ALCOHOL CONSUMPTION AND OTHER RELATED FACTORS IN MILITARY

VETERANS ATTENDING COLLEGE

by

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**ACKNOWLEDGEMENTS**

iv

**TABLE OF CONTENTS**

**Page**

# LIST OF TABLES

# LIST OF ABBREVIATIONS

| Abbreviation | Description |
|---|---|
| QFI | Quantity Frequency Index of Alcohol Use |

**ABSTRACT**

Military veterans attending college may encounter difficulties resulting from the clash of military and collegiate cultures. A lack of social support during the military-to-college transition may promote the development of unhealthy coping mechanisms to deal with the anxiety of college adjustment. Problematic alcohol use may be one of these coping mechanisms. Previous studies in the general population have found positive correlations between alcohol use, anxiety and poor social support; however, the literature remains sparse with regard to the potential interactions of these variables for military veterans in the college setting. The current study sought to fill this void in the literature by examining alcohol use, anxiety, and social support among military veteran students and their civilian peers. Quantitative analyses were used to determine the ability of anxiety, student group (military veteran or civilian), social support, and their interactions to predict alcohol use among college students, while controlling for age. To enrich these results, a qualitative component was included to better understand collegiate drinking among military veterans and the influences of anxiety and social support on alcohol use. In addition, as an exploratory measure, veterans' thoughts on improving military services in the university setting were also collected. While anxiety, social support, student group, and their interactions were not significant predictors of alcohol use in quantitative analyses, all of these factors were reflected in the themes that emerged from the qualitative component of the study. Further, qualitative responses suggested that military

veterans on campus may benefit from virtual services and/or an expansion of the

scheduling of services to better suit students' busy class schedules, as well as their full

work and family lives. Taken together, the results of this study have the potential to

inform universities in ways that could improve the college experience for military

veterans.

## I. INTRODUCTION

According to data collected in 2012, there are over 900,000 military veterans, active-duty personnel, reservist and National Guardsmen benefitting from current VA education programs such as the G.I. bill (United States Department of Veteran Affairs, 2014). With the veteran populations growing at many universities throughout the nation, there is a need to study how their unique past experiences may impact their military-to-campus transition and what sorts of campus services may be needed during this potentially stressful time. Student veterans come to campus life with higher levels of maturity and leadership qualities as a result of their military experiences (Selber, Chavkin, Marshall, & Shaffer, 2014). However, there is growing evidence to support the notion that veterans may be at risk for alcohol-related problems during the military-to-campus transition. For instance, military veterans experience an increased probability of conditions such as PTSD, major depressive disorder and traumatic brain injury, and previous studies have linked these conditions with increased risk for alcohol dependence (Tanielian & Jaycox, 2008).

The literature is sparse with regard to studies specifically focusing on alcohol use among military veterans in college. Of particular relevance to the current thesis project, former TX State graduate student Ashley Sailors and her mentor Dr. Reiko Graham conducted a cross-sectional survey in 2014, which revealed a positive relationship between self-reported anxiety and alcohol use among young military veterans attending college (Moore et al., 2015). This result supports earlier findings, which suggested that military veteran students may be more likely to use alcohol as a coping mechanism compared to their civilian peers (Whiteman & Barry, 2011). Further, a longitudinal study

by Whiteman and colleagues (2013) found that alcohol consumption for military veterans attending college was elevated and stable over a three-semester time period compared to their civilian peers. These military veteran students also reported less emotional support than their civilian peers, and this lack of social support also affected academic persistence (Whiteman, Barry, Mroczek, & Wadsworth, 2013). In that study, there was no association between social support and alcohol use for military students, but there was a positive association between peer emotional support and alcohol use for the civilian students (Whiteman et. al., 2013). Moreover, for civilian students, emotional support had a protective effect on mental health, whereas student veterans who reported greater levels of emotional support from college peers showed little change in psychological distress (Whiteman et. al., 2013). However, one limitation of this work is that Whiteman and colleagues did not address the influence of social support from veterans' families and significant others on alcohol use. These are important issues to consider, as other studies have shown that veterans with previous combat exposure might be hesitant to seek treatment for psychological issues due to perceived feelings of social stigma from the public, their family, or even fellow military veterans (Mittal et al., 2013).

These findings suggest that additional work is needed to better understand post-military transitions from the veterans' perspectives in order to tailor support services to better fill their needs.

The current study extended the existing literature by including both quantitative and qualitative online surveys assessing alcohol use, anxiety and social support (from one's significant other, family, friends, and civilian college peers) among military veteran students and their civilian student peers. The quantitative component of the study not

only replicated previous studies comparing self-reported drinking patterns, anxiety and social support in military veterans versus civilian peers, but also addressed two hypotheses. Hypothesis 1 predicted that military veterans with high levels of anxiety but also high levels of social support (from significant other, family and/or friends) would have lower levels of alcohol use. Hypothesis 2 predicted that support from civilian college peers would be a more significant influence on alcohol consumption for civilian students compared to their military veteran peers. The qualitative component of the study was included to provide a richer understanding of collegiate drinking among military veteran students and the influences of anxiety and social support on alcohol use in this group. In addition, as an exploratory measure, military veteran students' thoughts on improving military services in the university setting were also collected. Ultimately, a better understanding of how these variables relate to each other could provide universities and colleges with the resources to determine whether or not our veterans can receive enough help from the people they know, or if changes need to be made to campus resources and organizations to fill this gap.

## II. LITERATURE REVIEW

**Drinking Culture in Military and College**

To highlight the extent of military drinking culture, Jacobson and colleagues (2008) examined rates of alcohol use and related problems for military veterans in the Millennium Cohort Study. They specifically sought to explore whether combat exposure was associated with new or continuing alcohol consumption and problems (Jacobson et. al, 2008). The Millennium Cohort Study started in 2001 assessed the long-term health of military service members in all military branches and the potential effects from deployment and various exposures. This study focused on participants who had taken the baseline survey after deployment (not during or before) under the assumption that answers may be different if taken during deployment. Their outcome variables were heavy weekly drinking, binge drinking, and alcohol-related problems (Jacobson et. al, 2008).

Results indicated that baseline, follow-up, and new-onset pervasiveness for all three alcohol-related outcomes were higher for combat-exposed personnel than non-combat and non-deployed personnel (Jacobson et. al, 2008). This study points out that combat-exposed military personnel might be drinking to self-medicate because of the problems they experienced during deployment. The study's results also indicated an increased chance of new-onset or continued alcohol-related problems if the participant reported symptoms of PTSD or depression (Jacobson et. al, 2008). Thus, when placed in new environments that condone drinking (such as the collegiate drinking culture, see below), former military personnel may be at heightened risk for the development of alcohol-related problems.

Other studies have also examined alcohol use in the military. Bray and colleagues (2009) surveyed active-duty military personnel and found that 20% of those surveyed were heavy users of alcohol, with those under the age of 35 exhibiting higher rates of heavy drinking compared to their civilian counterparts. In another study, Ramchand and colleagues (2010) compared alcohol use among previously deployed, male military personnel versus males in the general civilian population. They found only one significant difference in alcohol use patterns between the two groups. Civilian men consumed more alcohol per drinking episode (that is, on the days when they *did* drink) compared to those in the military group (Ramchand et al., 2010). Within the military group, previously deployed military personnel reported more binge drinking than those who had not been previously deployed (Ramchand et al., 2010). That study was limited by the focus on only male veterans, as well as a data collection method that relied on landline phones.

In regards to the culture of drinking in college students, an estimated 24% of college students report engaging in "heavy" drinking (engaging in binge drinking once a month or more over the course of a year), which is higher than civilian non-college youths, 20% of whom report "heavy" drinking (Dawson, Grant, Stinson, & Chou, 2004). Furthermore, approximately 37% of college students report binge drinking (Johnston, O'Malley, Bachman, & Schulenberg, 2013), defined as consuming five or more drinks in a row per drinking session for males (four or more for females) (Courtney & Polich, 2009). In terms of heavy drinking, these percentages are higher than those reported for active-duty and previously deployed military as well as non-college youths (Bray et. al., 2009; Rachmand et. al., 2010; Dawson et. al., 2004).

