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An Alternative View of “Honor:” Examining Stigma Towards Mental Health Care in the
Military from a Socio-Cultural Perspective

by

Larissa L. Tate, MS, MPS

Dissertation submitted to the Faculty of the
Department of Medical and Clinical Psychology Graduate Program
Uniformed Services University of the Health Sciences
In partial fulfillment of the requirements for the degree of
Doctor of Philosophy 2022



UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

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June 17, 2021

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In accordance with the School of Medicine Graduate Program Guidelines, you are formally appointed to the Final Examination Committee of Larissa L. Tate, doctoral student in the Department of Medical and Clinical Psychology.

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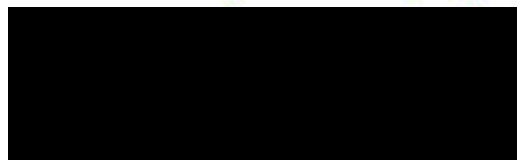
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The Private Defense for Larissa L. Tate will take place on Thursday, July 14, 2021 at 10:00 AM via Zoom meeting.

Dr. Natasha A. Schvey is appointed Chair of the Examination Committee. Dr. Schvey will oversee the examination. Passage of the Private Defense will be by majority vote. If corrections to the Dissertation are needed, the Chair may oversee this process and sign-off after the corrections are made.

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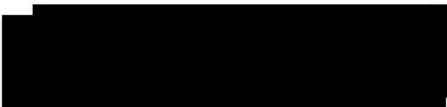
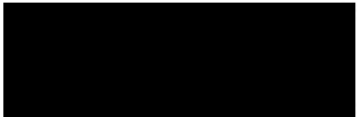
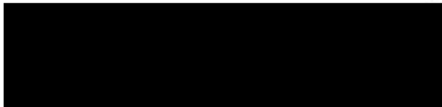
FINAL EXAMINATION/PRIVATE DEFENSE FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN THE DEPARTMENT OF MEDICAL AND CLINICAL PSYCHOLOGY

Name of Student: Larissa L. Tate

Date of Examination: July 14, 2021

Time: 10:00 AM

DECISION OF EXAMINATION COMMITTEE MEMBERS:

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**APPROVAL OF THE DOCTORAL DISSERTATION IN THE DEPARTMENT OF
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DEDICATION

This work is dedicated to the men and women currently serving in the United States Armed Forces, and to those who have served our Nation. Thank you.

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ABSTRACT

Title of Dissertation: An Alternative View of “Honor:” Examining Stigma Towards
Mental Health Care in the Military from a Socio-Cultural Perspective

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Doctoral Candidate, 2022

Thesis directed by: David S. Riggs, PhD, Department of Medical and Clinical
Psychology

United States service members and veterans are at increased risk for developing a variety of psychological conditions. Despite the high prevalence of mental health concerns, access to mental health care (MHC) services, and the availability of effective treatments, this population remains reluctant to seek care. The discrepancy between the pervasiveness of mental health issues and the actual number of service members and veterans seeking care is concerning. One of the most powerful explanations for this disparity is the influence of stigma. The DoD and VA have made significant efforts to combat mental health-related stigma, however, rates of help-seeking have continued to remain low even after the implementation of policy and programmatic changes. The present study took an alternative approach to stigma than has been previously examined, and viewed stigma through a sociocultural lens. Specifically, we examined the influence of beliefs and values stemming from a culture of honor on stigma, attitudes, and social norms surrounding seeking MHC in a novel sample of military personnel. A total of 320 participants (160 civilians and 160 military) completed an online survey distributed

through Amazon's Mechanical Turk and Qualtrics. Contrary to what was hypothesized, results revealed civilians more strongly endorsed masculine honor ideology than did service members and post-9/11 veterans, suggesting this dimension of honor is not as influential in this population as originally theorized. Nonetheless, endorsement of masculine honor ideology still significantly influenced perceived public stigma and reported self-stigma among both civilians and military personnel. Further, self-stigma completely mediated the relationship between public stigma and attitudes, indicating this variable plays a key role in understanding attitudes towards MHC. Findings significantly contribute to the current literature in the areas of both cultures of honor as well as stigma and provides a unique perspective into potential barriers to MHC. Several important implications of these findings are discussed, including the clear need for a deeper examination of how honor, reputation maintenance, morality, and other related concepts operate within the military. Further research is also needed regarding other potentially influential military cultural characteristics that might impact mental health, mental health stigma, and MHC.

TABLE OF CONTENTS

LIST OF FIGURES	144
LIST OF TABLES	155
LIST OF APPENDICES	166
CHAPTER 1: Introduction	177
Stigma Reduction Efforts in the DoD and VA	222
The Culture of Honor.....	299
The Establishment of Honor Culture in America	355
The Maintenance of Honor Culture in America	377
The Military as a Culture of Honor.....	399
Overrepresentation of Southern Recruits and Military Installations	40
Shared Values and Enculturation.....	422
Secondary Socialization.....	422
Service Branch Core Values	444
Creeds	444
Slogans.....	455
Identity Fusion	466
Mental Health and Stigma in the Culture of Honor	50
Summary and Rationale for the Present Study	577
The Present Study	60
Aims and Hypotheses	622
Rationale for Specific Aim 1	622
Specific Aim 1	633
Rationale for Specific Aim 2	644
Specific Aim 2	644
Rationale for Specific Aim 3	656
Specific Aim 3	666
Rationale for Specific Aim 4	666
Specific Aim 4	677
CHAPTER 2: Methods	688
Participants.....	688
Inclusion and Exclusion Criteria.....	699
Procedure and Materials	699
Measures	744
Demographic Information.....	744
Screening Questions.....	744
Honor Ideology Endorsement	755
Honor Ideology for Manhood.....	755
Honor Ideology for Womanhood	766
Attitudes Towards Treatment-Seeking	777

