Female	35	26.5
Male	97	73.5
Age		
20 – 29	73	55.3
30 – 39	47	35.6
40 – 49	10	7.6
50 and above	2	1.5
Race		
Caucasian	81	61.4
African American	8	6.1
Hispanic	29	22.0
Asian or Pacific Islander	5	3.8
Native American	4	3.0
Other	5	3.8
Number of Tours		
One	68	51.5
More than one	64	48.5

Data Analysis

Table 2 displays the means and standard deviations of Total Wellness, Creative Self, Coping Self, Social Self, Essential Self, and Physical Self for male and female student-veterans deployed to Afghanistan and/or Iraq for one tour or more than one tour. Among the 5F-Wel subscales mean scores ranged from a low among females in the area of Coping Self ($M = 68.32$, $SD = 13.60$) with more than one tour to a high among females in the area of Social Self ($M = 86.73$, $SD = 10.50$) with more than one tour.

Table 2

Means and Standard Deviations of the 5F-Wel-A Subscales by Number of Tours by Gender (n = 132)

Scale	One tour		More than one tour	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Male				
	<i>n</i> = 45		<i>n</i> = 52	
Total Wellness	75.46	9.32	72.51	7.76
Creative Self	77.64	9.98	76.10	8.64
Coping Self	72.51	10.27	70.59	11.27
Social Self	81.47	15.33	80.60	12.05
Essential Self	74.38	12.19	69.35	7.93
Physical Self	73.50	15.09	71.68	14.93
Female				
	<i>n</i> = 23		<i>n</i> = 12	
Total Wellness	75.42	8.92	76.27	9.78
Creative Self	77.48	9.81	78.99	8.74
Coping Self	70.20	9.08	68.32	13.60
Social Self	79.63	18.09	86.73	10.50
Essential Self	76.63	12.56	76.68	13.95
Physical Self	77.72	15.09	76.04	15.97

The two-way ANOVAs were used to investigate the association between gender and the number of tours on wellness. The effect sizes (η^2) were also calculated to indicate the strength of association between the independent variables and the dependent variables (Maxwell, Camp, & Arvey, 1981). In this research effect sizes were determined by the calculation of eta squared (η^2). According to Cohen (as cited in Fritz, Morris, & Richler, 2012) effect size strengths are as follows, small .01, medium .06, and large .14. Eta squared is the preferred statistic for social scientists for reporting estimates of effect size used with an ANOVA (Levine & Hullett, 2002).

The results of Total Wellness and the five subscales are reported:

Total Wellness scale. The association of the main effects, gender and number of tours, on Total Wellness, including the interaction effect, was not statistically significant.

Table 3

Two-way Analysis of Variance for the Number of Tours and Gender Conditions on the Total Wellness Scale (n = 132)

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Tours	1	26.126	26.126	.345	.558	.003
Gender	1	82.193	82.193	1.085	.300	.008
Tours \times Gender	1	85.601	85.601	1.130	.290	.009
Within Cells	128	10000.411				

Creative Self scale. There was not a statistically significant main effect for gender or number of tours on the Creative Self; additionally, the interaction effect was not statistically significant.

Table 4

Two-way Analysis of Variance for the Number of Tours and Gender Conditions on the Creative Self Subscale (n = 132)

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Tours	1	.007	.007	0	.993	< .001
Gender	1	44.422	44.422	.510	.476	.004
Tours × Gender	1	55.401	55.401	.636	.427	.005
Within Cells	128	11146.102	87.079			

Coping Self scale. The association of the main effects, gender and number of tours on the Coping Self, including the interaction effect, was not statistically significant.

Table 5

Two-way Analysis of Variance for the Number of Tours and Gender Conditions on the Coping Self Subscale (n = 132)

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Tours	1	85.927	85.927	.734	.393	.006
Gender	1	125.257	125.257	1.071	.303	.008
Tours × Gender	1	.008	.008	0	.994	< .001
Within Cells	128	14975.257	116.994			

Social Self scale. The relationship of the main effects, gender and number of tours, on the Social Self, including the interaction effect, was not statistically significant.

Table 6

Two-way Analysis of Variance for the Number of Tours and Gender Conditions on the Social Self Subscale (n = 132)

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Tours	1	230.039	230.039	1.125	.291	.009
Gender	1	109.185	109.185	.534	.466	.004
Tours × Gender	1	377.279	377.279	1.846	.177	.014
Within Cells	128	26167.253	204.432			

Essential Self scale. There was not a statistically significant main effect for number of tours on the Essential Self or for the interaction effect, however there was a statistically significant main effect for gender.

Table 7

Two-way Analysis of Variance for the Number of Tours and Gender Conditions on the Essential Self Subscale (n = 132)

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Tours	1	147.493	147.493	1.229	.270	.01
Gender	1	545.881	545.881	4.549	.035	.04
Tours × Gender	1	153.299	153.299	1.277	.260	.01
Within Cells	128	15361.024	120.008			

Physical Self scale. The association of the main effects, gender and number of tours, on the Physical Self, including the interaction effect, was not statistically significant.

Table 8

Two-way Analysis of Variance for the Number of Tours and Gender Conditions on the Physical Self Subscale (n = 132)

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	η^2
Tours	1	72.512	72.512	.318	.574	.002
Gender	1	437.133	437.133	1.916	.169	.015
Tours × Gender	1	.119	.119	.001	.982	< .001
Within Cells	128	29206.157	228.173			

Summary

This chapter included a description and summary of the data collected and the statistical analysis of the data. Research hypotheses 1, 3, 5, 7, 9, and 11 could not be analyzed because of an insufficient sample size; however, research hypotheses 2, 4, 6, 8, 10, and 12 were analyzed using two-way ANOVAs. The two-way ANOVA results of the Total Wellness scale and 5 subscales between gender and number of tours were presented on Tables 3 through 8. In general, all statistical findings were not significant except a gender main effect on the Essential Self subscale (see Table 7). In this finding, there was a pattern in which male student-veterans consistently exhibited higher second-order wellness levels under the one deployment condition compared to the more than one deployment condition, although these differences were small. However, for female student-veterans the findings were inconsistent, with female student-veterans exhibiting higher wellness levels under more than one tour condition for the Creative Self, Social Self, Essential Self, and Total Wellness, while the reverse was true for the Coping

Self and the Physical Self. Here again, the differences were small. The mixed results among female student-veterans may be due to the small sample size obtained for female student-veterans. Levene's test of equality of error variance was significant and therefore these results should be interpreted with caution. Effect sizes were extremely small for the main effects on Total Wellness, Creative Self, Coping Self, and Social Self; a small to medium effect for the gender main effect on Essential Self, and, a small effect for gender on Physical Self. In chapter five the results of this study will be discussed.

CHAPTER FIVE: DISCUSSION

This chapter presents the summary of the study, the results and a discussion on the implications for future research. This chapter begins with a brief summary, the statement of the problem and moves on to the statement of the procedures. Then this chapter focuses on an analysis of the specific research hypotheses. Lastly this chapter presents limitations associated with this study, implications for future research and a summary statement.

Summary

This study investigated the wellness of student-veterans attending four-year universities in relation to their gender, deployment, and number of combat tours. Student-veterans were solicited from higher education institutions from across the United States. The Five Factor Wellness Inventory (Mysers & Sweeny, 2005c) was used to measure holistic wellness. A series of two-way ANOVAs were conducted to test the hypotheses.

Statement of the Problem

The United States of America (U.S.) had been engaged in two wars, one in Afghanistan (Operation Enduring Freedom; OEF) and another in Iraq (Operation Iraqi Freedom; OIF), in response to terrorist attacks on September 11, 2001. Over the course of these wars, over 2 million military personnel have served in OEF/OIF. While OIF officially ended on December 14, 2011(Kuhn, 2011) and the military combat mission in Afghanistan is set to conclude in 2016 (Simeone, 2014), veterans continue to benefit from the passing of The Post 9/11 GI Bill. As noted, this bill provided funding for veterans to attend higher education institutions (United States Department of Veterans Affairs, 2011).

Since the passing of the Post 9/11 GI Bill, student-veteran attendance in colleges across the U.S. have increased substantially from 34,393 in 2009 to 754,229 in 2013 using the Post 9/11

GI Bill (U.S. Department of Veterans Affairs, 2013). While student-veterans experience similar concerns and issues as their non-veteran peers (Seal, Bertenthal, Miner, Sen, & Marmar, 2007; Rumann & Hamrick, 2010), it is also recognized that veterans returning from OIF/OND and OEF bring with them unique experiences as a result of their service (Cook & Kim, 2009; Hoge et. al, 2004; Shackelford, 2009).

American higher education institutions have been evolving in order to better understand and address student wellness, including the unique circumstances and experiences of different sub-populations of students, in order to optimize their academic and personal successes. Examples of this awareness and focus include Healthy Campus 2020, in which student wellbeing, disease prevention, and health promotion are a focus (American College Health Association, 2012), while the National Prevention, Health Promotion, and Public Health Counsel of the U.S. government has recognized the importance of promoting holistic health care in higher education (U.S. Department of Health, 2011). Yet, while several wellness studies have examined distinct college student subpopulations (LaFontaine, Neisen, & Parsons, 2006; Myers, 2004; Gibson & Myers, 2006; Watson & Kissinger, 2007; Spurgeon & Myers, 2010), none have addressed student-veterans from OEF/OIF. The current research utilizes The Indivisible Self Model (Myers & Sweeny, 2005b) to explore this gap in our understanding of student-veterans from OEF/OIF.

