

IDENTIFYING POTENTIAL UNDERREPORTING OF ALCOHOL USE AMONG
U.S. MILITARY MEMBERS

by

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Liberty University

A Dissertation Proposal Presented in Partial Fulfillment

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ABSTRACT

Understanding the dynamics of alcohol reporting among U.S. military members is crucial for promoting their well-being and for developing effective support programs. Yet current research often overlooks the issue of potential underreporting of alcohol use among U.S. military members. This study aimed to address this gap by exploring the phenomenon of underreporting alcohol use among military personnel. This qualitative study utilized an ethnographic research method to investigate the experiences of 35 U.S. military members with various military statuses. The research questions explored the perception of the prevalence and causes of underreporting of alcohol use and possible remedies for underreporting, framed within avoidance coping and social desirability bias. Through semi-structured interviews, eight themes emerged: confirmation of underreporting, denial of underreporting, psychological barriers to reporting, avoidance of formal support services, social and career implications, social and cultural shifts, mitigating consequences and fear, and doubts about helpful solutions. The findings emphasize the need for cultural and organizational changes within military settings to support service members in disclosing alcohol-related concerns without any fear of repercussions. This study calls for prioritizing destigmatizing help-seeking behaviors and fostering transparent reporting systems to ensure the well-being of U.S. military members.

Keywords: underreporting, alcohol use, U.S. military members, avoidance coping, social desirability, ethnographic bias, ethnographic research, destigmatize.

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CHAPTER 1: INTRODUCTION TO THE STUDY

Alcohol consumption has been identified as a maladaptive behavior for coping with stress (Arble et al., 2018; Roth & Cohen, 1986) and has been considerably researched in recent years (Anderson Goodell et al. 2020; Arble et al., 2018; Esser et al., 2021; Hoonpongsimanont et al., 2021; Karnick et al., 2022; Meshberg-Cohen et al., 2021; Porter et al., 2020). Current research identifies several stress-related mental health issues, such as anxiety, depression, and PTSD, that may be related to the use of alcohol as a coping strategy (Bartone & Homish, 2020; Capasso et al., 2021; Gulliver et al., 2019; Hill et al., 2022; Schuler et al., 2022). Furthermore, the rate of mental health issues and alcohol use among U.S. military members outpaces the rate of the general U.S. population (Bray et al., 2010; 2013; Panza et al., 2022). Although alcohol use among U.S. military members has been documented, insofar as I know, no research on the possibility of underreporting alcohol use exists. Some speculation on the possibility of underreporting of alcohol use has been made throughout recent literature (Anestis et al., 2015; Pebley et al., 2020), but this study may be the first empirical effort to document the possible underreporting.

Background

According to a survey by the National Institute on Alcohol Abuse and Alcoholism (2022), the United States military has a significant problem with heavy alcohol use. National Institute on Drug Abuse (NIDA, 2022) states that alcohol misuse is strongly associated with mental health issues, like depression and anxiety. NIDA also notes the impact deployments, combat exposure, and combat injuries have on United States military service members' risk of increased alcohol use. For example, research by the

National Institutes of Health showed that 12-15% of Operation Iraqi Freedom veterans admitted to problematic alcohol use in the 3-6 months after returning home. NIDA suggests that due to alcohol being a legal substance for use within the United States military, military members tend to turn to alcohol for relief. Findings from the 2018 Department of Defense Health Related Behaviors Survey of Active-Duty military personnel show 34% of service members engaged in binge drinking, 9.8% drank heavily, and 6.2% experienced serious consequences from drinking.

There is a substantial amount of research on alcohol use among U.S. military members and the effects of alcohol use on U.S. military members. For example, Bartone and Homish's (2020) research showed avoidance coping behaviors such as alcohol use to correlate to depression in returning war veterans. In line with what NIDA (2022) stated, alcohol use was strongly associated with depression and deployments. Bartone and Homish (2020) also found hardiness may have a protective effect in helping those exposed to combat to not seek avoidance coping. Bartone and Homish (2020) strongly suggest that the U.S. military promotes active coping behaviors, such as creating strong social support to reduce depression following combat deployments.

In a qualitative review, Hitch et al. (2023) found that veterans tend to ignore their problems until they become completely unmanageable, which may steer them into using substances such as alcohol to avoid their problems. The review also showed that veterans refused to seek help from outside sources while isolating themselves until social circles around them identified and intervened. Veterans commented that there was insufficient help from systems designed to help veterans. Hitch et al. (2023) suggest the U.S. military increase support for veterans returning from combat deployments, which supports

findings from other research that show the significance of having social support on reducing avoidant behaviors such as alcohol use (Anderson Goodell et al., 2020; Bartone & Homish, 2020; Reisig et al., 2017).

To address the issue of alcohol misuse among military members, the Department of Defense (DoD, 2022) provides guidance for screening and preventing alcohol misuse among United States Active-Duty service members. The guidance requires surveying service members using the Alcohol Use Disorder Identification Test-Consumption (AUDIT-C) questionnaire and the Periodic Health Assessment (PHA) to identify personnel developing problems with alcohol use. DoD recommended that service members with problematic alcohol use seek proper treatments through Service substance abuse centers or other medical treatment facilities.

Underreporting of Alcohol Use

However, the DoD does not account for the possibility of underreporting sensitive information such as alcohol use. As problematic alcohol use can be received as embarrassing, social desirability bias can become a factor (Roth & Cohen, 1986). For example, Hoonpongsimanont et al.'s (2021) research on the alcohol use of adult trauma patients found that about 5% of the adult trauma patients who reported zero alcohol use on their survey underreported the quantity of alcohol use. Hoonpongsimanont et al. (2021) analyzed the Alcohol Use Disorder Identification Test (AUDIT) of 2,581 adult trauma patients who reported zero alcohol use through the Trauma Registry and the CASI database. The database also contained results of Blood Alcohol Content (BAC) levels from each adult trauma patient. By referencing the BAC levels, the researchers could determine if the patients underreported their alcohol usage on their AUDIT. Although 5%

of the adult trauma patients who reported zero alcohol use on their survey underreported the quantity of alcohol use, there is a possibility that more patients would have underreported if they did not know that their BAC levels were tested.

Underreporting of alcohol use has been studied throughout the literature (Esser et al., 2021; Hoonpongsimanont et al., 2021) and underreporting has been recorded in the United States military personnel in contexts such as reporting abuse (Collete et al., 2022) or suicide ideations (Anetis et al., 2017). However, insofar as I know, there is no research showing the possible underreporting of alcohol use among U.S. military members. The DoD acknowledges the problems alcohol use causes among U.S. military members but never accounts for the possibility that the normalization of alcohol use by military members may affect the reporting rate of alcohol use in the U.S. as Hitch et al. (2023) suggest. It may be important to adjust for the underreporting of alcohol use among U.S. military members as the impact may be more severe than anticipated (Esser et al., 2021).

Biblical Foundation

The Bible never condemns drinking alcohol and even teaches that alcohol is a blessing from God (ESV, 2016, Amos. 9:14; Ecclesiastes. 9:7; Isaiah. 55:1-3). However, the Bible forbids Christians to get drunk (ESV, 2016, Ephesians. 5:18; Isaiah. 5:22). Many passages warn of the dangers of alcohol as drunkenness can ruin lives (ESV, 2016, Proverbs. 23:20-21). The Bible even warns of the fate of drunkards as 1 Corinthians 6:9-10 (ESV, 2016) shows that the unrighteous, including drunkards, will not inherit the kingdom of God. The Bible also teaches us to teach everyone throughout all nations in the name of the Father, and of the Son, and of the Holy Spirit (ESV, 2016, Matthew.

28:19). This means as Christians, there is a duty to help those who are in need to break free from the evils of drunkenness.

Galatians 6:1 (ESV, 2016) reminds believers to restore those who are caught in sin with a spirit of gentleness, emphasizing the importance of offering assistance and guidance with compassion. This principle can be applied to providing support for individuals who may be struggling with alcohol-related issues. Additionally, Christians should understand the responsibility to assist others whenever possible as we should “not withhold good from those to whom it is due, when it is in [our] power to do it” (ESV, 2016, Proverbs 3:27).

Problem Statement

Alcohol use as an avoidance coping behavior has been well-researched throughout recent years (Anderson Goodell et al., 2020; Arble et al., 2018), especially for military members who suffer from stress-induced mental health issues such as depression and PTSD (Bartone & Homish, 2020; Hill et al., 2021; Schuler et al., 2022). Research has shown that within the general population, there may be underreporting of alcohol use (Adong et al., 2019; Hoonpongsimanont et al., 2021). Additionally, in substance abuse treatment programs, United States veterans' self-reports on alcohol consumption can only partly be relied upon (Whitford et al., 2009). Understanding the phenomenon of underreporting of alcohol abuse may help indicate problems such as suicidal ideation and PTSD, as alcohol use has an association with suicidal ideation (Darvishi et al., 2020) and PTSD (Berke et al., 2018; & McCabe et al., 2018).

Research regarding alcohol use among U.S. military members acknowledges the possibility of underreporting as a limitation of the nature of self-reports. For example,

Bray et al.'s (2013) research on binge and heavy drinking trends among U.S. military members with combat exposure acknowledges the declining response rate may underestimate the true prevalence of drinking and that the stigma of excessive drinking in the military may reduce accurate reporting. However, Bray et al. (2013) assume that underreporting would be consistent across the years, which should provide an accurate pattern of change. Pebley et al.'s (2019) research acknowledges the possibility of underreporting due to fear of being reprimanded, while Hitch et al.'s (2023) review showed a disturbing reality of veterans choosing to ignore their alcohol-related problems.

Some theoretical reasons as to why there may be a skewed reporting of alcohol use have been stated throughout research relating to alcohol use in the military, such as the over-masculine culture that makes it difficult for military members to seek help (Anestis et al., 2015) or fear of being reprimanded for their alcohol use through a halt in their career or social decline (Pebley et al., 2019). Nevertheless, despite being a group of people exposed to extreme stress, insofar as I know, there is no research to detect underreporting of alcohol abuse among United States military members. Identifying potential underreporting of alcohol abuse by United States military members and understanding the reason behind the underreporting may aid the United States military in implementing programs and policies to support further those requiring it.

Purpose of the Study

This ethnographic research aims to explore the possible underreporting of alcohol use among U.S. military members and the possible cause of the underreporting.

Research Question

RQ1: To what extent do military members perceive an underreporting of alcohol use within the U.S. military?

RQ2: What factors affect the underreporting of alcohol use among U.S. military members, if any?

RQ3: What do military members perceive as viable techniques to facilitate honest reporting of alcohol use by service members?

Assumptions and Limitations of the Study

The qualitative nature of this study brings about the limitations of the small sampling size. The results may not be generalizable to other populations as ethnographic research focuses on studying a specific group or community in a particular context, in the case of this research, United States military members. Ethnographic research is also subjective, meaning the data interpretation depends on the researcher's biases, values, and assumptions (Creswell & Poth, 2016, p. 92), which might influence the data collection, analysis, and reporting. Another limitation of this study is the control of social desirability bias. Although techniques to limit social desirability response will be implemented as suggested by Bergen and Labonte (2020), such as indirect questioning, providing assurances, probing for more information, requesting stories or examples, and prefacing the question, there is no guarantee of eliminating social desirability bias.

As this study uses self-reports, more limitations may apply. Akin to social desirability bias, other subsets of response bias may affect this study. Acquiescence bias suggests that respondents may tend to agree with the questions regardless of how they feel or believe to be true (Watson, 1992). Similar to acquiescence bias, nay-saying is when participants choose to disagree with any statements in the survey (Bachman &

O'Malley, 1984). Another response bias that could affect this study is demand characteristics, which suggests the participants will alter their behavior because they are part of the study (Orne, 1962). Unlike demand characteristics, courtesy bias suggests that participants may avoid being impolite and downplay their negative experiences (Simmons & Ellias, 1994; Bertrand et al., 1995). These response biases are likely to play a role in this study, so I will take precautions when creating the semi-structured interview.

An assumption in this study is that participants answered honestly about their previous survey answers throughout their military careers. Due to possible ramifications from excessive alcohol use or falsifying government information, participants may fear jeopardizing their military careers. This fear could assume two different possibilities: participants could have downplayed their alcohol use or answered more honestly. Inherent to qualitative research, assumptions of participants willing to be transparent about their experiences and opening up to the interviewer are made.

Theoretical Foundations of the Study

The theoretical frameworks used in this study are Roth and Cohen's (1986) avoidance coping and Paulhus' (1984) social desirability bias.

Avoidance Coping

According to Folkman and Lazarus (1985), and Roth and Cohen (1986), there are two options to cope with stress: approach and avoidance. Approach coping strategies involve taking steps to remove the stressor or reduce its impact, while avoidance coping strategies involve avoiding direct exposure to the stressor to reduce stress (Carver & Connor-Smith, 2010). Roth and Cohen (1986) also suggest that approach coping

strategies may be more effective for controllable stressors, while avoidance coping strategies may prove effective for uncontrollable stressors. However, only the approach coping strategies have been shown to improve long-term psychological health, whereas avoidance coping has been associated with the opposite (Penley et al., 2002).

Avoidance coping does not improve long-term psychological health because it “includes the thoughts and actions employed by a person to handle the emotional repercussions of a stressful situation and, hence, does not attempt to deal with the roots of a crisis” (Balmores-Paulino, 2018, p. 2). Avoidance coping may come in denial, distraction, or attempts to numb the pain through substance use (Roth & Cohen, 1986), the most well-known substance use being alcohol (Arble et al., 2018; Karnick et al., 2022). While avoidance coping can relieve temporary stress, some long-term adverse outcomes can include decreased mental health, physical health, and overall quality of life (Crockett et al., 2018; Karnick et al., 2022; Thomassen et al., 2022).

Individuals that tend to use avoidance coping may share several factors, such as personality traits, past traumatic experiences, and whether they have strong social support networks (Benatov et al., 2020; Roth & Cohen, 1986). For example, personality traits like high neuroticism, low extraversion, and conscientiousness may be more likely to engage in high avoidant and low problem-focused coping strategies (Ribadier & Varescon, 2019). Similarly, those with past traumatic experiences, such as military members with combat-related trauma, may be more subjected to avoidance coping with stress (Bartone & Homish, 2019). However, social support from an individual’s familial or spousal ties may diminish avoidance coping (Reisig et al., 2017).

Social Desirability Bias

Social desirability bias is the tendency to over-report desirable attributes while underreporting undesirable attributes in surveys (Latkin et al., 2017). The concept of social desirability bias is in Edwards' (1957) book, where he introduced social desirability to psychology. Edwards observed that college students self-described the same personality traits as others, which was almost impossible. In other words, the only way this would be possible was by the effects of social desirability. Later, Paulhus (1984) developed a two-component model of socially desirable responding based on self-deception and impression management. The self-deception component suggests that individuals present themselves, which may be unconscious, to maintain a positive light on themselves. In contrast, the impression management component suggests that individuals present themselves to fit into certain situations or to please others.

Building on the initial idea of Edward's (1957) social desirability, researchers found that avoiding negative social consequences like rejection and ostracism and seeking out positive social benefits like approval and increased social status may be the main drivers behind such biased responses (Crowne and Marlowe, 1960). However, the anonymity of participant responses may help to attenuate social desirability bias by reducing the likelihood of subsequent social stigmatization (Dodou & Winter, 2014; Paulus, 1984). The presence of an experimenter or other participants may prompt some level of socially desirable response despite explicit assurances of anonymity because people are implicitly attuned to even subtle cues of observation (Hoffman et al., 1996).

As more research highlights the potential impact social desirability bias can have on measurements, researchers have developed ways to deal with social desirability bias. For qualitative research, techniques such as anonymity and confidentiality, randomized

response techniques, and bogus pipelines are used to reduce social desirability bias (Krumpal, 2013). Bergen and Labonte's (2020) research highlighted that some techniques to limit social desirability bias in quantitative research include indirect questioning, assurances, and requesting examples. As per techniques mentioned by Krumpal (2013) and Bergen and Labonte (2020), I will be assuring anonymity and confidentiality in order to minimize social desirability bias.

Social desirability bias may explain the phenomenon of underreporting alcohol use. Social stigmatization of excessive alcohol consumption or fear of jeopardizing careers over alcohol use could favor the likeliness of underreporting (Anestis et al., 2015; Krumpal, 2011), which is why I use the social desirability bias theory in this study.

Definition of Terms

The following is a list of definitions of terms used in this study.

- 1. Active Duty**—Full-time duty in the Armed Forces (Title 38 of the Code of Federal Regulations).
- 2. Anxiety**—Emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure. Anxiety can cause recurring intrusive thoughts or concerns. It can also cause physical symptoms such as sweating, trembling, dizziness, or a rapid heartbeat (APA, 2023).
- 3. Culture**—The characteristic attitudes and behaviors of a particular group within society, such as a profession, social class, or age group (APA, 2023).
- 4. Depression**—Extreme sadness or despair that lasts more than days. It can interfere with daily activities and cause physical symptoms such as pain, weight loss or gain, sleeping pattern disruptions, or lack of energy (APA, 2023).

