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Willingness to Seek Professional Help for Suicidal Thoughts: The Role of Masculine Norms and Self-Stigma in Service Members

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WILLINGNESS TO SEEK PROFESSIONAL HELP FOR SUICIDAL THOUGHTS:

THE ROLE OF MASCULINE NORMS AND SELF-STIGMA IN SERVICE

MEMBERS

by

Samantha Daruwala

A Thesis
Submitted to the Graduate School,
the College of Education and Human Sciences
and the School of Psychology
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Master of Arts

Approved by:

Dr. Michael D. Anestis, Committee Chair
Dr. Joye C. Anestis
Dr. Daniel W. Capron

_____	_____	_____
Dr. Michael D. Anestis	Dr. Sarah Jordan	Dr. Karen S. Coats
Committee Chair	Director of School	Dean of the Graduate School

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ABSTRACT

Given the high rate of suicide, it is important to understand what barriers are preventing service members from seeking professional help for suicidal thoughts. Self-stigma and conformity to masculine norms, which are evident in the military culture, have been demonstrated as barriers to care in civilians. This study sought to better understand how these two factors are related to willingness to seek professional help for suicidal thoughts and a personal-emotional problem among service members. Specifically, we (1) identified service members' willingness to seek help from a variety of sources for suicidal thoughts and a personal-emotional problem, (2) examined how conformity to specific masculine norms differ among male and female service members and civilians, and (3) examined how self-stigma of seeking help and conformity to masculine norms are related to willingness to seek help from a behavioral health professional (i.e., BHP) for suicidal thoughts and a personal-emotional problem. Results partially supported hypotheses. Male service members reported higher conformity to masculine norms than female service members and civilian males. Female service members reported higher conformity to masculine norms than civilian females. In both models (i.e., personal-emotional problem, suicidal thoughts), conformity to masculine norms had a significant indirect effect on willingness to seek help from a BHP through self-stigma of seeking help. The direct effect of conformity to masculine norms on willingness to seek help from a BHP was non-significant in both models. Findings suggest help-seeking campaigns and interventions may need to be culturally adapted to address self-stigma of seeking help.

ACKNOWLEDGMENTS

DEDICATION

I would like to dedicate this project to my parents and Toby. Their continuous

support and encouragement throughout this process has been vital to me pursuing my

goals.

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LIST OF ABBREVIATIONS

ANOVA   Analysis of Variance

BHP   Behavioral Health Professional

DoD   Department of Defense

M   Mean

QA   Quality Assurance

SD   Standard Deviation

SE   Standard Error

U.S.   United States

CHAPTER I - INTRODUCTION

Significance of U.S. Military Suicide Rates

Suicide became the leading cause of death for Active Duty United States (U.S.) military personnel in 2012 (Armed Forces Surveillance Center, 2014). According to the Department of Defense (DoD), there were 1,263 known suicide attempts and 478 suicide deaths within the military (i.e., Active Duty, Reserve, and Guard) in 2016 (Pruitt et al., 2018). The high rate of suicide deaths among military personnel has made suicide prevention efforts a high priority for the Department of Defense. Yet, the military suicide rate has continued to rise, and service members will often not seek professional help for mental health concerns (Hom, Stanley, Schneider, & Joiner, 2017). For example, only 4.7% of service members who died by suicide and 5.4% of those who attempted suicide in 2016 communicated their potential for self-harm (other than a suicide note) with mental health staff (Pruitt et al., 2018). Given the high rate of suicide, it is important to understand what barriers are preventing service members from seeking professional help for suicidal thoughts. However, no research to our knowledge has examined factors influencing help-seeking behavior for suicidal thoughts in service members. Accordingly, this study will examine how two factors, conformity to masculine norms and self-stigma of seeking help, are associated with willingness to seek professional help for suicidal thoughts among U.S. service members.

Barriers to Help-Seeking

Research has shown that military service members often do not seek professional treatment for mental health problems (Hoge et al., 2004; Kim, Thomas, Wilk, Castro, & Hoge, 2010) and underutilize mental health services (Ben-Zeev, Corrigan, Britt, &

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Langford, 2012; Schomerus, & Angermeyer, 2008; Vogt, 2011; Stotzer, Whealin, & Dardin, 2012). It is thus important to understand the barriers that are preventing service members from seeking professional help.

Service members' attitudes towards care has been identified as a barrier to professional help. Service members have reported a mistrust of providers and concerns about the treatment course, with specific concerns including being prescribed unwanted medications, difficulty relating and opening up to a provider, and not being treated for their presenting problem as reasons for not seeking care (Fikretoglu, Guay, Pedlar, & Brunet, 2008; Pury, Britt, Zinzow, & Raymond, 2013; Stecker, Shiner, Watts, Jones, & Conner, 2013; Zinzow et al., 2013). Additionally, studies have shown that service members may hold beliefs that treatment is ineffective and that they either do not need care or that it is better to handle the problem on their own (Hoge et al., 2004; Momen, Strychacz, & Viirre, 2012; Stecker et al., 2013; Valenstein et al., 2014; Zinzow et al., 2015).

Service members also report concerns regarding the potential negative impact seeking mental health services would have on one's career as a barrier to seeking professional help. In addition to concerns about general career harm, service members have reported being worried that mental health treatment would lead to blame or differential treatment from unit leaders, less confidence in their ability or competence from unit leaders and/or peers, and prevent them from receiving promotions or career advancements (e.g., Hoge et al., 2004; Holland, Rabelo, & Cortina, 2016; Kim et al., 2010; Warner, Appenzeller, Mullen, Warner, & Grieger, 2008; Warner et al., 2011; Gould et al., 2010; for a comprehensive review see Hom, Stanley, Schneider, & Joiner,

2017). Service members also reported being hesitant to seek care because of confidentiality concerns; they did not want such information being reflected in their military records and were concerned that those in the chain of command would find out (Bonar, Bohnert, Walters, Ganoczy, & Valenstein, 2014; Chapman et al., 2014; Elnitsky et al., 2013; Gorman, Blow, Ames, & Reed, 2011; Greden et al., 2010; Momen et al., 2012; Valenstein et al., 2014; Warner et al., 2008).

Stigma is a well-known barrier to mental health services (Acosta et al., 2014; Acosta et al., 2016), and has been shown to be negatively associated with service use among military personnel (Blais, Renshaw, & Jakupcak, 2014; Blais & Renshaw, 2013; Britt, Jennings, Cheung, Pury, & Zinzow, 2015). Service members have reported embarrassment and fear of being seen as weak as reasons for not utilizing mental health services (e.g., Kim, Britt, Klocko, Riviere, & Adler, 2011; Bonar et al., 2014; Gorman et al., 2011; Valenstein et al., 2014; for a comprehensive review see Hom et al., 2017). Canadian service members also endorsed a higher overall impact of stigma than their civilian counterparts, and that their work or school life was particularly impacted as a result of it (Weeks, Zamorski, Rusu, & Colman, 2017).

Two types of stigma in relation to help-seeking have been identified. Perceived public stigma is one's beliefs and awareness about how others view mental health and its treatment. When such attitudes and beliefs are internalized, it results in self-stigma. This leads to individuals applying the negative views of mental health disorders and its treatment to their self-worth (Vogel, Wade, & Haake, 2006). The stigma surrounding mental health concerns and the utilization of psychological services could decrease an individual's self-esteem and self-efficacy if they sought treatment (Corrigan, 1998, 2004;

Holmes & River, 1998). This may result in the individual internalizing the notion that help-seeking is a sign that he or she is weak or inadequate and view such efforts as a threat to their self-esteem, causing them to avoid the behavior altogether (Fisher, Nadler, & Whitcher-Alagna, 1982, 1983; Nadler & Fisher, 1986). Limited research in military populations has demonstrated that self-stigma may better explain the relationship between perceived public stigma and treatment attitudes and use (Blais & Renshaw, 2014; Held & Owens, 2013; Wade et al., 2015), suggesting that self-stigma may be a more proximal predictor of service utilization. Specifically, a study using combat veterans found that self-stigma was negatively associated with help-seeking intentions from a mental health professional or medical doctor/advance practice registered nurse; anticipated enacted stigma from military and nonmilitary sources was unrelated to help-seeking intentions from these two professionals (Blais & Renshaw, 2013). These overall findings suggest that service members' own thoughts and attitudes on help-seeking behavior (i.e., self-stigma) may better influence service utilization than perceived public stigma. This has led to a call for more research to better understand how this particular facet of stigma acts as a barrier in military populations (Sharp et al., 2015).