Statement of Procedures

An expo facto study was conducted to explore wellness factors among student-veterans. An expo facto study has been identified as one in which subjects have a common condition through which they may be identified (Kirk, 1995). Experimental conditions are not used and independent variables are not manipulated with this type of study. Convenience sampling was

used as the means to obtain data from preexisting groups (Crosby, DiClemente, & Salazar, 2006).

Participants in this study were student-veterans from the Afghanistan and Iraq wars located at 4-year colleges and universities across the United States that represented the top 30 institutions with the largest number of participants in the Post 9/11 GI Bill. Access to students was obtained by gaining approval for research by the participants' IRB office followed by assistance of participants' university veterans support services office. Veteran support services offices solicited for students for participation mostly through e-mail, although there were two universities that used a newsletter, two universities that used a Facebook posting and one that solicited research participants through their website.

Institutional Research Board (IRB) approval was obtained from the University of Arkansas (U of A). After receiving IRB approval 10 public four-year universities with the greatest numbers of Post 9/11 GI Bill recipients, as defined by the United States Department of Veterans Affairs (2012), were contacted in the Fall of 2012. The IRB offices for each university were contacted in order to obtain approval to conduct research with student-veterans attending their institutions. Once IRB approval was obtained the university student-veteran support service office(s) was contacted to seek assistance with the distribution of an introduction letter to student-veterans for participation in this research. Six out of the ten universities sought for participation in this research agreed to participate. Upon online receipt of their informed consent, participants were asked to complete the Five-Factor Wellness Inventory (Myers & Sweeney, 2005c) and a demographic data form online.

This author created the demographic questionnaire. Demographic data was requested first followed by the completion of the 5F-Wel. Information sought from the demographic

questionnaire included sex, age, race/ethnicity, college classification (freshman, sophomore, junior, senior, graduate student), college enrollment status (first time attending college or re-enrolled after serving in military), part time or full time enrollment, major area of study, cumulative grade point average, total number of tours in Iraq, total number of tours in Afghanistan, other tours, last/current military rank, military branch, marital status, and housing status (off-campus or on-campus).

The Five Factor Wellness Inventory (Myers & Sweeney, 2005c) is an assessment instrument based on the Indivisible Self: An Evidenced-Based Model of Wellness (IS-Wel; Myers & Sweeney, 2005a). The 5F-Wel is comprised of three levels of factors. Higher-order Wellness, the first-order factor, is comprised of all other factors (Myers & Sweeney, 2005a, 2005c). The five second-order factors each have third-order factors/latent factors associated with them as follows (third-order factors/latent factors are in parenthesis) Creative Self (Thinking, Emotions, Control, Work, and Positive Humor), Coping Self (Leisure, Stress Management, Self Worth, and Realistic Beliefs), Social Self (Friendship and Love), Essential Self (Spirituality, Gender Identity, and Cultural Identity), and Physical Self (Exercise and Nutrition). Reliability, according to Myers and Sweeney (2005c) as measured using alpha coefficients, for first-order wellness and the five second-order subscales are as follows: Total Wellness (.94), Creative Self (.93), Coping Self (.92), Social Self (.94), Essential Self (.91), and Physical Self (.90). Convergent and divergent validity were assessed from the examination of multiple studies.

The 5F-Wel and the demographics form were administered online. Results from the two instruments were collected by Mindgarden and saved for this researcher for statistical analysis. Thirty-one student-veteran participants were obtained during the fall semester. As a result of the low number of participants the next 20 public four-year universities with the greatest number of

Post 9/11 GI Bill recipients were solicited during the Spring of 2013 using the same procedures that were previously used. Eleven out of the twenty universities agreed to participate in this research. The number of participants from the eleven universities totaled 114, for a combined total of 145 participants. Of the 145 participants 132 met the requirements for statistical analysis.

Two-way Analysis of Variance (ANOVA) were used to analyze data obtained from student-veterans who completed the 5F-Wel and the demographics form. The dependent variables consisted of Total Wellness, Creative Self, Coping Self, Social Self, Essential Self, and Physical Self. The independent variables consisted of gender, number of tours, and deployment. Results of the hypotheses will follow.

Research Hypotheses

Hypothesis 1: There will be a difference in Total Wellness scores between gender and deployment. Total Wellness has been defined as “the sum of all items on the Five Factor Wellness Inventory (5F-Wel); a measure of one’s general well-being or total wellness” (Myers & Sweeney, 2005a, p. 33). Total Wellness is a combination of five secondary factors: Creative Self, Coping Self, Social Self, Essential Self and the Physical Self. The sample size for this measure was not sufficient to run a statistical analysis of the Total Wellness.

Hypothesis 2: There will be a difference in Total Wellness scores between gender and the number of tours. Total Wellness has been defined as “the sum of all items on the Five Factor Wellness Inventory (5F-Wel); a measure of one’s general well-being or total wellness” (Myers & Sweeney, 2005a, p. 33). Total Wellness is a combination of five secondary factors: Creative Self, Coping Self, Social Self, Essential Self and the Physical Self. The results were nonsignificant with extremely small effect sizes associated with gender and the number of tours

on Total Wellness. These findings suggest that there are no statistical differences associated with male and female student-veterans and the number of tours deployed with Total Wellness.

Total Wellness among student-veterans is important to understand given the range of experiences, issues, and concerns related to military service overall and combat experiences specifically among military personnel deployed to Afghanistan or Iraq. As the number of student-veterans increases and as the number of women entering the military increases (Roulo, 2013) the need to understand holistic wellness from a gender perspective becomes essential. Research on student-veteran gender differences and Total Wellness as defined in this study has not been conducted previously. Nevertheless, research with veterans and other college subpopulations has been conducted in areas associated with Total Wellness that gives insight to this study.

Consistent with the current study has been quality of life (QOL) research, which is conceptually similar to holistic wellness as defined in this study and which found PTSD to be associated with poor QOL in male and female Vietnam War veterans (Schnurr & Lunney, 2008; Zatzick, Marmar, et al., 1997). Posttraumatic stress disorder is one of the signature injuries of OEF/OIF that has impacted student-veterans (Hensley, 2009). As such, there have been many studies that addressed PTSD in relation to OEF/OIF military personnel. Erbes, Westermeyer, Engdahl, and Johnson's (2007) study of PTSD and QOL with OEF/OIF veterans receiving VA services found "reductions in quality of life across several domains, including general health, energy, emotional well-being, emotional role limitation, physical role limitation, and social functioning" (p. 362). These findings on QOL suggest that male and female student-veterans are equally vulnerable to the negative impact on Total Wellness because of their wartime deployment.

Further, this hypothesis examines differences between one and multiple tours of OEF/OIF deployment. Research that examined the effects of deployment on substance use was consistent with the current study in that male and female veterans were found to increase drug/alcohol use, although the choice of substance varied (Foster, 2011). According to Foster (2011) binge drinking increased significantly for male military personnel, while marijuana use increased significantly for females when comparing one deployment with multiple deployments. Foster also found that “for suicidal ideation, the effect of multiple deployments was significant for both men and women” (p. 305). These findings suggest that the experience of a single deployment overseas was sufficient to negatively impact male and female veterans on several Total Wellness variables, such as self-care, which is associated with the Essential Self and is related to binge drinking and marijuana use, and emotions, which is associated with the Creative Self and is related to suicidal ideation. The findings presented here suggest that regardless of gender military veterans’ Total Wellness is at greater risk with more combat tours completed and that even one tour is sufficient to compromise holistic wellness for both male and female student-veterans.

Total Wellness implications.

- The results of the findings on male and female student-veteran Total Wellness indicates that there is a need for further research with student-veterans on moderating factors related to Total Wellness. Some factors that deserve further analysis that have been associated with student-veteran strengths, but have not been analyzed from the viewpoint of holistic wellness, as defined in the current study, include social integration (Livingston, 2009), goal oriented behavior (Rumann, 2010), and perseverance (Hassan, Jackson, Lindsay, McCabe, & Sanders III, 2012). Potential questions this research could

answer include (a) What are the factors (e.g., the number of deployments, gender, returning student versus newly enrolled student) involved that are associated with higher holistic wellness levels? (b) How would the enhancement of Total Wellness impact student-veteran academic progress? and (c) How would specific moderating factors impact student-veteran transition adjustment to higher education institutions?

- Substance abuse among OEF/OIF male and female veterans as a means to cope with experiences from being deployed (Smith, et al., 2014) has a negative effect on Total Wellness. This creates challenges for student-veterans in learning healthy strategies on how to manage the mental and physical effects of deployment. Higher education institution counseling and wellness centers should consider assisting student-veterans with substance abuse concerns by sponsoring a class specific for student-veterans that addresses, as one of the core topics, coping strategies related to emotional and physical health. Such a class may be taken for credit, advertised as a student-veteran wellness class and enrollment may be encouraged through student-veteran resource centers and social media (Klaw, 2014). This type of class may be offered each semester and as the word spreads about the class, by way of peer contacts using social media or other connection venues, the attraction of such a class would be expected to grow. It is important for student-veterans to see their peers participate and as a result student-veterans who take the class could encourage their peers to enroll. The benefit of student-veterans encouraging peers to enroll cannot be underestimated due to their tendency to trust veterans and distrust nonveterans (Rumann, 2010).
- In light of QOL findings regarding male and female veteran mental and physical health

issues related to deployment integrating or developing a disorder specific treatment team(s) would be helpful in addressing specific needs that may involve multiple health disciplines. Such a team would include medical and mental health professionals on college campuses. Because many student-veterans concurrently suffer from physical and emotional/behavioral concerns (Smee, Buenrostro, Garrick, Sreenivanson, & Weinberger, 2013), for example TBI and PTSD, this team would help increase the quality of care to this particular subgroup of student-veterans. The integration of campus health services may help begin the process of providing treatment from a more holistic wellness approach. Such an approach has been found to improve the “quality of services, client satisfaction, and utilization of services and efficiency of administrative processes” (“Considerations for integration,” 2010, p. 593.).