5

Taken together, data from college and military drinking cultures suggest some disturbing trends. College drinkers are more likely to binge drink (compared to non-college youths) (Johnston et al., 2013). Previously deployed military are more likely to binge drink (versus non-deployed military), and active-duty military under 35 years of age are more likely to drink heavily (versus civilians) (Rachmand et. al., 2010 & Bray et. al., 2009). Thus, it is possible that when military veterans enter the college setting, these two drinking cultures could collide and have an additive or synergistic effect on students' alcohol use, such that military veterans who are also attending college may consume more alcohol and drink in more hazardous patterns versus non-military students and veterans who do not attend college.

**Drinking Motivations**

In order to create effective treatment and prevention programs for any population, it is essential to understand the various reasons *why* people consume alcohol. In the mid-1990s, Cooper (1994) studied a large and diverse group of adolescent drinkers aged 13 to 19 years. This work led to the four-factor model for drinking motives, which included drinking for purposes of coping, as well as drinking for social reasons, enhancement, and conformity (Cooper, 1994). Of these four motives, Cooper found that only two (coping and conformity) were directly and positively related to *problem* drinking. Individuals who indicated that they drank to cope often drank alone, while those who drank to conform did so at parties and social events (Cooper, 1994). There was no association between problem drinking and participants' reports of consuming alcohol for social reasons. However, there was an indirect positive association between drinking for enhancement purposes and problem drinking, and the two were linked through heavy

alcohol consumption (Cooper, 1994). Taken together, these results suggest that adolescents who drink for negative reasons (drinking to cope or to conform) are more likely to experience drinking-related problems than those who drink for more positive motives (such as social and enhancement purposes).

In a sample of collegiate drinkers aged 18-25 years, Villarosa and colleagues (2014) studied alcohol use, drinking motives, and mental health issues. They found that, while overall levels of alcohol use did not differ, students with higher levels of social anxiety had more harmful drinking *patterns* (e.g., consuming these beverages over a shorter time period) and reported a greater number of negative alcohol-related consequences. Further, drinking for enhancement mediated the relationship between anxiety symptoms and harmful drinking, as well as the relationship between anxiety symptoms and negative alcohol-related consequences (Villarosa et al., 2014). Drinking to conform also mediated the relationship between anxiety symptoms and negative alcohol-related consequences (Villarosa et al., 2014). Interestingly, in that study, coping motives were did not mediate the relationship between anxiety symptoms and harmful drinking, perhaps because students with social anxiety may be responding to more positive (enhance, conform) versus negative (coping) drinking motives (Villarosa et al., 2014).

Other studies have examined drinking motives in military personnel. Williams and colleagues (2010) studied alcohol use in a large sample of junior Air Force and Navy personnel (ages 18-25) while also looking at mental health problems such as anxiety and depression. The results of that study suggest that military personnel with mental health issues may use heavy amounts of alcohol to maintain a consistent mood or relieve any stress they are currently experiencing (Williams et al., 2010). More specifically, those

7

participants with symptoms of anxiety and depression symptoms tended to use alcohol for both coping and social motives (Williams et al., 2010). These results suggest that young adults in the military may be experiencing more stressful experiences (versus the adolescents in the Cooper, 1994 study) and using alcohol as a coping mechanism to relieve their mental health symptoms.

Though the literature on the topic remains sparse, the few studies that have examined differences in alcohol use between military veterans who are students compared to their civilian college student peers suggest that veterans are heavier drinkers (Whiteman & Barry, 2011). However, Whiteman and Barry (2011) found also found that coping motivations were significantly related to problem drinking for military veterans, but not for their civilian college peers. Similarly, in another study, Barry and colleagues (2012b) found a positive association between binge drinking and PTSD among student veterans, but they found the opposite or no effect in student civilians (Barry et. al, 2012b).

**Stress and Coping**

Although Post Traumatic Stress Disorder (PTSD), a disorder caused by the experience of any unique and traumatizing event, is a frequently publicized issue for military veterans, research suggests that 11% of the general population of college students may also show sub-clinical PTSD symptoms (compared to 17% of military veterans reporting sub-clinical symptoms) (Smyth et al., 2008; Jakupack et al., 2007). It should also be noted that 3.6% of the general population in the United States experiences sub-clinical levels of post-traumatic symptoms. Barry and colleagues (2012a) studied the impact of how trauma exposure and post-traumatic symptoms influenced alcohol

consumption and academic functioning in four groups: students from the military who had been exposed to combat, military students not exposed to combat, Reserve Officers' Training Corps (ROTC) student members, and civilian students. All groups showed a positive association between post-traumatic symptoms and problematic drinking, as well as lower GPA, lower academic persistence and greater academic amotivation (Barry et. al, 2012a). Not surprisingly, combat-exposed military veteran students showed higher rates of post-traumatic symptoms compared to non-combat-exposed military-affiliated/veteran students (Barry et. al, 2012a). One major limitation of this study was the lack of a non-combat-related trauma exposure measure to examine exposure across all groups, including civilian students.

**The Role of Social Support**

A study by Romero, Riggs, & Ruggero (2015) examined the moderating influence of family social support on the relationship between coping style (avoidant versus problem-focused) and psychological symptoms of anxiety, depression and post-traumatic stress in student veterans. Avoidant coping has been defined as an attempt to deny or minimize the results of a particular problem or even choosing not to deal with the problem, while problem-focused coping concentrates on active planning and/or focusing on a certain behavior to manage a stressor (Boden, Bonn-Miller, Vujanovic, & Drescher, 2012; Folkman & Lazarus, 1985). In civilian populations, avoidant coping is associated with increased psychological symptom severity; whereas, problem focused-coping tends to be a more successful strategy that decreases unpleasant psychological symptoms (Eisenbarth, 2012; Romero et al., 2015). Romero and colleagues (2015) found the same positive relationship between avoidant coping and psychological symptom severity in

student veterans. The authors suggested that, although this strategy might be of use in traumatic combat situations, avoidant coping may not be a successful strategy in the relatively less stressful collegiate setting (Romero et al., 2015). Surprisingly, in the student veteran sample, problem-focused coping was not directly related to psychological symptom severity, but rather problem-focused coping interacted with high family social support to decrease depressive symptoms. Thus, social support appears to be an important factor for improving veterans' college experience.

Social support also appears to be important for civilian college students experiencing psychological symptoms. For instance, Clara and colleagues (2003) found that both students and clinically depressed outpatients who reported stronger support from friends and family also reported fewer symptoms of depression. This study reinforces the importance of college students' feeling connected on campus. However, in terms of this connection, student service members/veterans have unique experiences that may make their lifestyle and behavior on campus different from their civilian peers. These experiences often leave military veterans who are college students feeling disconnected from their fellow peers and faculty members (Whiteman, Barry, Mroczek, & MacDermid Wadsworth, 2013). Military veteran students often report difficulty in developing relationships with their university peers.

A study by Whiteman and colleagues (2013) examined peer support for student service members/veterans and civilian college students to determine if support predicted alcohol consumption, mental health, and academic success (Whiteman et. al, 2013). The longitudinal, multi-site study was conducted over three consecutive semesters at 20 different institutions (Whiteman et. al, 2013). The researchers found that, compared to

civilian students, the student service members/veterans reported less social support from their peers, even as the amount of social support grew for each group (Whiteman et. al, 2013). However, in both groups, social support from peers was associated with positive mental health and academic adjustment, and student service members/veterans did not differ from civilian students in the overall severity of mental health conditions (Whiteman et. al, 2013). An interaction later revealed that, for student service members/veterans, peer support was not as strongly related to positive mental health. These results suggest that emotional support from university peers implies emotional support is bad in relieving stress for student service members/veterans. An alternative interpretation might be that, as a result of their military training, student service members are more independent and resilient, and *require* less support and approval from their peers, as compared to civilian students.

Interestingly, Whiteman and colleagues (2013) found that, across both student groups (civilian and military), the amount of emotional support from peers was *positively* associated with students' frequency of drinking alcohol. This result suggests that, in some cases, peer support in the context of the collegiate drinking culture may actually *increase* students' tendency for drinking to cope with psychological symptoms. However, Whiteman and colleagues' study (2013) was limited by a lack of detailed information about students' alcohol consumption patterns and personal drinking histories. Only one question was used to measure the frequency of drinking in that study. The current study addressed this limitation by examining the inter-relationships between social support, stress/anxiety and alcohol use in more detail. Further, this line of research was extended by the inclusion of qualitative data regarding veterans' experiences in college. The

current study also includes information about social support from not only peers, but also family and significant others, which may be particularly important given veterans' reported feelings of disconnection from college peers.