Overall, many factors may influence service members' willingness to seek professional care. However, it is important to consider that help-seeking may vary based on the context. For example, Britt (2000) found that service members reported significantly more concerns about stigma and felt more uncomfortable discussing psychological problems compared to medical problems. Although informative, the established research base does not inform us if service members' willingness to seek help differs based on particular mental health/emotional concerns, specifically suicidal

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thoughts. Service members may be more hesitant to seek help for suicidal thoughts compared to general mental health/emotional concerns. Such research has yet to be examined in a military population, but it has been studied in teenagers and young adults. For example, Deane and colleagues (2001) examined which types of problems young adults would seek help for and their intent to seek help from specific sources and found individuals were less willing to seek help from friends for suicidal problems compared to personal-emotional problems. Comparisons of willingness to seek help for suicidal ideation versus other problems (i.e., personal-emotional, anxiety or depression) revealed that participants were less willing to seek help for suicidal ideation from parents and other relatives but were more willing to seek help for suicidal thoughts from mental health professionals and telephone helplines. However, individuals who endorsed suicide ideation reported lower intentions to seek help for suicidal problems from all sources; the negative association was particularly strong in relation to seeking help from a mental health professional and telephone helpline. Further examination revealed that these results applied to individuals with both low and high suicide ideation. This finding is indicative of a help-negation effect, defined as situations in which individuals do not utilize available resources when it is needed (Rudd, Joiner, & Rajab, 1995). Deane and colleagues (2001) speculated that the help-negation effect for mental health professionals and telephone helplines may be influenced by attitudes, stigma, and fears associated with professional help-seeking, such as loss of control. It is currently unknown if these findings are generalizable to the military personnel, who may experience more mental health stigma and face career-related consequences, like administrative or medical separation or loss of security clearance, for seeking mental health care.

Understanding the role of stigma and barriers to care for suicide is a critical future direction for research and clinical practice with military personnel. It may be that self-stigma explains the association between the previously identified barriers and unwillingness to seek help. These barriers, however, are typically examined as unique facets that influence help-seeking, limiting us from understanding whether and how these barriers are related and function as a single construct. By utilizing a more parsimonious model that considers a single factor that may underlie many or all of these barriers, clinicians may be able to develop prevention efforts that specifically target the broader construct to increase help-seeking behavior in military personnel experiencing suicidal ideation. It may be that these barriers can be better explained by a more overarching cause: conformity to masculine norms.

Masculinity

The military has been viewed as promoting a masculine culture amongst its service members. This emphasis on masculinity is also evident in female service members, who are encouraged to adopt masculine traits and who have to overcome the barriers of being perceived as feminine in order to fit the warrior archetype (Prividera & Howard, 2006). Military culture is typically characterized as a "masculine-warrior" culture (Dunivin, 1994), which emphasizes traditional masculine norms such as being strong, self-reliant, and stoic (Arkin & Dobrovsky, 1978; Rosen, Weber, & Martin, 2000). Work is also considered to be central to a man's self-worth and identity (O'Neil, 2008). This notion is reflected in the military's expectations that service members be devoted to duty and mission and push away individual needs to better serve the collective group (Weiss & Coll, 2011). As a result of such norms, the act of help-seeking is

considered inconsistent with maintaining the masculine role (Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011). Adhering to masculine norms can prevent service members from being seen as weak and vulnerable and promote a unified fighting force (Arkin & Dobrovsky, 1978). Service members that do not comply with such norms are believed to put themselves and other service members in harm's way and may face consequences, such as verbal ridicule (Brooks, 2001; Rosen et al., 2000). Furthermore, these masculine gender role values can contribute to mental health stigma being internalized in the military community, leading service members to view seeking mental health services as a personal weakness (Skopp al., 2012). It may be that adherence to these masculine norms explains the many obstacles preventing service members from seeking help examined in prior research (e.g., attitudes towards care, career-related consequences, stigma).

Research suggests that various aspects of the socialized masculine gender role are associated with higher rates of mental health concerns and increased resistance to seeking help (see Addis & Mahalik, 2003 and Addis & Cohane, 2005 for a review). For example, overall conformity to masculine ideals and the negative consequences associated with it are linked to negative attitudes towards help-seeking (Addis & Mahalik, 2003; Courtenay, 2000; O'Neil, 2008; Berger, Addis, Green, Mackowiak, & Goldberg, 2013; Berger, Levant, McMillan, Kelleher, & Sellers, 2005; Levant & Richmond, 2007; Levant, Wimer, Williams, Smalley, & Noronha, 2009; Smith, Tran, & Thomspon, 2008), less willingness to seek help and more severe psychological distress (Good & Wood, 1995; Wilmer & Levant, 2011; Hayes & Mahalik, 2000), and attempted suicide among men (Houle, Mishara, & Chagnon, 2008). Researchers, however, have argued that masculinity

and sex are not mutually exclusive; thus, masculine norms are theoretically capable of influencing women (Whorley & Addis, 2006; Zamarripa, Wampold, & Gregory, 2003). Despite this, research on masculinity tends to be limited to all-male samples, preventing us from understanding how masculinity influences help-seeking behavior in both males and females.

The strength of adherence to masculine norms and the consequences of such adherence are believed to be influenced by contextual factors (O'Neil, 2008; Addis & Mahalik, 2003), such as certain social (e.g., disclosing emotional concerns versus suicidal thoughts) and within-person (e.g., self-stigma) circumstances. Due to this, Addis and Mahalik (2003) have called for a context-based approach to understanding why males are willing to seek help for certain problems under particular circumstances and not others. Self-stigma, in particular, has been shown to partially mediate the relationship between attitudes toward help-seeking and multiple masculinity variables, such as gender role conflict (Levant et al., 2013; Pederson & Vogel, 2007), conformity to masculine norms (Vogel et al., 2011), and traditional masculinity ideology (Levant et al., 2013). Thus, it is feasible that self-stigma may partially mediate the relationship between conformity to masculine norms and willingness to seek help for suicidal thoughts from a professional.

Gaps in Literature and Purpose of Current Study

As mentioned earlier, there is currently no research examining help-seeking behavior for suicidal thoughts in service members. This prevents the field from knowing to what extent service members are willing to seek help for suicidal thoughts and from whom. Given that research has shown that service members underutilize mental health services, it is especially vital to understand the factors that influence service members'

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willingness to seek help from behavioral health professionals. Research is also yet to explore how self-stigma and conformity to masculine norms are related to willingness to seek professional psychological help for suicidal thoughts, a highly stigmatized concern. Furthermore, there is a lack of research on masculinity's influence in both male and female samples. Given the masculine-driven nature of the military's culture, it would be expected that conformity to masculine norms would be evident in both male and female service members.

This study aims to address these gaps in three ways. First, descriptives on service members' willingness to seek help for suicidal thoughts from a variety of sources will be provided. Second, we will examine how conformity to masculine norms differs among male and female service members and civilians. It is expected that active duty males will report higher conformity to masculine norms than active duty females and civilian males and that active duty females will report higher conformity to masculine norms than civilian females. Third, we will examine how overall conformity to masculine norms and perceived self-stigma influence willingness to seek help for emotional problems and suicidal thoughts from behavioral health professionals among male and female military personnel. It is expected that overall conformity to masculine norms will exhibit a direct effect on willingness to seek help from a behavioral health professional as well as a significant indirect effect on willingness to seek help from a behavioral health professional through self-stigma. For exploratory purposes, we will examine if the two models based on problem type (suicidal ideation vs. personal-emotional problem) differ. It is expected that the associations identified will have larger effect sizes in regard to seeking help for suicidal thoughts compared to seeking help for emotional problems.

Findings can inform campaign strategies targeting specific maladaptive masculine norms that are impeding service members from seeking professional psychological help.

CHAPTER II - METHOD

Participants

A total of 137 participants were included in the current study. The target sample

size for the study was 278 participants, with both biological sexes being equally

represented (139 males, 139 females). Participants were recruited voluntarily and through

CloudResearch in three waves. Participants were included in the current study if they

passed the quality assurance (QA) items embedded in the protocol (see procedure). More

than half (54.0%) of the overall sample endorsed being biologically male. Participants

were primarily White (70.1%), heterosexual (81.0%), and married (53.3%). Ages ranged

from 18 to 53 years, with participants endorsing an average age of 28.70 ($SD = 7.05$)

years. In terms of education, 1.3% had a high school diploma/GED, 32.1% attended some

college, 12.4% earned an Associate's degree, 24.8% had a Bachelor's degree, and 15.3%

had a Master's degree or higher. With regard to military branch, 39.4% of participants

were serving in the Navy, with 33.6% serving in the Army. Participants were primarily

Enlisted personnel (74.5%) with a history of at least one deployment (51.8%). See Table

1 for demographic information for the overall sample and by recruitment method.

Procedure

All procedures were approved by the University of Southern Mississippi

Institutional Review Board prior to data collection. Participants were recruited in three

waves. Following electronic informed consent, participants were asked to complete the

survey instruments through a Qualtrics survey. Three quality assurance (QA) items were

embedded into the protocol. One item asked participants to indicate if they had ever used

a computer. The other two items were embedded in established questionnaires and asked

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the participants to select a specific answer (e.g., "please select "5" for this item"). Data collection took place from February 1, 2019 to February 12, 2020.