5. **Ethnographic Research**—A qualitative design in which the researcher describes and interprets the shared and learned patterns of values, behaviors, beliefs, and language of a culture-sharing group (Harris, 1968).
6. **Posttraumatic Stress Disorder**—A disorder brought on by individuals living through or witnessing an event that he or she believes to be threatening to his or her life or physical safety and experiences fear, terror, or helplessness. (APA, 2023).
7. **Stress**—The physiological or psychological response to internal or external stressors. (APA, 2023).
8. **Veteran**—A person who served in the active military, naval, or air service and who was discharged or released under conditions other than dishonorable (Title 38 of the Code of Federal Regulations).
9. **Underreporting**—Usually occurs in survey data, and it refers to respondents that understate the answer to a question, for example, due to a perceived social stigma (Sechidis et al., 2017)

Significance of the Study

The United States military has acknowledged the importance of identifying and intervening with alcohol use in the military. However, a gap in the research on underreporting alcohol use among U.S. military members exists. Many researchers acknowledge the possibility of underreporting of alcohol use among U.S. military members (Anestis et al., 2015; Pebley et al., 2020), but to my knowledge, no research exists to on underreporting alcohol use. A study looking into the possibility of

underreporting of alcohol use among U.S. military members could have significant implications for both theory and practice.

This study would contribute to understanding the true prevalence of alcohol use among military members by accounting for the influence of underreporting. Understanding the factors that may influence underreporting would be critical for developing effective prevention and intervention strategies by the DoD as identifying at-risk personnel is the key first step (Bray et al., 2013). By developing more effective prevention and intervention of alcohol use, DoD could allocate resources more efficiently and ultimately better address alcohol-related issues among U.S. military members. Moreover, this study's findings could also lead to changes in policies and programs regarding alcohol use among military members; for example, providing more education and training to increase awareness of the risks of alcohol use and reduce the stigma around reporting alcohol use.

By examining the underreporting of alcohol use in the military through the lenses of avoidance coping and social desirability bias, researchers can gain valuable insights into the complex interplay between psychological factors, cultural influences, and alcohol consumption. More specifically to social desirability bias, this study could fill the gap in the literature on the specific social desirability biases that U.S. military members are affected by when conducting self-surveys. By doing so, this study could inform the development of targeted interventions and support services for military members struggling with alcohol-related issues, ultimately improving the overall well-being and effectiveness of the U.S. military.

Additionally, this study could provide insight into the accuracy and reliability of self-report measures for assessing alcohol use, PHA. If underreporting of alcohol use is found to be significant, the DoD may have to implement alternative assessment methods to measure alcohol use more accurately among U.S. military members.

Summary

Alcohol use among U.S. military members has been a longstanding concern within the armed forces (NIAAA, 2022). The demanding and stressful nature of military service and unique challenges like deployments and combat exposure can contribute to increased alcohol consumption among service members (NIDA, 2022). Avoidance coping may explain the increase in alcohol consumption among U.S. military members as they attempt to deal with stress individually (Bartone & Homish, 2020). Studies have shown that many military personnel engage in heavy drinking, and alcohol-related incidents, such as drunk driving and disciplinary problems, are not uncommon (Meadows et al. 2022). Excessive alcohol use not only poses risks to the health and well-being of military personnel but can also have detrimental effects on unit readiness and mission effectiveness.

However, it is important to acknowledge the possibility of underreporting of alcohol use data by U.S. military members (Anestis et al., 2015). Several factors regarding social desirability bias may contribute to this phenomenon. First, there may be a stigma associated with reporting alcohol-related issues within the military culture, as it could be perceived as a sign of weakness or a threat to one's career advancement. Additionally, fear of disciplinary actions and negative consequences, such as mandatory counseling or discharge, may discourage service members from openly discussing or

seeking help for alcohol-related problems (Pebley et al., 2020). Moreover, the lack of anonymity in reporting and concerns about confidentiality may further inhibit accurate self-reporting of alcohol use (Steenkamp et al., 2010), leading to potential underestimation of the extent of the issue within the military population.

Addressing alcohol use among U.S. military members requires a comprehensive approach that tackles the underlying causes and the barriers to reporting. Initiatives focused on prevention, education, and de-stigmatization can help create an environment where service members feel comfortable seeking assistance for alcohol-related concerns. Moreover, confidential reporting mechanisms and access to evidence-based treatment options are crucial in supporting individuals struggling with alcohol misuse. By recognizing and addressing the possibility of underreporting, the military can develop more accurate assessments of alcohol use, leading to improved interventions, support, and, ultimately, the well-being of its personnel.

CHAPTER 2: LITERATURE REVIEW

Alcohol consumption is a significant issue in the United States, as excessive alcohol consumption is responsible for 88,000 deaths annually in the United States and costs the United States \$249 billion in government tax revenues and lost productivity (Shockey & Esser, 2020). Furthermore, according to the National Institute on Alcohol Abuse and Alcoholism (NIAAA, 2001-2002), military members almost double the percentage of civilian binge drinking, 15.3%, to 27.3%. As alcohol abuse in the United States military may be a significant issue affecting the military members' health, well-being, and readiness (Sinclair et al., 2019; Woodruss et al., 2018), underreporting could have significant consequences.

A review of the literature on the topic of alcohol abuse suggests that the concept of avoidance coping may be the reason why people engage in maladaptive behaviors such as alcohol consumption as a coping mechanism (Arble et al., 2018; Roth & Cohen, 1986). Literature also shows that military culture may normalize alcohol consumption as a coping mechanism (Anderson Goodell et al., 2020). However, the studies by Arbel et al. (2018), Roth and Cohen (1986), and Anderson Goodell et al. (2020) require participant self-reporting, which is subject to social desirability bias (Bergen & Labonte, 2019), leading to underreporting of stigmatized and sensitive information, such as alcohol consumption (Krumpal, 2011).

Although studies show that civilians will underreport their alcohol use (Hoonpongsimanont et al., 2021; Whitford et al., 2009), the U.S. public health surveys only account for 30%-60% of presumed alcohol consumption (Esser et al., 2021). Insofar as I know, there is no research on the underreporting of alcohol abuse for United States

military members; however, some researchers suggest military members' fear of being stigmatized is why underreporting numbers are low (Anestis et al., 2015; and Pebley et al., 2020). This chapter sets out to investigate this gap in the literature.

Description of Search Strategy

Peer-reviewed articles came from Google Scholar and the Jerry Falwell Library. The following key terms yielded relevant information: "alcohol abuse," "underreporting," "United States military," "coping," "avoidance coping," "PTSD," "military culture," and "social desirability bias." To maximize relevancy, combining keywords was necessary. Most research articles are within a 5-year date restriction; however, the literature review includes some relevant research outside the restriction. Other research includes data from external but official sources: the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the Centers for Disease Control and Prevention (CDC).

The Biblical research strategy focused on alcohol abuse and the lying human nature by identifying relevant Biblical passages and secondary literature that addresses the topic. The following keywords yielded relevant information: "alcohol," "intoxication," and "wine" for alcohol abuse and "lying," "deceitful," "human nature," and "deception" for researching the human nature to lie. The Biblical research came from Google Scholar and the Jerry Falwell Library to find relative theological works and secondary literature.

Theoretical Framework

Avoidance Coping

Due to the profound effects it has on people's behavior and well-being, the theory of avoidance coping has attracted a lot of interest in the field of psychological research

(Arble et al., 2018; Jordaan & Hesselink, 2022). Understanding the underlying mechanisms that contribute to the development of this maladaptive coping strategy is particularly important given the link between avoidance coping and alcohol use (Arble et al., 2018; Meshberg-Cohen et al., 2021). A group of techniques known as avoidance coping are used by people to avoid or repress upsetting feelings, thoughts, or circumstances (Roth & Cohen, 1986). The concept of avoidance coping was first proposed by Roth and Cohen (1986) where avoidance coping is listed as one of two main options to cope with stress. Avoidance coping involves coping strategies that involve avoiding direct exposure to stressors to reduce stress (Carver & Connor-Smith, 2010, pp. 679-704).

Alcohol usage became a typical avoidance coping strategy for people who want to avoid or numb unpleasant emotions (Arble et al., 2018; Karnick et al., 2022). The idea that drinking alcohol can momentarily ease suffering by modifying mood and lowering anxiety is the root of the association between avoidance coping and alcohol consumption. Due to the temporary relief it offers, people turn to alcohol as a means of escaping from tensions, disputes, or difficult memories. As persistent reliance on alcohol may prevent the development of healthier coping mechanisms and contribute to the escalation of alcohol-related issues, this coping approach might ultimately reinforce avoidance habits (Rogers et al., 2020).

For effective interventions and prevention measures to be developed, it is crucial to comprehend the causes of avoidance coping and how it relates to alcohol consumption (Bartone et al., 2016; Bartone & Homish, 2020). According to research, those who primarily rely on avoidance coping are more likely to experience persistent distress and

are more likely to develop alcohol use disorders (Penley et al., 2002, pp. 551-603). Mental health professionals can create targeted interventions to break the cycle of avoidance and promote more healthy adaptive coping mechanisms by identifying the underlying factors that underlie avoidance coping, such as past trauma, ongoing stress, or unhealthy coping patterns acquired from family or cultural influences (Anderson Goodell et al., 2020; Bartone & Homish, 2020; Holahan et al., 2005).

Avoidance Coping Propositions

Avoidance coping suggests that people use avoidance coping to reduce stress or negative emotions (Roth & Cohen, 1986). When confronted with stressful situations or negative emotions, people may use avoidance coping to prevent overwhelming feelings (Roth & Cohen, 1986). For example, military members may use alcohol to cope with depression or PTSD symptoms (Meshberg-Cohen et al., 2021).

This theory also assumes people learn avoidance coping through social environments and interactions (Jordaan & Hesselink, 2022). Heavily influenced by Akers's (1998) social learning theory, Jordaan and Hesselink (2022) predicted that individuals are more inclined to engage in behaviors shown by others they associate with and found that avoidance coping strategies such as alcohol consumption may be learned through social environments and interactions. For example, military members may pick up alcohol consumption as an acceptable coping strategy as normative attitudes and culture regarding alcohol in the military promote alcohol use (Porter et al., 2020; Woodruff et al., 2018).

Heavily influenced by Skinner's (1965) conceptualization of negative reinforcements, this theory also suggests that people maintain avoidance coping through

negative reinforcements (Rogers et al., 2020). Skinner's (1965) negative reinforcement theory suggests removing the undesirable stimulus to increase a behavior. In avoidance coping, the stressful situation or negative emotion is removed (undesirable stimulus), which promotes the avoidance behavior (Hofmann & Hay, 2018).

Avoidance Coping Applications

This literature review will review avoidant coping as studied within a variety of sub-populations. Avoidance coping research often ties together with approach coping as Roth and Cohen (1986) first theorized the two ways of coping. As such, Sherman et al. (2022) researched the approach and avoidant coping behaviors employed by Black transgender women who have experienced violence. The research gathered qualitative individual interview data from TransConnect, through a parent study by Sherman et al. (2021). Sherman et al. (2022) interviewed 19 Black transgender women from Baltimore, Maryland, and Washington State.

Sherman et al.'s (2022) conducted a qualitative analysis using Dedoose (a web-based qualitative analysis software), finding eight approaches and four avoidant coping behaviors. Approach coping behaviors included: help-seeking, seeking guidance and support, self-protecting behavior, positive reappraisal, self-affirming behavior, self-care, connection to a higher power, and acceptance; and avoidance coping behaviors included: cognitive avoidance; substance, alcohol, and tobacco use; emotional discharge; and seeking alternative rewards. Approach coping behaviors revolved around building social support and self-protecting behaviors. In contrast, avoidance coping, such as substance, alcohol, and tobacco use, is used for self-medication for stress-related symptoms and unwanted emotions.

Another subpopulation susceptible to high stress is nurses, as nursing work and a shift working schedule correlate with high stress (Gifkins et al., 2018; & Samaha et al., 2007). Therefore Savic et al. (2019) explored the coping mechanisms of nurses by collecting open-ended surveys of 449 shift-working nurses about their coping strategies. Four themes resulted from the open-ended surveys: health practices, social and leisure, cognitive coping strategies, and work-related coping. The nurses' approach to coping behaviors focused more on self-improvement. However, the avoidance coping behaviors stayed similar to Sherman et al.'s (2022) substance use and cognitive avoidance findings.

Avoidance coping has been linked to several mental health issues. For instance, researchers applied this theory to investigate how avoidance coping relates to depression in returning war veterans (Bartone & Homish, 2020). The study investigated the relationship between hardiness, avoidance coping, combat exposure, and depression in returning war veterans. 357 U.S. National Guard Army personnel partook in a voluntary survey containing the level of combat exposure, depression, avoidance coping tendencies, psychological hardiness, and various health habits. The researchers assessed avoidance coping using the Coping style Questionnaire (Joseph et al., 1992), which contained questions regarding ignoring the problem, distraction, and substance use.

The results showed a significant association between depression with more avoidance coping, lower hardiness, and greater combat exposure; more avoidance coping is associated with greater combat exposure and lower hardiness, while hardiness increases as age increases. Bartone and Homish (2020) used the mediation model to confirm that hardiness is negatively associated with depression, while avoidance coping has a mediating effect. The moderation analysis found the moderating effect of combat

exposure on avoidance coping with hardiness. Overall, the findings suggest that when the hardiness level is low, and combat exposure is high, the level of avoidance coping rises, increasing depression. Bartone and Homish (2020) encouraged the U.S. National Guard Army to intervene to increase hardiness and positive, active coping strategies and behaviors to reduce depression following combat deployments.

Another mental health issue avoidance coping is associated with is PTSD. Hill et al. (2022) investigated the effects of cannabis use among U.S. military veterans with subthreshold or full PTSD. Prior research showed that nearly 1 out of 3 veterans with PTSD reported recent cannabis use as a means of avoidance coping (Hill et al., 2021). 4,069 U.S. military veterans from the 2019-2020 National Health and Resilience in Veterans Study participated in the anonymous web-based survey. The survey included measures for sociodemographic and military variables, PTSD symptoms, cannabis use, coping strategies, and psychiatric comorbidities.

The results showed that out of 4,069 veterans, 608 denied using cannabis in the past six months, and 1,892 confirmed exposures to combat. Veterans who used cannabis as an avoidance coping strategy for subthreshold and full PTSD were more likely to screen positive for psychiatric comorbidities such as depression, anxiety, and suicidal ideation. They were also more likely to endorse avoidant behaviors to manage PTSD symptoms. Despite being more susceptible to psychiatric problems, veterans who use cannabis to treat PTSD symptoms were less likely to engage in mental health treatment. Hill et al. (2022) suggest that clinicians should have nuanced conversations with veterans with PTSD about their cannabis use and avoidant behaviors.

To further the study on avoidance coping and PTSD, Brooks et al., (2019) explore avoidance coping as a potential mediator of the impact trauma characteristics (interpersonal trauma, number of trauma types, and childhood trauma) have on posttraumatic growth (PTG). Other potential mediators include active coping, emotional coping, intrusive thoughts, social support, and spirituality. This research took place in Northwest England, with 268 participants who participated in the survey through online advertisements and websites. Trauma exposed to the 268 participants ranged wide as the participants were self-selected. The survey included measures for traumatic experiences, spirituality, coping styles, post-traumatic stress, social support, and posttraumatic growth.

The researchers found that traumatic events alone do not necessitate a result in growth and that the potential mediators will explain the relationships between trauma characteristics and PTG. The results showed that intrusive thoughts and social support had a small but significant effect in all three relationships between trauma characteristics and PTG. Surprisingly, active coping and spirituality did not have significant effects in any model. However, Brooks et al. (2019) found that although avoidance coping may be helpful in situations where individuals lack control, there was no evidence that avoidance coping helps PTG. On the contrary, evidence suggests that less avoidance coping was associated with more PTG.

As Brooks et al.'s (2019) research found a significant effect between social support and PTG, Anderson Goodell et al. (2020) focused on the effect of social support on a specific avoidant coping strategy for alcohol use. Anderson Goodell et al. (2020) conducted a 10-minute survey on 411 U.S. Army Reserves and National Guard personnel over 15 months. The survey measured the Alcohol Use Disorders Identification Test

(AUDIT), social ties, and PTSD symptoms. The research found that the social nature of military alcohol culture perpetuates alcohol use. They state that using alcohol may help cope with stressors regarding deployment experiences and reintegration back into society. The results showed a significant protective effect of military-affiliated social networks on alcohol use in deployed soldiers. It also showed that individuals with drinking buddies and frequent drinking presented a greater risk for alcohol use problems. In contrast, individuals with close ties with their families were associated with reduced risk. They also link combat exposure as a predictor of alcohol use, as Bartone and Homish (2020) did, and tie alcohol use with many mental health issues such as PTSD and depression.

