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Research Article

Military Culture, Substance Use as a Coping Mechanism and Fear of Military Personnel of Obtaining Treatment

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Abstract

Substance abuse among U.S. military service members is an ongoing problem in the military. As the number of deployments is steadily increasing, so are levels of stress among service members. Multiple deployments create emotional and physical burdens, yet service members have to be physically and emotionally ready to defend the nation. A major problem is that the military culture can evoke inner conflict and create guilt and shame because of their strong need to achieve the missions. Moreover, the military culture, which places its value on the needs of the organization over one's own needs, thus implicitly discouraging service members from speaking out about their personal problems. In this study, a newly developed scale, created by Ganz is utilized to assess the assimilation of the military culture. In that first study of the Ganz Military Culture Scale, she had a sample of approximately 2/3 marines and the other third were from the air force or the army. Ganz examined the relationship of adherence to the military culture and mental health stigmas. This follow-up study focused on Marines almost exclusively and examined adherence to the military culture, the use of substances for coping and fear of obtaining treatment. The data was collected during 2018-2019 by the senior author as part of her dissertation requirements making her the primary researcher and writer of the document. The primary researcher served in the Marine Corps and was intrigued by the expanding concerns related to the misuse of substances by service members. The results revealed that significant gender differences were found for a degree of adherence to the military culture. Furthermore, those Marines who had sought mental health treatment after joining the military reported fewer concerns about whether such treatment would hurt their careers. In contrast, those who did not seek mental health services expressed strong concerns about how such treatment would affect their military careers. These results strongly suggest that a major impediment to seeking mental health treatment for service members is their apprehension of potentially losing their careers.

Introduction

In 2014, approximately 22,000 applicants joined the active duty military [1]. With hopes of successfully defending the country against enemies foreign and domestic, these applicants go through a basic military training widely known as Boot Camp [2]. Regardless of the branch of service, all recruits are forced to live in a structured lifestyle as soon as they enter Boot Camp. The common military core values, such as honor, courage, selfless service, and devotion to duty, are religiously taught throughout the initial training. A common expression in the Marine Corps is "Pain is a weakness leaving the body.", and most of the recruits, through intensive training, eventually believe that tolerating pain is highly valued [3]. By the time these recruits graduate Boot Camp, injuries and illness of any kind are considered to be personal weaknesses.

Moreover, the core values of the military organizations are so profoundly embedded in the mind that service members feel it is appropriate and even an honor to minimize one's needs in order to accomplish the missions of larger groups [3,4].

Stigma regarding mental illness is frequently cited in many studies [4-7] However, stigma associated with mental illness in the military population is of epidemic proportions among military personnel [5-8]. Many service members feel that seeking mental health and/or medical treatment is a sign of weakness. Indeed, a recent study measuring stigma as a barrier to help-seeking behavior in the military suggests that approximately 60% of service members do not seek treatment even when they experience problems that impact their health [8].

Since service members are constantly reminded by their leaders to demonstrate their devotion to their organization and to the country by selflessly pushing themselves to their limits, a self-sacrificing attitude steadily develops in order to achieve their tasks.

Each service member's responsibility to fulfill one's duty becomes so pronounced that being seen as weak is detrimental to them. Meta-analyses of stigma related to mental health problems reveal that 42.9% of stigma was related to "I would be seen as weak" and 33.4% was related to "It would harm my career" [8].

Unquestionably, the military imposes a need to put up a masculine façade by service members [3,6]. Service members often undergo military inspections and other forms of scrutiny to assess their appearance and performance of competency. As mundane as is running in the morning, the service members' ability to push through the pain is regularly evaluated. Once a service member falls out of a formation run, a label of "nasty" or "unsat" (which is a shortened phrase of unsatisfactory) is used to describe the performance of the service member [3,6]. Certainly, scrutiny is everywhere in the military, and demonstrating the ability to meet a set of physical and mental competency criteria established by their command, as well as by the organization is crucial for award recognition. Thus, such recognition enhances the service member's career in the military.