Wave 1 – Voluntary Participation

Originally, participants were asked to voluntarily take part in an anonymous online study examining various experiences, beliefs, and factors that influence military personnel's willingness to seek help for suicidal ideation and a personal-emotional problem. Eligible participants had to be at least 18 years old and active duty military. Participants were recruited through various online forums (e.g., Facebook, Reddit, etc.) and word of mouth. Detailed recruitment posts about the purpose of the study were used: "*Are you a member of the U.S. military? We need your help! We are currently recruiting male and female active duty military personnel to take part in anonymous online study to better understand how various experiences, beliefs, and factors influence their willingness to seek help when experiencing suicidal ideation or an emotional or personal problem. Although this study asks about suicidal ideation, you don't need to have suicide-related experiences to participate. With your help, we hope to help develop a clearer picture about how we can better promote help seeking and prevent suicide in service members and their loved ones. The survey has been approved by the Institutional Review Board at USM and you are welcome to contact the principal investigator with any questions or concerns (samantha.daruwala@usm.edu).*" Participants who answered at least two QA items correctly ($n = 77$) were included for data analyses.

Wave 2 – Prime Panels

After nine months of recruitment, we were unable to meet our target sample size through voluntary participation. We consulted with experts in the field who suggested we

offer compensation for participation. In November 2019, we started recruiting additional participants through the Prime Panels service of CloudResearch (formerly known as TurkPrime). CloudResearch works with a variety of research platforms and screens and recruits participants based on chosen characteristics. For the purposes of this study, we requested 110 male and 110 female participants who were Active Duty in the U.S. Military and at least 18 years of age. CloudResearch does not allow for detailed descriptions about the purpose of the study but uses a project title instead. The project title displayed to potential participants was "Factors Influencing Willingness to Seek Help in Military Personnel". Due to concerns about bots, two additional open-ended QA items were added to the protocol (e.g., "In one sentence or less, describe why you think someone would not seek help for suicidal thoughts"). Participants received monetary compensation if they completed the study and correctly answered all QA items. Upon completion of the study, participants received compensation in the amount they agreed to with the platform through which they entered the survey. From November 23rd to December 23rd, 2019, failure to answer any of the QA items correctly resulted in immediate expulsion from the study. A total of 24 participants (12 males, 12 females) completed the study and received compensation.

Wave 3 – Prime Panels with Revised QA Protocol

In order to increase the survey hit rate, a project manager at CloudResearch suggested that we first warn participants if they fail one of the three forced-choice QA items and then expel them from the study if they proceed to fail a subsequent item. On January 6th, 2020, a revised version of the Prime Panels survey was launched to incorporate the new QA protocol. Participants received compensation if they completed

the study, correctly answered at least two of the forced-choice QA items, and provided

appropriate responses for the 2 open-ended QA items.

Table 1 *Sample Demographics*

	Overall (*N* = 137)	Wave 1 (*N* = 77)	Wave 2 (*N* = 24)	Wave 3 (*N* = 36)
	n (%)	n (%)	n (%)	n (%)
Sex				
Male	74 (54.0)	45 (58.4)	12 (50.0)	17 (47.2)
Female	63 (46.0)	32 (41.6)	12 (50.0)	19 (52.8)
Gender				
Male	73 (53.3)	44 (57.1)	12 (50.0)	17 (47.2)
Female	63 (46.0)	32 (41.6)	12 (50.0)	19 (52.8)
Transgender, Female to Male	1 (0.7)	1 (1.3)	--	--
Race				
White	96 (70.1)	61 (79.2)	15 (62.5)	20 (55.6)
Black	18 (13.1)	4 (5.2)	4 (16.7)	10 (27.8)
Other	23 (16.8)	12 (15.6)	5 (20.8)	6 (16.7)
Sexual Orientation				
Heterosexual	111 (81.0)	59 (76.6)	21 (87.5)	31 (86.1)
Sexual Minority	26 (19.0)	18 (23.4)	3 (12.5)	5 (13.9)
Marital Status				
Never Married	58 (42.3)	40 (51.9)	5 (20.8)	13 (36.1)
Married	73 (53.3)	33 (42.9)	18 (75.0)	22 (61.1)
Divorced	6 (4.4)	4 (5.2)	1 (4.2)	1 (2.8)
Education				
High school diploma/GED	21 (15.3)	7 (9.1)	6 (25)	8 (22.2)
Some college	44 (32.1)	25 (32.5)	7 (29.2)	12 (33.3)
Associate's degree	17 (12.4)	11 (14.3)	3 (12.5)	3 (8.3)
Bachelor's degree	34 (24.8)	20 (26)	5 (20.8)	9 (25.0)
Master's or higher	21 (15.3)	14 (18.2)	3 (12.5)	4 (11.1)
Branch				
Army	46 (33.6)	22 (28.6)	9 (37.5)	15 (41.7)
Air Force	27 (19.7)	13 (16.9)	7 (29.2)	7 (19.4)
Navy	54 (39.4)	38 (49.4)	6 (25.0)	10 (27.8)
Marines	9 (6.6)	3 (3.9)	2 (8.3)	4 (11.1)
Coast Guard	1 (0.7)	1 (1.3)	--	--
Rank				
Junior Enlisted (E1-E4)	42 (30.7)	20 (26.0)	9 (37.5)	13 (36.1)
Senior Enlisted (E5-E9)	60 (43.8)	31 (40.3)	14 (58.3)	15 (41.7)
Officers (W1-O10)	35 (25.5)	26 (33.8)	1 (4.2)	8 (22.2)

Table 1 (continued) *Sample Demographics*

Service Time				
1 year or less	12 (8.8)	5 (6.5)	4 (16.7)	3 (8.3)
1 - 3 years	34 (24.8)	23 (29.9)	5 (20.8)	6 (16.7)
4 - 6 years	35 (25.5)	25 (32.5)	2 (8.3)	8 (22.2)
7 - 10 years	20 (14.6)	12 (15.6)	2 (8.3)	6 (16.7)
11 – 20+ years	36 (26.3)	12 (15.6)	11 (45.8)	13 (36.1)
Deployment History				
No	66 (48.2)	45 (58.4)	8 (33.3)	13 (36.1)
Yes	71 (51.8)	32 (41.6)	16 (66.7)	23 (63.9)
Lifetime Suicidal Ideation				
No	63 (46)	21 (27.3)	17 (70.8)	25 (69.4)
Yes	72 (52.6)	54 (70.1)	7 (29.2)	11 (30.6)
Prior Mental Health Treatment				
No	64 (46.7)	26 (33.8)	12 (50)	26 (72.2)
Yes	73 (53.3)	51 (66.2)	12 (50)	10 (27.8)

Measures

Demographics

Basic (e.g., biological sex, gender identity, race, etc.) and military-specific (e.g., branch, rank, etc.) demographic information as well as history of prior mental health treatment were assessed through a series of questions developed by the research team.

Conformity to Masculine Norms

The Conformity to Masculine Norms Inventory – 46 (CMNI-46; Parent & Moradi, 2009) is an abbreviated version of the original 94-item measure designed to assess self-reported conformity to nine different masculine norms: Emotional Control (i.e., emotional restriction and suppression), Winning (i.e., drive to win), Playboy (i.e., desire for multiple or noncommitted sexual relationships and emotional distance from sexual partners), Violence (i.e., proclivity for physical confrontations), Self-Reliance (i.e., aversion to asking for assistance), Risk-Taking (i.e., proclivity for high-risk

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behaviors), Power Over Women (i.e., perceived control over women at personal and social levels), Primacy of Work (i.e., viewing work as a major focus of life) and Heterosexual Self-Presentation (i.e. aversion to the prospect of being gay, or being thought of as gay). Participants rate each item use a four-point Likert scale from 0 (*Strongly Disagree*) to 3 (*Strongly Agree*), with higher scores indicative of greater conformity to masculine norms. A total score can be calculated by averaging all 46 items of the CMNI-46 and can be used as an index of general conformity to masculine norms (CMN), while the average of the items within each subscale can be used as an index of conformity to each specific masculine norm. The CMNI-46 has been utilized in both male and female samples (Parent & Smiler, 2013) and the total score ($\alpha = .88$) and the nine subscale scores ($\alpha s = .77 – .91$) have demonstrated good internal consistency (Parent & Moradi, 2009). The instructions for the CMNI-46 were modified to prevent potential participant bias when answering items. Specifically, we removed the first two sentences stating that the items were assessing attitudes, beliefs, and behaviors related to men and masculinity. Within the current sample, the internal consistency (i.e., Cronbach's alpha) for the total score was .90. The internal consistency for the nine subscales ranged from .79 to .90.

Willingness to Seek Help

The General Help-Seeking Questionnaire (GHSQ; Wilson, Deane, Ciarrochi, & Rickwood, 2005) is a self-report measure designed to assess intentions to seek help for a variety of concerns from particular sources that can be modified to meet sample characteristics and research needs. For the purposes of this study, two prompts were administered: the first assessed help-seeking intentions for a personal-emotional problem

("If you were having a personal or emotional problem, how likely is it that you would seek help from the following people?") and the second assessed help-seeking intentions for suicidal thoughts ("If you were experiencing suicidal thoughts, how likely is it that you would seek help from the following people?"). Participants rated their help-seeking intentions for each source using a 7-point scale, ranging from 1 (*Extremely Unlikely*) to 7 (*Extremely Likely)*. The list of helping sources was modified to match the military population and include four formal sources (i.e., behavioral health professional, phone helpline, primary care physician, chaplain), six informal sources (i.e., intimate partner, friend, parent, other relative/family member, unit command, other unit member(s)), and no one (i.e., "I would not seek help from anyone"). Participants were also given an option to specify if they would seek help from someone not listed. The 11-item version of the GHSQ has demonstrated internal consistency and adequate test-retest reliability ($\alpha = .70$; $r = .86$) and been found to be significantly positively correlated with actual help-seeking behavior in the past month and future help-seeking three weeks after administration (rs = .17 – .48) (Wilson et al., 2005). It is important to note, however, that many versions of the GHSQ exist since it is intended to be modified to fit research needs, making it difficult to establish the measure's dimensionality, reliability, and predictive validity (Hammer & Spiker, 2018). Ratings on the one item regarding willingness to seek help from a behavioral health professional (BHP) will be utilized for the main analyses.