Attitudes Toward Seeking Professional Psychological Help Scale	777
Social Norms.....	799
Social Norms Subscale of the Attitudes About Seeking Mental Health Services	799
Public Stigma.....	80
Stigma Scale for Receiving Psychological Help.....	80
Self-Stigma	81
Self-Stigma of Seeking Help Scale	81
Embedded Attention Gauge Questions	82
Data Analytic Plan	82
Specific Aim 1	833
Specific Aim 2	833
Specific Aim 3	844
Specific Aim 4	844
Sample Size Estimation	844
CHAPTER 3: Results	866
Participant Demographics.....	866
Specific Aim 1	91
Specific Aim 2	944
Specific Aim 3	977
Specific Aim 4	1066
CHAPTER 4: Discussion.....	1156
Specific Aim 1	1166
Specific Aim 2	1333
Specific Aim 3	1366
Specific Aim 4	1422
Implications.....	1455
Limitations	15050
Strengths	1577
Conclusion and Suggestions for Future Directions	1599
REFERENCES	1644
APPENDICES	19090

LIST OF FIGURES

Figure 1. Structural model.	60
Figure 2. Participant recruitment flow.	72
Figure 3. Profile plot of estimated marginal means of honor ideology endorsement by branch.....	97
Figure 4. Results of the originally proposed observed variable path analysis.....	101
Figure 5. Results of the modified observed variable path analysis, including covarying for errors associated with self-stigma and social norms and attitudes and social norms.	103
Figure 6. Results of the modified observed variable path analysis using the civilian sample only.	103
Figure 7. Results of the modified observed variable path analysis using the military sample only.	105

LIST OF TABLES

Table 1. Sociodemographic characteristics for military and civilian samples.....	876
Table 2. Military-specific characteristics for the military sample	90
Table 3. Zero-order correlations among demographic variables and measures of interest in the full sample ($N = 320$)	90
Table 4. Means, adjusted means, standard deviations, and standard errors for honor ideology endorsement	91
Table 5. Summary of multiple regression analysis for aim 2	96
Table 6. Descriptive statistics and zero-order correlations among variables of interest in the full sample	98
Table 7. Descriptive characteristics and psychometric properties of the HIM and HIW in a military sample.....	108
Table 8. Demographic breakdown of means and standard deviations of HIM and HIW ($N =$ 320)	1086
Table 9. Descriptive characteristics and psychometric properties of the HIM and HIW in a civilian sample	108
Table 10. Summary of exploratory factor analysis results for HIM in the full sample ..	111
Table 11. Means, adjusted means, standard deviations, and standard errors for relational aggression/retaliation (factor 1) on the HIM	113
Table 12. Means, adjusted means, standard deviations, and standard errors for property aggression/retaliation (factor 2) on the HIM	114
Table 13. Means, adjusted means, standard deviations, and standard errors for reputation (factor 3) on the HIM	115

LIST OF APPENDICES

Appendix A. Military HITs Informed Consent.....	190
Appendix B. Civilian HITs Informed Consent	192
Appendix C. Demographics Questions.....	194
Appendix D. Military Screener.....	196
Appendix E. Honor Ideology for Manhood Scale	197
Appendix F. Honor Ideology for Womanhood Scale	199
Appendix G. Attitudes Toward Seeking Professional Psychological Help-Short Form	201
Appendix H. Social Norms Subscale.....	203
Appendix I. Stigma Scale for Receiving Psychological Help	204
Appendix J. Self-Stigma of Seeking Help Scale	205

CHAPTER 1: Introduction

Service members and veterans are at significant risk for a wide range of psychological concerns post-deployment including, but not limited to, anxiety, depression, posttraumatic stress disorder (PTSD), and alcohol misuse (Elliott et al., 2015; Goode & Swift, 2019; Tsai et al., 2015). However, even with the high prevalence of mental health issues after deployment, availability of care, and a multitude effective treatment options within the military healthcare system and the Department of Veterans Affairs (VA), service members and veterans still have difficulty seeking help (Dickstein et al., 2010; Hoge, 2011; Hoge et al., 2004; Kim et al., 2011; McFarling et al., 2011; Stecker et al., 2007). In fact, research shows 56-87% of those struggling psychologically after deployment have *not* sought out any form of mental health care (MHC), including psychotherapy or medication (Hoge et al., 2004; Kehle et al., 2010). These rates are even higher than the general civilian population (Hoge et al., 2004; Iversen et al., 2011; Kehle et al., 2010; Sharp et al., 2015) and are especially concerning given that unaddressed mental health concerns significantly impact both the well-being of the individual as well as the readiness and effectiveness of the fighting force as a whole (Hoge et al., 2002). It is therefore important to understand what factors are preventing service members and veterans from seeking psychological services, especially when they are experiencing significant distress.

Research has explored several obstacles and barriers to care that significantly influence individuals' reluctance to seek help for mental health concerns. Studies also have suggested a number of barriers that are especially pertinent to the military. Specifically, service members and veterans report not knowing how or where to access

MHC services or understanding the procedures and options and, if they do, it is difficult for them to schedule appointments and get time off work to attend those appointments (Gibbons et al., 2014; Hoge et al., 2004; Kim et al., 2011; Zinzow et al., 2013).

Additionally, research suggests military members might not trust psychological staff members (Cheney et al., 2018; Kim et al., 2011) and also encounter difficulties with obtaining transportation to appointments (Gibbons et al., 2014). Veterans further report encountering other obstacles, such as homelessness, not having steady employment, lack of confidence in the VA health system, and difficulty navigating VA benefits (Cheney et al., 2018; Elbogen et al., 2013). For active duty service members in particular, other organizational barriers present as additional challenges (Britt et al., 2008; Wright et al., 2009), including frequent moves and changes in duty stations as well as deployments (Gibbons et al., 2014). Research has found military members are also concerned with their leaders and peers keeping their decision to seek MHC private and confidential and worry seeking MHC could have a significant negative impact on their careers and their ability to obtain and retain security clearances (Britt, 2000; Zinzow et al., 2013).