In terms of qualitative studies, using the grounded theory approach, DiRamio, Ackerman, and Mitchell (2008) interviewed 25 college students who had served in the Iraq and Afghan conflicts between 2003 and 2007. The majority of these participants were part of the millennial generation of students (born after 1982, Howe & Strauss, 2000) (DiRamio, Ackerman, & Mitchell, 2008). Some student veterans in that study reported that college adjustment difficulties were significant enough to make them "consider going back to Iraq where a sense of camaraderie existed" (DiRamio, Ackerman, & Mitchell, 2008, pg. 86). They also reported frustration with the lack of resilience in their civilian college student peers. One study stated "Most [students] kind of whine over nothing. They don't really know what it is to have a hard time…" (DiRamio, Ackerman, & Mitchell, 2008, pg. 87). Veterans spoke in favor of on-campus veterans' organizations, though none existed for the students included in Diramio and colleagues' (2008) study. In contrast, our military veteran students were recruited from a campus with an active and ongoing veterans' organization, and this is another way that the current study extended the literature on this topic.

Taken together, the quantitative and qualitative results of the current study could significantly contribute to the literature on military veterans in college.

**Current Research on the Military-to-College Transition**

Much of the research and programming concerning the military-to-college transition has been conducted in the field of social work. For instance, for the past nine

12

years, Dr. Katherine Selber of Texas State University (TX State) has been instrumental in implementing veteran-designated sections in the first-year University Seminar at TX State (Selber, K. 2010). These sections of the University Seminar focus on establishing deeper engagement between the faculty and students, provides information about campus resources, and assessing learning styles. Military veterans tailored their sections by creating two assignments geared toward strengthening the connection between military veterans and traditional first-year students.

Other studies have included quantitative data to determine what factors may correlate with student veterans experiencing a difficult military-to-college transition. Gwin and colleagues (2012) administered a 52-question needs assessment to student veterans through a survey link provided by the Veterans Affairs Office via email, and this survey was completed by 337 student veterans (Gwin, Selber, Chavkin, & Williams, 2012). The goal of this survey was to understand student veteran's experiences and encourage academic achievement. As Bauman suggested in 2009, this approach is crucial so that we may further improve veterans' chances for educational success.

When student veteran participants in the Gwin et al. study (2012) were asked if they had heard about the student veteran organizations on campus, 62.3% responded "yes", but only 10.9% had actually attending any of the meetings. Student veterans also reported major concerns about the careers they may obtain after graduation. Approximately 55% reported worrying about "sustaining certainty in their career plans", 63.7% were worried about finding a job, with 60.8% wanting to be happy with their job. Finally, 57.5% were concerned with future job satisfaction. Veterans were even facing the idea of having to leave the university. The needs assessment study revealed that

21.2% of participants were experiencing issues that they felt might cause them to stop attending the university, including financial, educational, health, and personal difficulties (Gwin et al., 2012). One of the major issues communicated was a lack of information on how to properly access mental health resources on campus. Forty-six percent indicated that they did not know the location of these resources on campus, and 34% said they did not know where relevant off-campus resources were located. Veterans also described being too embarrassed to use mental health resources (32%), noting that the use of such resources might harm their career (42%,) and that they could be seen as weak (32%) (Gwin et al., 2012). Such reports from student veterans are a clear indication that more direct action must be taken to help smooth their transition to civilian, student life.

**The Professional Development Roadmap**

To improve student veterans' transitions, some campuses have begun to put into action distinct programs and services that have been termed "veteran friendly" because they are designed to help student veterans transition to college life (Loken, Pfeffer, McAuley, & Strong, 2009; DiRimario, Ackerman, & Mitchell, 2008). Initiatives like these are effective for veterans who may feel uncomfortable and alone in the new environment of the college campus. Following several years of pilot studies including quantitative and qualitative data, Dr. Selber and colleagues published an article in 2014 detailing how universities can help student veterans' transition.

The implementation of the Professional Development Roadmap is essential for any campus striving to achieve a veteran-friendly status. To serve student veterans properly, campuses need to follow these established guidelines. The first step is to develop a mission & internal team, then, develop external partnerships in the community, develop a

strong-based framework, promote active outreach and follow-up, develop student veteran

organizations, and finally, remain veteran-centered (Selber, Chavkin, Marshall, &

Shaffer, 2014). As part of this process, TX State initiated a Veterans Advisory Council

(VAC) that included faculty and staff from major departments on campus to begin the

identification and development of services specifically for student veterans' needs

(Selber, et. al, 2014). The purpose of this council is to bring the university together in

unity and support for its student veterans who struggle with the difficulties of college

hassles.

An example of an active outreach program on campus is the peer-to-peer

approach in which student veterans interact and talk with fellow veterans who can

sympathize with them (Selber et. al., 2014). Peer-to-peer efforts have shown to be critical

with veterans considering the strong military culture and stigmas associated with seeking

help (Coll & Weiss, 2013; Defense Center of Excellence, 2011). The Campus Writing

Center is another special partnership that TX State holds with student veterans. The

Campus Writing Center has tailored their services by hiring employees that are veterans

themselves. Student veterans who come to the Writing Center receive a one-on-one

experience with someone who understands what it is like to return to college after serving

in the military (Selber et. al., 2014). These programs are examples of the strides that have

been made at Tx State, and continued efforts to spread awareness of these programs

among newly enrolling veterans continues to be a focus of efforts.

### III. SUMMARY OF THESIS STUDY

The thesis study examined alcohol use in military veteran students and their civilian student peers, taking into consideration anxiety and different types of social support. The study extended the work of Whiteman and colleagues (2013) on the inter-relationships of alcohol use, stress/anxiety, and social support in veterans by assessing a variety of *different types* of social support (from significant others, families, friends, and college peers). Whiteman and colleagues' (2013) work was also extended through the collection of detailed information about quantity and frequency of students' alcohol consumption over the previous six-month period (whereas Whiteman used only one question to assess alcohol use).

**Quantitative Component**

The quantitative component of the thesis study focused on anxiety, social support and group status (military veteran students or civilian students) and their interactions as potential predictors of alcohol consumption.

Hypothesis 1. We hypothesized that military veterans with high levels of anxiety but also high levels of social support (from significant others, family, or friends) would have a lower levels of alcohol use. This result would be supported by the finding that anxiety x social support x group status significantly predicted quantity/frequency of alcohol consumption, such that military veterans with high anxiety and social support had lower levels of alcohol use.

Hypothesis 2. Based on Whiteman and colleagues (2013) study, we predicted that support from civilian college peers would be a more significant influence on alcohol consumption for civilian students compared to their military veteran peers. This

prediction would be supported by the finding that college peer support x group interaction, or the college peer support x group x anxiety interaction, significantly predicted quantity/frequency of alcohol consumption, such that the influence of college peer support on alcohol use was more influential for the civilian student group.

**Qualitative Component**

To enrich the quantitative results of the proposed study, we included a qualitative component assessing collegiate drinking among military veterans and the influences of stress, anxiety, and social support on alcohol use. In addition, as an exploratory measure, veterans' thoughts on improving military services in a university setting were also collected. This component extended Diramio and colleagues' (2008) study, which included only veterans who had not had access to on-campus veterans' organizations. Thus, our focus on veterans who were recruited from just such an organization provided new information that had not been published previously.

# IV. METHODS

**Participants**

Approval of methods and procedures was obtained from the TX State Institutional Review Board (IRB). All participants gave written consent prior to completing an anonymous online survey containing quantitative and qualitative questions. Participants were recruited from TX State in 2016. Military veteran students were recruited through the Veteran's Alliance of Texas (VATS) office and through mass email announcements. A comparison group of civilian students was recruited through psychology courses via email notices and classroom announcements. The final participant sample included a total of 105 participants: military veteran students (18 women and 26 men, with one participant that did not indicate their gender) and civilian students (36 women and 24 men).

**Quantitative Component**

**Demographics**. Participants provided information regarding race, ethnicity, age, and gender.

**Anxiety.** Anxiety served as a predictor variable in this study. Levels of anxiety were measured using the Spielberger Trait Anxiety Inventory (STAI, Spielberger et al., 1983). In the STAI, participants are instructed to rate, using a four-point scale ranging from "not at all" to "very much so", the extent to which 20 statements reflect "how they generally feel". Statements include negative items (e.g., "I feel upset.") and positive items (e.g., "I feel calm."), and the weighting of the scale is reversed for the scoring of the positive items. Scores on this instrument range from 20 to 80. In previous studies, the

STAI had overall median alpha coefficients greater than .89 for trait anxiety in a normative sample (Spielberger et. al., 1983).