In order to have an outstanding career in the military, service members need to have clean medical and service records. For those service members who suffer from mental health related problems, such invisible wounds do not receive proper attention. Furthermore, stigma associated with mental health is so prominent that service members often neglect to seek help in spite of their hampered ability to perform their duty. A study that focused on a relationship between stigma and help-seeking behavior indicated that 44.2% of stigma was associated with "My unit leaders might treat me differently" [8]. Despite the federal right to privacy of medical and psychological health information under the Health Insurance Portability and Accountability Act (HIPAA) of 1996, personal information pertaining to medical and psychiatric problems is often disclosed, thus preventing service members from seeking necessary help and treatment that is viewed as personal needs [8,9].

Since the U.S. military involvement in Iraq and Afghanistan, the number of service members who were diagnosed with mental illness, including posttraumatic stress disorder (PTSD), depression, thoughts of suicide and traumatic brain injury (TBI), have steadily increased. Approximately, 18.5% of service members who served in Iraq and or Afghanistan have reported being diagnosed with PTSD or depression, and 19.5% of service members are diagnosed with TBI (Substance Abuse and Mental Health Services Administration [10].

In the five years between 2005 and 2009, more than 1,100 service members took their own lives, which equates to 1 death every 36 hours [10]. Furthermore, the most recent statistics obtained from the Department of Defense Quarterly Suicide Report suggested that 110 service members have committed suicide in the first quarter of 2016 [11]. Despite the slight decrease in the incidence rate compared to the peak of suicides in 2012, efforts offered by the Department of Defense and Veterans Affairs to assist those former and current service members in need of treatment are falling short.

One specific area of difficulty appears to be alcohol abuse. Various studies have found that the excessive use of alcohol is still common among service members [12]. Indeed, the history of heavy alcohol consumption in the military is well established [13]. Service members habitually use alcohol as a way to relax and connect with fellow soldiers, airmen, seamen, and marines after work and during weekends. Numerous studies suggest that high levels of stress stemmed from their obligation to perform their duty regardless of their condition [11,14]. In addition, alcohol is an important part of military ceremonies, such as promotions and retirement of service members as well as birthdays. Researchers explain that excessive drinking is part of the ritualized behavior in the military [15]. The military culture that instills a deep sense of camaraderie and selflessness contributes to the ritualized behavior of drinking among service members. At the end of a day, drugs and alcohol are regularly used to deal with everyday stress in the military [8,14].

Moreover, the emotional stress experienced by service members has been especially heightened since the 9/11 attacks, as the U.S. military has ceaselessly sent troops to numerous battlefields as a result of the terrorist attacks. Many troops have already experienced multiple deployments, and they are constantly going through rigorous training under pressure when they are not deployed [16]. According to the 2015 Annual Military Family Lifestyle Survey, some of the major stressors expressed by service members and their families during the time in the military are multiple deployments, separation and isolation from friends and family, and marital and/or relationship issues [17]. It is undeniable that multiple tours of duty in dangerous locations, including Iraq and Afghanistan, along with tirelessly conducted training have emotionally drained service members. Moreover, repeated combat deployments create an unstable lifestyle for service members, thus not adequately allowing them to focus on their personal needs and the needs of their family.

Similarly, the common attitude of "suck it up" that is regularly quoted among service members also reinforces maladaptive coping behaviors where service members frequently resort to alcohol and drugs. This masculine attitude that overtly praises inhibition of emotional expression hinders service members' willingness to seek help for their personal problems. Separation from friends and family, rigorous duty, and multiple responsibilities, including defending the nation against terrorism are stressors that service members repeatedly encounter. Nonetheless, as service members are persistently dissuaded from asserting their own needs, emotional difficulty stemming from their personal and professional lives is inadvertently neglected.

Therefore, insufficient attention to their own needs instigates other alternative methods, such as substances to cope with their emotional distress [17]. SAMHSA [10] disclosed that 7.1% of former service members were diagnosed with a substance use disorder between 2014 and 2016.

Although this study does not address drug use other than alcohol, it still should be mentioned that trends in misuse of prescription drugs are another problem that is increasingly gaining attention [18]. In 1973 when the U.S. military withdrew from Vietnam, many service members who served in Vietnam in 1971 reported opioid use at least once and also reported opioid dependence at one point or more [19]. In order to combat the overlooked consequence of war, the Department of Defense enacted Directive 1010.01 to allow random urinalysis tests that were originally meant to identify individuals for treatment [19]. However, the program eventually became a tool to identify those service members who are struggling with drug addiction problems to be forced out of the military [20,21]. Although random testing was implemented in an attempt to impose "zero" tolerance of substance use on service members, recent research implies that those service members who are prescribed psychotropic drugs, such as opioids to cope with their injuries sustained during the time on service, are covertly developing dependency [21]. This issue requires its own investigation.