Beyond logistical and practical barriers, one of the most studied, most frequently reported, and perhaps most powerful, explanations for the discrepancy between the availability of mental health services and low rates of engagement among military personnel is the influence of stigma (DiRamio et al., 2015; Hoge et al., 2004; Iversen et al., 2011). A growing body of research has even suggested stigma towards seeking MHC may be higher in the military than in the general population (Dickstein et al., 2010; Hoge et al., 2004; Kelley et al., 2014; Mittal et al., 2013; Tanielian & Jaycox, 2008). Stigma is generally understood as “an attribute that is deeply discrediting” that reduces individuals

“from a whole and usual person to a tainted, discounted one” (Goffman, 1963, p. 265).

There are various dimensions to consider in further conceptualizing stigma, including experienced stigma and perceived stigma. Experienced, or received, stigma refers to the actual experience of stigmatizing attitudes, behavior, or discrimination from the general population. In regards to mental health stigma specifically, perceived, or anticipated, stigma involves the beliefs or expectations that those with a mental illness possess about *others’* stigmatizing attitudes towards them (Simonsen et al., 2019; Van Brakel, 2006).

Two manifestations of perceived stigma that are particularly influential in the decision to seek treatment are *public stigma* and *self-stigma*. Public stigma is defined as *others’* beliefs that someone with a mental illness is “socially unacceptable” (Dickstein et al., 2010) and is the collection of negative attitudes towards those with mental illness, often resulting in labeling them as “weak” or “irresponsible” (Corrigan, 2004). In the military, seeking help for mental health concerns is associated with a significant amount of public stigma (Brown & Bruce, 2016; Currier et al., 2017; Tsai et al., 2015). Using data from the National Post-Deployment Adjustment Survey, Elbogen and colleagues (2013) found that although 43% of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) veterans screened positive for PTSD, major depression, or alcohol misuse, only 25% ever sought outpatient care. Perceived public stigma, and particularly believing others would think that they should try to resolve mental health issues on their own, was a major contributor to veterans not seeking help. Additionally, veterans who screened positive for PTSD, major depression, or alcohol misuse were concerned their unit leadership or employer would treat them differently, they would be seen as weak by others, and that peers would have less confidence in them. Notably, veterans who had

actually accessed MHC still reported concerns about stigma and were more likely than those who did not seek treatment to express worries of being seen as weak by others (OR = 1.37, $p = .006$).

In a series of interviews with veterans who had accessed VA healthcare for a variety of mental health concerns, Cheney and colleagues (2018) further demonstrated that fear over what others may think was a major barrier for veterans seeking MHC. The researchers utilized Cultural Domain Analysis to elicit domain clusters from participants' responses to qualitative, semi-structured interviews. Results demonstrated veterans were indeed concerned about stigmatizing labels, such as being called "crazy." One veteran attributed their reluctance to seek MHC to being "afraid of the stigma put on [them] by the outside world" (p. 7). Another remarked that:

It's scary to go for mental healthcare because people automatically think that you are not stable enough to handle tasks in the military. And then if you say that you are seeking mental health care, they automatically write you off as not being capable" (p. 7)

The authors concluded these attitudes and perceptions around help-seeking as a sign of weakness is further reinforced by command structures, military socialization, and institutional attitudes around MHC. Service members and veterans have also reported worries they would face discriminatory treatment from fellow troops and commanders for seeking MHC (Corrigan, 2004; Corrigan & Matthews, 2003; Quinn & Chaudoir, 2009), that others will lose confidence in their ability to perform their duties (Britt, 2000; Britt et al., 2007; Hoge et al., 2004; Pietrzak et al., 2009; Stecker et al., 2007), and that seeking

treatment may negatively affect promotions, future job opportunities, and security clearances (Britt, 2000; Pietrzak et al., 2009).

Self-stigma is also influential in impeding seeking MHC in the military and refers to an individual's own negative self-perception and attitudes about mental illness and help-seeking (Dickstein et al., 2010). Not only are service members likely to perceive stigma from others, but they are also likely to *internalize* public stigma, leading to self-labeling of being socially unacceptable, weak, or inadequate (Britt et al., 2008; Corrigan, 2004; Dickstein et al., 2010; Held & Owens, 2012; Vogel et al., 2006). This self-stigma has been associated with lower intentions of actually seeking MHC among returning service members (Blais & Renshaw, 2013). Blais and Renshaw (2013) found that, among National Guard/Reserve members previously deployed to Iraq and Afghanistan, self-stigma was negatively associated with intentions to seek help for mental health from various sources, including mental health professionals ($r = -.34, p < .001$) as well as medical doctors or advance practice registered nurses ($r = -.20, p < .01$).

Schuy and colleagues (2019) suggested military personnel in particular may be especially affected by this self-stigma “considering treatment can be associated with conflicts between internalized conflicting identities: being mentally ill on the one hand, and military norms and standards on the other” (p. 280). They explored this idea through narrative interviews with former soldiers of the German Armed Forces and assessed the relationship between stigma and MHC use. Results indicated over half of the participants associated having a mental illness with being weak, significantly contrasting their identity as former soldiers which, to them, meant they were strong and able to perform duties without failure. Experiencing mental health concerns made them feel ashamed (45.5% of

participants). Their identity as a soldier was in direct conflict with their beliefs about mental illness.

Stigma Reduction Efforts in the DoD and VA

Over the last two decades, the Department of Defense (DoD) and VA have taken numerous steps to lessen mental health stigma as well as promote treatment-seeking among those who need services. For example, the military has increased the number of mental health professionals in addition to making more service members and veterans eligible for treatment (Dickstein et al., 2010). The DoD has also established policies that require after-duty hours for MHC so that service members do not have to take time off work (Acosta et al., 2014), and both the DoD and VA have facilitated access to mental health services outside their organization and within the community (Bryan & Morrow, 2011). Efforts to reduce public stigma have been made through educational programs, advocacy work, and increasing contact with those dealing with mental illness (Dickstein et al., 2010). Strategies targeting self-stigma have focused on reinterpreting seeking MHC as a sign of strength and courage, such as through the Defense Centers of Excellence Real Warriors campaign, an anti-stigma campaign that provides a platform for service members and veterans who have successfully gone through mental health treatment to share their stories with others (see www.realwarriors.net for more information).