Self-Stigma of Seek Help

The Self-Stigma of Seeking Help Scale (SSOSH; Vogel et al., 2006) is a 10-item self-report measure designed to assess self-stigma associated with seeking psychological help (e.g., "I would feel inadequate if I went to a therapist for psychological help").

Participants rate each item, five of which are reverse-coded, using a 5-point scale, ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*), with higher scores reflecting greater self-stigma. For the purposes of this study, items specifically asking about seeking help from a therapist were re-worded to reflect seeking help from anyone. The SSOSH has demonstrated good internal consistency in military (αs = .83 – .89; Skopp et al., 2012; Wade et al., 2015) and undergraduate samples (αs = .86 –.90; Vogel et al., 2006) as well as adequate test-retest reliability in undergraduate samples (α = .72; Vogel et al., 2006). Within the current sample, the internal consistency for the SSOSH was .90.

Lifetime Suicidal Ideation

Lifetime suicidal ideation was assessed as a potential covariate using the first item ("Have you ever had thoughts of killing yourself?") from the Self-Injurious Thoughts and Behaviors Interview, Self-Report, Short Form (SITBI; Nock, Holmberg, Photos, & Michel, 2007). The SITBI has demonstrated strong psychometric properties and has been utilized in many in-person and web-based studies (e.g., Cha, Najmi, Park, Finn, & Nock, 2010; Stanley, Hom, Hagan, & Joiner, 2015).

Conformity to Feminine Norms

Overall conformity to feminine norms, an *a priori* covariate, was assessed using the Conformity to Feminine Norms Inventory-45 (CFNI-45; Parent & Moradi, 2010). The CFNI-45 is an abbreviated version of the original 84-item version (Mahalik et al., 2005) that assesses conformity to a nine feminine norms dominant in the U.S: Thinness (e.g., "I would be happier if I was thinner"), Domestic (e.g., "It is important to keep your living space clean"), Appearance (e.g., "I spend more than 30 minutes a day doing my hair and make-up") Modesty (e.g., "I hate telling people my accomplishments"),

Involvement with Children (e.g., "I like being around children"), Sexual Fidelity (e.g., "I would feel guilty if I had a one-night stand"), Romantic Relationship (e.g., "Having a romantic relationship is essential in life"), and Sweet and Nice (e.g., "Being nice to others is extremely important"). Participants rate each item use a four-point Likert scale from 0 (*Strongly Disagree*) to 3 (*Strongly Agree*), with higher scores indicative of greater conformity to feminine norms. A total score is calculated by averaging all 45 items of the CFNI-45 and can be used as an index of general conformity to feminine norms. The instructions for the CFNI-45 were modified to prevent potential participant bias when answering items. Specifically, we removed the first two sentences stating that the items were assessing attitudes, beliefs, and behaviors related to women and femininity. Within the current sample, the internal consistency for the CFNI-45 total score was .77.

Identity with Military Culture

Identity with military culture, a potential covariate, was measured by an Active Duty version of the Warrior Identity Scale (WIS; Lancaster & Hart, 2015). The original WIS is a 66-item self-report measure designed to assess multiple dimensions of military identity among veterans. An Active Duty version, which has not been psychometrically examined, was provided by the author of the WIS to the research team (S. Lancaster, personal communication, 2018). The Active Duty version consists of 35 items and 7 subscales. Participants rate each item use a four-point Likert scale from 1 (*Disagree Strongly*) to 4 (*Agree Strongly*), with higher scores indicative of greater identity with military culture. For the purposes of the current study, we only examined the following subscales: Pride (i.e., pride in military service), Interdependence to Military (i.e., service members relate to the sense of feeling connected to the military and its members),

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Military Connection (i.e., lack of feeling like an outsider), Central Identity (i.e., seeing the military as a central part in one's identity), Identity Fusion (i.e., view their identity as "fused with" the military). Within the current sample, the internal consistency for the 5 WIS subscales ranged from .62 to .90.

<div align="center">Data Analytic Plan</div>

An *a priori* power analysis for multiple regression was conducted using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) to estimate the minimum sample size needed using both small and medium effect sizes. A sample size of 485 participants was estimated in order to detect a small size and a sample size of 68 participants was estimated for a medium effect size. Given the lack of clear guidance regarding anticipated effect sizes, the rounded average of these two estimates was used to determine that a sample of 278 participants is needed for this study. In order to achieve an equal representation of males and females in the sample, a quota was set in the survey software allowing for 139 participants who identify their biological sex as "male" and 139 participants who identify their biological sex as "female" to complete the survey.

Primary Analyses

In order to determine cohort effects, demographic differences based on recruitment wave were examined. Chi-square analyses were utilized for categorical demographic variables while analyses of variance (ANOVAs) were utilized for continuous demographic variables.

For the first aim, descriptives (means, standard deviations) on service members' willingness to seek help from a variety of sources were provided. For the second aim, ANOVAs were utilized to examine how conformity to specific masculine norms differed

among service members and civilians based on sex. Descriptives from Parent and Smiler's (2013) study exploring the psychometric properties of the CMNI-46 in a male and female sample was used as data for the comparison group. Eta squared (η^2; small = .01, medium = .06, large = .14) was used as a measure of effect size for ANOVAs.

For the third aim, covariates were selected by conducting zero-order correlations, chi-square analyses, and ANOVAs examining significant differences ($p < .05$) in demographic variables among the predictor, mediator, and outcome variables. We also expected that overall conformity to feminine norms, identity with military culture, and prior suicidal thoughts would be significantly associated with the predictor, mediator, and outcome variables and serve as covariates. In order to adjust for potential cohort effects, recruitment method was included as a covariate. The series of analyses were run twice in order to examine willingness to seek help for two situations (i.e., personal-emotional problems and suicidal thoughts). Hayes' (2012) PROCESS macro for SPSS was used to examine the partial indirect effect model of self-stigma, overall conformity to masculine norms, and willingness to seek help. The ratio of the indirect effect to the total effect (P_M) was utilized as an index of effect size.

CHAPTER III - RESULTS

Correlations and descriptives data for variables utilized in primary analyses are provided in Table 2.

Primary Analyses

Cohort Effects

Demographic differences based on recruitment method are displayed in Table 3. Results indicated that race [$X^2 = 12.30$, $p = .015$], service time [$X^2 = 17.43$, $p = .026$], deployment history [$X^2 = 23.64$, $p < .001$], lifetime suicidal thoughts [$X^2 = 23.64$, $p < .001$], prior mental health treatment [$X^2 = 14.70$, $p = .001$] significantly differed based on recruitment wave. Post hoc analyses were conducted by using pairwise comparisons using the z-test of two proportions with a Bonferroni correction. With regard to race, a significantly higher proportion of White individuals completed the survey in wave 1 (63.5%) compared to wave 3 (20.8%), while a significantly higher proportion of Black individuals completed the survey in wave 3 (55.6%) than in wave 1 (22.2%). Within waves, waves 1 and 3 had a significantly higher proportion of White individuals (wave 1 = 79.2%, wave 3 = 55.6%) compared to Black individuals (wave 1 = 5.2%, wave 3 = 27.8%).

With regard to service time, a significantly higher proportion of individuals with 11-20+ years of service were recruited in wave 3 (36.1%) compared to wave 1 (33.6%). A significantly higher proportion of individuals with 11-20+ years of service were also recruited in wave 1 compared to wave 2 (30.6%). Within waves, wave 1 had a significantly higher proportion of individuals who had 1-3 years (29.9%) or 4-6 years (32.5%) of service than individuals with 11-20+ years of service (15.6%). While the

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omnibus test for deployment history was significant, post hoc analyses revealed no significant differences between waves. Within waves, wave 1 had a significantly higher proportion of individuals with no deployment history (58.4%) than those with deployment history (41.6%).

A significantly higher proportion of individuals who endorsed a lifetime history of suicidal thoughts were represented in wave 1 (75.0%) than in wave 2 (9.7%) and wave 3 (15.3%). Within waves, wave 1 had a significantly higher proportion of individuals with a lifetime history of suicidal thoughts (72.0% vs. 28.0%) while wave 2 (70.8% vs. 29.2%) and wave 3 (69.5% vs. 30.6%) had a significantly higher proportion of individuals with no history of suicidal thoughts. Finally, a significantly higher proportion of individuals with prior mental health treatment were recruited in wave 1 (69.9%) than wave 3 (13.7%). Within waves, wave 1 had a significantly higher proportion of individuals with prior mental health treatment (66.2% vs. 33.8%) while wave 3 had a significantly higher proportion of individuals with no prior mental health treatment (72.2% vs. 27.8%).