Statement of the Problem

The military culture vigorously values the appearance of physical and emotional strength to support mission accomplishment. Subsequently, the problem associated with the military's forceful nature is that service personnel unconsciously feel overpowering guilt and shame in regard their need for treatment. As a consequence, they ultimately justify their lack of seeking medical and/or psychological help by regarding treatment as a sign of weakness [7, 9]. Furthermore, the military culture, which places its value on the needs of the organization over one's own needs, implicitly discourages service members from speaking out about their personal problems. Recent research suggests that stigma associated with mental and physical health problems constrain treatment-seeking behavior of service members [8, 10].

According to the 2011 Department of Defense Survey of Health-Related Behaviors among Active Duty Military Personnel, 10.8% of current drinkers used alcohol as a way to forget about problems, 13.8% consumed alcohol to deal with their own bad moods, and that almost 9% drank to show a sign of camaraderie. Indeed, studies have long established a correlation among stress, consumption of alcohol and emotional struggles [14]. As a decade of war in Iraq and Afghanistan officially ended, the service members who served in warzones are now suffering from physical injuries and mental health problems sustained during the combat [22]. Consequently, many service members who are struggling with physical and psychological injuries are now reaching for a quick remedy by misuse of alcohol. Ultimately, service members become prone to dependency problems with substances. However, substance misuse and abuse are not successfully treated by the military in spite of the awareness of the widespread problems.

Nevertheless, dependency problems with substances obstinately continue years after service members' combat experience.

Albeit copious research regarding problems related to substance abuse and misuse in the military exists, there is a paucity of understanding about a relationship between the military culture and its influence on service members toward help-seeking behavior [23]. The intent of this study is to expand the current understanding of the influence of the military culture on service members and how the culture influences service members' coping skills, especially with abuse or misuse of substances. In a prior study, Ganz A [23] created a scale to assess the extent to which an individual personally endorses the 8 recognized values encapsulated by the Military Culture. This study utilized the Ganz Scale of Identification with Military Culture to assess the participant's level of identification with each of the 8 values espoused by the military culture.

The sample included active duty service members who have been in the service for more than a year. Specifically, this study sought to determine if there is a relationship between adherence to the military culture and the use of alcohol to cope with psychical and emotional distress rather than to obtain professional assistance.

Methods

Participants

The respondents were active duty US Military service members, from any branch of service, with at least one year of time in service upon completion of the boot camp and military occupational specialty school and had to be at least 18 years of age. There were no restrictions to gender, rank, military occupation, country of citizenship, or ethnicity. The sample was recruited using a snowball sampling technique. An initial survey was sent via email to a list of active duty military personnel from personal contacts of the primary researcher for further dissemination of the emails to their personal contacts. The email included a recruitment letter that provided details about expected time required to fill out the survey (see Appendix A for a copy of the recruitment email), purpose of the study and the procedures that would be followed. A digital form of informed consent was attached to the recruitment email and was also included in the initial instruction of the SurveyMonkey survey. Completion of the survey indicated that informed consent was acknowledged and agreed to by participants.

Measures

Demographic questionnaire: The respondents were asked to complete a demographic questionnaire that would help to identify any limitations to the generalization of the findings from this study. The demographic questionnaire was kept anonymous and did not collect any personally identifiable information. The demographic questionnaire asked for branch of service, status of service (to ensure meeting of the inclusion criterion), rank, age, gender, marital status, military occupation, time in service, and combat experience. The demographic questionnaire also allowed respondents to indicate whether they had sought treatment for mental health concerns prior to joining the military, had sought treatment for mental health concerns after joining the military, were open to mental health treatment, were open to physical health treatment,