**Social Support.** Four types of social support (from one's significant other, family, friends, and college peers) served as predictor variables in separate analyses in this study. The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 2988) was used to assess social support. Traditionally, this instrument includes subscales relevant to support from family, friends, and significant other(s). For the thesis study, an additional subscale was added to address support from civilian college peers, and this question was answered by both military veteran students and civilian students. The MSPSS contains 4 survey items per subscale rated on a Likert-type scale of 1 through 7. Past research has shown a reliability of 0.88 for the whole scale and retest reliability of 0.85, indicating good internal consistency within the measure (Zimet et. al, 1988).

**Alcohol use.** The primary outcome variable for this study was the Quantity Frequency Index (QFI; Cahalan et al., 1969), which provided a measure of absolute ounces of alcohol consumed per day by each participant during the six-month period prior to study enrollment. Alcohol consumption was assessed as a total QFI score, which included wine, beer, and liquor (including mixed drinks). The QFI is a valid and reliable measure of alcohol use, giving higher positive predictive values for binge drinkers than other measures such as the seven-day diary (O'Hare, Cohen, & Sherrer, 1997). To provide a fuller picture of participants' personal drinking histories the online survey also included questions about participants' age at first drink and age at first intoxication.

**Qualitative Component**

This part of the thesis study included military veteran students only and question prompts were presented at the end of the online survey. Qualitative items were open-ended questions used to develop a richer description of the quantitative data results. These questions were designed to further elicit a description of participants' alcohol usage and the various ways in which their most significant support group assisted them in life. The four lines of questioning were as follows:

**Question 1.** Participants were asked, "In your personal experience, what has been the most challenging aspect of adjusting to life as a university student?"

**Question 2.** Concerning alcohol use, participants were asked, "What do you believe is your main reason for using alcohol? Do you use it to socialize, get away from stressors, to have fun, etc.?"

**Question 3.** In terms of social support, "When you think of the person that helps you the most when you are feeling down or need someone to talk to, who is that person? Are they a friend, family member, or significant other? What do they do that makes you feel better?"

**Question 4.** There was also a question about ways in which our campus might improve or add resources that the participant believed would be beneficial or useful for them and for fellow student veterans. The question was worded, "If you currently use any of the academic, physical & mental health, career, financial, leadership services, etc. provided on campus, why do you currently use them? If you do not use any of the above related services, why not? (For both users and non-users) what resources would you like to see on campus that you would personally use?"

**Data Analysis**

**Quantitative Component.** Data for the quantity/frequency index of alcohol consumption was skewed; thus, this variable was square root transformed prior to analysis. Separate t-tests for independent samples were used to compare military veteran students and civilian students on demographics and alcohol use variables that were continuous (age, age at first alcohol use, age at first intoxication, quantity/frequency index of alcohol consumption). Distribution of gender across the two student groups was examined using Chi-square analyses. Because military veteran students and civilian students differed significantly on age, subsequent quantitative analyses controlled for this factor. We also examined levels of anxiety and social support by performing separate ANCOVAs, in which age was entered as a covariate.

The primary analysis of interest involved a hierarchical linear regression model predicting the quantity/frequency index of alcohol consumption. Separate analyses were conducted for each of the different types of social support (i.e., significant other, family, friends, and civilian college peers). In Block 1 of the regression, we entered age as a control variable. In Block 2 of the regression, we entered group membership (military veteran students or civilian students), anxiety, social support, and their interactions (i.e., anxiety x social support, anxiety x group, social support x group, and anxiety x social support x group). In the current study, the alpha coefficient was set at .05. For significant interactions, moderation effects were further analyzed using the methods of Preacher, Curran & Bauer (2006), and simple slopes were computed for the mean of the moderator, as well as one standard deviation above and below this value.

**Qualitative Component.** The qualitative analysis of the four open-ended questions included in the survey were conducted according to the framework method

21

(Gale, Health, Cameron, Rashid, & Redwood, 2013). The framework method provides a

further understanding of the qualitative data by identifying similarities and themes within

the responses (Gale et. al., 2013). The initial part of this analysis method involved

primarily distinguishing themes that were later transferred into codes.

There were two researchers included in the initial component of the analysis.

Each researcher conducted a combination of open coding (i.e., inductive approach) and

also considered pre-existing themes from a 2015 pilot study conducted by Ms. Ashley

Sailors and Dr. Reiko Graham (see Moore et al., 2015) (i.e., deductive approach). The

researchers read all of the open-ended responses and assigned codes or descriptors that

categorized the meanings of the participants' responses. These codes referred to the four

themes that were previously mentioned above and included feelings, perceptions about

campus services, self-reports of drinking patterns, reasons behind drinking, as well as an

explanation of why and who the participants believed to be their main source of social

support.

Following the first stage in which the coders differentiated between themes within

the first few open-ended responses, the two coders reached consensus concerning the

code definitions that each had developed. Both of the coders worked together to make

any changes, deletions, additions, and categorizations of the codes and reached a firm

consensus on the final analytical framework. Once the two coders had agreed upon the

analytical framework, the remaining responses were coded accordingly and organized by

category in a matrix format, a process referred to as "charting" (Gale et. al., 2013). Data

were carefully reduced, while the original meanings and feelings from the participants'

responses were retained. Interpreting these qualitative data involved recognizing the

characteristics and differences between the data, as well mapping connections between

the categories to explore relationships (Gale et. al., 2013). This process extends analyses

beyond mere descriptors to potentially predict how a particular group may instigate or

respond to a situation, as well as to identify areas that may not be currently benefitting

the group (Gale et. al., 2013).

# V. RESULTS

## Quantitative Component

**Demographics**. On average, participants were 28 years of age (S.D. = 7 years; range = 19 – 51 years). Approximately 29% of participants reported Hispanic ethnicity (of any racial category). In terms of racial categories, the participant sample was 75% White, 8% African American or Black, 3% Asian, and 6% Other. Eight percent of the participant sample opted not to answer the racial category question.

Age and gender are shown in Table 1. Military veteran students were significantly older ($M_{age}$ = 33.3, *S.D.* = 8.2) than civilian students ($M_{age}$ = 24.2, *S.D.* = 3.9), $t(102)$ = 6.11, *p* < .001. Although there was a trend toward a difference in gender distribution between groups, this was not statistically significant (*p* = .05). The military veteran student group was 41% female, while the civilian student group was 60% female.

**Alcohol Use.** Alcohol use characteristics of military veteran students and civilian students are shown in Table 1. Military veteran students and civilian students did not differ significantly on the quantity/frequency index of alcohol use (*p* = .21). Both groups' QFIs translated to an average of approximately one standard alcoholic beverage per day (or approximately seven drinks per week) over the previous six-month period. There was a trend toward a later age at first drink of alcohol for civilians (*M* = 14.3, *S.D.* = 3.9) compared to their military veteran student peers (*M* = 12.7, *S.D.* = 4.3), however, this did not reach statistical significance (*p* = .05). The groups did not differ on age at first intoxication, which was approximately age 17 (*p* = 74.)

**ANCOVAs.** Trait anxiety levels as well as the four types of social support for military veteran students and civilian students are included in Table 2. We included age

24

as a covariate in the separate ANCOVAs. Military veteran students and civilian students did not differ significantly on levels of trait anxiety, or social support from their family, friends or college peers ($ps > .06$.) The groups did differ on the amount of social support they reported receiving from a significant other ($F(1,101) = 4.66$, $p = .03$). The civilian student group reported a higher level of social support from a significant other, as compared to the military veteran student group (see Table 2.)

**Regressions.** In Block 1 of the regressions, age was entered as a control variable. Age was a marginally significant individual predictor, $\beta = -.014$, $p < .05$, resulting in an $R^2$ of .04, $p < .05$.

In Block 2 of each regression, predictors were trait anxiety, social support, and group (military veteran student or civilian student), as well as their interactions. A separate regression was conducted for each type of social support. To test Hypothesis 1, analyses focused on social support from students' significant other, family, and friends. To test Hypothesis 2, analyses focused on social support from civilian college peers. Results are described below.

***Significant Other.*** For the analysis of social support from one's significant other, trait anxiety ($\beta = -.015$, $p = .42$), social support ($\beta = -.045$, $p = .33$), group ($\beta = -1.345$, $p = .44$) and their interactions ($|\beta s| < .053$, $ps > .40$) were not significant predictors of quantity/frequency index of alcohol consumption.