Hypothesis 3: There will be a difference in Creative Self scores between gender and deployment. Creative Self has been defined as “The combination of attributes that each of us forms to make a unique place among others in our social interactions and to interpret our world” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Creative Self include thinking, emotions, control, work and positive humor. The sample size for this measure was not sufficient to run a statistical analysis of the Creative Self.

Hypothesis 4: Specified that there would be a difference in the Creative Self scores between gender and number of tours. The Creative Self is a second order wellness factor defined as “the combination of attributes that each of us forms to make a unique place among others in our social interactions and to interpret our world” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Creative Self include thinking, emotions, control, work and positive humor. A two-way ANOVA was nonsignificant with extremely small effect sizes

between gender and the number of tours on the Creative Self. These findings suggest that there are no statistical differences associated with male and female student-veterans and the number of tours deployed on the Creative Self. The Creative Self among student-veterans is important to understand due to the challenges that impact student-veterans as a result of combat experience related to OEF/OIF.

Research with student-veterans on the Creative Self as defined in this study has not been conducted previously. Nonetheless, research with student-veterans and other college subpopulations has been conducted in areas associated with the Creative Self components that give insight to this study. For example, McNeely's (2010) study of community college students resulted in significantly higher results for males than females on the Creative Self. This finding is not consistent with the current study, which may be due to the high levels of TBI documented among combat veterans that may negatively impact male student-veteran Creative Self wellness. Male student-veterans are at greater risk for Traumatic Brain Injury (TBI) than female student-veterans, because of their higher engagement rates in combat (Roulo, 2013). The rate of TBI has been reported as high as 19% (Tanielian & Jacox, 2008) for veterans. Traumatic Brain Injury, in part, damages memory (Morissette, et al., 2011), verbal information processing (Campbell, et al., 2009), and cognitive fatigue (Smee, Buenrostro, Garrick, Sreenivasan, & Weinberger, 2013), all of which are associated with the Creative Self.

While the impact of TBI on the Creative Self is associated with thinking, emotions are another component of the Creative Self that are important to be aware of due to the great challenges in this area associated with male and female student-veterans. For example, in a national sample of student-veterans ($N = 525$), 46% reported thinking about suicide, 20% had a suicide plan and 46% showed significant characteristics associated with PTSD (Rudd, Goulding,

& Bryan, 2011). In contrast the National College Health Assessment (American College Health Association, 2013) indicated that only 5% of undergraduate students reported that they seriously had considered suicide within the past 12 months. Emotional problems have a deleterious impact on student-veterans' academic progress (Megivern, Pellerito, & Mowbray, 2003) and as military personnel experience multiple deployments emotional challenges increase (Kline, et al., 2010). It is clear that male and female student-veterans have unique health issues related to suicidality and TBI and that these issues affect wellness as a whole and the Creative Self specifically, while at the same time potentially negatively impact academic progress.

Creative Self implications.

- Positive humor is a component of the Creative Self that was found to be compromised among student-veterans with combat experience (Carne, 2011). The implementation of a humor skills training group has been shown to significantly increase “self-efficacy positive affect, optimism and perceived control,” (Crawford & Caltabiano, 2011, p. 248). The development of a humor skills training group as a wellness enhancing activity would be a good fit for campus health promotions and wellness centers to implement. Campus health and wellness centers are encouraged to create a humor group on campus for student-veterans as a means to enhance Creative Self wellness with student-veterans.
- In light of the high rates of suicidal ideation and combat related emotional trauma and depression mental health professionals within higher education counseling centers should assess for each when treating student-veterans. As part of this assessment it would be important for mental health professionals to be mindful of stigma that student-veterans have toward mental health treatment. Mental health treatment stigma carries with it the self-perception of being viewed as weak, as lacking leadership, being concerned with

confidentiality, and fears that treatment will interfere with a future military career (Kay, 2006). Because of this therapeutic rapport is vital to the process of working with student-veterans in mental health settings, hence trust is a critical part of the rapport building process.

- Traumatic brain injury is a serious condition that has the potential to negatively impact multiple cognitive areas associated with student-veteran Creative Self wellness, such as memory, concentration and mental fatigue (Smee, Buernrosro, Garrick, Sreenivasn, & Weinberger, 2013). Professors, mental health clinicians, and student disability center professionals would benefit from psychoeducational training in order to become informed about TBI related characteristics, the impact on student-veterans and the application of classroom/campus intervention/accommodation strategies. In keeping with the Americans with Disabilities Act requirements these steps are important for college campus administrators to consider.

Hypothesis 5: There will be a difference in Coping Self scores between gender and deployment. Coping Self has been defined as “the combination of elements that regulate our responses to life events and provide a means for transcending their negative effects” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Coping Self include leisure, stress management, self worth and realistic beliefs. The sample size for this measure was not sufficient to run a statistical analysis of the Coping Self.

Hypothesis 6: There will be a difference in Coping Self scores between gender and the number of tours. Coping Self has been defined as “the combination of elements that regulate our responses to life events and provide a means for transcending their negative effects” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Coping Self include leisure,

stress management, self worth and realistic beliefs. A two-way ANOVA was nonsignificant with extremely small effect sizes between gender and the number of tours on the Coping Self. These findings suggest that there are no statistical differences associated with male and female student-veterans and the number of tours deployed on the Coping Self. The Coping Self among student-veterans is important in terms of understanding experiences related to deployment to Afghanistan or Iraq that impact on academic progress.

Research with student-veterans on the Coping Self as defined in this study has not been conducted previously. Nonetheless, research with student-veterans and other college subpopulations has been conducted in areas associated with the Coping Self components that give insight to this study. For example, several studies (McNeely, 2010; Myers and Mobley, 2004) involving nonveteran college students revealed that males scored significantly higher than females on the Coping Self. These findings are not consistent with the current study, which may be due to the unique challenges male and female student-veterans experience as a result of their military service. Student-veterans have been found to experience greater levels of anxiety than nonveteran students, 35 percent (Rudd, Goulding & Bryan, 2011) versus 19 percent (American College Health Association, 2013) respectively. Additionally, depression among student-veterans was found to be 24 percent (Rudd, Goulding & Bryan, 2011) versus 15 percent for nonveteran students (American College Health Association, 2013). It may be that student-veterans regardless of gender experience similar challenges associated with the Coping Self. This proposition is supported by Vogt, et al. (2011), who concluded, “gender differences in the impact of combat related stressors on mental health are minimal” (p. 804). Vogt et al., also reported that male and female subjective levels of perceived threat were similar even though male levels of combat exposure were greater. Stress management is an area of concern for

student-veterans as evidence by levels of anxiety and depression among student-veterans and thus suggests it warrants attention within higher education institutions.

Coping Self implications.

- In light of findings associated with the Coping Self higher education institution counseling centers could partner with health promotions and wellness centers in providing stress management skills training to student-veterans periodically throughout the school year (Klaw, 2014). Training sessions may occur within a group setting, which will take advantage of the camaraderie that exists between student-veterans and therefore help facilitate group cohesion. This program, specific to student-veterans, may be advertised at campus student-veteran resource centers and their website. Because student-veterans tend to trust each other rather than nonveterans student-veterans could assist in recruiting participants through social media or in direct in-person contacts.
- University counseling centers must recognize stigma associated with mental health treatment is a problem among veterans and as a result creative means may be needed to increase treatment compliance, such as telephonic motivational interviewing strategies (Seal, et al., 2012). Mental health professionals could use Twitter to provide encouragement and reminders for counseling appointments or psychiatrists could utilize video teleconferencing for medication consultations, while therapists and social workers could use video teleconferencing to provide counseling services (Barnwell, Hoerster, Juretic, Van de Plasch, & Felker, 2012). If these services are used specialized training would have to take place to address protocols, ethics, and training with specific electronic devices.

- College counseling centers and health promotion and wellness centers are encouraged to work with student-veterans from a holistic wellness perspective when addressing stress management, a component of the Coping Self. Managing stress may involve strategies to enhance body, mind and spirit (Young, 2005). According to Young, progressive relaxation, imagery training, exercise and nutrition education are components that may be incorporated into a stress management program.

Hypothesis 7: There will be a difference in Social Self scores between gender and deployment. The Social Self has been defined as “social support through connections with others in our friendships and intimate relationships, including family ties” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Social Self include friendship and love. The sample size for this measure was not sufficient to run a statistical analysis of the results of the Social Self scores.