Table 2 *Descriptive Statistics and Correlations for Main Variables*

	1	2	3	4	5	6	7	8	9	10	11	12
1. CMNI-46	—											
2. SSOSH	.45**	—										
3. BHP – Personal-Emotional	-.27**	-.39**	—									
4. BHP – Suicidal Thoughts	-.24**	-.35**	.60**	—								
5. Age	-.09	-.20*	.06	.13	—							
6. Education	-.21*	-.07	-.15	.06	.46**	—						
7. WIS – Pride	.13	-.09	-.10	.01	.35**	.27**	—					
8. WIS – Interdependence	.44**	.17*	-.14	-.17*	.08	-.04	.45**	—				
9. WIS – Connectedness	.09	-.11	-.12	-.06	.21*	.17*	.60**	.47**	—			
10. WIS – Centrality	.12	.01	-.03	-.03	.05	.12	.44**	.42**	.45**	—		
11. WIS – Fusion	.23**	-.04	-.07	-.05	.10	-.04	.65**	.66**	.53**	.47**	—	
12. CFNI-45	-.41**	-.23*	.05	.06	.11	.10	.22*	.00	.22*	.16	.18*	—
Mean	1.35	26.59	3.93	4.21	28.70	1.93	22.45	18.01	8.03	10.93	16.74	1.61
Standard Deviation	0.34	8.58	1.98	2.28	7.05	1.34	4.49	4.09	2.25	2.28	4.80	0.25

* $p < .05$, ** $p < .01$. Note: CMNI-46 = Conformity to Masculine Norms Inventory-46, SSOSH = Self-Stigma of Seeking Help, BHP = Behavioral Health Professional, WIS = Warrior Identity Scale, CFNI-45 = Conformity to Feminine Norms Inventory-45

Table 3 *Demographic Differences Based on Recruitment Wave*

	Wave 1 (N = 77)	Wave 2 (N = 24)	Wave 3 (N = 36)	
	n (%)	*n* (%)	*n* (%)	Test Statistic
Sex				$X^2 = 1.43, p = .489, \varphi = .10$
Male	45 (58.4)	12 (50.0)	17 (47.2)	
Female	32 (41.6)	12 (50.0)	19 (52.8)	
Gender				$X^2 = 2.07, p = .724, \varphi = .12$
Male	44 (57.1)	12 (50.0)	17 (47.2)	
Female	32 (41.6)	12 (50.0)	19 (52.8)	
Transgender, Female to Male	1 (1.3)	--	--	
Race				$X^2 = 12.30, p = .015, \varphi = .30$
White	61 (79.2)	15 (62.5)	20 (55.6)	
Black	4 (5.2)	4 (16.7)	10 (27.8)	
Other	12 (15.6)	5 (20.8)	6 (16.7)	
Sexual Orientation				$X^2 = 2.23, p = .328, \varphi = .13$
Heterosexual	59 (76.6)	21 (87.5)	31 (86.1)	
Sexual Minority	18 (23.4)	3 (12.5)	5 (13.9)	
Marital Status				$X^2 = 9.07, p = .059, \varphi = .26$
Never Married	40 (51.9)	5 (20.8)	13 (36.1)	
Married	33 (42.9)	18 (75.0)	22 (61.1)	
Divorced	4 (5.2)	1 (4.2)	1 (2.8)	
Branch				$X^2 = 10.08, p = .259, \varphi = .27$
Army	22 (28.6)	9 (37.5)	15 (41.7)	
Air Force	13 (16.9)	7 (29.2)	7 (19.4)	
Navy	38 (49.4)	6 (25.0)	10 (27.8)	
Marines	3 (3.9)	2 (8.3)	4 (11.1)	
Coast Guard	1 (1.3)	--	--	
Rank				$X^2 = 9.17\ p = .057, \varphi = .26$
Junior Enlisted (E1-E4)	20 (26.0)	9 (37.5)	13 (36.1)	
Senior Enlist (E5-E9)	31 (40.3)	14 (58.3)	15 (41.7)	
Officers (W1-O10)	26 (33.8)	1 (4.2)	8 (22.2)	
Service Time				$X^2 = 17.43, p = .026, \varphi = .36$
1 year or less	5 (6.5)	4 (16.7)	3 (8.3)	
1 - 3 years	23 (29.9)	5 (20.8)	6 (16.7)	
4 - 6 years	25 (32.5)	2 (8.3)	8 (22.2)	
7 - 10 years	12 (15.6)	2 (8.3)	6 (16.7)	
11 – 20+ years	12 (15.6)	11 (45.8)	13 (36.1)	
Deployment History				$X^2 = 7.47, p = .024, \varphi = .23$
No	45 (58.4)	8 (33.3)	13 (36.1)	
Yes	32 (41.6)	16 (66.7)	23 (63.9)	

Table 3 (continued) *Demographic Differences Based on Recruitment Wave*

Lifetime SI				$X^2 = 23.64, p < .001, \varphi = .42$
No	21 (27.3)	17 (70.8)	25 (69.4)	
Yes	54 (70.1)	7 (29.2)	11 (30.6)	
Prior MH Treatment				$X^2 = 14.70, p = .001, \varphi = .33$
No	26 (33.8)	12 (50.0)	26 (72.2)	
Yes	51 (66.2)	12 (50.0)	10 (27.8)	
Age, Mean (SD)	27.54 (5.34)	31.13 (9.95)	29.53 (7.61)	$F = 2.77, p = .066, {}_p\eta^2 = .04$
Education, Mean (SD)	1.93 (1.34)	2.12 (1.30)	1.67 (1.40)	$F = 1.78, p = .172, {}_p\eta^2 = .03$

Note: SI = Suicidal Ideation, MH = Mental Health

Aim 1: Willingness to Seek Help for Suicidal Thoughts Based on Source

Descriptives on service members' willingness to seek help for a personal-emotional problem and suicidal thoughts from a variety of sources are provided in Table 4.

Table 4 *Willingness to Seek Help from Sources Based on Reason*

	Personal-Emotional		Suicidal Thoughts	
	n NA	Mean (SD)	*n* NA	Mean (SD)
Intimate partner	8	5.81 (1.69)	9	5.30 (2.15)
Friend	0	4.88 (1.65)	2	4.44 (2.03)
Parent	1	3.76 (2.09)	3	3.19 (2.29)
Other Relative/Family Member	0	3.20 (1.95)	2	2.72 (2.04)
Behavioral Health Professional	0	3.93 (1.98)	2	4.21 (2.28)
Chaplain	0	3.10 (2.02)	3	3.35 (2.20)
Phone Help Line (e.g., Lifeline)	0	2.38 (1.62)	3	2.98 (2.02)
Unit Command (e.g., NCOs)	0	2.20 (1.59)	2	2.04 (1.61)
Other Unit Member(s) (not including command)	0	2.70 (1.69)	2	2.33 (1.68)
Primary Care Physician	0	3.23 (1.84)	2	3.35 (2.16)
Other	101	2.00 (1.85)	101	2.09 (1.91)
No one	24	4.12 (2.15)	27	3.74 (2.33)

Note: NA = Not Applicable, SD = Standard Deviation

Aim 2: Comparing Conformity to Masculine Norms Among Service Members and

Civilians

Results of the independent *t*-tests revealed that male service members and

civilians differed on conformity to several masculine norms (See Table 5). Specifically,

male service members endorsed significantly higher adherence to the masculine norms of

Emotional Control [$F(1,402) = 9.95$, $p = .002$, $\eta^2 = 0.02$], Violence [$F(1,402) = 55.09$, $p <$

.001, $\eta^2 = 0.12$], Self-Reliance [$F(1,403) = 4.55$, $p = .034$, $\eta^2 = .01$], and Primacy of Work

[$F(1,403) = 9.93$, $p = .002$, $\eta^2 = .02$] than male civilians. Civilian males endorsed

significantly higher adherence to the masculine norms of Power Over Women [$F(1,403)$

$= 13.74$, $p < .001$, $\eta^2 = .03$] and Heterosexual Self-Presentation [$F(1,403) = 54.06$, $p <$

.001, $\eta^2 = .12$] than male service members. No significant differences emerged on

Winning [$F(1,403) = 1.83$, $p = .177$, $\eta^2 = .00$], Risk-Taking [$F(1,403) = 2.28$, $p = .132$, η^2

$= .01$], or Playboy [$F(1,403) = 0.22$, $p = .640$, $\eta^2 = .00$].