Avoidance Coping Rationale

Avoidance coping is appropriate for this study because alcohol usage is one of the most common avoidant coping strategies (Arble et al., 2018; Karnick et al., 2022). In addition to avoidance coping explaining alcohol use, it can be negatively reinforced (Rogers et al., 2020) and learned through social interactions (Hill et al., 2022). All these characteristics of avoidance coping could explain how United States military members use alcohol as an avoidant coping strategy for their mental health issues such as PTSD and depression (Bartone & Homish, 2020) and how military culture may be pushing alcohol consumption as an acceptable coping mechanism (Anderson Goodell et al., 2020).

Social Desirability Bias

The fascinating phenomena of social desirability bias have significant ramifications in the complex world of human perception and self-presentation (Bergen & Labonte, 2020). The tendency of people to consciously or unconsciously alter their

responses, behaviors, and self-representations so as to conform to social norms and the desire to be perceived favorably by others is known as social desirability bias (Crowne and Marlowe, 1960). This cognitive bias has developed over time, influenced by historical, cultural, and technical variables, and is fundamentally founded in our basic need for social acceptability (Dodou & Winter, 2014; Paulus, 1984).

Tourangeau and Yan's (2007) literature review shows how social desirability bias remains challenging when faced with sensitive topics and information. Such information includes illicit drug use, abortion, and sexual behaviors. Their research also indicates that individuals misreport sensitive topics to avoid embarrassing themselves or to avoid repercussions from third parties. Tourangeau and Yan (2007) point out several techniques to reduce social desirability bias throughout their literature review: self-administration of the questions, the randomized response technique, collecting data in private, the bogus pipeline, and priming motivation to be honest.

Social desirability bias can influence the interpretation of consumer surveys and experiments, which makes social desirability bias something that all social psychologists should be aware of (Larson, 2019). Perinelli and Gremigni (2016) stated that psychologists should always consider social desirability bias when investigating self-reported behaviors. If researchers were to neglect the effects of social desirability bias, it would degrade the value of self-reported data (Larson, 2019). Researchers should also be aware of various factors that can influence social desirability bias, such as cultural norms and values, perceived anonymity, and perceived importance of the surveyed topic (Steenkamp et al., 2010).

Social Desirability Bias Propositions

This theory suggests that social desirability bias affects surveys and interviews when discussing sensitive topics such as alcohol use (Tourangeau & Yan, 2007). Understanding the scope of what constitutes sensitive topics and techniques to control the survey or interview is paramount to getting the truth from the participants (Adong et al., 2019). This theory also suggests that social desirability bias may be more prevalent in certain demographics (Kleykamp et al., 2018). Certain demographics, such as United States military members, may need to use self-deception and impression management. This theory also suggests that self-reported data improves data value when accounting for the effects of social desirability bias (Larson, 2019).

Social Desirability Bias Applications

Social desirability bias can significantly affect research based on self-reported data (Vu et al., 2011), especially for sensitive information such as alcohol use (Tourangeau & Yan, 2007). To understand the significance of social desirability bias on alcohol use, Adong et al., (2019) conducted research on 751 patients with HIV from a clinic in southwestern Uganda. The research contained the Marlowe-Crowne Social Desirability Scale (SDS) to measure the social desirability bias, Alcohol Use Disorder Identification Test-Consumption (AUDIT-C) to measure the self-reported alcohol use, and a test for phosphatidylethanol (PEth) as a biomarker for alcohol consumption. PEth is a biomarker commonly used for alcohol consumption as it is correlated with the amount of alcohol consumed during the previous 2 to 3 weeks (Wurst et al., 2015).

Adong et al.'s (2019) research found that PEth levels and SDS scores did not have a significant correlation for reporting the use of alcohol. However, AUDIT-C scores and SDS scores did have a significant correlation for reporting the alcohol use quantity. The

participants may have answered truthfully about their alcohol usage because they knew about the PEth test. This phenomenon can be attributed to the bogus pipeline theory, which suggests that the threat of being able to validate their survey answers encourages truthful reporting (Adams et al., 2008). The results of Adong et al.'s (2019) research also show that social desirability bias can be useful in improving the self-reports of alcohol use quantification.

Another sensitive information that may be subject to the effects of social desirability bias could be individuals' support for their country's veterans. Kleykamp et al. (2018) explored the possibility that United States civilians may not support their veterans' healthcare as much as they report. The research took 4,142 self-reported web-based surveys with time-sharing experiments in the social sciences (TESS) program. The survey used Blair and Imai's (2012) and Imai's (2011) methods to model covariate-based group differences in "true" attitudes and social desirability bias levels. The indicators used for measuring support for veterans were "social distance," indicating the attitude towards veterans, and "deservingness," indicating the support for government spending on veterans' healthcare.

Kleykamp et al.'s (2018) research results showed a high level of support for veterans with little to no hostility towards veterans. Although there was a small amount of social desirability bias throughout, the most notable finding showed that African Americans overstated their support for veterans by 25 percentage points. Another notable finding showed that Republicans showed roughly the same amount of support for veterans as Democrats, but showed significantly lower levels of support for government spending on veteran healthcare.

Social desirability bias in self-reported surveys can be measured with SDS, as Adong et al. (2019) did, but how can researchers detect social desirability bias during an interview? Bergen and Labonte (2020) tackle this problem in their qualitative research of 36 in-depth interviews and focus group discussions. With the help of nine data collectors who were graduates or staff at Jimma University, they identified some common cues suggesting social desirability tendencies. These included:

1. Denial of already known problems, challenges, or shortcomings.
2. Providing only partial or vague answers.
3. Excessive and repeated praise for government initiatives.
4. Nervous facial expression and other body language cues.
5. Inconsistent use of advanced vocabulary related to the study topic.

The research also found techniques to limit social desirability responses:

1. Indirect questioning.
2. Providing assurances.
3. Probing for more information.
4. Requesting stories or examples.
5. Prefacing the question.

Focusing more on controlling social desirability bias in qualitative research, Larson (2019) identifies four ways to address social desirability bias. First is a direct reduction of bias by using techniques such as the bogus pipelines method. The second way is an indirect reduction of bias by using techniques such as increasing the cognitive load of subjects or playing music. The third option is to test for social desirability bias through scales like the Marlowe-Crown Scale, the BIDR scale, or the SDS-17 scale.

Finally, the fourth option, which is the focus of this dissertation, is to control the social desirability bias by measuring the social desirability bias in the analysis.

Larson (2019) measured 725 participants through an anonymous, web-based survey of U.S. adults taken by Qualtrics. The study used the SDS-17 scale, a 7-point Likert scale, to provide a better range of social desirability bias. The results showed that if social desirability bias was included in the regression to control the effects, it may significantly change statistical significance and coefficient sizes, and improve research accuracy. Larson sums up his thoughts on his research by stating that researchers should take the four options to reduce social desirability bias; otherwise, it could lead to inaccurate analyses of marketing surveys and experiment results.

However, not all discrepancies in self-reported surveys are attributed to social desirability bias. Mooney et al.'s (2018) mixed-method research showed that among HIV-positive adults in North West Province, South Africa, qualitative interviews found that the participants were confused with terminologies about their self-reported HIV status. Mooney et al. (2018) also attribute the misreporting to difficulties of memory recall and data entry errors. Although their findings cannot rule out social desirability bias playing a significant part due to their small qualitative sample size, they caution against the over-simplification of attributing misreporting in self-reported data to social desirability bias.

Rationale

Social desirability bias is appropriate for this study, given that it is a significant factor in underreporting sensitive information (Latkin et al., 2017). Because this study will primarily focus on U.S. military members' mental health and alcohol use, social

desirability bias may significantly affect the participants' answers, which is why understanding social desirability bias and controlling how people conduct interviews using the four ways to address social desirability bias suggested by Larson (2019) is so important. The two-component model of socially desirable responding based on self-deception and impression management (Paulhus, 1984) could also explain why U.S. military members may be significantly affected by military culture.

Literature Review Related to Key Concepts

Mental Health

Mental health issues such as depression and PTSD have shown links with avoidance coping strategies of alcohol use (Bartone & Homish, 2020; Meshberg-Cohen et al., 2021). Capasso et al. (2021) furthered this topic by examining increased alcohol use during the COVID-19 pandemic. Capasso et al.'s (2021) supporting research showed that quarantining and social distancing due to COVID-19 worsened stress-related mental health (Galea et al., 2020) and elevated alcohol use in response to those mental health issues (Keyes et al., 2012). Capasso et al. (2021) chose depression and anxiety as the two major mental illnesses brought on by social isolation concerning alcohol use.

Capasso et al. (2021) collected survey responses from 5,850 participants through March and April 2020. The survey included alcohol use, possible anxiety and depression related to COVID-19, and perceived severity. The results showed 29% of survey respondents reporting increased use of alcohol with higher odds of reporting increased alcohol use in those with anxiety and depression. The research also suggests that individuals with a higher risk for COVID-19 were less likely to increase their alcohol consumption.

Gulliver et al. (2019) based their research on alcohol use in female firefighters compared to their male counterparts, focusing on mental health concerns like PTSD and depression. Gulliver et al.'s (2019) supporting research found that 85% of professional firefighters reported alcohol use in the last month, with some research showing higher alcohol consumption by female firefighters than male firefighters (Noor et al., 2019). The supporting research also found that female firefighter problem drinkers were 2.5 times more likely to be diagnosed with depression and PTSD (Haddock et al., 2017). To improve on these supporting studies, Gulliver et al. (2019) assessed 322 firefighters, consisting of 289 male firefighters and 33 female firefighters, through their first three years of fire service to determine their drinking patterns.

The research results showed that although female firefighter recruits started binge drinking less than their male counterparts, female firefighters converged on their drinking habits over time and surpassed their male counterparts in the first year, while male firefighter recruits' binge drinking stayed constant. Gulliver et al. (2019) also found that female firefighters who endorse alcohol use were more likely to screen positive for PTSD and depression. Although the results shined some negativity on the possible maladaptiveness of female firefighters, Gulliver et al. (2019) point out the discrimination that female firefighters already face in the fire service culture that may contribute to the worsening of female firefighters' mental health.

The relationship between PTSD and alcohol use exists throughout many different subpopulations. Where Gulliver et al. (2019) exhibited the relationship between alcohol use and PTSD in female firefighters, Barrett et al. (2021) found that alcohol use disorder (AUD) and PTSD are common cooccurrences in male jail detainees booked for violent

offenses. Barrett et al. (2021) surveyed 349 male detainees in three county detention centers in North Carolina using the Comprehensive Addictions and Psychological Evaluation-5 (CAAPE-5) and Diagnostic and Statistical Manual of Mental Disorders (DSM-5) to measure the detainees' AUD, Panic Disorder (PD), and PTSD. In addition, they included detainee demographics and types of criminal charges. Their research found that 25% of violent offenders met the criteria for AUD, PD, and PTSD.

AUD and PTSD are frequently researched together in research regarding the military. Schuler et al. (2022) take a broader look at avoidance coping behaviors relating to mental health conditions within the U.S. military. The research accounts for avoidance coping behaviors such as heavy episodic drinking, AUD, tobacco use, e-cigarette use, and prescription drug misuse; and mental health conditions such as PTSD, depression, and anxiety. Schuler et al. (2022) analyzed 16,699 individual surveys through the 2015 Health Related Behaviors Survey (HRBS). The survey measured the service branches, and all the avoidance coping behaviors and mental health conditions mentioned above.

The research found that the U.S. Air Force had the least maladaptive behaviors and mental health issues among the military branches, while the Army, Marine Corps, and Navy had two to three times higher rates of PTSD, depression, and anxiety. The results also showed a high rate of substance use regarding alcohol and tobacco use throughout the military branches. Schuler et al. (2022) discuss the possible reason for the high rate of substance use among military service members; they believe it may be due to "self-medication" in response to traumatic experiences associated with combat and being used as a coping mechanism for stress and loneliness.

Whereas Schuler et al. (2022) looked at a broader view of avoidance coping behaviors and mental health issues in Active-Duty service members, Panza et al. (2022) focused on veterans. Similarly, Panza et al. (2022) found increased AUD in a nationally representative sample of U.S. veterans of 4,069 veteran surveys through the 2019-2020 National Health and Resilience in Veterans Study (NHRVS). Overall, the estimated lifetime AUD of veterans was significantly higher than the general population at 42.2% to 29.1%. Additionally, they found that a lifetime history of PTSD significantly correlated to past-year AUD.

Military Culture on Alcohol Use

Alcohol use is a common and accepted behavior in the military culture, and alcohol usage is generally higher in military members and veterans than in civilians (Bray et al., 2010; 2013). Meadows et al.'s (2022) research categorizes military culture as a subculture of alcohol culture. Meadows et al. (2022) suggest that successfully identifying alcohol culture may greatly impact public health campaigns that attempt to change the behavior of alcohol use by changing the culture. To identify the alcohol culture in the U.S. military, Meadows et al. (2022) took 17,166 surveys from the 2018 Department of Defense Health Related Behaviors Survey (HRBS). The survey measured alcohol misuse, drinking consequences, risky driving behaviors, productivity loss, absenteeism, and culture of alcohol.

Meadows et al. (2022) found that the culture of alcohol use in the military is associated with behaviors surrounding alcohol use and the consequences of unhealthy use. Regardless of gender, military alcohol culture was positively and significantly associated with serious consequences of drinking, risky drinking behaviors, and

productivity loss. In comparison, military alcohol culture was negatively and significantly associated with absenteeism. However, in the discussion, Meadows et al. (2022, p. 547) lay out a limitation statement stating that “how one views their own community’s drinking culture may or may not reflect their actual behavior, or even be a view that is widely shared.” However, existing research suggests that cultural norms are an important predictor of one’s behavior (Cox et al., 2019).

Besse et al. (2018) conducted qualitative research to understand how soldiers perceive the drinking environment in communities near military installations. The researchers used 29 U.S. Active-Duty Army soldiers and recently separated Army Veterans from two communities adjacent to Army installations into semi-structured interviews and focus groups. Some members were interviewed through one-on-one telephone interviews, while others were in-person interviews and focus groups held in private rooms off-base.

After transcribing and analyzing all interviews and focus groups, Besse et al. (2018) identified three major themes:

1. Soldiers perceive that alcohol establishments near installations tailor their business to soldiers.
2. Soldiers perceive that alcohol establishments are predatory.
3. Components of military service are related to alcohol consumption.

Some of the components of military service that soldiers described are job requirements, the military drinking culture, compliance with military rules and regulations, and military pay. One of the focus groups indicated that the stress of pre- and post-deployment could cause heavy alcohol consumption. Overall, soldiers viewed

alcohol consumption to relax and cope with stress and reported that alcohol consumption is perceived to be an accepted part of military culture.

Alcohol usage, an accepted part of military culture, does not seem limited to the United States. Lee et al. (2022) researched the drinking culture among Korean professional soldiers to examine the relationship between problematic alcohol use and contributing factors. The researchers used the data from 2,646 participants in the 2014 Military Health Survey demonstrating representative health data of the Korean Armed Forces. The survey contained measures for depression, alcohol use problems, and drinking culture. Lee et al. (2022) found that many factors contributed to problematic alcohol use among Korean soldiers; however, a tolerant or permissive drinking culture had the most striking influence over problematic alcohol use.

Hitch et al. (2023) conducted a qualitative systemic review to identify the enablers and barriers to veteran help-seeking for mental health and alcohol issues. From 1,154 reviews, they identified four themes: military culture, problem severity, the system, and relationships or support. The review found that military culture normalized using alcohol as a form of self-help. The military members did not identify excessive alcohol consumption as problematic and believed that they were managing their difficulties regardless of severity.

According to Hitch et al.'s (2023) review, some veterans ignored their problems until they became completely unmanageable, and social circles around them identified most instances. Veterans also expressed that the network of systems designed to help veterans failed to meet their needs and did not represent their difficulties sufficiently. Some veterans pushed away their friends and family but remained isolated rather than

seeking help. Hitch et al. (2023) suggest that a deeper understanding of the veteran seeking help process is necessary to intervene and support the veterans during their challenging times.