had used substances (such as alcohol and/or prescriptions prior to joining the military), or had been diagnosed with or treated for substance-related disorders previous to boot camp. Ganz Scale of Identification with the Military Culture (GIMC) – This inventory was developed by Ganz A [23], and there do not appear to be any scales to assess the extent to which individual service members personally endorse the various components of the U.S. Military Culture. The Ganz scale (GIMC) consists of eight statements that address eight core values of military service (Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, Personal Courage, Commitment). Each statement allowed the participant to identify their level of agreement with how each core value impacted their view or belief relevant to the military culture. Each response was marked on a 7-point Likert scale from "Not at All" to "Very Much" to indicate the agreeableness of the question. This research study was the second use of the GIMC; therefore, its reliability and validity were currently unknown. However, Ganz found that her scale differentiated active duty military personnel from a general population sample while also showing that some of the values of the military culture are equally shared by the general population.

Procedures

By accessing the survey, potential participants acknowledged their consent to participate. Participants who accessed the survey initially completed the Informed Consent form on the online survey and then completed an online survey that consisted of a demographic questionnaire, along with other questions to identify participants' beliefs, attitudes, behaviors related to diverse aspects of mental health and military lifestyle, and the GIMC (in that order) through Survey Monkey.

All the information that was gathered through the survey was anonymous, as no identifying information was obtained. All information that was collected was kept on a password-protected computer to which only the researcher and the research Chairperson had access. Additionally, the data will be kept for three years and then subsequently destroyed to guarantee privacy of individuals' responses and anonymity of the participants. Once the survey was completed by a participant, each respondent received a digital debriefing statement with the researcher's contact information. Also, respondents were notified that their voluntary participation in this research study would result in a $5.00 donation to the Disabled American Veterans Charitable Service Trust for each completed survey as a token of appreciation for their participation.

Results

Demographic information is presented in Table 1 below. Out of 90 participants who completed some or all responses on the survey, there were 73 female participants (81 %) whereas there were only 17 male participants (19 %) in the sample. In respect to age, a majority of the participants were between the ages of 21 and 34. However, the sample did not proportionately represent the branches of service. In particular, there were no participants from the U.S. Air Force or from the Coast Guard, while 90 % (n=81) of the participants were from the U.S. Marine Corps. Further statistical analyses were conducted using the SPSS software (Version 2018) package.

Table 1: Demographic Characteristics of the Sample for Those Who Answered All Questions as well as for Those Who Did Not.

Demographic characteristics	Total (n = 90)	Completed all (n = 81)	Not completed all (n = 9)
Gender			
Male	17	17	0
Female	73	64	9
Age			
21-25	28	24	4
26-34	49	44	5
35 or above	13	13	0
Branch of service			
U.S. Air Force	0	0	0
U.S. Army	7	6	1
U.S. Navy	2	2	0
U.S. Marine Corps	81	73	8
U.S. Coast Guard	0	0	0
Time in service			
1-5 years	49	44	5
6-10 years	24	21	3
11-15 years	9	9	0
16-20 years	3	3	0
20 or more years	4	4	0

Endorsement of the military culture and substance use

Analyses were conducted to determine if there were simple relationships between endorsement of the military culture (GIMC scale) and the measures reflecting substance use. None of those analyses revealed significant relationships between any of the components of the GIMC and the substance use measures.

Effects of the military culture (GIMC) and deployment

Almost half of the participants in this study had been deployed at some point in their military careers. In regard to the questionnaires completed by the participants, two significant effects were found of the GIMC for those service members who were deployed compared to those who were not. The means and standard deviations are presented in Table 2. It can be seen in Table 2 that those who were deployed more highly endorsed the military value of Loyalty than did those who were not deployed ($F(1, 81) = 6.54$, $p = .012$). In addition, those who were deployed also endorsed the military value of Commitment more highly than those who were not deployed ($F(1, 81) = 6.54$, $p = .019$).

Table 2: Relationship of Deployment and Military Culture (GIMC).

	Loyalty		Commitment	
Deployed	**M**	**SD**	**M**	**SD**
Yes (n = 38)	3.89	1.351	4.42	0.683
No (n = 45)	3.36	1.264	3.98	0.965

Having mental health treatment before and after joining the military

Data analyses revealed that there were 2 significant differences between service members who had obtained mental health treatment before entering the military and those who had not received mental health treatment before entering the military (and one difference that approached conventional levels of statistical significance). There also were 9 significant differences between service members who obtained mental health treatment after having served. These differences will be detailed below separately for treatment before and treatment after joining the military.