Consistent with hypotheses, female service members and civilians significantly

differed on conformity to many masculine norms (see Table 5). Specifically, female

service members endorsed significantly higher adherence to the masculine norms of

Winning [$F(1,396) = 22.14$, $p < .001$, $\eta^2 = .05$], Emotional Control [$F(1,396) = 42.48$, $p <$

.001 $\eta^2 = .10$], Violence [$F(1,396) = 60.91$, $p < .001$, $\eta^2 = .13$], Playboy $F(1,396) = 16.60$,

$p < .001$, $\eta^2 = .04$], Self-Reliance [$F(1,396) = 20.95$, $p < .001$, $\eta^2 = .05$], and Primacy of

Work [$F(1,396) = 18.72$, $p < .001$, $\eta^2 = .05$]. Civilian females endorsed significantly

higher adherence to the masculine norm of Heterosexual Self-Presentation [$F(1,396) =$

19.16, $p < .001$, $\eta^2 = .05$] than female service members. No significant differences

emerged on Risk-Taking [$F(1,396) = 3.03$, $p = .082$, $\eta^2 = .01$] or Power Over Women [$F(1,396) = 1.02$, $p = .313$, $\eta^2 = .00$].

Results of the ANOVAs revealed that male and female service members significantly differed on conformity to many masculine norms (see Table 6). Specifically, males endorsed significantly higher adherence to the masculine norms of Winning [$F(1,135) = 8.44$, $p = .004$, $\eta^2 = .06$], Violence [$F(1,135) = 36.49$, $p < .001$, $\eta^2 = .21$], Power Over Women [$F(1,135) = 15.22$, $p < .001$, $\eta^2 = .10$], Playboy [$F(1,135) = 16.89$, $p < .001$, $\eta^2 = .11$], and Heterosexual Self-Presentation [$F(1,135) = 7.67$, $p = .006$, $\eta^2 = .05$]. Additionally, males endorsed significantly higher conformity to masculine norms overall, $F(1,135) = 22.21$, $p < .001$, $\eta^2 = .14$.

Table 5 *Comparing CMNI-46 Subscales Among Service Members and Civilians*

	Military Males (N = 74)		Civilian Males (N = 330)			Military Females (N = 63)		Civilian Females (N = 335)		
	Mean	SD	Mean	SD	p	Mean	SD	Mean	SD	p
Winning	1.65	0.59	1.56	0.50	.177	1.52	0.58	1.23	0.42	< .001**
Emotional Control	1.69	0.71	1.46	0.53	.002**	1.61	0.65	1.11	0.54	< .001**
Risk-taking	1.42	0.52	1.51	0.45	.132	1.35	0.51	1.24	0.45	.082
Violence	2.22	0.49	1.76	0.48	< .001**	1.96	0.61	1.36	0.55	< .001**
Power Over Women	0.73	0.56	0.97	0.49	< .001**	0.57	0.54	0.51	0.41	.313
Playboy	1.26	0.76	1.22	0.64	.640	1.04	0.72	0.72	0.54	< .001**
Self-reliance	1.43	0.63	1.29	0.48	.034*	1.47	0.64	1.12	0.54	< .001**
Primacy of Work	1.29	0.63	1.08	0.49	.002**	1.28	0.65	1.00	0.43	< .001**
Heterosexual Self-Presentation	1.10	0.67	1.68	0.60	< .001**	0.96	0.69	1.31	0.56	< .001**

Note: *p < .05, **p < .01, SD = Standard Deviation

Table 6 *Comparing CMNI-46 Subscales Among Military Males and Females*

	Military Males (N = 74)		Military Females (N = 63)			
	Mean	SD	Mean	SD	*p*	$_p\eta^2$
Winning	1.65	0.59	1.37	0.54	.004**	0.06
Emotional Control	1.69	0.71	1.51	0.58	.107	0.02
Risk-taking	1.42	0.52	1.27	0.50	.088	0.02
Violence	2.22	0.49	1.66	0.60	< .001**	0.21
Power over Women	0.73	0.56	0.39	0.45	< .001**	0.10
Playboy	1.26	0.76	0.78	0.56	< .001**	0.11
Self-reliance	1.43	0.63	1.52	0.65	.408	0.01
Primacy of Work	1.29	0.63	1.26	0.69	.823	0.00
Heterosexual Self-Presentation	1.10	0.67	0.79	0.67	.006**	0.05
CMNI-46 Total Score	1.46	0.34	1.21	0.29	< .001**	0.14

Note: *p* < .05, ** *p* < .01, CMNI-46 = Conformity to Masculine Norms Inventory-46

Aim 3: Overall Conformity to Masculine Norms, Perceived Self-Stigma of Seeking Help, and Willingness to Seek Help

Selection of Covariates. Empirically-derived covariates were selected by conducting zero-order correlations and ANOVAs examining significant differences (*p* < .05) in continuous (i.e., age, education) and categorical (i.e., biological sex, race, sexual orientation, lifetime history of suicidal thoughts, lifetime history of mental health treatment, military branch, military rank, service time) demographic variables with the independent, mediator, and dependent variables.

Age was significantly negatively correlated with self-stigma of seeking help [$r = -.20$, $p = .022$] while education level was significantly negatively correlated with overall conformity to masculine norms, [$r = -.21$, $p = .014$]. Biological sex [$F(1,135) = 22.21$, $p < .001$] and military branch [$F(4,132) = 5.53$, $p < .001$] were significantly associated with overall conformity to masculine norms. Lifetime history of mental health treatment was

significantly associated with willingness to seek help from a BHP for a personal-emotional problem [$F(1,135) = 20.29$, $p < .001$] as well as willingness to seek help for suicidal thoughts [$F(1,132) = 6.62$, $p = .011$]. Military rank was significantly associated with self-stigma of seeking help [$F(2,133) = 4.44$, $p = .014$] as well as willingness to seek help from a BHP for a personal-emotional problem [$F(2,134) = 3.39$, $p = .037$]. As a result, sex, lifetime history of mental health treatment, age, education, military branch, and military rank were included as covariates in the two tests of indirect effects.

Conformity to feminine norms, as measured by the CFNI-45 total score, and adherence to military culture, as measured by five WIS subscales, were identified as *a priori* covariates. Zero-order correlations demonstrated that overall conformity to feminine norms was significantly negatively correlated with overall conformity to masculine norms [$r = -.41$, $p < .001$] and self-stigma of seeking help [$r = -.23$, $p = .011$]. The WIS Pride subscale was significantly positively correlated with self-stigma of seeking help, $r = .17$, $p = .044$. The WIS Interdependence to Military subscale was significantly positively correlated with overall conformity to masculine norms [$r = .41$, $p < .001$] and negatively correlated with willingness to seek help from a BHP for suicidal thoughts [$r = -.17$, $p = .045$]. Finally, the WIS Identity Fusion subscale was significantly correlated with overall conformity to masculine norms, $r = .23$, $p = .007$. As a result, overall conformity to feminine norms, WIS-Pride, WIS-Interdependence, and WIS-Identity Fusion were included as covariates in both models.

Willingness to Seek Help from a BHP. Indirect effect analyses are presented in Table 7. The first analysis examined the indirect effect of conformity to masculine norms on willingness to seek help from a BHP for a personal-emotional problem through self-

stigma of seeking help. Inconsistent with hypotheses, the direct effect between

conformity to masculine norms and willingness to seek help from a BHP for a personal-

emotional problem was not statistically significant, $b = -0.86$, $SE = 0.73$, $p = .239$.

Results did support a significant indirect effect through self-stigma of seeking help, $b = -0.69$, $SE = 0.32$, 95% CI [-1.43, -.11], $P_M = 0.44$[1].

The second analysis examined the indirect effect of conformity to masculine

norms on willingness to seek help from a BHP for suicidal thoughts through self-stigma

of seeking help. Inconsistent with hypotheses, the direct effect between conformity to

masculine norms and willingness to seek help from a BHP for suicidal thoughts was not

statistically significant, $b = -0.13$, $SE = 0.89$, $p = .881$. Results supported a significant

indirect effect through self-stigma of seeking help, $b = -0.81$, $SE = 0.41$, 95% CI [-1.75, -.16], $P_M = 0.86$[1].

Exploratory Analysis. The ratio of the indirect effect to the total effect (P_M) was

utilized as an index of effect size. As expected, the model examining willingness to seek

help for suicidal thoughts had a larger effect size compared to the model examining

willingness to seek help for personal-emotional problems.

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[1] The significant indirect effect and non-significant direct effect findings remained the same without covariates included in both models.

Table 7 *Indirect Effect of Conformity to Masculine Norms on Willingness to Seek Help Through Self-stigma of Seeking Help*

Independent Variable	Dependent Variable	Coefficient (SE; *p*) or Bootstrap Coefficient (SE; 95% CI)	P_M
CMNI-46	BHP – Personal-Emotional		0.44
Total		-1.55 (0.72; .034)	
Direct path		-0.86 (0.73; .239)	
Indirect path		-0.69 (0.32; -1.43, -.11)	
CMNI-46	BHP – Suicidal Thoughts		0.86
Total		-0.94 (0.88; .285)	
Direct path		-0.13 (0.89; .881)	
Indirect path		-0.81 (0.41; -1.75, -.16)	

Note: CMNI-46 = Conformity to Masculine Norms Inventory-46, BHP = Behavioral Health Professional, SE = Standard Error, CI = Confidence Interval

CHAPTER IV – DISCUSSION

To our knowledge, there is no research examining willingness to seek help for suicidal thoughts among service members. Additionally, research has yet to examine how self-stigma of seeking help and conformity to masculine norms are related to willingness to seek professional help for suicidal thoughts. This study sought to address these gaps in three ways. First, we identified service members' willingness to seek help from a variety of sources for suicidal thoughts and a personal-emotional problem. Second, we examined how conformity to specific masculine norms differ among male and female service members and civilians. We expected that male service members would report higher conformity to masculine norms than female service members and civilian males. We also expected that female service members would report higher conformity to masculine norms than civilian females. Third, we examined how self-stigma of seeking help and conformity to masculine norms are related to willingness to seek help from a behavioral health professional (i.e., BHP) for a personal-emotional problem and suicidal thoughts. It was expected that conformity to masculine norms would exhibit a direct effect on willingness to seek help from a BHP as well as a significant indirect effect on willingness to seek help from a BHP through self-stigma. Results partially supported hypotheses.