Hypothesis 8: There will be a difference in Social Self scores between gender and the number of tours. The Social Self has been defined as “social support through connections with others in our friendships and intimate relationships, including family ties” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Social Self include friendship and love. A two-way ANOVA was nonsignificant with extremely small to small effect sizes between gender and the number of tours on the Social Self. These findings suggest that there are no statistical differences associated with male and female student-veterans and the number of tours deployed on the Social Self. The Social Self among student-veterans is important to understand given the range of experiences, issues, and concerns related to military service overall and combat experiences specifically among military personnel deployed to Afghanistan or Iraq.

Research with student-veterans on the Social Self as defined in this study has not been

conducted previously. Nonetheless, research with student-veterans has been conducted in areas associated with the Social Self components that give insight to this study. For example, research on marriage found 47.3% of veterans to be married (“VA Campus Toolkit Handout,” 2014) and while not consistent with the current study female veterans with multiple deployments were shown to be at greater risk for divorce than males (Negrusa, S., Negrusa, B., and Hosek, 2014). This finding may be the result of female veterans in the study not being enrolled in higher education and experiencing greater difficulties in not being a student; difficulties that have been reported to include social support from family, engaging in isolating behavior, and feeling uncomfortable seeking treatment for emotional problems (Mattocks, et al., 2012). Colleges and universities support student veterans through programming targeting areas consistent with the Social Self, such as increasing socialization opportunities, academic support and advocacy services (“Student Veterans of America,” 2011). This support for student-veteran social support is critical (Ingala, 2011; Livingston, 2009; Lolatte, 2010; McDonald, 2011), particularly since social support has been found to have a moderating effect on trauma (Brancu, et al., 2014), a major injury linked to OEF/OIF (Vogt, et al., 2011).

A specific area of concern for female student-veterans is support for sexual assault trauma. For female military personnel sexual assault related trauma complaints have increased greatly, 46% from October 2012 to June 2013 (McVeigh, 2013). Moreover, active duty women (6.1%) reported unwanted sexual contact at a greater rate than active duty men (1.2%; Department of Defense, 2013). Lastly, mild to moderate domestic abuse has been found among more than 50% of veterans who had recently returned from combat (LaMotte, Taft, Weatherill, Scott, & Eckhardt, 2014). These findings point to the need to address relationship/social problems among veterans within higher education institutions and suggest that they may have a

negative impact on the Social Self wellness levels. Lastly these findings demonstrate challenges many student-veterans face regarding sexual trauma, involvement in domestic abuse and marital stability that point to concerns that could be addressed therapeutically and through campus programming in order to enhance Social Self wellness.

Social Self implications.

- College campus health promotion and wellness centers may assist female student-veterans by creating a support group that addresses current challenges, such as academic, social, and emotional, and past challenges, such as military sexual assault. Military sexual assault has been found to be associated with depression, alcohol abuse and PTSD (Suris & Lind, 2008); therefore support groups would provide a venue where female student-veterans are able to address potential mental health and behavioral concerns with veteran peers that have the potential to enhance Social Self wellness. Appropriate partners with campus health promotion and wellness centers in the implementation of this service could include counseling centers and campus veteran resource centers.
- Campus health promotion and wellness centers should assist student-veterans by providing educational outreach programs to student-veteran organizations that focus on partner abuse. It would be important for such a program to incorporate topics that address healthy relationship dynamics, anger management, assertiveness communication, and resources on campus as well as in the community for individual, couple and family counseling. During this type of program education about counseling expectations should be discussed as student-veterans may be reluctant to seek mental health services as it may be perceived to be contrary to their sense of toughness, hardiness and associated with stigma perceptions. Discussions, in part, may address challenges veterans experience

during post-deployment transition to civilian life and particularly to college that relate to distrust of people outside of military peers, as this is related to relationships veterans have with their partners.

- Social relationships for student-veterans have a moderating influence on mental health concerns; therefore higher education institutions that have not established student-veteran resource centers should be encouraged to do so (Reynolds, 2013). Student-veteran resource centers provide a central location for socialization opportunities, health information, advocacy and programming information specifically targeted for student-veterans. As such student-veteran resource centers serve as a critical hub for student-veteran support on college campuses.

Hypothesis 9: There will be a difference in Physical Self scores between gender and deployment. The Physical Self has been defined as “the biological and physiological processes that comprise the physical aspects of our development and functioning” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Physical Self include exercise and nutrition. The sample size for this measure was not sufficient to run a statistical analysis of the results of the Physical Self scores.

Hypothesis 10: There will be a difference in the Physical Self scores between gender and number of tours. The Physical Self has been defined as “the biological and physiological processes that comprise the physical aspects of our development and functioning” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Physical Self include nutrition and exercise. A two-way ANOVA was nonsignificant with extremely small to small effect sizes between gender and the number of tours on the Physical Self. These findings suggest that there are no statistical differences associated with male and female student-veterans and the number of

tours deployed on the Physical Self. The Physical Self is important to understand in terms of nutrition and/or exercise given the impact it has on OEF/OIF student-veteran holistic wellness.

Research with student-veterans on the Physical Self as defined in this study has not been conducted previously. Nonetheless, research with veterans has been conducted in areas associated with the Physical Self components that have clear implications when considering student-veteran wellness. For example, research on physical health problems and multiple deployments resulted in male veterans experiencing greater physical problems than female veterans related to joint disorders and back problems (Brundage, Werrheimer, Olive, & Clark, (2011), although this finding was not consistent with the results of this study. This might be due to sample bias in the current study for which student-veterans, regardless of gender, are in better physical health when compared with veterans that did not attend higher education, therefore gender differences may not be apparent in terms of physical wellness among student-veterans. That is, veterans capable of enrolling or re-enrolling in higher education may have sustained fewer or less severe trauma that allowed them to attend college than those who may have incurred more serious physical or emotional injury that delayed their entry or, in some cases, voided their ability to do so.

Physical health among student-veterans is an important concept related to the components exercise and nutrition and is fundamental to understanding this area of wellness. Research with military personnel found healthy nutritional habits decreased during active duty (Jallinoja, et al., 2011), which suggests that monitoring eating habits may be an appropriate strategy for male and female student-veterans who wish to change negative nutritional habits incurred while on active duty. Additionally, exercise was found to be important in preventative physical illness such as heart disease (Hoerster, Jakupcak, McFall, Unutzer, & Nelson, 2012), to

have a moderating effect on depressive moods (Song, Lee, Baek, & Miller, 2011) and according to Sealy and Tope (2011), in their study with Vietnam veterans, exercise was found to significantly improve overall health outcomes. These findings highlight the importance among student-veterans, regardless of gender, of the role exercise plays in moderating health problems and suggest that there may be a need to improve nutrition related behavior.

Physical Self implications.

- Due to the moderating affect physical exercise has on student-veterans' emotional and physical health higher education institutions should provide programs for student-veterans that encourage exercise. University student recreation centers are in the ideal position to promote physical exercise that may involve for example jogging, weight-training or swimming as a means to enhance wellness as it relates to the Physical Self. Additionally, educating student-veterans on the benefits of physical exercise, such as cognitive enhancement that may directly benefit academic progress, is important considering student-veterans tend to be mindful of engaging in activities that may not add to their academic pursuits. Lastly, recreation centers, health promotion and wellness centers, and veteran resource centers may work together to implement such a program.
- Military personnel have a tendency to develop unhealthy eating habits while in the military (Jallinoja, et al., 2011), as a result student-veterans would benefit from educational programming through the campus health promotions and wellness center that addresses nutrition, eating habits and behavior change. Nutritional coaching to enhance student-veteran health has been shown to be effective (Shahnazari, et al., 2013) and could be used to improve this component of Physical Self wellness.

- Due to the potential of student-veterans having sustained combat injuries that interfere with their academic progress information about their rights to receive accommodations, according to the American with Disabilities Act, and the location of the campus office for students with disabilities should be made available at student-veteran resource centers, health promotions and wellness offices and at counseling centers. Educating student-veterans about resources available to them on campus that will help them succeed may serve as a motivating factor to utilize these services due to student-veterans' tendency to be goal oriented regarding academic progress.

Hypothesis 11: There will be a difference in Essential Self scores between gender and deployment. The Essential Self has been defined as “Our essential meaning–making processes in relation to life, self, and others” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Essential Self include spirituality, gender identity, cultural identity and self-care. The sample size for this measure was not sufficient to run a statistical analysis of the results of the Essential Self scores.

Hypothesis 12: There will be a difference in the Essential Self scores between gender and number of tours. The Essential Self has been defined as “our essential meaning–making processes in relation to life, self, and others” (Myers & Sweeney, 2005a, p. 33). Variables associated with the Essential Self include spirituality, gender identity, cultural identity and self-care. A two-way ANOVA was significant with small to medium effect sizes with gender on the Essential Self. Further, females were found to have significantly higher mean scores than males on the Essential Self. These findings suggest that female student-veterans tend to have a healthier level of Essential Self wellness in comparison to male student-veterans, although this difference was found to be small to medium. The Essential Self among student-veterans is

important to understand as a result of the challenges related to military service among military personnel deployed to Afghanistan or Iraq that impact academic progress.