Having had mental health treatment before military service v those who had not

There were only eight respondents who reported having had received mental health treatment before serving, whereas the rest of the 73 respondents did not. Moreover, there were two questions on which there were significant differences between those who had sought treatment before their military service and those who had not. The two questions on which there were significant differences are presented next in Tables 3&4. There was one difference that approached conventional levels of statistical significance, and that outcome is reported here also and is presented in Table 5.

Table 3: Question 20- Do You Go Out for Drinking Because You Feel Alcohol Helps You Deal with Your Problems?.

Sought Treatment Before Military	Mean	SD	F (1, 76)	p
Yes = 8	2.38	1.302	2.751	.016
No = 73	3.63	1.3		

Table 4: Question 34- How Often During the Last Year Have You Been Unable to Remember What Happened the Night Before Because of Your Drinking?.

Sought Treatment Before Military	Mean	SD	F (1, 76)	p
Yes = 8	2.38	1.188	4.249	.043
No = 73	1.49	0.801		

Table 5: Question 35- Has a Relative, Friend, Doctor, or Other Health Care Worker Been Concerned About Your Drinking or Suggested You Cut Down?.

Sought Treatment Before Military	Mean	SD	F (1, 76)	p
Yes = 8	2	0.926	3.294	.073
No = 73	1.34	0.609		

Having had mental health treatment after joining the military v. those who had not

There were 9 significant differences between the 50 participants who obtained mental health treatment after joining the military compared to the 31 who had not obtained treatment after joining the military. The reader's attention is called to the fact that only 8 of the participants had received mental health treatment prior to their military service, but after serving, 50 (a majority) had received mental health treatment after serving – by the time of this study). The following 9 tables present those 9 significant differences. (Table 6-14)

Table 6: Question 17-Do You Feel that You Have Someone in Your Chain of Command Who Understands and Supports You?

Sought Treatment After Military	Mean	SD	F (1, 77)	p
Yes = 50	2.98	1.22	8.26	.005
No = 31	2.19	1.078		

Table 7: Question 22-Do You Feel Talking About Your Emotional Struggles Makes You Look Weak or Unfit for Duty?

Sought Treatment After Military	Mean	SD	F (1, 77)	p
Yes = 50	2.14	1.088	6.905	.010
No = 31	2.9	1.399		

Table 8: Question 23- Do You Do Physical Fitness Activities or Exercise to Refresh Your Mind?

Sought Treatment After Military	Mean	SD	F (1, 77)	p
Yes = 50	2.32	1.133	4.987	.028
No = 31	1.74	0.999		

Table 9: Question 25- Do You Feel that Being in the Military has Influenced You to Numb Your Feelings with Medications?

Sought Treatment After Military	Mean	SD	F (1, 77)	p
Yes = 50	3.46	1.297	5.952	.017
No = 31	4.13	1.147		

Table 10: Question 26-Do You Feel that Telling Your Superior About Your Personal Problems May Lead to a Negative Consequence?

Sought Treatment After Military	Mean	SD	F (1, 77)	p
Yes = 50	2.2	1.01	7.644	.007
No = 31	2.9	1.221		

Table 11: Question 27-Do You Feel that Talking to a Chaplain or Military Psychologist May be Perceived as Unfit for Duty?

Sought Treatment After Military	Mean	SD	F (1, 77)	p
Yes = 50	2.58	1.18	6.035	.011
No = 31	3.23	1.146		

Table 12: Question 29- Do You Feel that Asking for Help is Looked Down Upon?.

Sought Treatment After Military	Mean	SD	F (1, 77)	p
Yes = 50	2.14	0.969	8.239	.005
No = 31	2.77	0.99		

Table 13: Question 30-Have You Been Exposed to or Experienced a Traumatic Event that May Still Affect You?

Sought Treatment After Military	Mean	SD	F	p
Yes = 50	1.12	0.328	7.84	.006
No = 31	1.39	0.495		

Table 14: Question 31- Do You Have Constant Worries or Anxiety?