Descriptives for Willingness to Seek Help from Sources

Descriptives for willingness to seek help from particular sources were provided. It was beyond the scope of this paper to examine if significant differences existed across willingness to seek help based on source. Therefore, interpretations about which sources service members are most or least willing to seek help from are limited and further examination is needed. It appears that service members in the current sample reported

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higher willingness to seek help from an intimate partner, regardless of reason (i.e., personal-emotional problem vs. suicidal thoughts). Interestingly, unit command was one source that had lower willingness ratings across both reasons. This initial finding aligns with other research showing that service members may not utilize mental health resources due to fear that command will view them differently (Momen et al., 2012). Further, one of the most identified barriers to care among service members is that seeking mental health treatment will have a negative impact on their career (Hom et al., 2017). Specifically, service members have reported being reluctant to seek help from unit command because they fear that they will be treated differently or seen as less competent (Hom et al., 2017). However, such interpretations are limited given that we did not examine if significant differences existed across willingness to seek help based on source. Therefore, future research should examine if willingness to seek help from these sources significantly differ.

Conformity to Masculine Norms Among Service Members and Civilians

Results comparing conformity to specific masculine norms among male and female service members and civilians supported our hypotheses. Compared to male civilians, male service members endorsed stronger adherence to the masculine norms of emotional control, violence, self-reliance, and primacy of work. Compared to female civilians, female service members endorsed significantly higher adherence to the masculine norms of winning, emotional control, violence, playboy, self-reliance, and primacy of work. Given that female service members are embedded in a traditionally masculine culture, it is expected that they would endorse stronger adherence to masculine norms compared to civilians. It may also be that females who adhere to more masculine

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norms are more likely to enlist in the U.S. military and are more willing to adopt masculine traits in order to fit the warrior archetype (Prividera & Howard, 2006). As a result, their adherence to such norms, which is already stronger compared to civilian females, is likely to strengthen during their time in the military. It may also be that females who join the military are more flexible regarding their adherence to gender norms depending on their needs. For example, Shields (1988) examined female service members' motivation for enlistment and concluded that females were attracted to the discipline and adventure the military offered. Similarly, a review of more recent research by Bandy (2019) identified that women enlisted in the military for reasons like self-improvement, social betterment, training, opportunities to travel, and patriotism (Griffith & Perry, 1993; Patten & Parker, 2011; Pliske, Elig, & Johnson, 1986; Sadler, Booth, Nielson, & Doebbeling, 2000; Segal, Bachman, Freedman-Doan, & O'Malley, 1999; Woodruff, Kelty, & Segal, 2006). Such reasons are not necessarily only applicable to the masculine role. Therefore, females who join the military may be more willing to adopt and adhere to the masculine culture in order to achieve their long-term goals.

However, civilian females endorsed significantly higher adherence to the masculine norm of heterosexual self-presentation than female service members. Similarly, civilian males endorsed significantly higher adherence to power over women and heterosexual self-presentation than male service members. The finding that male and female civilians endorsed higher adherence to the masculine norms of heterosexual self-presentation compared to their military counterparts has several possible explanations. First, it is important to consider the items comprising the Heterosexual Self-Presentation subscale assess participants' importance of not being perceived as gay. The civilian

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sample from Parent and Smiler (2013) was 95% heterosexual, while 81% of the military sample identified as heterosexual. It may be that the military sample consisted of more participants who identified as a sexual minority, leading to less concern about being identified as gay. Similarly, it may be that service members were more willing to disclose their sexual orientation as being something else other than heterosexual compared to civilians. As a result, service members who endorsed being a sexual minority would be less driven to be seen as heterosexual, leading to lower scores on the Heterosexual Self-Presentation subscale. We were unable to examine if the differences still held when covarying for sexual orientation since we used the means and standard deviations from the Parent and Smiler (2013) study. Future studies should examine if differences in heterosexual self-presentation still hold when covarying for sexual orientation. It may also be that social desirability bias played a role in service members' responses, which could also explain why civilian males endorsed higher adherence to power over women than military males. Service members may want to respond in a way that does not make the military look unfavorable with regard to women and sexuality. In 2011, the military lifted its ban on gay and lesbian service members and in 2015, all combat positions were opened to women in the military. Further, the proportion of women enlisting has been increasing across all branches since 2010 (Office of the Under Secretary of Defense Personnel and Readiness, 2018). It may be that service members wanted their responses on the power over women and heterosexual self-presentation items to align with how the military is trying to be more open and accepting about who is serving.

Compared to female service members, male service members endorsed stronger adherence to masculine norms overall. With regard to specific norms, male service

members endorsed stronger adherence to the norms of winning, violence, power over women, playboy, and heterosexual self-presentation. Findings indicate that both male and female service members adhere to many masculine gender role norms. However, males are socialized to such norms earlier on in their development before joining the military; thus, it is expected that they would have a stronger adherence to such norms. Further, it is more acceptable for males to adhere to masculine norms during their developmental years, which is likely to be positively reinforced through societal views.

It is also important to consider cultural factors that may influence a person's willingness to join the masculine-driven military. For example, 79% of new Army recruits reported having a family member who served in the military, with nearly 30% stating that it was a parent (Philipps & Arango, 2020). It may be that being raised in the military culture increases the likelihood that someone, regardless of biological sex, abides by such masculine norms and is thus more likely to join the military. Further, a higher proportion of Army recruits are from the South, which has more military bases in the region compared to the Northeast (Philipps & Arango, 2020). Southern states are more likely to abide by a culture of honor, which emphasizes the importance of maintaining reputations (Nisbett & Cohen, 1996). Individuals in honor cultures focus on maintaining their reputations by being strong and tough and are expected to defend their honor in an aggressive manner when it is threatened; this is especially true for men (Nisbett & Cohen, 1996). Therefore, it may be that individuals who are raised in honor states are more likely to join the military because it holds similar cultural expectations and helps maintain their reputations.

Conformity to Masculine Norms and Self-Stigma of Seeking Help

In both models (i.e., personal-emotional problem, suicidal thoughts), conformity to masculine norms had a significant indirect effect through self-stigma of seeking help on willingness to seek help from a BHP. Inconsistent with hypotheses, the direct effect of conformity to masculine norms on willingness to seek help from a BHP for a personal-emotional problem or suicidal thoughts was non-significant. In other words, conformity to masculine norms was not significantly associated with willingness to seek help from a BHP when co-varying for self-stigma of seeking help, regardless of reason. These findings suggest that higher conformity to masculine norms is not directly associated with less willingness to seek help from a BHP. Rather, higher self-stigma of seeking help may better explain less willingness to seek help from this particular source. These findings align with prior research indicating that self-stigma of seeking help may be a more proximal predictor of intentions to seek help from a BHP (Greene-Shortridge, Britt, & Castro, 2007; Wade et al., 2015). However, these findings should be considered preliminary since we did not reach our target sample size and the analyses may be statistically underpowered.

The indirect effect was evident for both models; however, the model examining willingness to seek help for suicidal thoughts had a larger effect size compared to the model examining willingness to seek help for personal-emotional problem. Therefore, self-stigma of seeking help may have a greater influence on willingness to seek help from a BHP for suicidal thoughts compared to a personal-emotional problem. It may be that disclosure of suicidal thoughts is perceived as more stigmatizing and harmful to careers due to fear of involuntary hospitalization (Blanchard & Farber, 2020) and loss of

autonomy due to being put on suicide watch (Blocker & Miller, 2013). Further, health care providers are not generally required to disclose information to command regarding self and medical referrals for mental health treatment. As a result, service members may feel there is less risk for harm to their careers for seeking help for a personal-emotional problem. However, health care providers must notify command if specific circumstances apply, including if the service member is considered at serious risk of self-harm or if there is a serious risk of harm to a specific military operational mission. According to DoD Instruction 6490.08, serious risk includes "disorders that significantly impact impulsivity, insight, reliability, and judgment". Suicidal thoughts may be viewed as a stronger indicator of compromised insight, judgment, and reliability compared to other mental health conditions, leading to less confidence in a service member's abilities and operational readiness. As a result, service members may feel more reluctant to seek help for suicidal thoughts due to concerns about their ability to perform in their assigned roles.