In terms of policy changes more specifically, in 2011 the DoD mandated each branch to “foster a culture of support in the provision of mental healthcare and voluntarily sought substance abuse education to military personnel” (Department of Defense, 2011; p. 209). Each service has sought to foster this culture by recognizing mental health as a key component to total force fitness and force readiness and have

made steps towards “encouraging prevention, early intervention, and help-seeking behaviors” (Nathan, 2012, p. 10). For instance, Army Regulation (AR) 600-63 requires leadership to undergo training on creating an “atmosphere within their commands that reduces stigma and encourages help-seeking behavior” (Department of the Army, 2015, p. 20). The DoD and individual military branches also have numerous policies outlining interventions for reducing stigma, protecting the privacy and confidentiality of service members who seek MHC treatment, requiring service members with psychological concerns be treated no differently than those without, attempting to make the process of seeking MHC less stigmatizing by placing providers in less distinct locations (such as embedded within primary care clinics instead of solely in specialty mental health) and detailing and enforcing consequences for behavior that is discriminatory or prejudicial towards those with mental illnesses (Acosta et al., 2014).

Several policies have also been revised or established in order to encourage service members and veterans to seek care. To address military personnel’s concerns about loss of confidentiality, DoD Instruction (DoDI) 6490.08 explicitly states that mental health providers must notify the service member’s command only if their condition meets certain criteria (Department of Defense, 2011). Specifically, enclosure 2, 1b states:

Healthcare providers shall notify the commander concerned when a service member meets the criteria for one of the following mental health and/or substance misuse conditions or related circumstances: harm to self, harm to others, harm to mission, special personnel [i.e. special forces/operations], inpatient care, acute

medical conditions interfering with duty, substance abuse treatment program, command-directed mental health evaluation, or other special circumstances. (p. 5)

Contrary to common belief, when a service member voluntarily seeks MHC, providers are not required to notify command, unless the service member poses a risk to themselves or others, or if there are significant duty concerns as outlined above. Even when service members are command-directed to seek MHC, providers still must maintain some privacy and are required to report concerns using the minimal amount of information necessary to communicate with command.

Many service members are also concerned about how seeking treatment for mental health difficulties might negatively impact their career. However, the services have established policies that explicitly state seeking MHC *alone* will not negatively impact service members' careers. Although there are some exceptions to this – DoDI 6130.03 (Office of the Under Secretary of Defense for Personnel and Readiness, 2018) outlines psychological disorders that may preclude deployment – seeking MHC in and of itself is not a disqualifier. AR 623-3 (Department of the Army, 2019), for example, states:

A rated soldier who voluntarily seeks mental health counseling or is entered into a mental health care program for behavioral health issues that have not been detected by the chain of command will not be penalized by mention of this participation in a behavioral health treatment program in an evaluation report. (p. 52)

Research also has supported the idea that seeking MHC alone does not create negative career impacts. Several studies have shown that service members who voluntarily sought MHC treatment themselves were less likely to receive recommendations that would

negatively impact their career than service members who were told to seek care by their command (Ghahramanlou-Holloway et al., 2018; Rowan et al., 2014; Rowan & Campise, 2006). In one study, for example, only three percent of service members who self-referred for care had a negative career impact compared to 39% of those who were referred by command (Rowan & Campise, 2006).

A related concern many service members have regarding seeking MHC is the risk of losing or being declined security clearances. In fact, research has shown that 24% of service members experiencing mental health symptoms reported they did not seek MHC due to worries it would affect their ability to attain or maintain their security clearance (Psychological Health Center of Excellence, 2020). Briefly, when individuals apply for security clearances, they must complete the “Questionnaire for National Security Positions,” Standard Form 86 (SF-86). The DoD made changes to this form in November 2016 in order to address concerns regarding privacy and to assure no negative consequences due to seeking MHC. Question 21 on the SF-86 asks “In the last seven years, have you consulted with a health care professional regarding an emotional or mental health condition, or were you hospitalized for such a condition?” The form further states service members can faithfully answer “no” if they have received counseling strictly related to adjustment from service in combat, marital or family issues, grief issues, or trauma related to having experienced sexual assault (Office of the Under Secretary of Defense for Personnel and Readiness, 2014). The DoD issued a memorandum in 2014 stating that individuals cannot be denied clearance solely due to a “yes” to Question 21 and that seeking MHC is not cause alone for the denial or loss of

security clearance. Of note, the Memorandum for Secretaries for the Military Departments explicitly states that:

Your decision to seek mental health care will NOT in and of itself adversely impact your ability to obtain or maintain a national security position. In fact, seeking personal wellness and recovery may favorably impact your eligibility for a national security position. (Office of the Under Secretary of Defense for Personnel and Readiness, 2014, p. 3)

It is extremely rare to have a security clearance denied or revoked solely on the basis of reporting mental health conditions or treatment, and research supports this claim; of the 85,000 service members who were denied a clearance or had their clearance revoked between 2006 and 2012, only 145 individuals (0.002%) were due to mental health reasons (Kennedy, 2017). Further, less than one percent of those who applied for or were seeking to maintain their clearance were denied after answering “Yes” to Question 21 (Kennedy, 2017).

Further, the DoD has outlined policies with respect to protecting service members’ privacy during security clearance evaluations. Security investigators may only ask health care providers the question “Does the person under investigation have a condition that could impair his or her judgement, reliability, or ability to properly safeguard classified information?” If the provider answers “no,” the investigator is not permitted to ask additional questions. If the provider answers “yes,” the investigator may interview the provider and the applicant confidentially to gather additional information to determine security risk level. Commanders are not permitted to ask the applicant or anyone else about the MHC service members may have received in response to Question

21. Applicants are also provided with the DoD Inspector General Hotline number to report any unauthorized questioning about their MHC (Military OneSource, 2018).