Research with student-veterans on the Essential Self as defined in this study has not been conducted previously. Nonetheless, research with student-veterans and nonstudent-veterans has been conducted in areas associated with the Essential Self components that give insight to this study. For example, research on student-veteran gender dynamics, although it appears to be inconsistent provides information that is important for understanding student-veteran gender as it relates to the Essential Self. For male veterans emotional toughness, as represented by self-sufficiency and emotional control, is part of their self-identification (Jakupcak, Blais, Grossbard, Garcia, & Okiishi, 2014) and has been found to have a negative impact on student-veteran well being (Alfred, Hammer, & Good, 2014). The reason for this is that strengths related to masculine identity that were developed while in the military are no longer as necessary in college and as a result they may be a hindrance to student-veteran adjustment. Working with male student-veterans on recognizing the non-necessity of identifying with emotional toughness may help with enhancing Essential Self wellness, since self-identifying with *toughness*, a remnant of military culture, may cause dissonance while identifying as a student within higher education environments (Alfred, Hammer, & Good, 2014).

As for females, while immersed in the male-centered military culture during active duty they were found to have struggled with gender identity, but within the college environment this struggle no longer existed as it did in the military (Smith, 2012). For female student-veterans the transition to higher education offers greater freedom to define and explore their identity. This is due to not having to conform to a male-centered culture that was part of their past military life and is no longer as relevant to their college life (DeRamio & Jarvis, 2011). Interestingly,

Smith's (2012) research suggests that female student-veterans tend to acquire a stronger sense of self-identity in college than they did when serving in the military. The findings among male and female student-veterans, where for males gender identity is suggested to pose challenges and for females gender identity is suggested to be wellness enhancing, are consistent with the gender differences, even though they were modest, found in the current study.

Research on male and female student-veteran gender identity has become more relevant as females have recently been allowed to assume combat roles (Roulo, 2013). As noted, even one combat tour could have a damaging impact on holistic wellness (Foster, 2011). Of course, one of the distinctive features of OEF and OIF is the repeated deployment military personnel have had to experience (Zoroya, 2010). As a result veterans have had to learn to cope with mental and physical health problems that unfortunately for some veterans includes the abuse of painkillers, the most abused drugs in the Army (Zoroya, 2010). Engaging in drug abuse behavior represents potential harm to student-veterans, thus presenting a challenge for higher education personnel not only to create programming to help student-veterans address substance abuse issues, but how to engage them in these programs and services. Although, taking responsibility for enhancing one's own wellness is a concept of holistic wellness, substance abuse among college students is an unfortunate element and certainly poses a threat to the wellness of student-veterans, particularly those whose injuries require medications often used by others recreationally.

There are means of enhancing the Essential Self and its elements without resorting to potentially self-harming behavior. One method to combat negative urges or substance abusing behaviors and other psychological trauma is to utilize mantram strategies. For example, the use of a mantram among military veterans was found to reduce PTSD symptomology (Bormann,

Liu, Thorp, & Lang, 2012). This type of activity, geared toward increasing Essential Self components such as spiritual wellbeing, could be especially useful for student-veterans given it involves volition and self-care, two Essential Self components that facilitate holistic wellness. Ultimately, the integrative nature of holistic wellness illustrates the ongoing need for higher education administrators and allied personnel (i.e., health and wellness centers, recreation directors, counseling and psychological service professionals) to develop programming and/or services that will provide healthy campus alternatives for assisting student-veterans (and all students) address Essential Self components like spirituality, gender identity, cultural identity and self-care. Like all wellness factors, improvement in one or more components of the essential self could also (but not always) improve one's total wellness.

Essential Self implications.

- The findings in this section demonstrate the need for additional research into the moderating factors pertaining to the Essential Self. The results of this study identified challenges student-veterans experience related to gender identity, as exemplified by a sense of toughness for male student-veterans (Alfred, Hammer, & Good, 2014) and substance abuse among male and female student-veterans that is detrimental to holistic wellness (Zoroya, 2010). Research would provide information that may be used in treatment by mental health clinicians, for programing by health promotions and wellness centers and by student-veteran resource centers. Research on Essential Self third-order factors/latent factors that investigates moderating factors could address spirituality, gender identity, cultural identity, and self-care for the purpose of increasing knowledge about student-veteran attributes, environmental factors, and psychosocial dynamics that

are wellness enhancing and as a result contribute to assisting student-veterans in their academic pursuits.

- Considering the differences male and female student-veterans have been found to have on Essential Self components, such as a greater sense of freedom to explore ones identity for females (Smith, 2012) and challenges related to a masculine identity for males (Alfred, Hammer, & Good, 2014), mental health clinicians at college counseling centers should develop educational programing to inform therapists within their department about these differences. Differences between male and female student-veterans may include topics that address student-veteran responses to therapy as a result of gender identity perceptions. Male student-veterans, for example, have been found to personify a sense of self-sufficiency and emotional control (Jakupcak, Blais, Grossbard, Garcia, & Okiishi, 2014) that might cause them to be less receptive to sharing emotional content or resisting behavioral change in attempts to maintain their sense of *toughness* that was critical for survival when serving in the military. Additionally, female veterans that experienced sexual assault have been found to have a desire to return to a normal life and as a result may be hesitant to participate in mental health treatment (Katz, Bloor, Cojucar, & Draper, 2007) that may cause unwanted recollections. Although, resistance to mental health treatment exists for both male and female student-veterans the motivation for resistance may differ.
- College health promotions and wellness centers are encouraged to assist student-veterans by providing educational programming aimed at encouraging healthy coping behaviors. In light of the potential for some student-veterans to engage in unhealthy coping behaviors that involve alcohol (Foster, 2011) and drug abuse (Foster, 2011; Zoroya,

2010) promoting healthy self-care behaviors is an important service for higher education institutions to have available. Educational programming that addresses healthy coping strategies should include information about the association of alcohol and drug abuse with combat trauma and stress (Schumm, Kathleen, & Chard, 2012) and healthy behaviors that may serve as viable options to build-up wellness, such as exercise, attendance at a peer support group meeting, or engagement in enjoyable hobbies that substitute for boredom (Boredom has been linked to alcohol and drug use; Corvinelli, 2005.).

Summary. The hypotheses reviewed in this section indicated that there were six for which the sample size was insufficient for a statistical analysis. Moreover, there were six hypotheses for which statistical analyses were conducted. The one hypothesis involving the role of student-veteran gender and number of tours on the Essential Self resulted in a significant gender main effect with females scoring higher than males, although the effect size was small to medium.

Limitations

This research is inherently limited by the parameters that define it. As such this study has a number of limitations that would be important to keep in mind. First, the generalizability of this study is limited to student-veterans who participated in the Post 9/11 GI Bill program and attended one of the top 30 four-year university programs in the U.S. with the most Post 9/11 GI Bill participants. Thus, this study was not made available to students attending community colleges, technical schools, or private institutions. Second, the methods for soliciting student-veteran participants varied among the universities. In this study most universities used email to solicit participants for this research. However, two universities used newsletters, two used

Facebook, and one used a student-veteran resource center website. The problem with this is that the methods used to contact student-veterans were not uniform. Therefore, sample contamination could have occurred given that some individuals could have participated in this study that were student-veterans of OEF/OIF yet were not students at the university soliciting participants. Even though the possibility is small, the greater the ability to control this process the less potential there is for error. Third, the sample size for this study did not reach the desired amount ($N = 198$) to achieve optimal statistical power. It could be that the demographic questionnaire and the 5F-Wel required too much time to complete and as a result dissuaded participation. Whereas the 5F-Wel has 95 questions the demographic questionnaire has 35. Future studies may want to minimize the number of questions on the demographic questionnaire. Lastly, this researcher did not have a military background. For example, this lack of military background proved especially challenging when operationalizing the terminology for the study and on the demographic questionnaire in particular. As a result, the researcher may be unaware of correct military terminology or protocols that could have enhanced participation or led to additional contacts with student veteran organizations or personnel. Still, even after this researcher consulted with several student-veterans and staff at a local veterans' counseling center and the researcher's university veteran resource center, disagreements on terminology remained. As a result, some demographic questions definitions may have been unclear or even confusing for student-veterans and could have led participants to answer in ways that contradict their actual experience or position.

Finally, the lack of a sufficient sample size was a significant limitation of this study. Future researchers would benefit from having a larger sample size in order to investigate all hypotheses presented in this study. One of the challenges experienced by the researcher

involved gaining IRB approval and assistance from student-veteran resource centers of other universities outside the researcher's home university. Thirty universities were contacted, although only 17 were able to assist this researcher. Some of the reasons given among the 13 institutions that were not able to take part in this study included: (a) one IRB office required a campus site *primary investigator* to be a co-researcher, (b) one IRB office required someone *affiliated* with their campus to team with the researcher, (c) one university denied access because they were conducting research with the same population and did not want to burden student-veterans with additional research requests, (d) two university student-veteran contacts identified on university websites did not reply to the researcher's contact attempts, and (e) three universities stated that they had too many requests for research with student-veterans on their campus and therefore declined to assist with this study. Future researchers may want to begin their study with a larger pool of universities to insure greater participation in light of challenges associated with gaining access to student-veterans from other institutions. Additionally, an alternative method in obtaining university support would be to ask university personnel if they are able to provide a referral to an individual at a specific institution with the knowledge or position to facilitate access to student-veterans.

Suggestions for Future Research

This study focused on student-veterans and the role of deployment, number of tours, gender and holistic wellness. This study was limited by the given dependent (i.e., Total Wellness, Creative Self, Coping Self, Essential Self, Social Self, and Physical Self) and independent variables (i.e., deployment, number of tours, and gender), the methodology and the sample size. As such there are potentially numerous areas of research that could expand on the current study, some of which will be presented below. The hypotheses that could not be

analyzed because of an insufficient sample size are important for understanding student-veteran holistic wellness and are presented first, which are then followed by additional research suggestions.