Sought Treatment After Military	Mean	SD	F (1, 77)	p
Yes = 50	1.12	0.328	3.142	0
No = 31	1.65	0.486		

Gender differences

There were significant gender differences on four of the GIMC scales. Those differences are presented in Table 15. It can be seen in Table 15 that the males' scores are significantly higher than the females on all four of those sub-scales of the identification with the military culture for which there were significant differences.

Table 15: Significant Relationship of Gender and Military Culture (GIMC).

	Males		Females		F (1, 81)	p
GIMC	M	SD	M	SD		
Loyalty	4.18	1.074	3.45	1.349	4.171	0.044
Duty	4.71	0.47	4.21	0.969	4.135	0.045
Selfless Service	4.65	0.493	4	0.977	6.959	0.010
Commitment	4.65	0.493	4.06	0.909	6.533	0.012

Gender and deployment

There was one significant interaction (F (1,79) = 5.532, p = 0.021) that occurred for the interaction of gender and deployment on the Loyalty value of the military culture (GIMC scale). The means and standard deviations are presented in Table 16. It can be seen from Table 16 that the highest Loyalty scores were reported by male service members who were deployed. The next highest scores were obtained by female service members who were deployed followed by the scores on Loyalty obtained by female service members who were not deployed. The lowest scores on Loyalty were reported by men who were not deployed. However, since these lowest scores were obtained from the two participating men who were not deployed, those results must be viewed with caution.

Table 16: Significant Relationship of Gender, Deployment, and Loyalty (GIMC).

	Male (Loyalty)		Female (Loyalty)	
Deployed	M	SD	M	SD
Yes	4.47 (n = 15)	0.743	3.52 (n = 23)	1.534
No	2.00 (n = 2)	0	3.42 (n = 42)	1.258

Discussion

This study attempted to identify whether there is an association between the degree to which a service member identifies with the military culture and the use and dependence on substances, specifically alcohol. Although all efforts were made to collect as many participants as possible from all branches of service, the findings in this study were obtained primarily from those who had served in the Marines and with a predominantly female sample. No relationships were found between endorsement of the military culture and the use of substances for coping for this mostly female sample of Marines. Furthermore, it is important to note that the initial hypothesis that the adherence to the military culture potentially influencing service members' inclination to rely on alcohol as a coping method was not supported in this study.

However, the study found that there were several significant relationships between whether a service member had received mental health services before joining the military and the use of alcohol. In contrast, there were nine relationships found between the use of alcohol and seeking mental health services after joining the military. In addition, there were several significant relationships between gender and endorsement of the military culture, having been deployed, and alcohol use.

Effects of having received mental health treatment before military service

Findings related to having received mental health services before joining the military and alcohol use indicate that those who were willing to seek help for mental health concerns before joining the military were less likely to depend on alcohol to deal with their problems than did those who had not had mental health treatment before joining the military (question 20). This finding suggests that those who had sought treatment before the military were likely to be more open to facing their problems than to avoid the problems by drinking alcohol. However, those who reported having received mental health treatment prior to joining the military also reported that when they drank alcohol, it is more of a problem for them (questions 34,35) (Tables 4&5).

The relationship between seeking mental health treatment before military service and the frequency of drinking alcohol, and not remembering what happened the night before due to drinking (question 34) (Table 4), and also having a relative, friends or other health care workers concerned about their drinking indicated that for these service members drinking alcohol is problematic (question 35) (Table 5). At first glance, these results might seem paradoxical that those who had mental health treatment before military service reported being less likely to use alcohol to cope yet report greater concerns from themselves and others when they do drink. One possible interpretation for these results is that those people who sought treatment before the military might be more honest and realistic about their drinking behavior than their counterparts who did not seek mental health treatment before joining the military, and others may be particularly alert to them when they drink.

Effects of having received mental health treatment after joining the military

Findings related to having received mental health services after joining the military and substance use reveal a different problem. For instance, those who reported receiving mental health services after joining the military indicated that they were less likely to use alcohol to deal with their problems than service members who did not seek help (question 20), that they felt that the military had not been as much of an influence on them to use medications to numb their feelings (question 25) (Table 9), and that they were more likely to use physical exercise to "refresh" their minds (question 23) (Table 8).