Sometimes, the military culture bleeds into civilian life, as Lane et al.'s (2022) qualitative research on the United Kingdom military Intimate Partner Violence and Abuse (IPVA) found. The research interviewed 40 Active Duty and veterans and 25 female civilian partners in the United Kingdom. The findings point to the military culture, which promotes stoicism through machismo and promotes violence, may be spilling over into the military personnel's personal life. Lane et al.'s (2022) interviews also highlighted the mental health difficulties and alcohol use that the participants described as significant drivers of IPVA perpetration. Although neither Lane et al. (2022) nor the interviewees correlate mental health difficulties and alcohol use to military culture, they are likely correlated (Hitch et al., 2023; & Lee et al., 2022)

Underreporting

Underreporting in self-report surveys is one of the main side effects of social desirability bias (Latkin et al., 2017). For example, Hoonpongsimanont et al. (2021) analyzed 2,581 surveys from adult trauma patients who reported zero on the Alcohol Use Disorder Identification Test (AUDIT) through two existing databases: the Trauma Registry and the CASI database. Those who reported zero on the AUDIT deny any alcohol consumption within the past 12 months. The data from the Trauma Registry and the CASI database also provided their demographics, including the patient's sex, race, education level, and type of injury. To identify underreporting, Hoonpongsimanont et al. (2021) used two Blood Alcohol Content (BAC) cutoff points, 0 mg/dL and 80 mg/dL.

They chose 0 mg/dL because those who scored zeros on the AUDIT should not have any BAC. Alternatively, they chose 80 mg/dL because of the legal BAC cutoff point for driving under the influence.

Research results show that about 5% of patients who reported zero scores on the AUDIT tested positive for BAC. In addition, 2.75% of the patients had a BAC content level higher than 80 mg/dL. However, due to the nature of blood alcohol tests being short-term, only those who recently consumed alcohol were identified, which means the results shown here potentially underestimate the number of patients underreporting their alcohol use. Hoonponsimanont et al. (2021) also found significantly higher odds of underreporting from patients who are young, male, or have injuries due to assault, penetrating mechanisms, or injury severity score (ISS) higher than 25.

Social desirability bias suggests that underreporting happens when sensitive information is involved (Tourangeau & Yan, 2007). However, several other factors come into play when underreporting occurs; for example, Falvey et al.'s (2021) research suggests that the military represents a subpopulation that may be susceptible to the underdiagnosis of eating disorders. Falvey et al. (2021) analyzed 77,193 student surveys through 3 years of the Healthy Minds Study database from universities and colleges across the United States and Canada. The survey consisted of the SCOFF questionnaire to measure eating disorder symptoms, military affiliation, race, age, and gender.

Falvey et al. (2021) found a high prevalence of eating disorder symptoms among civilian and military-involved students. 20.4% of civilian students reported a high prevalence of eating disorder symptoms, while 14.4% of military-involved students reported a high prevalence. However, military-involved students were less likely to have

been diagnosed with eating disorders. Additionally, female students were more likely to report a higher prevalence of eating disorder symptoms than males. This research suggests that being involved in the military may be one of the underlying causes of underreporting.

Underreporting in a subpopulation of the military may be prevalent. For example, sexual, emotional, and physical abuse may be underreported in the military, as reporting could also be perceived to be related to a considerable risk of social or professional retaliation (Morral et al., 2016). However, even within the subpopulation of the military, demographic factors may affect the reporting rate. Collete et al. (2022) investigated sexual, emotional, and physical abuse in the military by looking at the incidence rates of certain demographics within the military. The research used six demographic factors: age, gender, rank, marital status, race, and branch. The research data came from the Defense Medical Epidemiology Database from 1997 to 2015. The database was a de-identified dataset with DoD electronic medical records, including emotional, sexual, and physical abuse rates among Active-Duty military members.

Collete et al. (2022) found higher proportionate rates of abuse among younger (25-29) females, Black, unmarried, and a lower military pay grade (E1-E4). U.S. Army personnel also reported higher sexual, emotional, and physical abuse rates than other branches. Deployments also further increased the rates of sexual, emotional, and physical abuse. However, this research could not determine if members refrained from reporting abuse out of fear of personal or professional consequences.

Underreporting has been observed in other sensitive situations, such as suicidal ideation; specifically, suicidal ideation among U.S. military personnel has been rising

every year, except last year (Department of Defense Suicide Event Report, 2022), and continues to be higher than among the U.S. general population (Griffin et al., 2021). Anetis et al. (2017) tackled the possibility of the United States military members underreporting suicide ideation by comparing the military members' suicide ideation rate with indicators of suicide ideations. Suicide ideation indicators include thwarted belongingness, perceived burdensomeness, and hopelessness. The research utilized 497 military personnel that filled out electronic surveys containing the Beck Scale for Suicidal Ideation (BSS), Interpersonal Needs Questionnaire (INQ-15), Beck Hopelessness Scale (BHS), and PTSD Checklist-Military version (PCL-M). The research participants were mostly U.S. Army National Guard (90.1%), with a third of the military members without any deployments throughout their careers. The results showed that about 10% of those who reported no suicidal ideation reported indications that predicted suicidal ideation. Anetis et al. (2017) suggest that it may be more accurate to measure suicidal ideation by measuring the predictors as it presents the question more sensitively.

Biblical Foundations of the Study

The Bible regards alcohol in a neutral to a positive light. In the Old Testament, wine is viewed as a blessing from God that can gladden the human hearts (ESV, 2016, Psalm. 104:14-15). The Bible even encourages drinking wine to quell the stomach (ESV, 2016, 1 Timothy. 5:23), possibly because drinking water was dysentery. However, the Bible condemns drunkenness and advises Christians to be sober-minded (ESV, 2016, Ephesians. 5:18; & 1 Peter. 5:8).

Phillips (2008) focuses on Luke 7:35 and Matthew 11:19 (ESV, 2016), where John is accused of being possessed by a demon as he neither ate nor drank, while Jesus is

accused of being a glutton and a drunkard as he ate and drank. Where most consensus of Christians read “yet wisdom is justified by all her children” (ESV, 2016, Luke. 7:35; & Matthew. 11:19) as a personification of right thinking (wisdom) telling John and Jesus to repent their sins, Phillips (2008) looks at the quote more philosophically according to the standard of the time the Bible was written. When using a Greco-Roman background, this quotation is another warning to drunkenness as “wisdom” is not divine wisdom but rather human wisdom. Phillips’ (2008) interpretation is that the “wise were expected to adopt a position between the extremes of abstinence and excessive drunkenness” (Phillips, 2008, pp. 393-394).

Instone-Brewer (2019, p. 96) suggests two Bible principles: we should not take anything that harms us or that “masters” us. The first principle comes from the Biblical teaching that our bodies are temples of the Holy Spirit (ESV, 2016, 1 Corinthians. 6:19-20). He suggests that substances like alcohol, marijuana, or coffee are okay if the amount ingested is not harmful to the body. However, the second principle of not taking anything that “masters” us (ESV, 2016, 1 Corinthians. 6:12) comes into play when deciding the quantity ingested. Instone-Brewer (2019, p. 97) suggests that any substance that alters or changes our behavior is considered something that “masters” us, which aligns with what the Bible and Phillips (2008) say about drunkenness.

The Bible acknowledges using alcohol to cope with stress. Namely, in Proverbs 31:6-7 (ESV, 2016), Lemuel’s mother says, “Give strong drink to the one who is perishing, and wine to those in bitter distress; let them drink and forget their poverty and remember their misery no more.” It is within human nature to want to avoid their problems as avoidance coping suggests, and alcohol has been a prevalent substance to

achieve avoidance for centuries. However, this quote from Lemuel's mother is saying in the context of what she is trying to teach Lemuel that kings and rulers are not to drink as drinking will pervert their minds. Specifically, she is saying to give the alcohol to those who are not meant to be kings and rulers.

Although the Bible continuously talks about the dangers of drunkenness, humanity seems to be continuously drawn by temptation. However, temptation is not a sin, as even Jesus was tempted (ESV, 2016, Luke. 4:1-13), but He never sinned (ESV, 2016, Hebrews. 4:15). James 1:13-14 (ESV, 2016) tells us that temptation comes from our sinful desires and should never say "God is tempting me" as evil cannot tempt God. So, where did these sinful desires within human nature come from? The Bible tells us that all evil originates with Satan, the father of lies (ESV, 2016, John. 8:44).

As John 8:44 (ESV, 2016) calls Satan "the father of lies," one can assume that the Bible considers lying as a tool of evil. Lying or giving false testimony is even one of the ten commandments: "You shall not bear false witness against your neighbor" (ESV, 2016, Exodus. 20:16). However, is it always immoral to lie or deceive? Weiss (2017) strongly argues that although the Bible prohibits lying, it also leaves the morality of lying ambiguous. For example, just like when Abram identified his wife as his sister, he feared that identifying his wife as such may harm himself and his wife. Although Abram was lying, one can argue that it was not an evil act. Weiss (2017) argues that a consequentialist view on deception may be moral even within the Biblical context. Though lying on a survey may be viewed as a sin under an absolutist position, through this consequentialist view, one may not view underreporting as a sin, but rather moral.

Summary

This study is necessary to fill a gap in knowledge of the potential underreporting of alcohol use in active-duty military members. Research on avoidance coping and social desirability bias shows possible applications to this study. Avoidance coping is appropriate in explaining how alcohol usage may be a coping strategy active-duty military members use to reduce stress (Hill et al., 2022). Avoidance coping also cautions those who participate as it may contribute to increasing the stress in the long term (Penley et al., 2002, pp. 551-603). Social desirability bias is the driving theory behind underreporting sensitive information, such as alcohol usage (Tourangeau and Yan, 2007). Research suggests military members may be under the heavier influence of social desirability bias due to extra restrictions and rules (Morrall et al., 2016).

Key concepts found in this study are mental health, military culture on alcohol use, and underreporting. These concepts work closely with the foundational theories; for example, the concept of mental health is discussed in most literature on avoidance coping (Bartone & Homish, 2020; Hill et al., 2021; & Brooks et al., 2019). Researchers have associated underreporting as one of the main problems of social desirability bias (Latkin et al., 2017).

Chapter 3 focuses on the research method by exploring the research questions; specific research designs are discussed along with a description of the sample population, recruitment of participants, data collection, and analysis. Detailed procedures and protocols are laid out, including research ethics. Also included are discussions of limiting the influence of social desirability bias and increasing trustworthiness.

CHAPTER 3: RESEARCH METHOD

Overview

Chapter 3 covers the research design, the rationale for the methodology chosen for this study, and how this methodology improves the study over the other methods. It describes how the study is conducted, including participants and sample sizes, measures, variables, data collection, and data analysis. This chapter will also discuss the trustworthiness and ethical considerations of the research method. Finally, limitations and assumptions are listed, and their potential effects on the research. It also addresses how to minimize those potential effects.

Research Questions and Hypotheses

RQ1: To what extent do military members perceive an underreporting of alcohol use within the U.S. military?

RQ2: What factors affect the underreporting of alcohol use among U.S. military members, if any?

RQ3: What do military members perceive as viable techniques to facilitate honest reporting of alcohol use by service members?

Research Design

This study will utilize a qualitative method to give opportunities for participants to voice their thoughts and experiences that quantitative methods cannot offer. An ethnographic research method was chosen to accentuate the participants' voices best. "Ethnography is about telling a credible, rigorous, and authentic story" (Fetterman, 2019, p. 1). Ethnographic research focuses on developing a complete and complex description of the culture-sharing group by looking for patterns in the group's mental or material

activities (Creswell & Poth, 2016, p. 91). Looking for patterns of a culture-sharing group involves extensive fieldwork, including data collection through interviews, observations, symbols, and other data sources (Creswell & Poth, 2016, p. 91).

In his extensive research in the field of ethnography, Wolcott (2016) provides four organizing categories that are critical for any well-rounded ethnography (Wolcott, 2016, p. 74):

1. Environmental factors: both historical and physical.
2. Social factors: how people group and align themselves.
3. Cultural factors: their belief systems, expectations, world view.
4. Individual behaviors: how individuals in various roles are affected.

Wolcott (2008, pp. 65-66) also asks two helpful questions that must be answered in an ethnography: “What do people in this setting have to know and do to make this system work?” and “If culture, sometimes defined simply as shared knowledge, is mostly caught rather than taught, how do those being inducted into the group find their ‘way in’ so that an adequate level of sharing is achieved?”

Creswell and Poth (2016, p. 92) provide steps for conducting an ethnography:

1. Determine if ethnography is the most appropriate design for studying the research problem.
2. Identify and locate a culture-sharing group to study.
3. Select cultural themes, issues, or theories to study about the group.
4. Determine which type of ethnography to use to study cultural concepts.
5. Gather information in the context or setting where the group works or lives.

6. Generate an overall cultural interpretation of the group from the analysis of patterns across many data sources.
7. Present the patterns of the culture-sharing group in written or performance formats.

For this study, ethnographic research is the most appropriate as the needs are to describe the culture, experiences, and issues facing the group, such as excessive alcohol use. Chapters 1 and 2 established the culture-sharing group as United States military members and the foundational theories. As for the type of ethnography, there are many forms, but for this study, a realist ethnography approach fits better as “critical” approaches are used to serve marginalized individuals (Creswell & Poth, 2016, p. 92). Although it could be argued that United States military members are a marginalized group, a realist approach that reports objective data uncontaminated by personal bias and judgment seems more appropriate for this research.

Participants

Participants for ethnographic research are gathered deliberately and systematically to provide valuable insights into the culture or community being studied. The criteria for selecting who and what to study are “based on gaining some perspective on chronological time in the social life of the group, people representative of the culture-sharing group in terms of demographics, and the contexts that lead to different forms of behavior” (Creswell & Poth, 2016, p. 157).

The target population for this study includes U.S. active-duty military members and U.S. military reserve members stationed at Joint Base Lewis-McChord (JBLM), based in Washington State. As JBLM is a joint base consisting of the United States Army

and Air Force, the primary focus was on personnel serving in the Air Force. Additionally, veterans currently working in JBLM as federal employees were included. To comprehensively understand the phenomenon, the study encompassed individuals from different branches and stages (active duty, reserves, and veterans). I am personally acquainted with individuals of all combinations of branches and military status as I have worked with and am still working with them as a reservist and a federal employee.

The final sample size for this ethnographic study was determined based on data saturation, where additional participants would no longer provide novel insights or add substantial information to the emerging themes and patterns. A total of 35 participants, consisting of at least 20 participants were active-duty members, 11 Reserve members, and four veterans, will participate in this research, representing a diverse range of ranks, branches, military status, and demographic characteristics. The sampling technique used for this research was judgmental sampling, where I could “rely on their judgment to select the most appropriate members of the subculture or unit based on the research question” (Fetterman, 2019, p. 46).

Study Procedures

The study followed a comprehensive approach involving immersion in the military community, direct observations, in-depth interviews, and collection of relevant artifacts. The study procedures are designed to capture the nuanced behaviors, attitudes, and contextual factors related to alcohol use within the military context. Approval from the Liberty University Institutional Review Board (IRB) is needed before data collection.

After a successful oral defense, the proposal was submitted to the IRB, including the ancillary materials.

The procedures of this ethnography study are guided by Fetterman's (2019) book "*Ethnography: Step by Step*" and Creswell and Poth's (2016) book "*Qualitative Inquiry and Research Design*." After the IRB approval, a gatekeeper from the JBLM Public Affairs office will be secured, and their role will be identified.

Participants were orally questioned at the beginning of the selection process to ensure they met the criteria. The selected participants then received a consent form to read and sign before they were allowed to participate in the study (Appendix E). The participants were given a confidentiality statement (Appendix F) and were assured that they may withdraw from the study at any point in the research. Participants were informed about the purpose of the ethnographical study and the data collection process. They were told that there would be complete confidentiality by assigning aliases to individuals to mitigate the ethical issues in qualitative research. The ethical issues are privacy and consent, concern for welfare, and justice (Creswell & Poth, 2016, p. 149).

Participants were given an initial questionnaire (Appendix G), an Audit-C questionnaire (Appendix H), and a semi-structured interview (Appendix I) to collect data. The demographic questionnaire was printed for the participants to complete before the semi-structured interview. The interview was recorded and then transcribed for data

analysis. Additionally, field notes and document analysis by the researcher were also included.

Researcher's Role

The researcher's role is to be the human instrument of the study, according to Lincoln and Guba (1995). In the naturalistic nature of this study, everything is indeterminate, and they argue that "only the human instrument has the characteristics necessary to cope with an indeterminate situation" (Lincoln & Guba, 1995, p. 193). Characteristics unique to the human instrument are responsiveness, adaptability, holistic emphasis, knowledge base expansion, processual immediacy, opportunities for clarification and summarization, and the opportunity to explore atypical or idiosyncratic responses. Lincoln and Guba (1995) argue that human instruments are as trustworthy as any paper-and-pen instrument and are as capable of refinement as any other variety. As the human instrument, the researcher must report as truthfully as possible to represent the participants fully.

I, as the researcher, assumed the role of a participant observer in the military community. I had prior experience and knowledge of military culture and protocols from serving for 6 years as an active-duty Air Force member, including deployments to Qatar and Afghanistan, 6 years of Air Force Reserves, and 5 years of being a federal employee of McChord AFB. The experience and prior connections eased facilitating entry into the field and interactions with study participants. I maintained an open and non-judgmental stance throughout the study, aiming to understand and interpret military members' experiences and perspectives accurately.