- Hypothesis 1: There will be a difference in Total Wellness scores between gender and deployment. Total Wellness is comprised of the five secondary factors of the 5F-Wel that include the Creative Self, Coping Self, Social Self, Essential Self and the Physical Self. One of the characteristics that has defined the OEF/OIF wars has been multiple deployments to Afghanistan or Iraq. An important aspect of multiple deployments is dwell time (i.e., the time between deployments). Shorter dwell times have been shown to be associated with greater mental health problems (Interian, Kline, Glynn, & Miklos, 2014). Research that addresses Total Wellness, as defined in this study, in relation to student-veterans and dwell time is a subject area that has not been studied, but is an important topic for consideration for future research. Critical to understanding the impact of dwell time includes the association it has with the number of deployments. One deployment is sufficient to have a negative impact on Total Wellness, therefore taking into account dwell time and its association with the number of deployments would be important to consider. As a result of this research it would be interesting to find out if there was a threshold for which dwell time(s) presents a mediating influence on Total Wellness. This finding may assist in the recognition of the amount of optimal dwell time associated with holistic wellness. Information obtained from this research would assist higher education mental health clinicians, professors and administrators to be more informed about student-veterans as they assist them in their academic pursuits.
- Hypothesis 3: There will be a difference in Creative Self scores between gender and

deployment. The Creative Self is made up of third-order factors/latent factors that include thinking, emotions, control, work, and positive humor. Student-veterans suffer from significant emotional challenges of which 46% have been found to show significant characteristics associated with PTSD (Rudd, Goulding, & Bryan, 2011), a signature injury of OEF/OIF. Much research on PTSD and veterans has focused on pathology (Hall, Elhai, Grubaugh, Tuerk, & Magruder, 2012; Haskell, et al., 2010; Hellmuth, Stappenbeck, Hoerster, & Jakupcak, 2012; King, Street, Gradus, Vogt, & Resick, 2013; Polusny, et al., 2014); however, there is no research that addresses student-veteran holistic wellness, as defined in this study and the relationship with PTSD. Within the construct of the Creative Self the associated components of emotions, thinking, control, work, and positive humor could be studied to understand how they influence PTSD. It could be that certain Creative Self components have a moderating impact on PTSD, while others are limited in their impact. Each of the Creative Self components would give greater depth and breadth of the understanding of the relationship of PTSD and student-veteran wellness. Research that addresses student-veterans and the relationship with PTSD would assist higher education mental health clinicians, professors, and administrators that interact with student-veterans that have been diagnosed with PTSD to understand and work with them from a holistic wellness strength based perspective rather than from a pathology viewpoint.

- Hypothesis 5: There will be a difference in Coping Self scores between gender and deployment. The Coping Self is composed of leisure, stress management, self worth, and realistic beliefs. Stress management is an important factor that many student-veterans confront. Future research is warranted in studying the number of deployments in relation

to stress management. Research has demonstrated that with even one deployment male and female veterans were more likely to engage in binge drinking, while deployments beyond one tour increased binge drinking even more (Foster, 2011). Foster suggests that binge drinking in this study is related to stress. An important study would be to analyze the role of student-veteran deployment increments on the degree of perceived stress and Coping Self wellness levels. Some of the questions asked could be (a) Is there a specific number of deployments at which stress levels reach maximum intensity? (b) If there is a maximum stress level associated with the number of deployments what is the relationship of this with stress management and the Coping Self? (c) What is the relationship with Coping Self wellness levels and the number of deployments?, and, (d) What is the relationship among the third-order factors/latent factors, deployment and stress? Information from this research would assist college mental health clinicians, professors, and administrators with understanding the effect of student-veteran deployment increments on the degree of stress perceived by student-veterans and Coping Self wellness levels, thus providing services that are more informed.

- Hypothesis 7: There will be a difference in Social Self scores between gender and deployment. The Social Self is made up of third-order factors/latent factors that include friendship and love. Research with student-veterans and spouses and the role of the strength of the relationship with holistic wellness is an important area that warrants further exploration given that 47.3% of student-veterans have been found to be married (“VA Campus Toolkit Handout,” 2014) and the rate of domestic abuse among veterans has been reported at more than 50% (LaMotte, Taft, Weatherill, Scott, & Eckhardt, 2014). Understanding student-veteran relationships with their spouses from a holistic

wellness perspective and the association of relationship strength will shed light on wellness strength and weakness for each partner and how they are related to combined partnership strength. This information will be useful for mental health clinicians that work with student-veteran couples inside and outside of higher education institutions in gaining a deeper understanding and insight to potential treatment areas. This information may be useful for facilitating dialogue with partners, as this is sometimes difficult for veterans during postdeployment adjustment to civilian/home life. Assisting student-veterans with relationship issues is critical due to the moderating effect social support has with adjustment to college (Gonzalez, 2012). Given the importance of social support with adjustment to college this study will contribute toward student-veterans continuing in their academic pursuit and personal development.

- Hypothesis 9: There will be a difference in the Physical Self scores between gender and deployment. The Physical Self is composed of exercise and nutrition. Exercise has been found to increase brain health (Curlik & Schors, 2013), while a meta-analysis on the effects of acute exercise on cognitive performance suggest that a single exercise event has a small effect on cognitive performance (McMorris & Hale, 2012). Future research on the relationship of student-veteran exercise with academic performance and the Physical Self, in light of the potential positive impact on cognition, warrants further investigation. Student-veterans tend to be goal oriented and as a result if exercise is shown to assist in the attainment of academic goals then exercise may prove to be an activity that is receptive among student-veterans. Thus, this research may improve the understanding of the relationship between exercise, motivation and academic attainment among student-veterans.

- Hypothesis 11: There will be a difference in the Essential Self scores between gender and deployment. The Essential Self is composed of spirituality, gender identity, cultural identity and self-care. Future research on the relationship of multiple deployments and student-veteran gender on cultural and gender identity is worthy of further investigation in light of the number studies that reported challenges involving cultural and gender identity among student-veterans. For example, student-veterans have been found to struggle with challenges fitting in with peers (Dunklin, 2012; Livingston, 2009), adjusting to higher education mores (Gonzalez, 2012; Lolatte, 2010), and experiencing identity challenges (Ly-Turnball, 2010). According to Ly-Turnball (2010) student-veterans experience dual identities as a result of their military experience and subsequent adjustment to higher education.

Veterans of OEF/OIF have been found to experience numerous deployments (Zoroya, 2012), however the impact on cultural and gender identity as they relate to Essential Wellness is not well known. This struggle is related to what Myers and Sweeney (2005c) identify as being “essential [to] meaning-making processes in relation to life, self and others” (p. 8). The lack of cultural congruency has been shown to undermine student-veterans’ academic persistence (Weber, 2012), thus becoming detrimental to academic progress and Essential Self wellness. Research on this topic will help fill the gap in the research literature and will assist higher education mental health clinicians, administrators and staff to understand student-veterans better in order to assist them in their academic progress.

Additional Suggestions for Future Research

- Given that women are now being accepted into combat roles research on female student-veteran holistic wellness would be an interesting and important field of study for mental health clinicians, administrators and staff that work with student-veterans. As women participate in combat roles it makes sense that they would be exposed to more combat related trauma and as a result would have potentially greater difficulties (Kline, et al., 2010) associated with college transition than they did when engaged in non-combat roles. The affect combat role involvement will have on female student-veteran holistic wellness is not well known and therefore this research would help fill a gap in the literature. An important aspect of this study would be the findings of strengths and weaknesses related to 5F-Wel components. Additionally, analyzing differences and similarities against the 5F-Wel normative sample would be valuable information, as this would show how female student-veterans compare with a sample representative of the U.S. population in terms of holistic wellness. This research area would be helpful for college campus mental health clinicians, professors and administrator that work with female student-veterans obtain greater insight into the wellness strengths and weaknesses as a group and in comparison with a normative sample. Because this research would compare female student-veteran differences with a normative sample it would provide information on the challenges (i.e., lower scores on the 5F-Wel) female student-veterans have that non-veterans do not and therefore it may provide an opportunity to implement programing that would benefit female student-veterans specifically based on the outcomes.
- As a measure of holistic wellness the current study used results from Total Wellness and the five second-order factors of the 5F-Wel as independent variables. This study did not report on the seventeen third-order factors/latent factors that are part of the 5F-Wel,

although the third-order factors/latent factors were used to help explain the results of this study. The third-order factors/latent factors include leisure, stress management, self worth, realistic beliefs, thinking, emotions, control, work, positive humor, friendship, love, exercise, nutrition, spirituality, gender identity, cultural identity, and self-care. Future research would benefit from studying student-veteran wellness differences from the perspective of the seventeen third-order factors/latent factors in relation to deployment(s) and gender. This will provide greater depth of knowledge into the holistic wellness dynamics that was not part of the current research. This research will help identify more specifically factors associated with multiple deployments and gender that are statistically different as well as similar. The analysis of strengths and weaknesses viewed through the lens of the seventeen third-order variables/latent factors of the 5F-Wel will provide a more detailed view of holistic wellness among student-veterans than the current study was able to due to the research design (i.e., the hypotheses did not address third-order factors/latent factors).