Those who had sought treatment since joining the military reported that they felt someone in the chain of command understood them (question 17) (Table 6), that seeking mental health services did not likely make them look unfit for duty (question 22) (Table 7), that they were less likely to feel that telling a superior about personal problems may lead to a negative consequence (question

26)(Table 10), and that they reported that they were less likely to feel that talking to a chaplain or military psychologist may be perceived as them being unfit for duty (question 27) (Table 11). In addition, they also felt less concerned that asking for help will be looked down upon (question 29) (Table 12).

These findings should also be discussed from the opposite perspective. In other words, those who had not obtained treatment after joining the military reported that they felt that such action would be looked down upon, would cause them to be seen as unfit for duty, that even talking about such problems would make them look unfit, and even more problematic for them if they talked to the chaplain or a psychologist. These findings provide strong support for a possibility that a major reason that those who do not seek help believe that it will hurt their careers if they do seek help, yet they clearly reported constant worries and still being affected by trauma.

These findings raise great concerns because those who have not sought help after their service reported a higher rate of having experienced a traumatic event (question 30). They also reported a higher rate of having constant worries and anxiety. Sadly, these findings suggest that these service members are not getting the mental health services they need, and a major factor is that they believe the military does not support service members obtaining such services.

Effects of deployment and gender differences

Findings related to those who deployed to a combat zone and the military culture indicate that both male and female service members who experienced a combat deployment report a higher level of loyalty and commitment. In particular, male military personnel who have gone through a combat deployment showed a significantly higher level of loyalty than the women as well as a higher level of loyalty than (the two) male military personnel who had not deployed. This remarkable gap between the deployed personnel and non- deployed personnel among men suggests that undergoing a combat deployment, including the arduous work of having additional pre-deployment training, being in a combat zone, carrying a weapon 24/7 to accomplish the missions, and wearing the uniform that represents the US, substantially promotes feelings, attitudes, and beliefs related to loyalty.

Furthermore, the comparison between the male service members' attitudes and beliefs pertaining to loyalty, duty, selfless service, and commitment and those of the female service members reveals that men have higher reported levels of loyalty, duty, selfless service, and commitment. This phenomenon possibly indicates that male service members tend to experience a higher level of camaraderie, as the military is predominantly organized by men rather than women, especially in the Marine Corps. Therefore, it is likely that this cohesive dynamic augmented the bonding relationship among male service members, thus resulting in higher levels of loyalty, duty, selfless service, and commitment.

Smith, et al. [24] noted in their study that self-reported symptoms of PTSD were significantly increasing among service members with combat exposures in comparison with service members without exposures. Although this study did not assess the severity of PTSD and the quantity of deployment, the finding from Smith et al. seems to be consistent with this study. Likewise, the data from this study revealed that combat exposures increase a level of loyalty, duty, selfless service, and commitment among service members, and because service members demonstrate higher levels of loyalty, duty, selfless service, and commitment to the missions, the military organization, and the country, they would perhaps place themselves in a riskier situation, thus being more prone to having symptoms of PTSD.

Similarly, the results from the largest population-based research that measured longitudinal medical and psychological health effects of military service in 2001 indicated that there was a significant correlation between service members who have deployed to combat areas and substance abuse, especially alcohol abuse and misuse [25]. This correlation found from the largest population-based research is both consistent with some of the findings of this study and inconsistent with other finding from this study.

It is consistent because the data from this study provided robust support for a possible reason for which service members likely have a fear of losing their careers if they seek help. Subsequently, this fear would increase service members' likelihood of choosing substances, such as alcohol, to numb their disturbing thoughts and feelings inflicted by combat and move on with their military service. However, it is important to note that the relationships described above are the pattern manifested by service members who did not seek mental health treatment. Therefore, the finding from Smith et al. [24] is inconsistent for those service members who were able to seek help, as they reported that they did not drink alcohol to deal with their problems.

Likewise, the finding from the study conducted by McCabe, et al. [26] suggested the rising trends of prescription misuse over the past 20 years in the United States. Although this study did not specifically assess the misuse of prescriptions, the finding is consistent with the findings from this study. A majority of service members who did not or could not seek mental health-related treatment reported that they used alcohol as a way to deal with their problems. Interestingly, the relationship between the service members' inability or unwillingness to seek help and their behavior of using alcohol as a way to cope with their physical and/or emotional struggles is impeding healthy recovery. While there was a small group of service members who decided to seek treatment and who also understood that the use of alcohol was not part of their coping mechanisms, it is crucial to recognize that a majority of service members endorsed the finding stated by McCabe et al. that prescription use is an increasing problem.