Instrumentation and Measurement

Semi-Structured Interviews

Interviews play an important role in ethnographical studies as it is a way to understand the world from the perspective of research subjects (Ruslin et al., 2022). As the initial questionnaire (Appendix G) and Audit-C (Appendix H) consist of closed-ended questions, the semi-structured interview (Appendix I) consists of open-ended questions. The reason for the interview being semi-structured is that I want to maintain control of the direction of the interview, as it may be more useful to ensure that the interview produces the target information in the allotted time (Fetterman, 2019, p. 60).

For this research, I approached the interview as a “miner” (Ruslin et al., 2022). From the metaphorical perspective of the “miner,” the interviewer will be “mining” for knowledge as a miner does with buried metal. “The job of a researcher is only to uncover in-depth information from research participants; therefore, the information is presumed to be uncontaminated” (Ruslin et al., 2022, p. 23). To uncover the in-depth information, a degree of manipulation in the form of leading questions may take place in the interview; for example, a degree of manipulation may take place if I confided in the participants first about my underreporting in the health assessments. As Fetterman (2019, p. 59) suggests, a degree of manipulation occurs in an interview, and it is necessary as the researcher is trying to learn about a specific part of an individual’s life, not everything about it.

The interviews were scheduled Monday through Friday, from 6 am to 1 pm, by my schedule and the interviewee’s schedule. The interview was semi-structured using the questions from Appendix I. Questions 1 and 2 are introductory questions where I got to know the participants. Questions 3 through 8 helped me determine the deployment experiences of the participants. Questions 9 through 12 helped gauge the alcohol use by

the participants, while questions 13 through 17 question the possibility of underreporting of alcohol use. Finally, questions 18 to 23 allow participants to voice their concerns and ideas about alcohol use among military members.

Observation

Participant observation is the most critical step for ethnographic research and is crucial to effective fieldwork (Fetterman, 2019, p. 47). Participant observation is the immersion in a culture by the ethnographer. Ideally, the ethnographer will live among the cultural group for 6 months to a year or more, to learn the culture and language of the group (Fetterman, 2019, p. 48). In the case of this research, the data collection period will only be around three months; however, I have already lived and worked within the community of Active-Duty military, Reserves, and federal employees. With this participation in the lives of military members, participant observation could combine participation with the “maintenance of a professional distance that allows adequate observation and recording of data” (Fetterman, 2019, pp. 47-48). I made observations of drinking habits and moods and took note of conversations relating to mental health, military, and drinking. To make these observations, I took part in military functions such as squadron picnics or sporting events.

Field notes

Field notes are an ethnography's “brick and mortar” (Fetterman, 2019, p. 124). Field notes are conducted throughout the entirety of the ethnography study, and they form an early stage of analysis during data collection. Field notes are the gathering of “information in the context of setting where the group works or lives” (Creswell, 2016, p. 94) through observations by the researcher. Descriptive field notes can help the

researchers retain information as memories can fade quickly. Delaying taking field notes can sacrifice the “rich immediacy of concurrent notes” (Fetterman, 2019, p. 124). For this reason, field notes were taken as soon as possible after any observations or interviews.

Trustworthiness/Validity

The conventional criteria for trustworthiness are internal validity, external validity, reliability, and objectivity. However, in a qualitative field, additional naturalistic inquiries are inappropriate to the conventional criteria. Consequently, Lincoln and Guba (1985, pp. 218-219) proposed that “the conventional formulations be replaced with four new terms that have a better fit with naturalistic epistemology,” which he named “credibility” (internal validity), “transferability” (external validity), “confirmability” (objectivity), and “dependability” (reliability).

Credibility

In order to provide credibility to the research, Creswell and Poth (2016, p. 255) suggest two techniques: prolonged engagement in the field and triangulation of data sources, methods, and investigators. In this research, the engagement is prolonged because I have had access to and still have access to the cultural group. Proper triangulation will be employed by having multiple data sources, including interviews, field notes, and documents. The triangulation process may help mitigate potential biases and increase the credibility of the interpretations (Lincoln and Guba, 1985, p. 287).

Transferability

Transferability refers to the applicability of the research to other studies dealing with the subject matter. The findings could be applicable to other contexts, situations, times, and populations. However, it is not up to the researcher to prove that the research

findings will be applicable but to provide enough evidence that it could be applicable. To ensure the transferability of the research, I will be using thick descriptions in order to provide adequate details on the setting, participants, methods, and procedures (Creswell & Poth, 2016, p. 255).

Confirmability

“The naturalistic researcher looks for confirmability rather than objectivity in establishing the value of the data” (Creswell & Poth, 2016, p. 255). Confirmability has to do with the level of confidence in the researcher’s ability to control their biases through the research process. Confirmability ensures that the research findings are objectively based on the participants’ experiences and narratives rather than the researcher’s biases. Reflexivity plays a crucial role in increasing the confirmability of the research; to achieve this, I will be continuously reflecting on their own biases, assumptions, and preconceptions while documenting the reflections in the field notes (Lincoln & Guba, 1985, p. 109). To further increase the confirmability of the study, I will have my dissertation chair run a portion of the analysis for inter-rater reliability.

Dependability

Rather than looking for reliability, the naturalistic researcher looks for the dependability of the research. Dependability gives results that will not be subject to change and instability (Creswell & Poth, 2016, p. 255). Dependability is measured through the consistency of the data so that other researchers can duplicate the study. Furthermore, “both dependability and confirmability are established through an auditing of the research process” (Creswell & Poth, 2016, p. 255). To enhance the dependability

of the study, the research design, data collection methods, and analysis procedures will be clearly described, and confirm the analysis process with my dissertation committee.

Data Analysis

The recordings of semi-structured interviews will be carefully transcribed manually. The data analysis of this research will take Dawadi's (2020) thematic analysis approach guidelines. The first phase is the familiarization of the data. As the name suggests, I will familiarize myself with the data by reading through the field notes, interview transcripts, and documents carefully and repeatedly. As I familiarize myself, the data will be transcribed and transferred into NVivo 14, a qualitative analysis software, for the analysis.

The second phase is to generate the initial codes. NVivo coding feature can efficiently generate codes that contain just one phrase or others containing one or more sentences. After the initial codes are generated, the third phase is to search for themes. The third phase is the most difficult phase in the analysis process as researchers must re-read and combine the codes into potential themes (Dawadi, 2020). The previously identified theoretical foundation concepts and issues will be brought in in this phase. When the potential themes are identified, an initial thematic map containing master themes, main themes, and sub-themes will be created.

The fourth phase is to review the themes. The themes will be refined, renamed, or discarded at this stage. By the end, a clearer and more simplified thematic map should emerge. The fifth phase is to define and name the themes. Dawadi (2020) suggests that the themes should not be too diverse and complex. A final thematic map will be created

once all themes are named and defined. At this point, the last step will be to write down the report of the findings.

Delimitations, Assumptions, and Limitations

The study focuses solely on the potential underreporting of alcohol use among U.S. military members, which means the scope of this research may not extend to other countries' military contexts. Therefore, the findings may not directly apply to military populations outside the United States. The research may have been influenced by the cultural setting of the United States military, and it should be noted that the research operates within specific norms, values, and regulations regarding alcohol use and reporting practices. As such, the findings may not be entirely transferable to other cultural contexts.

I assumed that participants would accurately and honestly describe their usage of alcohol. Despite efforts to build rapport and trust with the participants, the subject's sensitive nature may cause underreporting or socially acceptable responses, which could introduce biases in the findings. It should be noted that mitigating techniques, such as indirect questioning, providing assurances, probing for more information, requesting stories or examples, and prefacing the question, will be used to reduce social desirability bias and responses. I will also share my own experiences with the participants before the interview to encourage more honest answers. I also assumed that I would be objective despite the possibility that my individual histories, viewpoints, and experiences could impact data collection, processing, and interpretation. To avoid being biased, I will be using a triangulation of sources to support my interpretations. The challenges inherent in conducting ethnographic research in a military setting, such as limited access to certain

military contexts, possible restraints on observations and interviews, and the complexity of military culture, may limit the data collection.

Summary

In this chapter, I provided the methodology for ethnographic research to investigate the potential underreporting of alcohol use among U.S. military members. The participant selection process will ensure a purposeful, judgmental sampling with selection criteria for representing various ranks, branches, job titles, and demographics within the military. The research procedure will involve me as the researcher assuming the role of a participant observer while immersing myself in the military community. Semi-structured interviews will provide insight into military individuals' experiences, beliefs, and attitudes regarding alcohol use and reporting alcohol use. More data will be collected through surveys and artifacts such as data from PHA and analyzed using NVivo 14 software. The data will go through a rigorous process of coding and theme development. Data triangulation will ensure the trustworthiness and validity of the research. Finally, I acknowledged some delimitations, assumptions, and limitations of the research to ensure transparency.

CHAPTER 4: RESULTS

Overview

In this ethnographic research, I investigated the potential underreporting of alcohol use among U.S. military members and the underlying reasons for this phenomenon. By exploring alcohol reporting dynamics within the military context, the study addresses a significant gap in existing research and contributes to a deeper understanding of service members' reporting of their alcohol use. The research questions addressed were:

RQ1: To what extent do military members perceive an underreporting of alcohol use within the U.S. military?

RQ2: What factors affect the underreporting of alcohol use among U.S. military members, if any?

RQ3: What do military members perceive as viable techniques to facilitate honest reporting of alcohol use by service members?

The data collection process involved semi-structured interviews, participant observation, and field notes of 35 participants to understand alcohol use and underreporting among U.S. military members. I used semi-structured interviews with open-ended questions scheduled around participant availability. Participant observation during military functions captured drinking habits and related conversations, while detailed field notes ensured immediate documentation of observations. This chapter covers the descriptive statistics of the participants, the methodology, and the results of the research.

Descriptive Results

A total of 35 participants engaged in this study, all of whom were affiliated with Joint Base Lewis-McChord. Of these, 20 participants were Active-Duty members, 11 Reserves, and 4 veterans of the United States Air Force (Table 2). Below, Table 1 describes the demographics of the participants in this study. Table 2 describes the military demographics of the participants, and Table 3 shows the results of the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C) scores of the participants taken before the semi-structured interview. AUDIT-C test is an alcohol screening given to military members and veterans to help identify hazardous drinkers and active alcohol use disorders. This screening contains three questions with a Likert scale of 0-12, of which four and above are considered positive for men while three and above are considered positive for women. The participant names are pseudonyms chosen by the participants themselves for confidentiality.

Table 1. *Participant Demographics*

Participant	Gender	Age	Ethnicity	Relationship Status
Alan	Male	24	Caucasian	Single
Baxter	Male	32	Hispanic	Married
Bill	Male	47	Caucasian	Single
Billy Bob	Male	38	Asian	Married
Blank	Male	23	Caucasian	Single
Bob	Male	29	Caucasian	Single
Brandon	Male	33	African American	Married
Crystal	Female	25	Hispanic	Single
David	Male	22	Caucasian	Single
Dawn	Male	37	Asian	Single
George	Male	25	Latino	Single
Goku	Male	31	Caucasian	Married
Goose	Male	22	Caucasian	Single
Jade	Female	25	Hispanic	Single
Jerry	Male	32	Caucasian	Single
Jerry Springer	Male	36	Caucasian	Married
Jim	Male	41	Caucasian	Married
Jimmy	Male	21	Caucasian	Single
John Doe	Male	28	Caucasian	Married
Johnathan	Male	24	Hispanic	Single
Johnny	Male	39	Asian	Married
Julio	Male	32	Caucasian	Single
Justinian	Male	21	Caucasian	Single
Kevin	Male	28	Caucasian	Single
Kevin James	Male	28	African American	Single
Leupold	Male	23	Caucasian	Single
Maverick	Male	30	Latino	Married
Milhouse	Female	32	Caucasian	Married
Moose	Male	28	Portuguese	Single
Paul	Male	56	Caucasian	Married
Scott	Male	29	Pacific Islander	Married
Thurgood M.	Male	57	African American	Single
Timothy	Male	27	Caucasian	Single
Tom Brady	Male	21	Asian	Single
William	Male	46	Caucasian	Married

Table 2. *Participant Military Demographics*

Participant	Branch	Length of Service	Rank	Job
Alan	AF Active	5	E-4	Aircraft Mechanic
Baxter	AF Reserves	10	E-5	Aircraft Mechanic
Bill	AF Veteran	26	E-8	Aircraft Mechanic
Billy Bob	AF Reserves	20	E-7	Security Forces
Blank	AF Active	6	E-4	Aircraft Mechanic
Bob	AF Reserves	11	E-6	Aircraft Mechanic
Brandon	AF Active	14	E-6	Aircraft Mechanic
Crystal	AF Active	2	E-3	Aircraft Mechanic
David	AF Active	4	E-4	Aircraft Mechanic
Dawn	AF Reserves	17	E-6	Aircraft Mechanic
George	AF Active	7	E-5	Security Forces
Goku	AF Reserves	10	E-5	Aircraft Mechanic
Goose	AF Active	5	E-5	Aircraft Mechanic
Jade	AF Active	4	E-4	Aircraft Mechanic
Jerry	AF Active	14	E-7	Aircraft Mechanic
Jerry Springer	AF Active	16	E-7	Aircraft Mechanic
Jim	AF Veteran	15	E-5	Aircraft Mechanic
Jimmy	AF Active	3	E-4	Aircraft Mechanic
John Doe	AF Active	8	E-5	Aircraft Mechanic
Johnathan	AF Active	5	E-4	Security Forces
Johnny	AF Reserves	17	E-7	Aircraft Mechanic
Julio	AF Active	12	E-5	Security Forces
Justinian	AF Reserves	3	E-4	Aircraft Mechanic
Kevin	AF Active	11	E-6	Aircraft Mechanic
Kevin James	AF Reserves	6	E-4	Aircraft Mechanic
Leupold	AF Active	3	E-4	Aircraft Mechanic
Maverick	AF Reserves	7	E-5	Aircraft Mechanic
Milhouse	AF Active	8	E-4	Aircraft Mechanic
Moose	AF Active	9	E-6	Aircraft Mechanic
Paul	AF Veteran	33	E-8	Aircraft Mechanic
Scott	AF Reserves	11	E-6	Security Forces
Thurgood M.	AF Reserves	29	E-7	Aircraft Mechanic
Timothy	AF Active	8	E-5	Aircraft Mechanic
Tom Brady	AF Active	3	E-3	Aircraft Mechanic
William	AF Veteran	20	E-8	Aircraft Mechanic

Note: AF = United States Air Force

Table 3. *AUDIT-C Score*

Participant	Q1	Q2	Q3	Total	Individual Underreport	Others Underreport
Alan	4	4	4	12	Y	Y
Baxter	2	1	1	4	N	Y
Bill	1	0	1	2	Y	Y
Billy Bob	1	2	1	4	Y	Y
Blank	3	0	0	3	N	Y
Bob	2	4	2	8	Y	Y
Brandon	1	0	1	2	N	N
Crystal	3	1	0	4	Y	Y
David	1	1	1	3	N	Y
Dawn	4	0	0	4	Y	Y
George	4	2	3	9	Y	Y
Goku	2	1	0	3	N	Y
Goose	1	0	1	2	N	Y
Jade	2	0	0	2	N	N
Jerry	2	4	2	8	Y	Y
Jerry Springer	2	0	0	2	N	Y
Jim	4	4	4	12	Y	Y
Jimmy	2	2	2	6	Y	Y
John Doe	2	1	0	3	Y	Y
Johnathan	1	1	0	2	Y	Y
Johnny	3	0	0	3	N	N
Julio	2	2	1	6	Y	Y
Justinian	2	0	1	3	Y	Y
Kevin	2	1	1	4	N	Y
Kevin James	2	0	1	3	N	Y
Leupold	4	4	2	10	Y	Y
Maverick	3	0	3	6	N	Y
Milhouse	2	1	1	4	Y	Y
Moose	3	1	1	5	Y	Y
Paul	2	0	1	3	Y	Y
Scott	4	0	1	5	Y	Y
Thurgood M.	3	1	0	4	Y	Y
Timothy	2	4	2	8	Y	Y
Tom Brady	2	0	2	4	N	Y
William	4	1	2	7	Y	Y

Note: Simplified admission to individual underreporting and belief of others underreporting added for convenience.

As seen in Table 3, seven individuals are in the high-risk category with a score of 8-12. Seven individuals out of 35 participants with high-risk scores come to 20% which

is significantly higher than the percentages given by the VA, which shows 4% for men aged 30 and older, and 14% for men aged 29 and younger (va.gov, 2019). When all descriptive data are sorted by the AUDIT-C scores, four key demographics can be noted. All 7 individuals who are high risk are male, and 6 out of 7 individuals identify as Caucasian, single, and aircraft mechanics (not necessarily jointly). However, these results should not be taken as absolute as the data set is limited quantitatively. No other demographics are notably significant.