***Family.*** For the analysis of social support from one's family, trait anxiety ($\beta = .000443$, $p = .98$), social support ($\beta = .001$, $p = .98$), group ($\beta = -.476$, $p = .75$) and their interactions ($|\beta s| < .020$, $ps > .77$) were not significant predictors of quantity/frequency index of alcohol consumption.

*Friends.* For the analysis of social support from one's friends, trait anxiety ($\beta$ = .026, $p$ = .10), social support ($\beta$ = .077, $p$ = .07), group ($\beta$ = -1.919, $p$ = .25) and their interactions (|$\beta$s| < .081, $ps$ > .07) were not significant predictors of quantity/frequency index of alcohol consumption.

*Civilian College Peers.* For the analysis of social support from one's civilian college peers, trait anxiety ($\beta$ = -.001, $p$ = .95), social support ($\beta$ = -.008, $p$ = .79), group ($\beta$ = .067, $p$ = .94) and their interactions (|$\beta$s| < .016, $ps$ > .28) were not significant predictors of quantity/frequency index of alcohol consumption.

**Qualitative Component**

**Open and Focused Coding.** Four qualitative questions were included at the end of the online survey for the military veteran students only. The analysis of these four questions involved the two-step framework method. The first step, open coding, is an intensive, line-by-line examination of the data to identify themes and categories of interest. The second step is focused coding, which involves a second, line-by-line examination of the data with the aforementioned themes and categories in mind (Gale et. al, 2013). Two researchers served as coders for the analysis of qualitative data. Each coder completed the open and focused analyses separately, then compared the themes for each question. The final themes were established via consensus between the two coders.

*Question 1.* The first question posed to participants was "In your personal experience, what has been the most challenging aspect of adjusting to life as a student?" Data included the perception that students with a military background have a difficult time integrating and getting along with civilian students. Themes included "age and life

experience differences", "adjustment difficulties", "balancing time", and "added troubles".

*Age and Life Experience Differences.* In this theme, participants described various ways that military veteran students feel different compared to their civilian counterparts. Many participants felt a certain disconnection from civilian students based on their own military experiences, which had been completely different from the experiences of a typical college student. One participant described the situation as follows: "*Being around people of a different generation…my priorities are different, and because of my experiences, there really is no way to connect with most of the college students I encounter every day in my classes.*"

*Adjustment Difficulties.* Some military veteran students also reported difficulties in adjusting to the college setting, which they described as being radically different from the military environment. One student explained the adjustment to college life as "*…finding a new purpose [whereas, the] military hands you purpose and meaning on a plate.*" Along with finding a new purpose, military students also had difficulty adjusting to schoolwork.

*Balancing Time.* There was also an aspect of "balancing time" that was reported as challenging by military veterans. It can be difficult for military veteran students to find "*time for family, work, school and sleep*", as one participant characterized the competing demands. Self-scheduling the variety of new responsibilities without a strict timeline was identified as a challenge for military veteran students, who had previously lived very externally-structured lifestyles.

*Added Troubles.* Further, some military veterans described "added troubles" that did not smoothly fit into one particular category. Such concerns included finances and health issues. As noted by one participant, *"[I have] undiagnosed ADHD, and VA (Veterans' Affairs) sucks about treating this kind of problem"*. Not only is adjustment challenging for military veteran students who are struggling to balance time and deal with different life/age experiences than their civilian counterparts, but also military veteran students' difficulties often extended beyond collegiate issues.

*Question 2.* Participants were then asked, "When you think of the person that helps you the most when you are feeling down or need someone to talk to, who is that person? Are they a friend, a family member or significant other? What do they do that makes you feel better?" To categorize the responses, it was important to determine *how* someone was supportive rather than just *who* was supportive, although the majority of participants reported their significant other as their main source of support. Establishing how someone is being supported (or lacking in support) may point researchers and school administrations in the direction of creating new and different forms of campus support for military veteran students in the future. With that idea in mind, the themes that were finalized for the second question focused on what a person did to support the participant.

Themes that emerged included "talking and listening", "physical affection", "laughing", and "planning". Some participants noted that they "don't discuss problems", while others did not list how their support person helped.

*Talking and Listening.* Most participants indicated that the support they received was either through "talking" or "listening". One participant who discussed support in the form of listening responded as follows: *"...my husband. He listens and does not judge.*

*He helps me look at things from a different perspective*." There were also times when participants reported that they received support from talking with others. One participant noted that, "*my family reminds me that my problems are nothing I can't handle*." Within the theme of talking, participants described their support person as someone who helped them "*calm down*" and "*talk through their pain*". The most important element of support appeared to be the support person's sincerity and genuine relationship with the participant.

*Physical Affection.* There were only a few participants who reported physical affection as a significant source of support. As one person reported, their wife supported them through both, "*hugs and talking*", while another explained that their daughter "*hugs them*." While it may seem simple, this form of support does provide a level of comfort that talking cannot achieve. Some people respond better to physical affection, and it is sometimes the only way to comfort a person who is going through a difficult situation.

*Laughing.* Among all of the themes, this category included a more lighthearted approach. Those who received upbeat support described it as "*someone who cheers them up and says the right things when they're feeling down.*" For those participants, cheerful, positive feedback was what they wanted in terms of support from others. They found this to be an easier way to deal with problems.

*Planning.* While the other themes that emerged in response to question two involved primarily emotion-focused types of support (e.g., talking, listening, laughing), the last theme extended the concepts of talking and listening a bit further, to "planning". One participant reported receiving support from their stepfather who "*helps me set my priorities straight and gives me a plan of action*." Another student response involved

support from a significant other, someone who would "*tell me the truth or help with a plan to deal with the problem…also, provide love and support*.". This theme of support was more proactive than the other categories because the participants received problem-focused support that helped them to work toward eliminating problems and conquering challenges.

*Don't Discuss Problems.* For those participants who did not discuss their problems with anyone, one participant noted the following:

"*I don't like burdening friends with my problems, so when I talk about it I give a very light version and make it seem like it's not really an issue. I mainly internalize what I feel and try to make adjustments on my own.*"

Although some participants reported that they are not seeking out help from others, they also explained that they were working through their feelings by themselves. These data suggest that participants who do not seek help from others may still be actively trying to work on their problems, even if it is without another's help.

*Question 3.* Question three prompted participants to describe their drinking habits by asking, "What do you believe is your main use of alcohol? Do you use it to socialize, to get away from stressors, to have fun, etc … ?". Responses to this question were categorized by the participants' primary reason for using alcohol and whether or not this was a negative or positive reason. Positive themes around the issue of alcohol use included drinking "to socialize", "to have fun", "to relax/wind down", and "to enjoy wine/with a meal". More negative themes described drinking "to deal with stress" and "to forget." Some participants indicated that they usually "do not drink".

*To Socialize and Have Fun.* The majority of participants reported drinking "to socialize" or "to socialize and have fun" as their main reason for using alcohol. For those that reported using alcohol mostly in a social situation, one participant explained that, "*mostly when I drink, it's social, such as a family gathering.*" The use of alcohol in social situations seems to be done by people who are responsible when consuming alcohol and know when they should stop. On the other hand, those who used alcohol to have fun did not indicate that they were watching how much they drank. One participant commented that they drank, "*while watching sports. Makes things more enjoyable.*" In the situation of having fun, military students may not consider how much they are drinking or the consequences of drinking too much.

*To Relax / Wind Down.* More than just using alcohol for a good time, some participants explained that they used alcohol to help themselves relax at the end of the day. As one person described, *"when alone, I drink to relax a little bit. I'll drink until I feel buzzed and then stop. I've never had a problem with stopping.*" Participants in this category indicated that they did not drinking uncontrollably, but rather, they recognized when they had had enough and then stopped drinking.

*To Enjoy Wine / With a Meal.* In another theme, participants reported that they drank because they either enjoyed the taste of alcohol or liked having a drink with their meals. A participant described reasons for drinking as follows: "*My primary use of alcohol is from my Italian upbringing. I drink alcohol with Italian meals.*" Thus, for a few participants in this category, culture played a role in why participants liked having alcohol with their meals. Alcohol use may be perceived by participants as a positive thing

when one indulges in a responsible manner, although there are times when alcohol can be used in a less optimal sense.

*To Deal with Stress.* There were two categories of responses that had negative themes. The negative theme most frequently noted by participants was the use of alcohol to deal with stress. One participant wrote, "*When I feel angry, anxious or stressed out, I use alcohol more frequent*ly." In this sense, participants reported that they turned to alcohol whenever they were dealing with a bad situation; that is, they used alcohol as a coping mechanism.