In terms of formal policy changes, the DoD and the VA have worked to remove any barriers and it would be inaccurate to ignore the consistent efforts within these systems to create positive change and encourage service members and veterans to seek MHC. However, despite this hard work, the effectiveness of many of these policies and programs have not been adequately assessed (Hurtado et al., 2015). In 2014, the RAND National Defense Research Institute aimed to address this gap by evaluating stigma-reduction strategies across the DoD and within each of the services (Acosta et al., 2014). According to RAND, efforts by the DoD to combat stigma largely focus on public stigma; providing education for leadership and creating policy to discourage and reduce discriminatory behavior were among the most-promising approaches. In decreasing public stigma specifically, contact-based programs, multimedia campaigns, and training programs appeared to have some success. Although certainly important first steps, few stigma reduction strategies have been evaluated for their effectiveness. In fact, RAND stated they were unable to find any empirical evidence these efforts have been effective in addressing stigma.

While there undoubtedly has been a shift in recent years wherein mental health difficulties are discussed more freely and many service members and veterans have begun sharing their personal stories and experiences with seeking treatment, stigma towards seeking MHC in the military still exists and remains extremely problematic (Department of the Army, 2010). Even with the admirable efforts to decrease stigma, data from the Mental Health Advisory Team (MHAT) show stigma towards mental health in

the military did not change much over the past several years (Mental Health Advisory Team-V [MHAT-V], 2008; MHAT-9, 2013), suggesting the investment of millions of dollars in anti-stigma campaigns and programs might not be enough, even with the best of intentions. Perhaps, these efforts have not produced optimal results because unique cultural issues have been neglected.

The influence of cultural values and beliefs may be important to understanding stigma towards seeking MHC, and also the resistance to change despite the stigma reduction efforts already taken. Culture can be considered a “unique profile of society,” which encompasses observable patterns of behavior and social institutions as well as less tangible beliefs, values, and norms (Aslani et al., 2016). The explanations different cultures attach to mental illness varies (Kleinman, 1988), and these explanations can have significant impacts on people’s motivation to seek treatment as well as how supportive their community, family, and friends are of help-seeking behavior (Office of the Surgeon General, 2001). As such, culture may be important in furthering our understanding of barriers to seeking MHC (Corrigan et al., 2014). The persistence of stigma towards mental health in the military may be due to ignoring an important, influential aspect of culture in the military. Further, barriers to seeking MHC experienced by service members and veterans may be better understood and addressed through a cultural lens.

In the present study, it is suggested stigma towards MHC in the military should be examined at a deeper cultural level. Further, it is argued the stigmatization of MHC derives from the socio-cultural influence of honor culture values and beliefs (Cohen et al., 1996; Nisbett, 1993). As later discussed in more detail, the honor culture principles traditionally associated with reputation maintenance, aggression, and violence also may

be likely to further exacerbate the stigmatization of mental health conditions and social norms and attitudes towards seeking help for these needs (Brown et al., 2014). Below, honor culture theory and the culture's early manifestation in the US are described in an effort to offer an alternative understanding of the reticence to seeking MHC among service members and veterans. Further, it is suggested the US military could be considered such a culture and that the reservation service members and veterans have in regard to seeking MHC might stem from the degree to which they align with these honor-related beliefs and values.

THE CULTURE OF HONOR

If we want to understand the influence of honor ideology on help-seeking for mental health concerns in the military, we must first understand what is meant exactly by “honor” as it is used in this context. Honor is multifaceted and, generally, has two distinct definitions (Pitt-Rivers, 1966). First, honor is most readily associated with qualities such as loyalty and honesty, and this definition is typically highly regarded in most, if not all, cultures (Barnes, Brown, & Osterman, 2012). It is also true the word construes ideas of virtue, goodness, and integrity. However, in the conceptualization of the word in the context of “honor cultures,” reputation and social standing are central. This type of honor is also found in most cultures, but the degree to which cultures emphasize this construct varies (Barnes et al., 2012; Brown, 2016; Mosquera, 2013). Societies placing the maintenance and defense of reputation at the core of its value system are known to social scientists as “cultures of honor” (Brown, 2016; Brown et al., 2014; Nisbett, 1993) and, within these cultures, the foundations of both individual and collective identity lie in this importance of reputation (Brown et al., 2014). For members of honor cultures, reputation

is *everything* and, as such, every effort is made to defend their own reputation as well as the reputation of their family and community against threats. Expectations of how to manage and protect reputation are developed in these cultures and help members attend to, interpret, and respond in such ways to meet these ends (Brown, 2016).

In honor cultures, men are, and are known as, tough, strong, and able and willing to defend oneself, one's family, and one's property (Brown et al., 2014). A reputation for fearlessness, toughness, and aggression must be maintained, particularly when faced with provocations or insults (Cohen et al., 1996; Fischer, 1989; Nisbett, 1993). Men from such cultures can quickly lose their status and reputation if they display a lack of bravery or any indication of weakness; such acts void any demonstrations that originally earned him his "manhood." As such, "real" men are those who eschew any sign of weakness or cowardice (Brown, 2016). Honor for women in such cultures revolves more around loyalty and purity; however, strength and toughness are just as essential (Brown et al., 2014). For both men and women, avoidance of behaviors considered dishonorable is strongly influenced by concerns for reputation, especially because individual honor is strongly linked with the honor of one's partner and one's family (Foster et al., 2020). In a similar vein, compared to other cultures, honor cultures typically value more highly principles like integrity, hospitality, courage, loyalty, and unity with other members, instilling a strong sense of identification with and responsibility towards the group. Failing to fulfill these expectations and realize these ideals is considered shameful, damaging, and difficult to expunge (Fischer, 1989; Vandello & Cohen, 2003).