- Future research would benefit from implementing a mixed-methods study that addresses student-veteran holistic wellness during the first year of postdeployment college adjustment and includes the use of the 5F-Well and two gender based focus groups. Two significant components of this research include the review of the 5F-Well results with student-veterans on an individual basis and a focus group interview. Interacting with student-veterans on an individual basis as part of the 5F-Well result review process will assure confidentiality of reporting the results with each student-veteran. During this process developing rapport should be one of the goals due to trust sensitivity student-veterans have with the civilian population (Rumann, 2010). The second component of

this study includes dividing student-veterans into two focus groups according to gender. This will be vital because of the potential for many negative experiences, including trauma, such as sexual assault female student-veterans may have encountered while deployed that could cause them to feel uncomfortable being around male veterans. Groups divided by gender will promote greater emotional openness and discussion among participants. Focus group discussions will allow student-veterans to address their perception of holistic wellness needs that are and are not being met on their campus. Focus groups will allow student-veterans to express their own viewpoints that include insights and opinions based on their own experiences (Massey, 2010). One of the added benefits of using focus groups is that a skillful facilitator may allow the group to move into discussion areas not intended (i.e., unfocused conversations), that in turn may provide valuable information that the researcher had not conceived prior to the group session (Frantz, 2011). Group trust is an important aspect of *unfocused conversations*, as this allows participants to speak more openly on what might be sensitive subjects, such as gender identity, spirituality, friendship and love factors of the 5F-Wel. Student-veterans, according to research, already have a developed sense of trust with veteran peers (Rumann, 2010), so, trust concerns among student-veterans in the focus group may not be a significant hurdle; however, the group facilitator would be wise to keep in mind that he or she is an outsider and therefore trust issues with the facilitator may occur. For this reason establishing rapport with group members at the onset of this study during individual reviews of the 5F-Wel results was very important.

This type of research would provide student-veterans an opportunity to express their thoughts and feelings regarding postdeployment college transition challenges,

personal holistic wellness strengths and weaknesses, and campus-wide strengths and weaknesses as they relate to holistic wellness. The results of this research would provide greater depth and breadth of knowledge in terms of holistic wellness, gender and postdeployment transition to campus mental health therapists, professors and administrators that could be used to work more effectively with this unique college subpopulation.

Summary

The number of student-veterans using the Post 9/11 GI Bill in 2013 was 754,229, which is an increase of more than 700,000 veterans since 2009 (U.S. Department of Veterans Affairs, 2013). The need to address the concerns of student-veterans was the genesis of the current study. This study resulted in significant findings on one of 12 hypotheses. A main gender effect on the Essential Self in the direction of female student-veterans was found, although the effect was small to medium.

There were a few limitations with this study including generalizability due to a focus on only four-year university student-veterans, low sample size, inconsistent methods used by universities to contact participants, and lack of uniformity among the military with terminology. Despite these limitations this study filled a void in the research literature on student-veteran holistic wellness. Future research that involves elements related to holistic wellness might address female student-veterans as this subpopulation increases combat role assignments, stress management, dwell time, third-order factors/latent factors of the 5F-Wel, cultural and gender identity, student-veteran spousal relationship, exercise in relation to academic progress, and mixed methods study that will give greater depth and richness of information that was not the scope of the current study. Such research would benefit college campus mental health clinicians,

health promotions and wellness centers, student-veteran resource center staff, and administrators in their efforts to maximize student-veteran success.

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APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE

Please note the following definition of terms used in this form:

Activated: *An order to active duty (other than for training).*

Combat mission: *Anytime a unit leaves the confines of the base for the purpose of engaging in combat, conducting a presence patrol, picking-up a high value target, conducting a humanitarian mission, etc.*

Deployment: *The movement of military servicemembers to a war zone. For the purposes of this study Iraq and Afghanistan are the war zones of interest.*

Mental health concern: *A concern related to emotional or psychological well-being such as anxiety, PTSD, depression, etc.*

Physical injury: *Bodily damage such as traumatic brain injury, internal body injury, loss of limb, etc.*

Tour of duty: *The duration of a service member's military assignment to Iraq or Afghanistan.*

1. Age _____

Please circle appropriate designation for each area below.

2. I sustained a physical injury(ies)during my deployment to Afghanistan and/or Iraq, but not while on a combat mission.

Yes No NA

3. I sustained a physical injury(ies) while on a combat mission during my deployment to Afghanistan and/or Iraq.

Yes No NA

4. The physical injury(ies) I sustained during my military service in Afghanistan and/or Iraq currently interferes with my ability to function at my physical best.

Yes No NA

5. I am currently receiving professional medical services for physical injuries related to my military service in Afghanistan and/or Iraq.

Yes No NA

6. I experienced a mental health concern(s) related to my deployment to Afghanistan and/or Iraq, but not related to a combat mission.
Yes No NA
7. I experienced a mental health concern(s) related to a combat mission while on deployment to Afghanistan and/or Iraq.
Yes No NA
8. The mental health concern(s) I experienced related to my military service in Afghanistan and/or Iraq currently interfere(s) with my ability to function at my best.
Yes No NA
9. I have or am currently receiving professional mental health services for issues related to my military service in Afghanistan and/or Iraq.
Yes No NA
10. I have or am currently experiencing difficulties with my peer relationships (i.e., students) that I believe are related to my military service in Iraq and/or Afghanistan.
Yes No NA
11. I am experiencing difficulties with my personal relationships (i.e., family and friends) that I believe are related to my military service in Iraq and/or Afghanistan.
Yes No NA
12. I am experiencing difficulties with my professional relationships (i.e., work) that I believe are related to my military service in Iraq and/or Afghanistan.
Yes No NA
13. I am experiencing difficulties with my relationships at my higher education institution (i.e., professors, school staff, administrators) that I believe are related to my military service in Iraq and/or Afghanistan.
Yes No NA
14. Academic standing:
Freshman
Sophomore
Junior
Senior
Graduate Student
Professional (i.e. law/medicine)
15. Military branch:
Army
Navy

Marines
Air Force
Coast Guard
Air Guard
National Guard

16. Major Military operation served:
Operation Enduring Freedom (OEF; Afghanistan: October 7, 2001 - Present)
Operation Iraqi Freedom (OIF; Iraq: March 19, 2003 – September 1, 2010)
Operation New Dawn (OND; Iraq: September 1, 2010 – Present)
OEF and OIF
OEF and OND
OIF and OND
OEF, OIF, and OND
Other military operations not listed: _____
I do not know the name of the military operation I served under.
17. While in the military I served only in the U.S. (i.e., I was not deployed overseas.).
Yes No
18. The number of tours of duty I was deployed to Afghanistan and/or Iraq:
0 1 2 3 4 5 6 7 8 9 10 11 or more
19. The number of times I volunteered to extend my tour of duty:
0 1-2 3-4 5-6 7 or more NA
20. The number of extended tours of duty I was mandated to serve:
0 1-2 3-4 5-6 7 or more NA
21. The duration of my longest tour of duty:
1 to 90 days
91 days to 6 months
7 to 11 months
12 to 18 months
19 to 24 months
More than 24 months
NA
22. The duration of my shortest tour of duty:
1 to 90 days
91 days to 6 months
7 months to 9 months
10 months to 13 months
Other: _____
NA

23. My average number of months between deployments to Iraq and/or Afghanistan:
0-5 6-8 9-11 12-15 16-18 19 or more NA
24. The last rank I held while deployed to Afghanistan and/or Iraq:
Enlisted
Non-commissioned officer
Commissioned Officer
25. The number of combat missions in which I participated:
0-10 11-20 21-30 31-40 41-50 51 or more NA
26. While on a combat mission I discharged my weapon on the enemy and/or received incoming fire from the enemy.
Yes No NA
27. I am active with a campus veteran organization.
Yes No
28. I am enrolled in college/university for the first time.
Yes No
29. I am re-enrolling in college/university after being deployed to Iraq and/or Afghanistan
Yes No
30. It is possible I may be deployed or activated again as I work to complete my degree.
Yes No
31. I am the first member of my family to attend college/university (i.e. “first generation student”).
Yes No

APPENDIX B

INTRODUCTORY LETTER FOR PARTICIPATION

Dear Student-Veteran,

My name is Will Heath and I am a doctoral candidate in Counselor Education at the University of Arkansas, Fayetteville. I am inviting you to participate in my dissertation research that explores student-veteran wellness from a holistic wellness perspective. I am especially interested in your views given your status as a student-veteran who was activated in the U.S. and/or deployed to Iraq and/or Afghanistan for one or more days (other than for training) during the Iraq (March 19, 2003 to December 15, 2011) and Afghanistan (October 7, 2001 to present) wars.

To better understand your experiences and perspective, I am using a wellness survey and demographics form that will take between 15 to 30 minutes to complete. Submission of the survey will make you eligible for a drawing in which you could receive one of two \$50 visa gift cards. The Institutional Review Board at the University of Arkansas has approved this study (IRB Protocol Number 12-07-025).

Please follow this link to begin:

<http://www.mindgarden.com/survey/11444>

Sincerely,

Will Heath, MS
Doctoral Candidate
Counselor Education
University of Arkansas

xxxxx@uark.edu
xxx-xxx-xxxx

APPENDIX C

CONSENT FOR PARTICIPATION

TITLE

The Relationship Between the Wellness of Iraq and Afghanistan Student-veterans at 4-year Higher Education Institutions and Gender, Number of Combat Tours, and Deployment.