*To Forget.* Other participants stated that their main use for alcohol was to forget things. For instance, one participant noted that they used alcohol to, *"self-medicate worries."* Because alcohol consumption is not a healthy coping mechanism, military veteran-focused interventions may be needed to place a greater emphasis on the promotion of healthier, more positive approaches to coping with stress.

***Question 4.*** The final question for the qualitative portion of the study sought to determine opinions about services provided to students on our campus by asking, "If you currently use any of the academic, physical & mental health, career, financial, leadership services, etc. provided on campus, why do you currently use them? If you do not use of the above related services, why not? (For both users and non-users), what resources would you like to see on campus that you would personally use?" This question was meant to gauge how often services were being used, as well as ways to improve and update services so military students can have a more comfortable transition into the student role. Surprisingly, the majority of participants indicated that they "do not use" the currently available campus services for military veteran students. "Time issues" also

emerged as a theme in response to Question 4, as did the use of "outside resources" such as those offered by the VA. Among those who did report using campus services, themes included using campus services for "health use", "academic use", and "administrative functions".

*I Do Not Use Services.* The majority of responses fell into the category of "I do not use services". Reasons for not using any campus services included the feeling that they *"...did not need them."* or that the existing services may be inadequate for their needs. However, most of the military veteran students whose responses fit this theme <u>did not</u> have a negative outlook on our campus services. Rather, they were either unaware of the services, or they did not feel a need to use them.

*Time Issues.* There were also participants that could not use the services currently provided because of "*time restraints*". One student justified not using campus services as follows: "*I am taking 18 units and I have no time, energy, or desire to use them.*" As noted previously, "balancing time" was identified as a theme in responses to Question 1, and repeated mention of this issue may indicate a need to make campus services easier to access for students with full schedules.

*Outside Resources.* Other participants reported preferring "outside resources" such as services provided through the VA (Veterans' Affairs) instead of using services provided on campus. Military veteran students might feel more comfortable seeking assistance from the VA given that this organization is designed for the military. As one person explained, "*I rely on my VA doctors; they already know what is going on with me.*" Having to start over with a new doctor could be an impediment to using campus

health services. Military students may not consider it necessary to seek out this new resource.

*Health Use.* The participants who used services for health reasons reported using the gym provided on campus, and one student reported using the mental health services at the TX State Round Rock campus. Students using these health services expressed that they were maintaining their health both physically and mentally. One student specifically stated that they engaged in physical exercise because they "*believe it helps to keep my stress in check."* Military students who used health resources on campus seemed to have a good understanding of the importance of living a balanced life and taking care of their mental and physical health.

*Academic Use.* Other students discussed how they used services provided on campus to enhance themselves academically. Within this category, most participants stated that they used these services to improve their grades and ability to learn. One student indicated that they used these services not only for academic purposes, but also to educate their non-military college peers by giving "*first person accounts of what service is.*"

*Administrative Functions.* Finally, a few military students reported using resources that were various areas of an "administrative" function. The benefits received from these services focused on areas such as tuition and disability accommodations, or anything that would involve approval or assistance from the administration on campus. Two participants in particular stated that they were worried because "*Texas State does not accept Tricare at the student health center.*" Although changes such as the acceptance of Tricare may not be something that may be easily implemented, these are still a part of

the important suggestions and concerns to take into consideration when striving to improve campus services.

Gathering detailed information from military students helped to enrich the results from the quantitative study in a more personal way that gave a better sense of how the participants truly feel. Rather than simply choosing an answer that best described them, they were able to write down their thoughts, providing a more comprehensive view of the various opinions and feelings held by military veteran students.

Table 1
*Age and Alcohol Use*

|  | Military Veterans (*n* = 45) | Civilians (*n* = 60) | *p* value |
|---|---|---|---|
| % Female | 41% (44) | 60% (60) | *p* = .05 |
| Age | 33.3 (8.2) | 24.2 (3.9) | *p*<.001 |
| First Drink | 14.3 (3.9) | 12.7 (4.3) | *p* = .05 |
| First Intoxication | 16.8 (3.3) | 17.0 (2.8) | *p* = .74 |
| QFI[a] | 0.65 (0.73) | 0.99 (1.26) | *p* = .21 |

*Note.* Numbers indicate % (*n*) for categorical variables, or *Mean* (*S.D.*) for continuous variables. Age at participation, and ages at first drink and first intoxication, shown in years.
[a] Quantity Frequency Index (Cahalan et al., 1969) values are shown prior to square root transformation, whereas, *p* value represents analysis of square root transformed data.

Table 2
*Anxiety and Social Support in Military Veteran Students versus Civilian Students*

|  | Military (*n* = 45) | Civilian (*n* = 60) | *p* value |
|---|---|---|---|
| Anxiety (STAI)[a] | 43.05 (2.08) | 48.78 (1.77) | *p* = .06 |
| Social Support |  |  |  |
|    Significant Other | 19.59 (1.22) | 23.35 (1.04) | *p* = .03 |
|    Family | 19.59 (1.04) | 21.50 (0.89) | *p* = .20 |
|    Friends | 19.43 (1.16) | 21.10 (0.99) | *p* = .31 |
|    College Peers | 13.23 (1.29) | 16.15 (1.10) | *p* = .12 |

*Note.* Age was as a covariate in all analyses. Numbers indicate *Mean* and *Standard Error* of total scores.

[a]STAI = Spielberger Trait Anxiety Inventory (Spielberger, 1983)

## VII. DISCUSSION

The purpose of this study was to examine the collegiate experiences of military veterans who are attending college. By incorporating both quantitative and qualitative components, this study provided extra insight into a group with a different outlook compared to a typical civilian college student.

The quantitative component of the thesis study focused on anxiety, social support and group status (military veteran students or civilian students) and their interactions as potential predictors of alcohol consumption. We hypothesized 1) that military veterans with high levels of anxiety but also high levels of social support (from significant other, family, or friends) would have a lower levels of alcohol use, and 2) that support from civilian college peers would be a more significant influence on alcohol consumption for civilian students compared to their military veteran peers. Neither hypothesis was supported by the quantitative data gathered in this study. In fact, age was consistently the only statistically significant predictor of alcohol use for our participant sample. Younger participants reported a higher level of alcohol consumption over the six months prior to study enrollment. While the hypothesized results did not emerge, the finding that age was a significant predictor for the entire participant sample regardless of military veteran or civilian status suggests that both groups may benefit from ongoing efforts to prevent hazardous drinking among college students on our campus.

Currently, TX State requires incoming students to participate in an event called "Bobcat Preview", which gives students advice and instruction about what to expect at college. During this program, students attend a course, "Stand Up, Speak Up", where they learn about the dangers of hazardous drinking, how to recognize signs of alcohol

37

poisoning, and other related topics. Aside from the required class that occurs during

Bobcat Preview, students are also required to complete an online course called, "Alcohol

EDU", where incoming students are educated about campus alcohol statistics, as well as

the current drinking norms for Texas State. Both of these programs are required for

incoming freshmen and transfer students (including military students) to complete. If a

student misses Bobcat Preview or does not complete the online program, a hold is put on

their record until they complete these requirements. Besides getting students involved,

parents are invited to attend Bobcat Preview, where they are also educated on prevention

and what they can do to help support their child during this transition.

There are also events hosted on campus throughout the year, which involve

alcohol education. One program entitled, "Social Buzz", focuses on educating others

about why students drink, common drinking myths, ways to host responsible parties,

"pre-gaming", and drinking laws for both the campus and State of Texas. Another

presentation entitled, "Alcohol Bystander Intervention Training", involves learning about

blood alcohol concentration (BAC), how BAC affects the body, symptoms of alcohol

poisoning, and what someone can do to deal with a dangerous alcohol situation. Both of

these presentations are provided through TX State's Student Health Center as part of their

health promotion services. Faculty members and organizations at TX State may request

these presentations through an online request form found on the Student Health Center's

website. Unfortunately, these programs are not easily accessible to students on campus,

as they can only be requested through a class or organization. Increasing the accessibility

of such programs to allow students to view the materials throughout their time at TX

State (not just during the presentations) is one way that alcohol harm prevention programs might be improved.