Trustworthiness of the Data

I employed specific tactics and methodological approaches to ensure that findings are credible, transferable, confirmable, and dependable to improve the trustworthiness of the data.

Credibility

Rigorous measures were undertaken to minimize bias and ensure accuracy in data interpretation. As suggested by Creswell and Poth (2016, p. 255), the engagement with the participants was prolonged to gain sufficient access to the cultural group.

Triangulation was also employed to help mitigate potential biases (Lincoln and Guba, 1985, p. 267). Additionally, member checking was employed, allowing participants to verify the accuracy of the interpretation by reviewing transcripts containing initial codes.

Transferability

Increasing the transferability of the research findings involved providing rich and detailed descriptions of the research context, participants, methods, and procedures.

Thick descriptions were utilized to ensure that adequate details were provided to facilitate the application of findings to other contexts, situations, times, and populations (Creswell

& Poth, 2016, p. 255). Continued participant solicitation was pursued until data saturation was achieved, ensuring that a diverse range of viewpoints and experiences were captured and represented in the study.

Confirmability

Enhancing confirmability involved minimizing researcher bias and subjectivity in the interpretation of findings. Direct quotes from each participant were incorporated into the analysis, providing verbatim accounts of their experiences and viewpoints. Member checking was utilized to validate the accuracy and authenticity of the interpretations, further enhancing the confirmability of the findings. Additionally, reflexivity played a crucial role in increasing confirmability, with continuous reflection on biases, assumptions, and preconceptions documented in field notes (Lincoln & Guba, 1985, p. 109).

Dependability

Maintaining dependability requires consistency of the data for other researchers to duplicate the study. To enhance the dependability of the research, the research design, data collection methods, and analysis procedures are clearly described. For analysis, a combination of Nvivo 14 and manual coding was employed, leaving a detailed coding trail and process to enhance dependability.

Overall, these strategies collectively served to bolster the trustworthiness of the research, ensuring that the qualitative data collected and analyzed were reliable and represented the experiences and perspectives of the participants. By using rigorous methodological practices and transparent reporting, I could uphold the integrity and validity of the study findings.

Study Findings

For this research, I used the six-phase thematic analysis approach, as detailed in Dawadi's (2020) paper. Note that Dawadi's (2020) six-phase thematic analysis procedure stems from Braun and Clarke's (2006) six-phase thematic analysis.

The first phase is to familiarize with the data. First, the oral interviews were transcribed in full and transferred into NVivo 14 for analysis. This initial process forced me to get familiarized with the interview as it took several listens to transcribe the interviews fully. Then, the transcriptions were carefully read, and important or relevant information was highlighted. This highlighted information is regarded as "points of interest" by Dawadi's (2020) procedure, of which there were a total of 567 points of interest detected (see Table 4). However, only 354 points of interest pertained to the three research questions. Nonetheless, the other points of interest were separated to reflect the possible reasons for drinking" and "viable guidance and intervention." I believe that these data may be helpful in future research.

Table 4: Phase one: Familiarization of Data – Codes

Research Questions/Extra Data Points	Codes
RQ1: To what extent do military members perceive an underreporting of alcohol use within the U.S. military?	<ol style="list-style-type: none"> 1. Admits to individual underreporting. 2. Believes everyone underreports. 3. Does not personally underreport. 4. Believes nobody underreports. 5. Does not personally underreport but believes others do. 6. Believes some people underreport.
RQ2: What factors affect the underreporting of alcohol use among U.S. military members, if any?	<ol style="list-style-type: none"> 1. Being “embarrassed.” 2. Believes they do not have a problem. 3. Dealing with “ADAPT” or “Mental Health.” 4. Due to the “stigma” of talking to a medical professional. 5. Getting a “negative view.” 6. Having “career issues.” 7. Telling People What They Want.
RQ3: What do military members perceive as viable techniques to facilitate honest reporting of alcohol use by service members?	<ol style="list-style-type: none"> 1. Asking people around them. 2. Change “culture.” 3. Having “a real person.” 4. Having “non-military affiliates.” 5. Having “transparency.” 6. Lowering “punishment.” 7. Making it “anonymous.” 8. More “education.” 9. To “lower the drinking threshold.” 10. Believes in no viable technique.
Reasons for Drinking	<ol style="list-style-type: none"> 1. Due to “culture.” 2. Due to “stress.” 3. For “escapism.” 4. Having “mental health issues.” 5. Having “workplace harassment.” 6. Having a certain “personality.” 7. No alternative substance.
Viable guidance and intervention	<ol style="list-style-type: none"> 1. Getting “other hobbies.” 2. Having a “social circle.” 3. Improving “leadership.” 4. Referring to “ADAPT.”

The second phase is to reread the transcripts and code all the data. Multiple codes were applied by selecting phrases, sentences, and paragraphs of interest using NVivo14. The codes were produced through an interpretation-focused coding strategy, as some of the statements needed to be interpreted. Some examples are presented in Table 5, along with other examples of how codes were applied.

Table 5: Data Extracts and Codes

Data Extracts	Coded for
Part of it might be because they actually have a problem, like an addiction, and they don't want people to know.	Being "embarrassed"
Because I don't want to be labeled as an alcoholic because I don't drink by myself.	Getting a "negative view"
They don't want to lose what they have going for them, all because of what they want to do in their free time.	Having "career issues"
Even though they tell you it doesn't, it's viewed as though that there's a negative response to answering honestly on those questions.	Having "transparency"
I think there should be other sources or other ways of punishment versus just giving them the boot.	Lowering "punishment"
It's just the repercussions of stepping forward and coming forward saying "Hey I have a problem." There shouldn't be repercussions from that. But unfortunately, now it's looked at as "Okay, he has issues, so he's a bad guy."	Lowering "punishment"
I think if it was more restricted as far as your records and stuff and everybody not knowing.	Making it "anonymous"

Phase three of Dawadi's (2020) process is to search for the initial themes. A thematic map was created to help conceptualize the codes into potential themes for the research questions using C. The codes were prepared separately to a Microsoft Excel sheet to help further cluster the codes into workable themes. An initial thematic map was created using the 13 main themes with 23 lower-level codes, as seen in Figure 1.

Figure 1*Initial Thematic Map*

For this analysis, phases four and five of reviewing the initial themes and then defining and naming the themes were conducted simultaneously. Out of the 13 initial themes, “Avoidance of formal support services,” “Social and career implications,” and “Doubts about helpful solutions” were kept as is. Others were combined or renamed for the final count of 8 main themes with 23 lower-level codes.

Figure 2*Final Thematic Map*

The last phase is to write down the report of the findings as the themes have emerged and the data have been analyzed.

RQ1: Perceived Underreporting

Participants were prompted to share their perspectives on the prevalence of underreporting of alcohol use within the U.S. military. Through thorough interviews about their observations and experiences within the military community, participants shed light on the extent to which they believe alcohol use is underreported among service

members. The interview about their perception gave valuable insights into the prevalence and reasons behind the perceived underreporting.

Confirmation of Underreporting

As participants articulated their viewpoints, a variety of different attitudes and perceptions regarding underreporting emerged, reflecting a spectrum of beliefs among military members. Some participants admitted to routinely underreporting their alcohol use during their PHA. The underreporting seemed to have been influenced by a range of factors, such as fear of repercussions, stigma, or a desire to maintain a certain image, which will be covered in the later sections.

Twenty-two out of the 35 (63%) participants disclosed that they engaged in underreporting, which showed the prevalence of underreporting among military members. While 13 participants claimed a commitment to truthful reporting, 10 of them still believed that their counterparts were suspects of underreporting. This belief stemmed from various factors, including concerns about stigma, fear of repercussions, or perceiving a bad image. Overall, 32 out of 35 (91%) participants expressed that they believe there is an underreporting of alcohol use by themselves or other military members.

Seven individuals scored in what is classified as the “severe risk” category for the AUDIT-C (Table 3). Interestingly, all seven participants reported that they underreported their own alcohol usage and believed that others also participated in underreporting. Alan reported that he would put “the lowest you can do” because “I don’t think I have a problem with drinking, and so, I drink when I want to, and I can stop drinking when I want to. But I also don’t want to deal with all the mental health questions.” He also

expressed absolute belief that other people also do the same. This absolute belief is shared by other “severe risk” participants as Jim stated that he knows “plenty of other people that don’t put the correct amount on there.”

The perception of underreporting seems to have formed from complex social, cultural, and institutional factors that shape individual attitudes and behaviors toward underreporting. For some, it may be influenced by personal experiences, peer influences, or organizational norms. For others, it may be driven by broader societal attitudes toward alcohol consumption or mental health. These varied perspectives are crucial for developing effective strategies to address underreporting and promote a culture of honesty and accountability within the military community. These perceptions will be further elaborated in research question 2.

Denial of Underreporting

On the contrary, some participants denied that they ever underreported their alcohol consumption. However, these individuals did not score high on their AUDIT-C and were not big drinkers, except for Maverick who scored a six on the AUDIT-C (Table 3). Although six on the AUDIT-C classifies as “high-risk,” Maverick believed that he would not be considered “high-risk.” He believed “the answers I just gave you are something that wouldn’t really raise too much of a red flag anyways.” The participants who claimed that they answered honestly on their PHAs also added that they were not concerned with any negative consequences since they had nothing to hide.

Coincidentally, every participant who believed other military members are likely to be underreporting admitted that they underreport. Interestingly, of the 13 participants who denied underreporting, only 3 participants held the belief that others do not

underreport. However, of the three participants who denied the possibility of underreporting, Brandon added that he is skeptical of those who may not be drinking responsibly. He suggested that “if they’re not being responsible, then they might tend to skew that just to not get flagged and have to deal with medical.” Ultimately, the denial of underreporting may stem from a sense of trust in the system, confidence in the integrity of fellow service members, or a genuine belief that underreporting is rare.

This research question of “To what extent do military members perceive an underreporting of alcohol use within the U.S. military?” was harder to answer with direct quotes of the participants, as a lot of the answers were yes or no answers. The participants usually followed with their explanation of their yes or no answers, but the explanations were the underreporting factors; which were the answers for the next research question.

RQ2: Underreporting Factors

Participants were asked questions to describe why they believe there is an underreporting of alcohol use among military members. As they described their lived experiences and their perceived reasons for why military members underreport their alcohol use, three themes emerged from the data: avoidance of formal support services, social and career implications, and psychological barriers to reporting.

Avoidance of Formal Support Services

Many participants described their experiences of answering honestly on their annual health assessment and having to deal with phone calls or meetings with Alcohol and Drug Abuse Prevention and Treatment (ADAPT) or mental health professionals. Billy Bob confided that he learned to reduce his reporting of alcohol use amount because

he had a personal encounter with a mental health professional after answering honestly one year. He recounted that the reason why he stopped answering honestly after that:

Because I don't want to deal with a doctor telling me how to live my life healthily when I'm a grown man that survived this long and is probably healthier than the doctor ... And so I learned to put these things in there so you don't flag them. I know how to live healthily. I don't need that advice.

There were participants like Thurgood Marshall who did not have a personal encounter with ADAPT or mental health professionals but have heard the rumors that putting down honest answers on how much alcohol they consume will flag in the system and turn them in to mental health:

Because the rumor is, and I actually know guys that I talked to, he said if you put that, let's say, you have two drinks, three drinks, twice a month, then they may call you in and talk to you about that. Because the perception is that if you regularly drink, whether it's every week or every two weeks, they may perceive that you have a problem or something.

He also added that because all the computer services are talking to each other in the medical community, including civilians and military, military members have to be careful. "I don't want to ever give the perception that I have some type of substance abuse problem or something like that."

Several participants expressed concerns about the stigma associated with seeking help from mental health professionals, particularly about discussing alcohol use. Alan highlighted this stigma, stating, "But I do know traditionally that there is a huge stigma on talking to medical professionals on topics about that." This sentiment reflects a

broader cultural perception that discussing personal issues with mental health professionals may be viewed negatively within the military context.

Another participant echoed this sentiment but included that there is a collective fear of having detrimental effects on one's career. Jerry Springer remarked, "But if they're worried that, it's kind of like the mental health stigma if I go to mental health, it can end my career." This fear highlights the significant obstacles that individuals may encounter while seeking mental health assistance, particularly for sensitive topics such as alcohol consumption. These quotes shed light on the complex interplay between stigma, career concerns, and the willingness of military members to seek help for alcohol-related issues, which ultimately contribute to underreporting of alcohol use within the military community.

Social and Career Implications

Military members cannot simply decide to disclose alcohol consumption to mental health professionals due to the stigma of seeking help but also due to the potential ramifications it might have on their careers. Jimmy, among others, highlighted some of the punitive measures that may be imposed on individuals if they seek help for alcohol-related problems; "Instead of them being like "hey, do you need help?" at first they're just instantly like, take away rank, and take away pay."

The sentiment of fear of losing their rank, their job opportunities, and ultimately their career echoed through many participants. Participants like Tom Brady had friends who went through punitive measures for excessive alcohol use. The safety weekend

briefings are given every week by supervision to ensure everyone stays safe while drinking. Paul, who was in senior management in the Air Force before retiring, said

They make it certain to, if they do go out to drink, they make sure they have a ride or they're doing it at home. And if they had friends over at their house, especially if they live on base, they aren't driving themselves or somebody else is driving them because they know how much trouble that they can get into for doing that.

He also added that he “just remember people weren’t honest with it because they were afraid of the repercussions.”

Moreover, it is not just the immediate career impact reporting high alcohol use could have. Some participants believed that their retirement compensation from the military could be affected if they reported their alcohol use honestly. Thurgood Marshall suggested that he

Sanitize that because I feel like once I retire, when they look back at my records, if I do have any health problems and go, oh, yeah, over the course of the year, let's see, three drinks every two weeks there's twelve months. Oh, yeah, you had 36 drinks a year, so it's your fault.

Jerry also shared similar beliefs on what could happen in retirement.

When it comes to medical retirements, if you end up liver, kidney issues, they're just going to blame you for the drinking, which I don't see why you wouldn't be able to turn around and blame the military if that's the reason you're drinking.

In addition to the effects honest reporting of alcohol use could have on military members’ careers and retirements, they also grapple with the social implications of such an admission. A prevailing concern of the social implication is the fear of judgment from

others. This fear seems to stem from a desire to avoid being perceived negatively by peers or colleagues and being labeled as someone with a substance abuse problem. Several participants explicitly stated that they did not want to be labeled as an alcoholic or be judged for their alcohol consumption. The fear of judgment from others and possible alienation further prevents individuals from seeking assistance for alcohol-related problems, as they prioritize maintaining their social reputation and relationships.

Psychological Barriers to Reporting

The underreporting factors so far have been external factors that may affect the participants. However, some participants expressed some internal factors that prevent them or others from accurately reporting their alcohol use. For example, the embarrassment of admitting that they may have a problem could deter military members from reporting their alcohol use. In line with the fear of judgment from others, being embarrassed about their misgivings falls in line with the working theory of social desirability bias. Justinian stated that he believes “humans don’t want to be honest about their misgivings or devices.” Others expressed that even if the individual knew that they have an addiction, they wouldn’t want people to know.

Whereas some participants denied needing any assistance with their alcohol use because they believed they were in control. From observing several of the participants, there were some contradictory situations, most notably binge drinking. On several occasions, individuals were blacked out drunk, or very inebriated. Tom Brady’s statement of

I know plenty of people that would probably have been called in for alcohol

problems if they did (report honestly), but I don't think they'd be alcoholics. They just drink more than what most people would normally drink.

This shows the mindset of how military members operate on a day-to-day basis. Several participants added that they believe they are not at risk of alcohol abuse but are just a "social drinker."

Moreover, there were several references to how individuals were taught to answer not to be flagged by any systems or mental health professionals. Milhouse put it in very simple terms: "You give the Air Force answer."

The factors that influence the underreporting of alcohol use among United States military members seem to boil down to individuals wanting to avoid formal support services, fearing for their careers, and the psychological barriers that prevent them from disclosing sensitive information such as alcohol use. For most participants, it seemed that they were monitoring themselves well or had the illusion of monitoring themselves well; and not a single participant disclosed that they believed they had a problem with drinking. Alan's statement highlights this sentiment with "I can stop drinking when I want to" and "I don't think I have a problem." However, when taking the AUDIT-C scores into account (Table 3), it is clear that some participants may actually have alcohol problems but are in full denial. It could prove harmful to take individuals' reporting at face value without considering the factors affecting the potential underreporting of alcohol use.

RQ3: Viable Techniques

Research question 3 asks, “What do military members perceive as viable techniques to facilitate honest reporting of alcohol use by service members?” Participants were asked this question directly, all be it in layman’s terms. The themes that rose from the answers given were mitigating consequences and fear, social and cultural shifts, and doubts about helpful solutions.

Mitigating Consequences and Fear

In line with research question 2’s theme of fearing for their careers and having to associate with mental health professionals, participants championed the idea of mitigating consequences and fear through several different techniques. Eighteen participants expressed that the punishment does not fit the crime. Justinian put it best when he said “So if they always preach about how we care about our people, don’t completely shut people out of careers and life goals because they’re having a little bit of an issue at the time.”