It is also important to consider the role of the military culture, which emphasizes mental toughness, high pain tolerance, self-sacrifice. Further, the military abides by a collectivist approach (Bryan Jennings, Jobes, & Bradley, 2012), which underscores placing the group's needs over personal ones (McGurk, Cotting, Britt, & Adler, 2006). By seeking help for a personal-emotional problem, a service member may be viewed as admitting they have a weakness that they cannot solve on their own and that they cannot endure the pain associated with it (Bryan et al., 2012). It may be that experiencing suicidal thoughts, and acknowledging the need for help with such thoughts, is seen as the ultimate weakness since it signifies a person is considering taking their own life and putting their needs before the needs of their unit. Further, fitness-for-duty evaluations can

result in service members having limited access to weapons and affect their typical duties. This can lead to service members feeling embarrassed and like a burden to command and their fellow unit members, who have to take on their typical responsibilities (Tanielian & Jaycox, 2008). However, interpretations of this finding are limited given the cross-sectional design of this study and replication is needed.

The nonsignificant direct effect of conformity to masculine norms on willingness to seek help from a BHP could also be a result of examining overall conformity rather than individual masculine norms as the variable of interest. It may be that adherence to specific masculine norms is associated with willingness to seek help from a BHP; however, the total score may wipe out these effects. Due to concerns about statistical power, we did not examine this possibility. Therefore, future research is needed, and the current findings should be considered preliminary.

<div align="center">Implications</div>

Overall, the findings for the current study have several implications regarding help-seeking and interventions for self-stigma. Military ethos reinforces selflessness, expecting service members to put the unit before their own needs (Westphal & Convey, 2015). Further, service members are taught to quickly stabilize themselves when injured in combat in order to re-engage in the battle and provide support for their unit (Bryan et al., 2012). Help-seeking campaigns may want to use a similar analogy and emphasize to service members that taking care of themselves can lead to long-term benefits for their unit and their performance. Such messaging could be especially meaningful from leaders, who could encourage service members that seeking help is a way to promote the strength of the entire unit (Harrison et al., 2017).

Interventions addressing self-stigma of seeking help may also prove beneficial for service members. Currently, most interventions for self-stigma focus on changing stigmatizing beliefs through cognitive restructuring or on improving self-esteem and teaching individuals to feel empowered for help-seeking (Mittal et al., 2012; Lannin, Guyll, Vogel, & Madon, 2013; Luoma, Kohlenberg, Hayes, Bunting, & Rye, 2008; McCay et al., 2007). Cognitive bias modification programs, which can be delivered via mobile phones, have also been evaluated (Rogers, Schneider, Gai, Gorday, & Joiner, 2018; Stanley, Hom, & Joiner, 2018). However, these interventions largely target self-stigma of having a mental health condition; therefore, further evaluation is needed to understand if and how such interventions are appropriate specifically for self-stigma of seeking help. Further, self-stigma interventions that have been examined in civilian samples may not be easily applied to a military population. Rather, self-stigma interventions may need to be tailored to align with the military culture.

In an effort to increase service utilization, anti-stigma campaigns have promoted messages that try to encourage service members that it is acceptable to receive help and leave their unit. However, Bryan and Morrow (2011) noted that this message contradicts the warrior mentality that emphasizes self-reliance and strength. Further, such messaging is at odds with the military ethos of selflessness, which expects service members to put the unit before their own needs (Westphal & Convey, 2015). Rather than trying to change service members' beliefs, we need to provide mental health services and tailor suicide prevention efforts to use a strengths-based approach in a culturally competent manner (Bryan & Morrow, 2011). Recommendations include not using clinical language like "symptoms", "warning signs", and "disorders" and integrating psychological skills into

the everyday military culture (Bryan et al., 2012).Given the difficulty of effectively

implementing interventions to reduce stigma and promote help seeking to scale,

empirically supported treatments that can be delivered outside the behavioral health care

system should also be considered. The military embraces a collectivist approach;

therefore, unit members and leaders may be especially helpful for delivering

interventions. For example, researchers in Utah are currently evaluating a Peer to Peer

(P2P) support program for reducing suicidal behaviors among Airmen. The program

trains peer mentors to provide a variety of interventions targeting emotion dysregulation,

cognitive rigidity, and contextual risk factors, like social support and access to firearms.

If shown to be effective, the program would allow service members to easily access

services and reduce concerns regarding confidentiality. Such programs may also want to

consider teaching loved ones to recognize risk for suicide and provide appropriate

support for service members experiencing suicidal thoughts.

<div align="center">Limitations</div>

This study does have its limitations. First, the study was cross-sectional in nature.

Thus, causal inferences cannot be drawn from the indirect models. Future studies should

use a longitudinal design to better understand the mechanisms influencing willingness to

seek help from a BHP, particularly for suicidal thoughts. Second, we were unable to

recruit our targeted sample size, limiting statistical power and generalizability. Due to our

small sample size, we were unable to utilize more advanced statistical techniques, like

structural equation modeling (SEM). Such analyses would provide a better understanding

between the latent and observed variables that make up conformity to masculine norms.

Specifically, it could be that adherence to specific norms, rather than overall adherence,

has a direct effect on willingness to seek help from a BHP. A larger sample size would also allow invariance testing to determine if the models differ based on biological sex and/or gender. Future research should utilize larger samples, which would allow for such analyses. Third, there are conceptual concerns regarding the measures of conformity to masculine and feminine forms. Prior research has demonstrated the utility of the CMNI-46 with females; however, items are open to interpretation, specifically with regard to items making up the Power Over Women subscale. As noted by the developers of the CMNI-46, items concerning controlling women may be interpreted differently by males and females. Similarly, prior research has utilized the 84-item version of the CFNI with males, however, the CFNI-45 has not been psychometrically examined in males. Items from the Invest in Appearance subscale (e.g., "I spend more than 30 minutes a day doing my hair and make-up", "I regularly wear make-up") may especially be irrelevant for males. Despite these concerns, these measures were selected because they assess adherence of multiple factors of masculine and feminine gender norms, unlike other measures that assess endorsement of masculine and feminine ideologies (Smiler & Epstein, 2010). Fourth, the study examined willingness to seek help from a BHP, which can a military-embedded or civilian source. Providers outside of the military are typically viewed with suspicion and mistrust and can limit actual help-seeking (Mental Health Advisory Team IV, 2006). Therefore, this item was open to interpretation, which could have affected ratings. Fifth, we did not examine the indirect effect of self-stigma of seeking help on willingness to seek help from other sources in an effort to limit statistical analyses and type II error. Future research should examine if the indirect effect applies to other formal and informal sources. Sixth, the CMNI-46, CFNI-45, and SSOSH were

modified to fit the needs of the current study. Therefore, the psychometric properties of the original measures may not fully apply to the modified versions. Finally, demographic differences were observed based on recruitment wave. Thus, recruitment method may have played a role in who participated in the survey. For example, voluntary recruitment allowed for us to provide more specific information regarding the purpose of the study and included how findings could help inform suicide prevention efforts. As a result, we may have been able to recruit more service members with a history of suicidal thoughts to participate in the study during wave 1.

Conclusions

Despite these limitations, we believe the current study's findings have several important implications for future research and interventions. This study was the first to our knowledge to examine service members' willingness to seek help from a BHP for suicidal thoughts. Further, findings provide initial evidence that self-stigma of seeking help, rather than conformity to masculine norms, influences willingness to seek help from a BHP. In order to increase help-seeking, help-seeking campaigns and interventions may need to be adapted to address self-stigma of seeking help. Empirically supported interventions for suicidal thoughts may also need to be provided outside of the behavioral health care system (i.e., peer to peer programs).

APPENDIX A Initial IRB Approval Letter

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APPENDIX B IRB Modification Approval Letter

Office of Research Integrity — THE UNIVERSITY OF SOUTHERN MISSISSIPPI

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Modification Institutional Review Board Approval

The University of Southern Mississippi's Office of Research Integrity has received the notice of your modification for your submission Help-Seeking in Military Personnel (IRB #: IRB-18-137).

Your modification has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

PROTOCOL NUMBER: IRB-18-137
PROJECT TITLE: Help-Seeking in Military Personnel
SCHOOL/PROGRAM: School of Psychology, Psychology
RESEARCHER(S): Samantha Daruwala , Michael Anestis

IRB COMMITTEE ACTION: Approved

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

PERIOD OF APPROVAL: November 18, 2019

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

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APPENDIX C IRB Renewal Letter

Office *of* **Research Integrity**

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

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NOTICE OF RENEWAL

The University of Southern Mississippi's Office of Research Integrity has received the notice of renewal for your submission:

PROTOCOL NUMBER: IRB-18-137
PROJECT TITLE: Help-Seeking in Military Personnel
SCHOOL/PROGRAM: School of Psychology, Psychology
RESEARCHER(S): Samantha Daruwala, Michael Anestis

IRB COMMITTEE ACTION: Approved

In accordance with Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy your prior reviewed submission has been renewed. From this time of this renewal your study is approved for twelve months.

PERIOD OF APPROVAL: December 10, 2019 - December 9, 2020

Sincerely,
Office of Research Integrity

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