Web-based alcohol intervention programs for incoming freshmen college students may be a promising alternative to in-person interventions, however, research on these programs has been mixed. Paschall and colleagues sought to determine whether or not using a computer-based program to instruct students on the dangers of drinking, as well as give them tailored advice based on their drinking habits, would have any effect on the way they drink (Paschall, Antin, Ringwalt & Saitz, 2011). Universities across the United States were invited to participate and assigned to either a control group (i.e., universities that did not receive any prevention training, $n = 15$ schools) or an intervention group (i.e., universities that were given access to the Internet-based alcohol misuse prevention program, $n = 15$ schools). The study surveyed students during the fall and spring semester of one school year so that researchers could determine if the online intervention had a long-term effect on students. In the fall semester, the online prevention program significantly reduced the frequency of alcohol use and episodes of binge drinking for freshmen students with high participation in the program; however, this effect did not carry through to the spring semester (Paschall et al., 2011). Lessons learned from Paschall and colleagues' study suggest that an online intervention should be continuously accessible for students throughout their college career in order to influence drinking habits beyond the initial orientation phase in the fall semester.

A more recent study by Palfai and colleagues focused on a single university to again determine the effectiveness of online interventions when used to educate students of the dangers of hazardous drinking (Palfai, Winter, Lu, Rosenbloom & Saitz, 2014).

These researchers examined the effectiveness of an online alcohol misuse intervention on freshmen students' drinking habits with particular emphasis on whether or not the already at-risk, heavy drinkers would benefit significantly from the intervention. This study also sought to expand on previous work by including non-drinkers to determine the effects of an alcohol misuse intervention on this group. Students were invited to participate in an online assessment and randomly assigned to either receive feedback about their eating habits and physical health (i.e., the control group) or feedback about their drinking habits and possible consequences of their drinking (i.e., the intervention group). Students were asked to complete a second survey about their health and drinking habits at a five-month follow-up. Palfai and colleagues (2014) found no significant effects of the intervention on drinking habits for heavy drinking students or non-drinkers; most students retained their pre-existing drinking habits at the five month follow-up session. An alternative interpretation might conclude that the continued abstinence among non-drinkers may be related to the alcohol misuse intervention; however, it is not possible to prove this given the null effects of the study. Additional work is needed to determine the long-term effects of online alcohol misuse interventions in college student populations.

In the second component of the thesis study, qualitative data provided additional insight into the college experience for military veterans. Overall, results suggested that military veteran students face isolation from (and frustration with) their civilian peers, who often lack life experience and have different time priorities compared to military veteran students. These findings are consistent with other qualitative studies, which have noted that veterans may feel "different" and "alone", and have difficulty identifying with their peers at college (Zinger and Cohen, 2010, pg. 45). However, our findings differed

from Zinger & Cohen's study in that none of the military veterans in our study reported feeling "disrespected by other students and faculty" (Zinger and Cohen, 2010, pg. 45). The overall atmosphere of respect for military veterans on our campus is reassuring and perhaps not surprising, as TX State has been ranked the #1 veteran-friendly 4-year tier-two research university in the United States for 2018 (Military Friendly®, 2018).

Inability to identify with civilian peers, coupled with the newfound lack of structure that awaits them on campus, may challenge military veterans' transition from soldier to student. Social support from family members and significant others appears to contribute to positive, emotion-focused and problem-focused coping activities such as talking, listening, and planning for the future. However, it is important to note that for various reasons, not all students will have access to these powerful sources of social support. Many returning veterans note difficulty re-connecting with civilian family members, and particularly with civilian friends and/or peers (Zinger and Cohen, 2010), an issue that may increase veterans' feelings of isolation. Further, while the majority of military veterans reported that their alcohol use was associated with positive, celebratory motives, others reported using alcohol as a coping strategy to deal with stress and block unpleasant memories. This finding is consistent with a larger literature examining hazardous drinking in returning military veterans, many of whom may be experiencing symptoms of post-traumatic stress disorder (Institute of Medicine, 2010).

Ideally, campus support resources could be used to fill the void created by lack of access to positive social support, and to lessen students' reliance on unhealthy coping mechanisms. Interestingly, the majority of participants in the current study appeared reluctant to access the full array of resources currently available on our campus. Some

participants indicated that they did not feel the need to use campus support services, and perhaps this perception may be related to the overall veteran-supportive climate of TX State. However, time constraints were also noted as a significant barrier to using campus services, and this may be one viable target for adjustment of our existing services. On the surface, it seems possible that this limitation could potentially be overcome by updating the traditional in-person, business-hours approach in favor of virtual interactions that may be more easily scheduled to fit students' busy lifestyles. However, while their civilian, millennial, college student peers may thrive in a virtual community (Lowery, 2004), it is less clear if this approach would be successful for military veterans who may be accustomed to working closely in-person with other members of their military unit. Still, distance counseling, which uses a similar approach, has experienced some success as a means of reaching out to veterans who might not otherwise seek assistance through traditional venues (Briggs and Reneson, 2010).

**Limitations**

This thesis project was limited by a relatively small sample size. A larger and more diverse group of participants recruited from more than one university would provide more generalizable results. While data were collected over the course of a calendar year using a variety of recruitment methods, willingness of military veteran students to participate in research was the primary limiting factor. As noted in the qualitative data, military veteran students have busy schedules and are struggling to cope with the competing demands of academics, work, and family life. Thus, it is not surprising that this group of students may be reluctant to participate in additional activities, such as this research project. While we were able to draw some conclusions

42

from the data derived from this relatively small sample of participants, these findings

should be confirmed in a larger, more diverse population. It should also be noted that the

civilian group differed significantly from the military group in terms of age, so an

additional control group of older, non-traditional students could be useful in future

studies.

**Future Directions**

Despite the relatively small sample size, this study provided information that

could be useful in the planning of services for military veteran students. For instance,

future work could examine military veteran students' experiences in the currently

required alcohol education activities on our campus (e.g.,"Stand Up Speak Up"). It would

be interesting to learn whether or not these educational experiences are optimal for

military veteran students, who (compared to the standard college freshman) are likely to

have had a greater variety of life experiences and alcohol-related experiences prior to

their arrival on campus. Adjustments to alcohol education approaches could be made to

better suite not only military veteran students, but also other groups of non-traditional

students. Finally, qualitative data suggest that military veteran students' busy schedules

may not only affect their adjustment to college life, but may also prevent them from

accessing the services that would improve their adjustment. Efforts to update services for

military veterans on our campus could consider an expansion of virtual options that could

better fit into students' schedules.

# LITERATURE CITED

Babor, T., Higgins-Biddle, J., Saunders, J., & Monteiro, M. (2001). *The alcohol use disorders identification test: guidelines for use in primary care (2nd ed.).* Switzerland. World Health Organization: Department of Mental Health and Substance Dependence.

Barry, A., Whiteman, S., & MacDermid Wadsworth, S. (2012a). Implications of posttraumatic stress among military-affiliated and civilian students. *Journal of American College Health, 60*(8), 562-573.

Barry, A., Whiteman, S., MacDermid Wadsworth, S., & Hitt, S. (2012b). The alcohol use and associated mental health problems of students service members/veterans in higher education. *Drugs: Education, Prevention & Policy, 19*(5), 415-425. doi: 10.3109/09687637.2011.647123

Bauman, M. (2009). The mobilization and return of undergraduate students serving in the national guard and reserves. *New Directions for Student Services,* 126, 15-23.

Boden, M., Bonn-Miller, M., Vujanovic, A., & Drescher, K. (2012) A prospective investigation of changes in avoidant and active coping and posttraumatic stress disorder among military veteran. *Journal of Psychopathology and Behavioral Assessment, 34*, 433-439. DOI:10.1007/s10862-012-9293-6

Bray, R., Pemberton, M., Hourani, L., Witt, M., Olmstead, K., Brown, J., …Bradshaw, M. (2009). *2008 Department of Defense survey of health related behaviors among active duty military personnel: A component of the Defense Lifestyle Assessment Program (DLAP).* Research Triangle Park, NC: RTI International.

Briggs, C. A. & Reneson, S. (2010). Counseling addicted veterans: What to know and how to help. Retrieved from http://counseling.org/knowledge-center/vistas/by-year2/vistas-2010/docs/default-source/vistas/vistas_2010_article_88

Cahalan, D., Cisin, IH., & Crossley, HM. (1969). *American Drinking Practices: A National Study of Drinking Behavior and Attitudes. Monograph 6.* New Brunswick, NJ: Rutgers Center of Alcohol Studies.