INTRODUCTION

The purpose of this form is to provide you with information to assist you in your decision of whether or not to participate in this research. Participants in this study will be student-veterans enrolled at least part time in United States 4-year public research universities.

RESEARCHERS

This study is being conducted by Will Heath, MS, a doctoral candidate in Counselor Education at the University of Arkansas, Fayetteville under the direction of Daniel B. Kissinger, Ph.D., LPC.

DESCRIPTION OF RESEARCH STUDY

This study will examine the holistic wellness of student-veterans who were activated in the U.S. and/or deployed to Iraq and/or Afghanistan for one or more days (other than for training) during the **Afghanistan and Iraq wars (October 7, 2001 to present)**. If you agree to participate in this **voluntary** and **confidential** study, you will be asked to complete a wellness survey and a demographic form. It is anticipated that completion of the survey will take between 15-25 minutes.

RISKS AND BENEFITS

There are no foreseeable risks or benefits to you for participating in this study.

CONFIDENTIALITY AND WITHDRAWAL PRIVILEGE

This is a **voluntary** and **confidential** study. You may withdraw from this study at any time with no risk of penalty from your University or any other entity (i.e., military). No identifying information will be collected on the surveys. By completing and submitting the survey, you are verifying that you understand the results of this study may be used in reports, presentations, and publications, although no participants will be identified.

COSTS AND PAYMENTS

Student-veterans completing the survey will be eligible for a drawing for one of two \$50 Visa gift cards. Participants interested in the drawing will be asked to provide an email address only in order to receive the prize electronically if chosen.

NEW INFORMATION

If the researchers find new information during this study that would reasonably change your

decision about participating, they will inform you immediately.

VOLUNTARY CONSENT

By clicking “Agree” below, you are providing consent to participate in this study. By providing consent to participate in this project you are saying several things. You are saying that you have read this form or have had it read to you, and that you are satisfied that you understand this form, the research study, and its risks and benefits.

If at any time you feel pressured to participate, or if you have any questions about your rights or this form, please call Ro Windwalker, CIP, the IRB Compliance Coordinator at the University of Arkansas, Fayetteville at xxx-xxx-xxxx. If you have any questions regarding this research, please contact: Will Heath at xxx-xxx-xxxx or xxxxx@uark.edu or Dr. Kissinger at xxx-xxx-xxxx/xxxxx@uark.edu.

You may retain the copy of this informed consent document for your records.

Do you give consent to participate in this study?

Yes

No

Yes, I would like to be entered into the drawing for one of two \$50 dollar Visa gift cards.

Email address only: _____

APPENDIX D

IRB NEW PROTOCOL APPROVAL

July 26, 2012

MEMORANDUM

TO: William Heath
Daniel Kissinger

FROM: Ro Windwalker
IRB Coordinator

RE: New Protocol Approval

IRB Protocol #: 12-07-025

Protocol Title: *A Wellness Profile of Student-Veterans at 4-Year Higher Education Institutions: The Role of Gender, Combat Tours, and Deployment*

Review Type: EXEMPT EXPEDITED FULL IRB

Approved Project Period: Start Date: 07/26/2012 Expiration Date: 07/25/2013

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (<http://vpred.uark.edu/210.php>). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 500 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

August 15, 2012

MEMORANDUM

TO: William Heath
Daniel Kissinger

FROM: Ro Windwalker
IRB Coordinator

RE: PROJECT MODIFICATION

IRB Protocol #: 12-07-025

A Wellness Profile of Student-Veterans at 4-Year Higher Education Institutions: The Role of Gender, Combat Tours, and Deployment

Review Type: EXEMPT EXPEDITED FULL IRB

Approved Project Period: Start Date: 08/15/2012 Expiration Date: 07/25/2013

Your request to modify the referenced protocol has been approved by the IRB. **This protocol is currently approved for 500 total participants.** If you wish to make any further modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

Please note that this approval does not extend the Approved Project Period. Should you wish to extend your project beyond the current expiration date, you must submit a request for continuation using the UAF IRB form "Continuing Review for IRB Approved Projects." The request should be sent to the IRB Coordinator, 210 Administration.

For protocols requiring FULL IRB review, please submit your request at least one month prior to the current expiration date. (High-risk protocols may require even more time for approval.) For protocols requiring an EXPEDITED or EXEMPT review, submit your request at least two weeks prior to the current expiration date. Failure to obtain approval for a continuation *on or prior to* the currently approved expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

September 10, 2012

MEMORANDUM

TO: William Heath
Daniel Kissinger

FROM: Ro Windwalker
IRB Coordinator

RE: PROJECT MODIFICATION

IRB Protocol #: 12-07-025

A Wellness Profile of Student-Veterans at 4-Year Higher Education Institutions: The Role of Gender, Combat Tours, and Deployment

Review Type: EXEMPT EXPEDITED FULL IRB

Approved Project Period: Start Date: 09/10/2012 Expiration Date: 07/25/2013

Your request to modify the referenced protocol has been approved by the IRB. **This protocol is currently approved for 500 total participants.** If you wish to make any further modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

Please note that this approval does not extend the Approved Project Period. Should you wish to extend your project beyond the current expiration date, you must submit a request for continuation using the UAF IRB form "Continuing Review for IRB Approved Projects." The request should be sent to the IRB Coordinator, 210 Administration.

For protocols requiring FULL IRB review, please submit your request at least one month prior to the current expiration date. (High-risk protocols may require even more time for approval.) For protocols requiring an EXPEDITED or EXEMPT review, submit your request at least two weeks prior to the current expiration date. Failure to obtain approval for a continuation *on or prior to* the currently approved expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

September 17, 2012

MEMORANDUM

TO: William Heath
Daniel Kissinger

FROM: Ro Windwalker
IRB Coordinator

RE: PROJECT MODIFICATION

IRB Protocol #: 12-07-025

A Wellness Profile of Student-Veterans at 4-Year Higher Education Institutions: The Role of Gender, Combat Tours, and Deployment

Review Type: EXEMPT EXPEDITED FULL IRB

Approved Project Period: Start Date: 09/17/2012 Expiration Date: 07/25/2013

Your request to modify the referenced protocol has been approved by the IRB. **This protocol is currently approved for 500 total participants.** If you wish to make any further modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

Please note that this approval does not extend the Approved Project Period. Should you wish to extend your project beyond the current expiration date, you must submit a request for continuation using the UAF IRB form "Continuing Review for IRB Approved Projects." The request should be sent to the IRB Coordinator, 210 Administration.

For protocols requiring FULL IRB review, please submit your request at least one month prior to the current expiration date. (High-risk protocols may require even more time for approval.) For protocols requiring an EXPEDITED or EXEMPT review, submit your request at least two weeks prior to the current expiration date. Failure to obtain approval for a continuation *on or prior to* the currently approved expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

September 27, 2012

MEMORANDUM

TO: William Heath
Daniel Kissinger

FROM: Ro Windwalker
IRB Coordinator

RE: PROJECT MODIFICATION

IRB Protocol #: 12-07-025

Protocol Title: *A Wellness Profile of Student-Veterans at 4-Year Higher Education Institutions: The Role of Gender, Combat Tours, and Deployment*

Review Type: EXEMPT EXPEDITED FULL IRB

Approved Project Period: Start Date: 09/27/2012 Expiration Date: 07/25/2013

Your request to modify the referenced protocol has been approved by the IRB. **This protocol is currently approved for 500 total participants.** If you wish to make any further modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

Please note that this approval does not extend the Approved Project Period. Should you wish to extend your project beyond the current expiration date, you must submit a request for continuation using the UAF IRB form "Continuing Review for IRB Approved Projects." The request should be sent to the IRB Coordinator, 210 Administration.

For protocols requiring FULL IRB review, please submit your request at least one month prior to the current expiration date. (High-risk protocols may require even more time for approval.) For protocols requiring an EXPEDITED or EXEMPT review, submit your request at least two weeks prior to the current expiration date. Failure to obtain approval for a continuation *on or prior to* the currently approved expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

February 13, 2013

MEMORANDUM

TO: William Heath
Daniel Kissinger

FROM: Ro Windwalker
IRB Coordinator

RE: PROJECT MODIFICATION

IRB Protocol #: 12-07-025

A Wellness Profile of Student-Veterans at 4-Year Higher Education Institutions: The Role of Gender, Combat Tours, and Deployment

Review Type: EXEMPT EXPEDITED FULL IRB

Approved Project Period: Start Date: 02/13/2013 Expiration Date: 07/25/2013

Your request to modify the referenced protocol has been approved by the IRB. **This protocol is currently approved for 500 total participants.** If you wish to make any further modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

Please note that this approval does not extend the Approved Project Period. Should you wish to extend your project beyond the current expiration date, you must submit a request for continuation using the UAF IRB form "Continuing Review for IRB Approved Projects." The request should be sent to the IRB Coordinator, 210 Administration.

For protocols requiring FULL IRB review, please submit your request at least one month prior to the current expiration date. (High-risk protocols may require even more time for approval.) For protocols requiring an EXPEDITED or EXEMPT review, submit your request at least two weeks prior to the current expiration date. Failure to obtain approval for a continuation *on or prior to* the currently approved expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.