Along with the emphasis placed on the embodiment of these traits, members of honor cultures are highly concerned with how they are perceived by others and how

others interpret their overall worth to the larger group. As a result, honor-oriented people have an enhanced sensitivity towards honor-related threats, typically insults or challenges to their reputation; their “social radars” are particularly attuned towards perceiving these threats (Brown et al., 2014). In relatively equivocal social situations, members of honor cultures are more likely to pick up on these types of signals and feel more obligated to respond aggressively than non-honor-oriented people because “*not* to do so would be to risk what is valued over almost everything: your reputation” (Brown, 2016, p. 27).

A seminal study conducted by Cohen and colleagues (1996) explored potential differences among men from honor-oriented cultures and those from non-honor-oriented cultures (as assessed by participant region of origin) on their response to a research confederate bumping into them as they walked down a hallway and muttering “asshole” under their breath. Those from non-honor-oriented cultures found the incident amusing, while the honor-oriented participants became angry and aggressive. Not only were those from cultures of honor more emotionally reactive, but they also were more physiologically responsive and had increased levels of cortisol and testosterone (79% increase among honor participants versus 12% increase among non-honor participants). The authors concluded honor-oriented people took the confederate’s insult as a fundamental threat to their honor and this sensitivity towards threats leads to feelings of obligation to respond to and forcefully retaliate against the transgressor, often leading to physical aggression and/or risky behavior. If one can properly retaliate against these threats, one can maintain their reputation (Bosson et al., 2009; Vandello et al., 2008; Weaver et al., 2010). An unaddressed slight could lead to a damaged reputation and diminished status.

The Southern and Western regions of the United States are documented honor cultures in which there has been a cultural acceptance of honor-oriented beliefs, and these regions have been a primary focus of recent honor culture research (Foster et al., 2020; Brown, 2016). Richard Nisbett and Dov Cohen, prominent researchers in the area of honor culture, identified “honor states” as those falling into the Southern and Western regions of the United States as organized by the US Census Bureau, with the exception of Alaska and Hawaii (Cohen et al., 1996; Vandello & Cohen, 1999). “Non-honor states” include Alaska and Hawaii and all non-Southern/non-Western states (Barnes et al., 2014). Most honor-oriented individuals previously studied have typically fallen into the category of white males from rural areas and/or convenience samples of undergraduate students; however, there have been some preliminary discussions of honor culture influences in urban African American and Latinx communities (see Gul et al., 2020; Felson & Pare, 2010; Dietrich & Schuett, 2013). These groups may share some honor culture values and beliefs, but it is an open question as to whether they entirely embody the ideals of honor cultures. To our knowledge, no prior research has explicitly and directly studied this specific honor phenomenon in US urban communities of color.

Because honor states are widespread throughout the South and West, and because the South is known to be home to many states that make up the “Bible Belt,” honor ideology may be conflated or associated with religion in the United States. Indeed, people in honor states are more likely to attend church compared to those in non-honor states (Brown, 2016). However, assuming that overlaps in religious regions indicate an intricate connection between honor and religion is an ecological fallacy. James Bowman (2006) argues that religious devotion and strong endorsement of honor ideology may even be

contradictory and incompatible. In other words, they are two systems of values that contend with one another for people's "ultimate devotion." As Brown (2016) questions:

Is your reputation your god or is Someone else? If your reputation might suffer if you follow a religious mandate to love your neighbor as yourself, to return good for evil, or to forgive those who persecute you, which path do you choose? (p. 155)

Empirical research has also demonstrated no apparent link between masculine honor and religiosity or religious fundamentalism (Barnes, Brown, & Osterman, 2012).

Relatedly, the construct of political conservatism might fall prey to a similar ecological fallacy. The same regions of the United States that are associated with honor culture are also associated with strong conservative views and beliefs. Research regarding the link between political conservatism is somewhat conflicting. Some studies have demonstrated honor ideology is independent from conservatism (e.g., Barnes, Brown, & Osterman, 2012), whereas a study conducted by Barnes, Pomerantz, and Yashko (2016) showed a significant association between political conservatism and masculine honor ideology endorsement. However, the authors strongly cautioned overemphasizing this connection. They advised against viewing masculine honor as a "mere fact of this broader sociopolitical bent" and instead encouraged research to study masculine honor ideology independent of political conservatism, as concluding it as merely an expression of conservatism could "prevent the discovery of associations that could not be expected of conservatism broadly defined" (p. 16). For example, conservatism has been shown to be associated with religiosity (Barnes, Brown, & Osterman, 2012; Saucier et al., 2016; Altemeyer & Hunsberger, 1992), but masculine honor ideology is not associated with

religious beliefs or fundamentalism, as previously discussed (Barnes, Brown, & Osterman, 2012). Furthermore, masculine honor ideology has been connected with behaviors seemingly not compatible with ideological conservatism, such as engagement in risky behaviors ranging from gambling to bungee jumping off a bridge (Barnes, Brown, & Tamborski, 2012). In sum, masculine honor ideology might be a *dimension* of political conservatism, but it is not, in and of itself, *solely* conservatism.

It also should be noted that endorsement of honor ideology exists in many cultures across the globe, not just in the United States, including nations in the Mediterranean, Central and South America, and Middle East (Barnes et al., 2014; Bosson et al., 2009; Cohen et al., 1996). In fact, many cultures throughout history have had some strong emphasis on reputation maintenance and honor-oriented beliefs, as it is both adaptive and natural for human beings to care about their reputations. Honor-oriented individuals, however, place reputation management on “cultural steroids” by strongly emphasizing the necessity to seek and defend their reputations (Brown, 2016).