Clara, I., Cox, B., Enns, M., Murray, L., & Torgrudc, L. (2003). Confirmatory factor analysis of the multidimensional scale of perceived social support in clinically distressed and student samples. *Journal of Personality Assessment, 81*(3), 265-270.

Coll, J & Weiss, E. (2013). In A. Rubin, E. Weiss, & J. Coll. (Eds), *Handbook of military social work. Transitioning veterans into civilian life* (pp. 2281-297). New Jersery: John Wiley & Sons.

Cooper ML. Motivations for alcohol use among adolescents: Development and validation of a four- factor model. Psychological Assessment. 1994; 6(2):117–128.

Cox, M., & Klinger, E. (1988). A motivational model of alcohol use. *Journal of Abnormal Psychology, 97*. 168-180.

Cresswell, J. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddle River, NJ: Pearson Education.

Dawson, D., Grant, B., Stinson, F., & Chou, P. (2004). Another look at heavy episodic drinking and alcohol disorders among college and noncollege youth. *Journal of Studies on Alcohol, 65*, 477-488.

DiRamio, D., Ackerman, R., Mitchell, R.L. (2008). From combat to campus: voices of

   student-veterans. *NASPA Journal, 45*(1), 73-102.

Folkman, S. & Lazarus, R. (1985) If it changes it must be a process: Study of emotion

   and coping during three stages of a college examination. *Journal of Personality

   and Social Psychology, 48*(1), 150-170.

Gale, N*.,* Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013) Using the

   framework method for the analysis of qualitative data in the multi-disciplinary

   health research. *BMC Medical Research Methodology, 13*(1), 117.

Gwin, D., Selber, K., Chavkin, N., & Williams, A. (2012) Supporting the next surge of:

   Helping veterans transition to higher education. *International Journal of

   Continuing Social Work Education, 15*(1), 27-38.

Howe, N., & Strauss, W. (2000). *Millennials rising: the next great generation.* New

   York, NY: Vintage Books.

Institute of Medicine. (2010). *Returning Home from Iraq and Afghanistan: Preliminary

   Assessment of Readjustment Needs of Veterans, Service Members, and Their

   Families.* Washington, DC: The National Academies Press.

Jacobson, I., Ryan, M., Hooper, T., Smith, T., Amoroso, P., Boyko, E., ... Bell, N. (2008).

   Alcohol use and alcohol-related problems before and after military combat

   deployment. *Journal of the American Medical Association, 300*(6), 663-675.

   doi:10.1001/jama.300.6.663.

Jakupack, M., Conybear, D., Phelps, L., Hunt, S., Holmes, H., Felker, B., …McFall, M. (2007). Anger, hostility, and aggression among Iraq and Afghanistan war veterans reporting PTSD and subthreshold PTSD. *Journal of Traumatic Stress, 20*(6), 945-954. Doi: 10.1002/jts.20258

Johnston, L., O'Malley, P., Bachman, J., & Schulenberg, J. (2013). Monitoring the future national survey results on drug use, 1975–2012. Volume II: College students and adults ages 19–50. Ann Arbor, MI: Institute for Social Research, The University of Michigan.

Lokken, J., Pfeffer, D., McAuley, J, & Strong, C. (2009) A statewide approach to creating veteran friendly campuses. *New Directions for Student Services,* (126), 45-54.

Lowery, J.W. (2004). Student affairs for a new generation. *New Directions for Student Services, 2004*(106), 87-99.

Military Friendly®. (2018). *Military Friendly Schools*. Retrieved from: http://militaryfriendly.com/schools.

Mittal, D., Drummond, K., Blevins, D., Curran, G., Corrigan, P., & Sullivan, G. (2013). Stigma associated with PTSD: Perceptions of treatment seeking combat veterans. *Psychiatric Rehabilitation Journal, 36*(2), 86-92. DOI: 10.1037/h0094976

Moore, J., Sailors, A., Graham, R., & Ceballos, N. (2015, June). *Alcohol use, anxiety and depression in military veterans attending college.* Poster presented at the annual convention of the Research Society on Alcoholism, San Antonio, TX.

47

Onwuegbuzie, A. & Leech, N. (2005) On becoming a pragmatic researcher: The

importance of combining quantitative and qualitative research methodologies.

*International Journal of Social Research Methodology 8*(5), 375-387. DOI:

10.1080/13645570500402447

Palfai, T.P., Winter, M., Lu, J., Rosenbloom, D., & Saitz, R. (2014) Personalized

feedback as a universal prevention approach for college drinking: A randomized

trial of an e-mail linked universal web-based alcohol intervention. *The Journal of

Primary Prevention, 35*(2), 75-84. Doi:10.1007/s10935-013-0337-9

Paschall, M.J., Antin, T., Ringwalt, C.L., & Saitz, R.F. (2011). Evaluation of an internet-

based alcohol misuse prevention course for college freshmen: Findings of a

randomized multi-campus trial. *American Journal of Preventative Medicine,

41*(3), 300-308. Doi: 10.1016/j.amepre.2011.03.021

Ramchand, R., Miles, J., Schell, T., Jaycox, L., Marshall, G.N., & Tanielian, T. (2011).

Prevalence and correlates of drinking behaviors of previously deployed military

personnel and matched civilian populations. *Military Psychology, 23,* 6-21.

doi: 10.1080/08995605.2011.534407

Romero, D., Riggs, S., & Ruggero, C. (2015). Coping, family social support, and

psychological symptoms among student veterans. *Journal of Counseling

Psychology 62*(2), 242-252. http://dx.doi.org/10.1037/cou0000061

Selber, K. (2010). Preparing university communities to serve those who served us: Use of

a university seminar to support student veterans. *eSource for College Transitions,

8*(1). 4-6.

Selber, K., Chavkin, N., Marshall, G., & Shaffer, D. (2014). Building partnerships for
serving student veterans: A professional development roadmap. *International
Journal of Continuing Social Work Education, 17(*1), 61-70.

Smyth, J., Hockemeyer, J., Heron, K., Wonderlich, S., & Pennebaker, J. (2008).
Prevalence, type, disclosure, and severity of adverse life events in college
students. *Journal of American College Health, 57,* 69–76.
doi:10.3200/JACH.57.1.69-76

Spielberger, C.D., Gorsuch, R.L., Lushene, R., Vagg, P.R., & Jacobs, G.A. (!983).
*Manual for the State-Trait Anxiety Inventory.* Palo Alto, CA: Consulting
Psychologists Press.

Tanielian, T., & Jaycox, L.H. (Eds.). (2008). Invisible wounds of war: Psychological and
cognitive injuries, their consequences, and services to assist recovery. Santa
Monica, CA: RAND, Center for Military Health Policy Research.

United States Department of Veteran Affairs, National Center for Veterans Analysis and
Statistics, Education Program Beneficiaries (Washington, DC, 2014).

Villarosa, M., Madson, M., Zeigler, V., Noble, J., & Mohn, R. (2014) Social anxiety
symptoms and drinking behaviors among college students: The mediating effects
of drinking motives. *Psychology of Addictive Behaviors, 28*(3), 710-718. doi:
10.1037/a0036501

Whiteman, S., & Barry, A. (2011). A comparative analysis of student service
member/veteran and civilian student drinking motives. *Journal of Student Affairs,
Research, and Practice, 48*(3), 297-313. doi:10.2202/1949-6605.6322.

Whiteman, S., Barry, A., Mroczek, D., & MacDermid Wadsworth, S. (2013). The

    development and implications of peer emotional support for student service

    members/veterans and civilian college students. *Journal of Counseling*

    *Psychology, 60*(2). doi:10.1037/a0031650.

Williams, J., Jones, S., Pemberton, M., Bray, R., Brown, J., & Vandermaas-Peeler, R.

    (2010) Measurement of invariance of alcohol use motivations in junior military

    personnel at risk for depression or anxiety. *Journal of Addictive Behaviors, 35,*

    444-451. doi:10.1016/j.addbeh.2009.12.2012

Yusoff, M. (2010). A multicenter study on validity of the 30-items brief COPE in

    identifying coping strategies among medical students. *International Medical*

    *Journal, 17* (4), 249-253.

Zimet, G., Dahlem, N., Zimet, S., & Farley, G. (1988). The multidimensional scale of

    perceived social support. *Journal of Personality Assessment, 52*(1), 30-41.

Zinger, L., Cohen, A. (2010). Veterans returning from war into the classroom: how can

    colleges be better prepared to meet their needs. *Contemporary Issues in Education*

    *Research, 3*(1): 39-51.