And he argued that when the issue is self-reported, there should be less punishment than what they would have gotten if they were caught.

Jimmy suggested that there needs to be more “grace” about giving out punishments. He also does not believe that having a one-punishment-fits-all (reduction of ranks or forced separation) helps military members come forward on their own. A large portion of those who discussed the need for reducing punishment all agreed that

separation for alcohol-related incidents when it had nothing to do with their actual work performance is too hard of a punishment.

Another technique military members perceive could help facilitate honest reporting is ensuring absolute anonymity. In a similar way to directly reducing punishment, this technique would indirectly reduce punishment by ensuring the damaging information does not reach those capable of giving out those punishments. For example, Jim suggests that if the surveys and reports were more restricted as far as the medical records go, people would be more willing to disclose their drinking habits. Jim went a step further with this idea and said that even if the military member was put into rehab, that information should be treated discreetly and should say “he’s in the hospital” or “he’s on leave” instead of disclosing what happened.

Bob disclosed his sentiment on how distrusting everyone would be honestly answering the questions even if they came out to guarantee anonymity.

It’d be difficult because even if you wrote on the PHA, hey, your unit will never find out. We know that: one, we’re not going to trust it. They’ll find out. Two, we know a commander can overwrite that and gain that information if necessary.

That’s just the way the military is. There’s nothing that can change that.

Lastly, some participants suggested that maybe lowering the punishment or guaranteeing anonymity is not the way to mitigate consequences and fear but to increase the drinking threshold to reflect how normal military members drink. Kevin showed disdain for how the Air Force’s definition of a drinking problem is just a normal amount of drinking. As it stands right now, Kevin believes that if people were honest about how

much they consume alcohol daily, it would affect the Air Force's mission capability due to how many people would have to go seek "help."

Because not only would it, especially in our career field, it would put a gigantic strain on personnel availability. It would also strain medical, because those same people not available to work would be going to medical appointments for their problems with drinking. Because the Air Force's definition of a drinking problem is essentially multiple times a week.

It seems a large portion of the participants agree that there is something wrong with the amount of consequences for alcohol-related problems. On top of the belief that disclosing their actual amount of alcohol use may affect their career trajectory, the belief is rooted in actual events their friends and coworkers faced. For this belief to change, it may require more than a policy change but an overall social and cultural change within the military.

Social and Cultural Shifts

Military members are known to be heavy drinkers. Whether or not it is due to traumatic events, stress, or mental health issues, there is a cultural and social structure that military members are engrained with when it comes to alcohol use. Milhouse highlighted that in the military, there is a norm of people joking about alcohol use and mental health issues. For example, "We joke about it all the time. That's just how it is. It's like, I'm going to go drink myself to sleep tonight." Milhouse believes that it is the

social structure that makes it more acceptable in the military than in the civilian counterparts.

Leupold gave an interesting take on why the social and cultural structure of the military is the way it is.

Like most things in the military, the number of genuine interactions that are not just a means to an end are so few that you breed this kind of, like, cynical, apathetic attitude among everybody, that everybody's doing everything just as a means to an end. Only change that could help is over an extended period of time with a real culture change.

Although Leupold's sentiment of military members not caring about each other was not echoed by many, some participants like Johnathan believed that there are cultural and social problems in the military, such as workplace harassment and bullying. Johnathan witnessed on multiple occasions where co-workers and their management were bullying their subordinates and how it made that subordinate feel as if he was trapped. Trapped in his workplace and trapped in his career. Which drove him to drink to cope with the bullying. Blank also echoed the occasional toxic work environment by calling it a constant bereavement.

Many participants expressed that alcoholism within the military is usually swept under the rug until it becomes a problem. Numerous participants recounted that leadership would know about the problem of drinking by other members but would not care until it affected them. Goku put it into very simple words: "They don't care about the drinking. They only care about the troubles that you could get in from drinking."

Several participants used the term “statistics” when referring to how military members are viewed by leadership.

Military members are slowly deteriorating through how they are treated and the amount of work stress they endure. The military social and cultural norms allow them to cope through the use of alcohol and self-deprecating humor as Milhouse expressed. Many participants believe that the only way for military members to start seeking help about alcohol use is to change the culture around alcohol use. Billy Bob suggests that to help military members, they need to be empowered. He suggests that they need to be taught to look for the long-term effects alcohol use could have on their health and careers.

Doubts About Helpful Solutions

Although many participants provided good techniques that could be used to facilitate honest reporting of alcohol use, there were just as many who believed there were no viable and realistic techniques that could be employed. In many cases, even those that gave a plausible technique, they added disbelief on whether it could be realistically achieved. For example, Bill believed absolute anonymity could increase honest reporting of alcohol use, but added that absolute anonymity is probably not possible. Bob explained the thought process of those who would distrust the absolute anonymity when coming from the authorities. The well has been so poisoned that it would take a lot more than a broad announcement would sway people to start reporting honestly without any hesitation.

Blank also added that even if everything were set up where the military member would face no backlash from answering honestly, he would probably still hold some information to himself. “There’s some stuff I just don’t want to share with them,

regardless if they're a doctor or not." William, who is a veteran who came into the United States Air Force as an Active-duty member, commented how the alcohol use situation mirrors the tobacco use situation back in the 90s and how the military's promise of being smoke-free has never flourished.

I don't know how the military would do that as an organization. When I came in in '96, they said military is going to be smoke-free in 2000. Like, no smoking on base 2000... Nicotine is always going to be here. And Alcohol. Alcohol and caffeine. The military way at this point.

The participants who are weary about whether or not these techniques are realistic or not expressed concern about their co-workers. Julio put some blame on the military as "the way the military does business and how people treat each other in the military leads to even more alcohol and abuse." Justinian expressed his belief that there are "very few ways of actually helping out a person without either getting some help professionally or getting through to them at a soul type level" for any addictions. Sadly, many participants echoed the sentiment that there is not much help that could be given if the individual does not want any help from the start. William summed up the situation very candidly:

I wish there was a way to do that. How long did it take people to start going to mental health? Because they're like, it's not going to mess up your career. I think people are still in the same boat, like, if I tell them I'm drunk, I'm going to get in trouble. I think it's still the same mindset.

Reasons for Drinking

Participants expressed various perceptions of the reason why they and others drink. Some of the reasons were specific to military members, such as the military

alcohol culture and military-related stress; some applied to those that have limiting jobs, such as not having alternative substances they could use; and some were general to all populations.

Military-Related Reasons

Most expressed reasons were due to the military culture around alcohol and military-related stress. Moose recalled his initial introduction to drinking as a social activity, stating, "When I first started drinking, I just started drinking because. Just to do something with the guys I was hanging out with." This anecdote highlighted the social aspect of drinking within military circles, showing how peer influence plays a significant role in alcohol consumption. Milhouse emphasized the influence of the alcohol culture in the military by stating, "But I would say it's just like the social structure when it comes to drinking in the military in general." Her comment indicated that drinking is deeply ingrained in social interactions among service members.

Julio adds to this sentiment, pointing to the competitive aspect of drinking within male-dominated military environments. He recalls, "It's a bunch of dudes. Most of the times you get a bunch of dudes together. It's just one of those things. Just outdrink each other." The competitive nature of military members seems to perpetuate the heavy binge drinking that already exists within the military culture. To make things worse, David shows how underreporting of alcohol use is also ingrained into the culture:

It's a known thing inside the Air Force that a lot of people, especially the career fields, like maintenance, security forces, anybody that's the dirty workers of the

Air Force, just blue collars, blue collared. We all know that we all lie on that questionnaire.

Many echoed the prevalence of alcohol use and underreporting within certain career fields. Most agreed that blue-collar career fields have the highest alcohol use due to the higher level of stress. David shared an anecdote of how he was treated during the pull-out from Afghanistan in 2021, which was backed by others who were part of the operation:

So, during that time, I never had a lunch break. I was working 12-16 hours, depending on the day. The only time it really slowed down was whenever we came up to the last day to pull out of Kabul. That was my first day where I actually had a solid lunch break for, like, 30 minutes, and then it was back to the line. At most during that whole entire even, I would eat a fruit cup or two for lunch and then a fruit cup for dinner, and then go back home, sleep for two, 3 hours.

His anecdote leads to another point many agreed upon. Deployment is one of the highest-stress situations for military members. Many cited working situations, long hours, family separation, trauma, financial problems, and health problems. Leupold put the feeling as “this inescapable construct of the military you can’t escape breathes this feeling of, like, I’m not getting out of this.” Jerry adds that the easiest outlet for stress is alcohol for himself and others.

The military tends to contain certain types of people specifically. Billy Bob described what kind of people would be recruited, stating “Yeah, like personality-wise, you’re typically not going to have this super straight-laced religious person that doesn’t

drink or smoke.” Leupold adds that the military recruits from a “pool of people who are just desperate.” Some theorized that it is the opposite, in that it is the military that grooms a certain type of personality. Timothy accounts that “at some point, a lot of people don’t know how to have fun any other way.” Scott echoed this sentiment and added that people join the military and alcohol becomes everyone’s personality.

Limiting Job Factors

Certain jobs have special requirements as military members do. For example, any government-affiliated jobs require drug testing to ensure no substance abuse is occurring in their workforce. Some participants expressed the theory that the reason for the rampant alcohol use among military members may be that there are no other kinds of substances that can be used. Mostly, they indicated disappointment in marijuana use. Although the state of Washington has legalized marijuana in half of the United States, military members still cannot use marijuana. Alan stated if the military legalized marijuana, people would drink less and that he has “heard that from a lot of people. Actually, in their civilian lives, they smoked. And the only reason they drink now is because that’s the only thing they can do.” The lack of options in terms of a form of release seems to drive military members into alcohol use. Others like Jimmy and William expressed that they would drink less if they had the option to use marijuana.

General Reasons

The different kinds of forms of release bring the subject back to the ultimate reason for turning to substances, which seems to be escapism. Sadly, substances are used

widely as a coping mechanism for stress. Many participants expressed their desire to use alcohol as an escapist substance to deal with their stress. David expressed that

There are some people that use drinking as a coping mechanism, and a military is a stressful place... everybody wants at least something to loosen them up every so often or at least take away the edge of what they're having to do every day.

Sadly, those who turn to alcohol end up relying on alcohol for that same reason. Bob even goes on to say that when some people become emotional, they end up relying on alcohol to maintain their emotions. Alan added that the escapism turns into "something else," something else being alcoholism.

Emotional and mental health are a couple of the reasons expressed why military members drink. Some sad accounts come out on the subject of mental health as some were enduring their problems. Milhouse described her experiences during her lowest point of alcohol use and depression, and her point of enlightenment. She stated that she had a come-to-Jesus moment and "going back on the depression thing. I tried to off myself, and they put me in a psych ward for two weeks, and then I was like, turned myself around a little bit." Brandon explained that the intaking of alcohol is to numb the pain and put a buffer between reality and depression. When it comes to alcohol use in the military, William frankly said, "We're all undiagnosed alcoholics."

Viable Guidance and Intervention

Participants expressed some possible guidance and intervention that may be viable in reducing alcohol usage among military members. Many understood the lack of interest by leadership as one of the main reasons why alcohol usage may be so prevalent in the military. Several people indicated their feelings about the leadership not

concerning themselves until it became a problem for them. John Doe believed that it may be a rarer personality trait of some leaders to “actually care for the people that work under them.” Some are under the impression that the alcohol problems are not addressed due to the supervision also having the same problem. Billy Bob believes that the lack of care about alcohol use is due to the shortsightedness of military members and their supervision.

I think part of it is their leadership needs to mentor them to think long term, like, “Let’s help you do this, or, let’s help you do that.” And they’re all stuck in “I’m a wrench turner, or I’m only a burger flipper,” or whatever.

In line with the improvement in leadership, participants expressed the necessity for having a reliable social circle. Bob believes that even the leadership should be in that social circle for them to be respected as a human being. Most participants who commented on the necessity of a social circle also stated that the initial intervention needs to be someone the individual knows on a personal level for the acknowledgment that a problem can occur in the first place. Blank advised that people just need to be friends with their co-workers.

I think help comes from connections. You don’t have to be their best friend in the world, but if you can be someone that they can talk to you about day-to-day stuff, eventually you’ll get to the point where they may come to you for actual problems in life, and you can be there to help them.

Many participants suggested that the reason why excessive alcohol usage continues for so long is that people around them do not intervene when they see a problem. Jimmy recounted how most people brush off other people acting strange as just

that without help. As he got more experienced with dealing with people with alcohol problems, he thought more about the situation they were going through and that someone would try to help them. Jerry goes a step further and says he would offer to stay sober with them as a moral support. John Doe suggested that on top of having a social circle and giving moral support to others, they should “find an active activity, try to hang out with friends doing other activities, like maybe playing sports or board games or something along those lines.”

John Doe’s suggestion brings us to the final guidance the participants had, which was to get other hobbies. Just as many participants stated how they coped with deployment by going to the gym, they suggested exercising as a substitute for alcohol usage. Kevin James said, “You get them addicted to something else, they’ll forget their other addiction” while talking about guidance for people with alcohol problems and exercise.

Summary

In this chapter, an overview of the research methods and the findings of 35 participants’ views and perceptions of the potential underreporting of alcohol among United States military members were presented. The Analysis yielded eight themes and 23 codes to answer all three research questions. Additionally, more codes were found for significant information about the reasons for alcohol consumption by military members and possible guidance and interventions military members perceive to be helpful. The next chapter addresses the key findings under each theme and connects them to the theoretical frameworks.

CHAPTER 5: DISCUSSION

Overview

The purpose of this ethnographical study was to explore the possible underreporting of alcohol use among U.S. military members and the possible cause of the underreporting. The United States military members have a significant problem with heavy alcohol use, according to the National Institute on Alcohol Abuse and Alcoholism (2022). Prior research investigations showed a strong correlation between mental health issues and military members' high alcohol use (NINA, 2022). Those mental health issues include, but are not limited to, depression, anxiety, and PTSD (Bartone & Homish, 2020; Hill et al., 2021; Schuler et al., 2022). Although there is current literature that investigates the underreporting of alcohol usage within the general population (Adong et al., 2019; Hoonpongmanont et al., 2021), there is no literature that specifically investigates the possible underreporting of alcohol usage within the U.S. military. I have addressed this gap in the literature.

The present study used an ethnographical approach, recruiting 35 participants who are or have been affiliated with the Joint Base Lewis-McChord. Of these, 20 participants were active-duty members, 11 Reserve members, and four veterans. I surveyed the demographics and completed an AUDIT-C scale before conducting an in-person semi-structured interview. The interviews were recorded and manually transcribed, after which they were analyzed through NVivo14. Eight main themes emerged from the analysis of the 3 research questions, which are discussed further in this chapter. Chapter Five includes a summary and discussion of the research findings,

implications, limitations, and recommendations for future research, followed by a summary of the chapter.

Summary of Findings

The eight emerging themes in the present study led to the development of the key findings of this research. The first key finding was the overarching agreement of the participants that underreporting among U.S. military members is prevalent. The second key finding, which expands on the first key finding, was the reasons behind the underreporting. Most of those who reported that there is underreporting listed the reason as to avoid dealing with mental health professionals or to avoid having issues with their careers.

The third key finding is the viable techniques to increase honest reporting perceived by the participants. Most believed that lowering the punishment would increase honest reporting among U.S. military members. The fourth key finding was the reason for the heavy alcohol use among the participants and the reasons they believe why others drink. This key finding supports both Roth and Cohen's (1986) avoidance coping and Paulhus' (1984) social desirability bias. The key findings are further discussed next in detail and with the theoretical framework.

Discussion of Findings

The present research findings answered the first research question, in that 21 out of 35 participants disclosed that they underreport their alcohol usage. Thirty-two out of 35 participants agreed that there is underreporting of alcohol usage among U.S. military members. For the second research question, the underlying theoretical framework was social desirability bias (Paulhus, 1984). Although social desirability bias did explain

some of the underreporting factors, such as participants expressing their fear of getting a negative view or being embarrassed, it did not explain the main factors, such as avoiding dealing with mental health professionals and avoiding issues with their careers. The literature reviewed on the topic of underreporting did specify the fear of repercussions as one of the main reasons for underreporting (Collete et al., 2022; Pebley et al., 2020). In hindsight, Bandura's (1972) social learning theory may be better suited to explain this particular phenomenon. According to this theory, people learn not only through direct experiences but also by observing others and the consequences of their actions; which is what the participants were doing when they underreport to avoid possible consequences that they have witnessed.