It should further be acknowledged that cultural social scientists have recognized various types of human societies, with cultures of honor being one of them (Brown, 2016). Other cultures of focus include face cultures, such as those in Southeast Asia, and dignity cultures, such as the Northern United States and parts of Western Europe. All three cultures attend to how members build their sense of self-worth, but the ways in which self-worth is obtained differs. As described above, honor cultures emphasize the protection of one’s reputation and one’s family. Face cultures are similar in that one’s self-worth is built through the eyes of other members (Aslani et al., 2016) and, like honor, the opinions of other people are of extreme importance (Leung & Cohen, 2011).

However, in contrast to honor cultures, some semblance of face is implicit. Every member of the cooperative hierarchical society can have face, but the amount may vary depending on their position within the society and whether the individual properly fulfills their societal role. Face can be gained, and others can “give” face, but the focus within these cultures surrounds not losing face (Hamamura et al., 2009).

Contrary to honor cultures and face cultures, dignity cultures place emphasis on the individual more than the society as a whole (Aslani et al., 2016). Whereas in honor cultures respect and social worth are *earned* (and can relatedly be lost), in dignity cultures these are inherently *assumed*. Dignity is the “conviction that each individual at birth possesses an intrinsic value at least theoretically equal to that of every other person” (Ayers, 1984, p. 19). This inherent worth does not depend on others; it cannot be bestowed by others nor can it be taken away by others (Leung & Cohen, 2011). That is not to say that reputations cannot be *enhanced* or *damaged* in dignity cultures. But the “battle for social worth is not fought every day with the same ferocity as it is in a typical honor culture” (Brown, 2016; p. 184). For a more complete review of the similarities and differences among honor, face, and dignity cultures, see Leung and Cohen (2011).

The Establishment of Honor Culture in America

In order to best make sense of honor culture in the United States, understanding the history of its origin is key. In the 17th and 18th centuries, the American colonies experienced a massive wave of immigrants hailing from Scotland, known as the “Scotch Irish” or “Ulster Scots.” These Scots were themselves immersed in a culture of honor, primarily developed because of economic strife brought upon by nearly constant war with the English. As a result, natural resources became severely depleted and farming was

nearly impossible; out of necessity, herding became a primary means of living. However, in a land with very few laws, raids where livestock were stolen were regular. Such an environment made stability and security seemingly unattainable. In order to establish some semblance of protection, an honor culture emerged (Brown, 2016) as a reputation for toughness, fierceness, and strength was one of the best forms of protection living in a such a country of scarcity and competition. Being known as such indicated to others that stealing or harming one's home or property may prove to be riskier than it was worth. Establishing such a reputation had to be earned through displays of toughness and strength and public exhibitions of pride, resilience, and aggression (Brown, 2016). Not doing so left one vulnerable in a hostile land (Brown, 2016).

This reputation maintenance was harnessed by the Ulster Scots who looked to America as an escape from continual brutal conflicts. In contrast to the quiet Quakers, Puritans, and Dutch farmer-artisans who predominately settled the New England and Middle Atlantic colonies, the Southern and Western regions of America were settled by the Ulster Scots in the 1600s and 1700s. Entire families emigrated to the colonies, bringing with them their values, beliefs, social scripts, and "warrior ethos" that had been refined for centuries (Brown, 2016; Nisbett, 1993; Fischer, 1989). This cultural mentality was reinforced upon their arrival as they settled into western Maryland, Virginia, North and South Carolina, Georgia, Kentucky, and Tennessee. This land was similar to the borderlands of Scotland in that they were vast and open, ideal for raising cattle, sheep, goats, and pigs, but poor for farming (Brown, 2016). The same attitude employed by their Scottish herding ancestors was essential in this new country to discourage threat and

protect their livelihood, particularly when adequate law enforcement could not be depended upon (Cohen & Nisbett, 1994).

The beliefs, values, and behaviors the Ulster Scots brought with them dominated other cultural systems. In fact, historian David Fischer (1989) reflected, “so well adapted was the border culture [of Scotland] to this environment that other ethnic groups tended to copy it” (p. 639). Not only were their social influences popular because of the sheer number of Ulster Scot immigrants (in some counties, Ulster Scots made up more than 50% of the population), but also because it was adaptive and essential to survival in the relatively lawless lands of the colonies’ frontiers. One could not afford to be seen as someone who could be taken advantage of; establishing a reputation of strength was essential in ensuring one was not a target for exploitation (Fischer, 1989; Nisbett & Cohen, 1996). In a way, centuries of lawlessness, warfare, and poverty had prepared the Ulster Scots to be most successful in these frontiers (Brown, 2016).

The Maintenance of Honor Culture in America

The honor-oriented culture brought to a nascent America by the Ulster Scots is still alive and well in the South and West today. However, present day United States looks quite different from when the Ulster Scots immigrated hundreds of years ago - the original conditions essential for the implant and growth of an honor culture have been more or less replaced (Cohen & Nisbett, 1994). Rule of law is well-established, law enforcement is organized, and various levels of legislative government exist. Yet, honor-related beliefs are very much still influential on people in these regions and provide some insight to how these individuals view, interpret, and respond to social cues and interactions (Brown, 2016).

But how is it that this cultural concern with reputation maintenance has been propelled into and persisted in the present, despite these changes? The importance of honor and reputation maintenance is clear in the social institutions (i.e. family, community) that have remained and these beliefs and values may be further reinforced by social mechanisms, such as certain laws that may excuse violence (Cohen et al., 1996), patterns of expected personal interaction (Cohen et al., 1999), depictions in the media, and other forms of institutional non-stigmatization of violence (Cohen & Nisbett, 1997). It has also been suggested the beliefs and values of a culture of honor may be maintained through “intergenerational socialization” (Lee & Ousey, 2011) whereby transmission of honor culture occurs through sharing behavioral scripts, norms, and values, including the idea that the core of one’s identity is one’s reputation (Cohen & Nisbett, 1994). Because these are part of a collective, cultural ideology, they are played out in every social interaction and, as such, may endure despite otherwise dramatic societal changes (Turner & Oakes, 1986).