Clinical Implications

Sadly, those who reported not having obtained mental health treatment reported three very significant differences from those

who had obtained treatment. First, they reported that they had a greater amount of worries. Second, they reported that they were suffering from a trauma more than those who had obtained treatment. Third, in response to several related questions, those who had not obtained treatment despite their greater worries and suffering from trauma believe that talking about their distress will hurt their careers. Therefore, it is essential that the military branches increase their efforts to remove the stigma of mental health treatment and approve of, support, and encourage service personnel to attend to their mental health needs as much as to their physical health needs.

In addition, the incorporation of various types of personality development measures that constructively assess the levels of self-awareness, acceptance, and willingness to deal with one's own problems could benefit those serving in the military. One benefit of adding such values to the military culture would be service members' openness to receive mental health-related treatment. Further, providing psychotherapy or counseling on a regular basis or even as part of service members' requirement may significantly promote the overall health of service members.

Moreover, including regular "counseling" sessions with mental health professionals would provide multiple benefits. First, it would remove much stigma from mental health services because the military would be including such services the same way as any other basic training activity. Second, it would help service members address mental health issues before they become unmanageable. Third, it would help service members to be more comfortable with talking with mental health professionals. In other words, such a regimen would facilitate service members to maintain higher standards of physical and mental readiness and commitment to achieve their missions.

Limitations and Directions for Future Research

There are a number of limitations in this study. The first one is that, in spite of the purposive sampling, participants could have ongoing struggles that developed prior to joining the military to use substances as their coping strategy. Thus, while the Military Culture can exacerbate individuals' propensity to use substances, identification with the Military Culture may or may not be the primary factor that influences their use and dependence on drugs. Therefore, future studies would need to obtain more information about the participants' use of substances prior to their military experience.

Another limitation is that a majority of potential participants were from one branch of service (the Marines). It may be that the relationship of adherence to the Military Culture and the relationship to alcohol use may differ among the different branches of the military. Similarly, the present sample was primarily of women who were in the Marines, and they differed greatly from men in the Marine Corps. Thus, these results regarding the military culture and substance use are not only most applicable to Marines, but especially to female service members in the Marine Corps.

There is also a limitation in regard to the measurement of the construct. Service members may not have reported their usage and dependence on substance truthfully since they often normalize their difficulty by telling themselves and others to tough it out, or they may feel a strong need to conform to the perceived expectation of how service members should act. Another limitation is that no independent data was available regarding the actual use of substances of these participants. Additionally, there is no known reliability and validity on the Ganz Scale, as it is newly created. While the Ganz Scale may have good face validity, further research will be needed to reveal its reliability and validity.

For future research, personality development measures should be integrated into the study of relationship between the use of substances and the military culture, using the Military Culture Scales (GIMC). This type of assessment would shed light on the detailed relationships between the specific personality qualities, such as self-awareness, acceptance, and willingness to deal with one's own problems; the likelihood of substance dependency, as well as displaying adherence to the military culture.

Conclusion

Based on the findings obtained here, it appears that service members who sought mental health treatment displayed higher and more mature levels of self-awareness and openness to deal with their problems compared to service members who never sought mental health treatment before joining the military. Although the stigma of mental health is unmistakable, especially in the military, it may be up to service members' stages of character development and their levels of inner maturity whether to seek appropriate help or to use substances as a coping method.

Essentially, the military culture by itself may not be the influencing factor of substance use, or at least not in a simple cause and effect relationship by itself. Moreover, the degree to which the military culture influences the behaviors, attitudes, and beliefs of service members may be closely related to the levels of self- awareness, acceptance, and willingness to deal with one's own problems. Clearly, service members who responded 'yes' to having treatment before and/or after joining the service show a consistent pattern of acknowledging their own vulnerability. Similarly, those who never sought mental health treatment also showed a consistent pattern of defending themselves against becoming or being perceived to be vulnerable, and thus, were specifically vulnerable to use of alcohol to cope.

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Conflict of Interest

None of the authors have a conflict of interest.

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