Logically, the answers to research question 3 revolved around the key findings of the research question 2. Lowering the punishment for alcohol-related incidents and making the assessments anonymous goes in line with the participants wanting to avoid the consequences of reporting honestly about alcohol consumption. Anonymity is a technique that was highlighted in the reviewed literature (Bergen & Labonte, 2020; Krumpal, 2013; Steenkamp et al., 2010); however, lowering punishment was not a technique that was highlighted due to the unique nature of U.S. military members.

Although the fear of jeopardizing careers over alcohol use was one of the theories for underreporting (Anestis et al., 2015; Krumpal, 2011) because none of the literature was specifically about the underreporting of alcohol use among U.S. military members, there were no techniques available. The literature about underreporting among U.S. military members, such as Morall et al.'s (2016) research, was about reporting sexual, emotional, and physical abuse. This technique did not and would not apply. Changing the

culture and social norms of alcohol consumption is supported by social desirability bias. Lowering the stigma around reporting honestly and seeking help about their excessive alcohol use falls in line with reducing social desirability bias (Dudou & Winter, 2014).

The reasons for drinking were supported by Roth and Cohen's (1986) avoidance coping and Paulhus' (1984) social desirability bias. Most participants who disclosed alcohol consumption agreed that it was due to stress relating to their job and the military that drove them to cope with alcohol use. Some specifically called it escapism. However, there were just as many who stated that it is due to the alcohol culture within the military that drives them to alcohol use.

Biblical Foundations

The present study resonates with the Biblical foundations regarding alcohol consumption and temperance. The Bible portrays wine as a blessing from God, capable of uplifting human spirits (ESV, 2016, Psalm. 104:14-15) and even possessing medicinal qualities (ESV, 2016, 1 Timothy. 5:23). However, it also warns against the perils of drunkenness, advocating for sobriety and moderation, as highlighted in Ephesians 5:18 and 1 Peter 5:8 (ESV, 2016). Phillips (2008) and Instone-Brewer (2019) further contextualize these principles, emphasizing the importance of avoiding excess and maintaining self-control when partaking in substances like alcohol.

The research explores coping mechanisms, which align with Biblical narratives surrounding stress relief and avoidance coping strategies. Proverbs 31:6-7 (ESV, 2016) shows that people turn to alcohol as a coping mechanism and cautions against its misuse, particularly among those in positions of authority. This Biblical perspective provides the ethical dilemmas faced by individuals choosing between relieving stress and exercising

restraint. Additionally, the discussion of temptation and deception, as outlined in Luke 4:1-13 and John 8:44 (ESV, 2016), provides a moral framework for understanding the motivations behind underreporting. While the Bible condemns lying and deception, it also understands the nuance of moral decision-making, especially when honesty may conflict with self-preservation.

In light of these Biblical teachings, it is evident that providing support and assistance to individuals struggling with alcohol-related issues is not only morally commendable but also aligns with Christian principles. James 5:16 (ESV, 2016) emphasizes the importance of mutual support within Christian communities, encouraging believers to confess their sins to one another and to pray for each other. Similarly, Romans 12:15 (ESV, 2016) underscores the value of empathizing with the experiences of others and offering assistance in times of need. By embracing these Biblical principles, military leaders and chaplains could play a pivotal role in addressing individuals with alcohol problems.

Implications

The present study gives a glimpse into the gap in the literature about the possible underreporting of alcohol use among U.S. military members. The findings align with the underlying framework theories of avoidance coping (Roth & Cohen, 1986) and social desirability bias (Paulhus, 1984).

Military organizations can use the present findings to help promote cultural and organizational changes to address the underreporting of alcohol use effectively. From the consensus of the participants' opinions, the current system set in place for military members to report their alcohol usage seems to be viewed as a hindrance rather than

supportive. Military leadership should prioritize efforts to challenge harmful social norms surrounding alcohol consumption and foster a more trustworthy culture around honest reporting.

According to a majority of the participants, the current system set in place for military members to report their alcohol usage is not only a hindrance but is viewed as actively harmful to military members. Policymakers should take this finding to incentivize military members further to come forward. Military leadership should prioritize destigmatizing help-seeking behaviors and promote an open leadership environment where members do not fear for their careers to come forward. The findings also show the importance of enhancing the current support services to be more encouraging about honest reporting and promote a more positive perception.

The present research findings also highlight the importance of social support and alternative coping mechanisms among service members. Military leadership should provide clear access to mental health resources, social support networks, and recreational activities to mitigate alcohol use as a coping mechanism. Military leadership could collaborate with the Chapel or local churches to provide the needed social support. Further, implementing changes to reduce the toxicity of the military environment to be more supportive would also be recommended.

Implications For Research

The implications for research from this study highlight the significance of understanding and addressing avoidance coping mechanisms and social desirability bias within military contexts. These findings suggest that future research should continue to explore how these psychological factors influence reporting behaviors and contribute to

underreporting of alcohol use. By utilizing these findings in theoretical models and research methodologies, future research could contribute to developing a new approach for addressing the underreporting of alcohol use and enhancing support systems within military organizations.

Limitations

There are several limitations to this present research. Some were foreseen due to the nature of the research, but others appeared as more data was collected.

Initial Limitations

Firstly, the qualitative nature of this research brings about the limitations of the small sampling size. Secondly, ethnographic research is subjective, and the data interpretation depends on the researcher's biases, values, and assumptions (Creswell & Poth, 2016, p. 92), which may have influenced data collection, analysis, and reporting. Thirdly, although I did reflect as the research progressed, the possibility of researcher bias being introduced does exist. In the data collection process, due to the self-reporting nature of the research, response bias may have affected this process. Thirty-two out of 35 participants agreed that underreporting of alcohol use does exist among U.S. military members. The overwhelming percentage of participants that agreed may be due to acquiescence bias which suggests participants may have agreed regardless of how they feel or believe to be true (Watson, 1992).

Post-Research Limitations

The present research participants' demographics are heavily skewed toward United States Air Force personnel due to the nature of my connections. The job demographic only accounts for aircraft mechanics and security forces. Although these

two jobs make up a large majority of the United States Air Force, the findings probably do not accurately portray the entirety of the Air Force or all five branches of the U.S. military.

I did not focus on the programs and processes in place for reporting alcohol use and interventions for military members. The focus was primarily on the perception of these programs and processes by the participants because the actual process seemed to be disconnected from the participants' perceptions of them.

Recommendations for Future Research

Qualitative research methods are useful for understanding the experiences and perceptions of military personnel, but future research should consider integrating quantitative methods to validate the qualitative findings. Conducting more large-scale surveys would validate these research findings and may show similar findings as the present research if it is properly controlled for anonymity.

Future research should focus on the programs and processes in place for reporting alcohol use and interventions for military members. When prompted, my research participants would state that they did not have much concrete knowledge of the programs and processes but are operating on their perception of them created through the lived experiences of others. Further understanding of why such negative perceptions exist may help alleviate the tension between military members and the corresponding programs and processes.

Future studies should examine this issue across all five branches of the military to expand the limited reach of this research: Army, Navy, Air Force, Marines, and Coast Guard. Considering their unique organizational structures, cultures, and operational

contexts, the results may differ from the present research. Additionally, while I focused mainly on enlisted personnel, future research should explore the underreporting of alcohol use among a broader range of military occupational roles. This approach could help identify occupation-specific risk factors and develop targeted interventions.

Summary

The purpose of this ethnographic research was to explore the possible underreporting of alcohol use among U.S. military members and the potential cause of the underreporting. The results of the present research showed that most participants believed that there are members who underreport their alcohol usage. Twenty-two out of 35 participants even disclosed their underreporting of alcohol use. The research results showed that the reason for underreporting seems to derive from the want to avoid mental health professionals and issues with their careers. In line with those reasons, the participants expressed techniques like lowering punishment and anonymity as viable techniques to facilitate honest reporting. Although the present study does not fully fill the gap in the literature for underreporting of alcohol use among U.S. military members, it does shine a light on the need for further research.

The implications of this research could help inform military organizations about the potential underreporting of alcohol use among U.S. military members, in line with theories of avoidance coping and social desirability bias. This present research suggests that the current system of reporting alcohol use in the military may discourage service members from seeking help. It is important to bring about cultural and organizational changes to make the system more supportive. Policymakers should encourage military personnel to seek help without fear of negative consequences. They should also work

towards destigmatizing, seeking help, and promoting an open leadership environment.

Social support and collaboration with religious institutions could play an important role.

In light of these findings, measures should be taken to foster a culture of transparency and support to ensure service members feel empowered to disclose their alcohol-related concerns without any fear of repercussions.

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APPENDIX A: PERMISSION REQUEST

Permission Request

7/8/2023

JBLM Public Affairs Team
100 Col. Joe Jackson Blvd. Suite 3068
Joint Base Lewis-McChord, WA 98438

Dear JBLM Public Affairs Team,

As a graduate student in the Department of Psychology at Liberty University, I am conducting research as part of the requirements for a doctorate degree. The title of my research project is *Identifying Potential Underreporting of Alcohol Use Among U.S. Military Members* and the purpose of my research is to find out if United States military members have been underreporting their alcohol usage, and if they are, to find out the reason for it.

I am writing to request your permission to conduct my research at JBLM and contact members of your organization to invite them to participate in my research study.

Participants will be asked to complete the attached survey and do an in-person interview with me. Participants will also be observed but not disturbed for a period of time. Participants will be presented with informed consent information prior to participating. Participating in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please respond by email to xxxxxx@liberty.edu. A permission letter document is attached for your convenience.

Sincerely,

Jeong Wha Hong
Liberty University

APPENDIX B: PERMISSION LETTER

Permission Letter

7/8/2023

JBLM Public Affairs Team
100 Col. Joe Jackson Blvd. Suite 3068
Joint Base Lewis-McChord, WA 98438

Dear JBLM Public Affairs Team,

After carefully reviewing your research proposal entitled *Identifying Potential Underreporting of Alcohol Use Among U.S. Military Members*, we have decided to permit you to conduct your research at JBLM and contact members of your organization to invite them to participate in your research study.

Check the following boxes, as applicable:

We grant permission for Jeong Wha Hong to contact Active Duty, Reserves, and Federal employees to invite them to participate in his research study.

Sincerely,

[Official's Name]

JBLM Public Affairs Team
Joint Base Lewis-McChord

APPENDIX C: VERBAL RECRUITMENT

Verbal Recruitment

Hello Potential Participant,

As a doctoral student in the Department of Psychology at Liberty University, I am conducting research as part of the requirements for a doctorate degree. The purpose of my research is to find out if United States military members have been underreporting their alcohol usage, and if they are, to find out the reason for it. If you meet my participant criteria and are interested, I would like to invite you to join my study.

Participants must be or have been in one or more of the United States military branches. Taking part in this research project is voluntary. Participants, if willing, will be asked to do an in-person interview that will take anywhere from 40 minutes to however long the participant wants to talk. I will also make observations and take notes throughout the research period; however, the participants should not be affected by that. Names and other identifying information will be requested for this study, but the information will remain confidential.

Would you like to participate?

Yes: Great, can we set up a time for an interview?

No: I understand. Thank you for your time.

A consent document will be given to you at the time of the interview. The consent document contains additional information about my research. If you choose to participate, you will need to sign the consent document and return it to me at the time of the interview.

Thank you for your time. Do you have any questions?

APPENDIX D: EMAIL RECRUITMENT

Email Recruitment

Dear Potential Participant,

As a doctoral candidate in the Department of Psychology at Liberty University, I am conducting research as part of the requirements for a doctoral degree. My research aims to find out if United States military members have been underreporting their alcohol usage, and if they are, to find out why. I am writing to invite you to join my study.

Participants must be or have been in one or more of the United States military branches. Taking part in this research project is voluntary. Participants, if willing, will be asked to do an in-person interview that will take anywhere from 40 minutes to however long the participant wants to talk. I will also make observations and take notes throughout the research period; however, the participants should not be affected by that. Names and other identifying information will be requested for this study, but the information will remain confidential.

To participate, please contact me at xxx-xxx-xxxx or xxxxxx@liberty.edu to schedule an interview. If you meet my participant criteria, I will work with you to schedule a time for an interview.

A consent document will be given to you during the interview. The consent document contains additional information about my research.

If you choose to participate, you must sign the consent document and return it to me at the time of the interview.

Sincerely,

Jeong Wha Hong
Liberty University
Phone:
Email:

APPENDIX E: CONSENT FORM

Consent

Title of the Project: Identifying Potential Underreporting of Alcohol Use Among U.S. Military Members

Principal Investigator: Jeong Wha Hong, Doctoral Candidate, Psychology Department of Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be or have been in one or more of the United States military branches. Taking part in this research project is voluntary.

Please read this entire form and ask questions before deciding whether to participate in this research.

What is the study about and why is it being done?

The study aims to find out if United States military members have been underreporting their alcohol usage, and if they are, to find out why.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

1. As I will conduct the research during work hours and off hours, pay no attention to my making of observations and note takings. The observations will include apparent work related stressors, habits (such as alcohol consumption), and comments relating to mental and emotional health.
2. An in-person interview that will take anywhere from 40 minutes to however long you want to talk.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from participating in this study.

Benefits to society include a better understanding of military culture, alcohol use, and the relationship between them.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses and observations made of them will be kept confidential by replacing names with pseudonyms.
- Interviews will be conducted in a location where others will not easily overhear the conversation.
- Data will be stored on a password-locked computer. In three years, all electronic records will be deleted.
- Recordings will be stored on a password-locked computer for three years and then deleted. The researcher of his doctoral committee will have access to these recordings.

Is study participation voluntary?

Participation in this study is voluntary. Your decision on whether to participate will not affect your current or future relations with Liberty University or your branch of service. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address/phone number:

Email:

Phone:

Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Jeong Wha Hong. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at the phone number and email listed above.

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) ensures that human subjects research will be conducted ethically as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy of the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

The researcher has my permission to audio-record me as part of my participation in this study.

Printed Subject Name

Signature & Date

APPENDIX F: CONFIDENTIALITY STATEMENT

Confidentiality Statement

I, Jeong Wha Hong, certify that I will maintain strict confidentiality regarding the information obtained during the in-person interview conducted with the participant. I acknowledge that I will not disclose sensitive information to anyone outside of the participant.

The sensitive information, such as audio recordings, transcripts, and field notes, will be safeguarded through the use of password-protected computer. Throughout the research, pseudonyms will be used for participants to preserve the anonymity. In the event of a breach of confidentiality, participants will be promptly notified to disclose any unauthorized access.

Researcher's Name:

Researcher's Signature:

Date:

Participant's Name:

Participant's Signature:

Date:

APPENDIX G: INITIAL QUESTIONNAIRE

Today's Date: _____

Military Branch: _____

Dates of Service: _____

Gender: _____

Relationship Status: _____

Ethnicity: _____

Job in the Military: _____

Age: _____

Current/Last Rank: _____

APPENDIX H: AUDIT-C (ALCOHOL CONSUMPTION SCALE)

Q1: How often did you have a drink containing alcohol in the past year? (please circle one)

		Two to four	Two to three	Four or more
Never	Monthly or less	times a month	times a week	times a week

Q2: How many drinks did you have on a typical day when you were drinking in the past year? (please circle one)

None	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
------	--------	--------	--------	--------	------------

Q3: How often did you have six or more drinks on one occasion in the past year? (please circle one)

	Less than			Daily or almost
Never	monthly	Monthly	Weekly	daily

APPENDIX I: SEMI-STRUCTURED INTERVIEW GUIDING QUESTIONS

*Prior to the interview, share a private study about my own alcohol use, military experiences and experiences with PHA and DHA.

Semi-Structured Interview Guiding Questions

1. For confidentiality purposes, do you have a pseudonym you would like to use?
Anything is fine as long as it's appropriate. (assign a pseudonym at this time).
2. I am interested in learning about your military experiences. What made you join?
What was/is your job? What's the plan after?
3. Have you deployed? If so, please describe the deployments.
4. Were you ever in a combat zone?
5. How did you pass the time during the deployment?
6. How do you pass the time now?
7. Do you still keep in contact with people you've deployed with?
 - a. IF YES, What do you do when you meet up with the people you've deployed with?
8. Do you hang out with other military members outside of your work?
 - a. What do you do when you meet up with them?
 - b. How often do you go out with them? It doesn't have to be with them. With anyone.
9. Do you usually put that on the PHA (periodic health assessment)?
10. If no, is there a reason why you didn't?
11. Do you think other people answer honestly?
12. How many people do you think underreport how much they drink?

13. Why do think think they would do that (underreport)?
14. Do you have any suggestions to increase someone's honesty in alcohol use reporting?
15. In your opinion, why do you think military people drink so much?
 - a. Can you think of any methods to get people to drink less?
16. Have you had any problems with alcohol? Or do you know anyone that does?
17. Would you say that the military in general does a good job in helping people with alcohol problems?
 - a. IF YES: Can you tell me what they do to help?
 - b. IF NO: What do you think the military should do as an organization to try to help?
18. Do you feel like your leadership cares in general about military members' heavy alcohol use?
19. What do you think the best solution would be to help people with alcohol problems?