This endurance of honor-related beliefs and values, or the persistence of any social norm in general, past the point where they are not outwardly functional or adaptive is known as *cultural lag* (Ogburn, 1966) or *conservative lag* (Miller & Prentice, 1994). Of course, part of their endurance is undoubtedly due to the internalization of “properly socialized members of the culture” despite the norms not necessarily serving a rational, functional purpose any longer. While a contemporary member of the US honor culture who fails to live up to the culture’s ideals may not face the danger of losing life or livelihood, they nevertheless may be in danger of losing other things associated with their

reputation, such as the respect of their peers or even their own self-respect (Cohen & Nisbett, 1994).

THE MILITARY AS A CULTURE OF HONOR

The military in and of itself is a unique culture. Its customs, traditions, manners, behaviors, and even language are distinctive to service members, veterans, and their families. These are reinforced through the lived experience of these individuals and are apparent in various aspects of the way in which the military is organized, including housing arrangements, regulations, and rank structure (Hall, 2011). The military promotes building camaraderie and “esprit de corps,” and provides a sense of security and structure while also offering meaning and purpose. Discipline and restraint are stressed from the very beginning of basic training and values of strength, self-sacrifice, self-reliance, loyalty, teamwork, courage, and emotional stoicism are emphasized (Westphal & Convoy, 2015). Additionally, there is an expectation service members should be “mentally tough” and should have the ability to master stress without much difficulty. There is also an emphasis on resilience and self-reliance, with the idea one should be able to “bounce back” quickly from illness or injury. These values are engrained in service members from their initial training and continue to be developed and reinforced throughout their time in service (Tanielian & Jaycox, 2008). Central to military culture is the “warrior ethos” – the desire for success, the fight to win under all circumstances, and the tenet one never accepts defeat (Cuyler & Guerrero, 2019). For many service members, the warrior ethos and codes of military culture become a lasting part of their identity and worldview (Gibbons et al., 2014; Westphal & Convoy, 2015).

Many parts of the military culture, and this “warrior ethos,” echo characteristics

of the people from the Scottish borderlands who immigrated to America in the 17th and 18th centuries. In a way, warrior ethos is the culture of honor and was a core part of the Ulster Scots' heritage. One of the aims of the present study is to suggest that many of the values emphasized within a culture of honor are reflected by and consistent with the values held by members of the United States military. In other words, the present study posits the military strongly emphasizes thoughts, feelings, and behaviors consistent with cultures of honor and embraces a philosophy of masculinity and promotes qualities of strength, courage, self-sufficiency, and loyalty (Segal et al., 2014) – all features emphasized within a culture of honor. The present study also suggests the military could be considered an honor culture and that the associated beliefs and values among those in the military may be more commonly and more strongly endorsed than the general population. In turn, these beliefs and values may have a significant influence on stigma towards MHC among service members and veterans.

Overrepresentation of Southern Recruits and Military Installations

This relation may exist partly due to the fact nearly half of all present-day US military recruits come from the South. Since the draft was eliminated in 1973, the Southern region of the United States has contributed the largest percentage of recruits to the military every year (Quester & Shuford, 2015) and, over the past few years, the number of enlisted Southerners has continued to increase. In 2018, nearly 46 percent of all active component military recruits came from Southern states, despite less than 38 percent of the United States' population of 18- to 24-year-olds actually residing in the South. In comparison, less than 16 percent of recruits were from the Midwest, and these numbers have steadily decreased over time (Department of Defense, 2018). Enlistment

contracts originating from Fort Bragg, which is located in Fayetteville, North Carolina, further illustrates this point – enlistment rates here were more than twice that of Manhattan, which has a population eight times larger than Fayetteville (Department of Defense, 2018).

The South is also home to a higher concentration of military installations. Not only do service members typically originate from these areas, but there is also a strong likelihood they will continue to live and work in the South. States like North Carolina, Texas, and Georgia have a number of military bases and, if California is also considered, then nearly half of the United States' active duty population lives in one of these honor states. The high number of service members living in these regions was not always so; before the country shifted to an all-volunteer force, the military was fairly representative geographically. After the draft ended, enlistment trends were concentrated primarily in the South, and also in the West. This was in part due to the closure of many military bases in the North, but the result is that a high concentration of service members hail from the Southern states in particular, and often live in remote military installations and communities, such as Fayetteville (Department of Defense, 2018). In these military communities, there is typically an abundance of veterans or service members, and military family members who are also teachers, coaches, mentors, or parents. Children growing up in these areas are thus constantly interacting with people who serve or have served. According to a 2018 report conducted by the Institute for Defense Analysis, this exposure is among the strongest predictors of enlistment rates (Goldberg et al., 2018).

Additionally, these communities are home to families with a proud tradition of military service. More and more often, those who join the military are children of those

who are prior service. For instance, in 2019, nearly 80% of new Army recruits had a family member who served in the military. Of those with family members who were prior service, 30% reported this family member was a parent. This is striking, considering less than 1% of the entire United States population serves in the military (Goldberg et al., 2018). This development of a “military caste” with multigenerational service is consistent with the persistence of a culture. If we consider the culture of honor to persist in the Southern regions of the United States, then it is likely many of these Southern recruits also carry honor-related beliefs and pass these values down to their children. We suggest these beliefs, in turn, are further reinforced when these children become service members.

Shared Values and Enculturation

Endorsement of honor ideology may be prevalent in the military also due to the selection methods, training programs, and shared values present within these cultures. Previous research has spoken to the “machismo” culture of the military that promotes strength and diminishes weaknesses and emphasizes traits of responsibility, strength, and courage (Lorber & Garcia, 2010), echoing many values of cultures of honor. In fact, the military may be attractive to those from honor culture regions *because* of its reflection of honor culture philosophy. Although military training and enculturation probably do not have the goal of creating an honor culture *per se*, many of the values that are thought to make a good military are shared with cultures of honor.

Secondary Socialization

Gender socialization is a process in which cultural influences shape the formation of masculine and feminine identity development and the adoption of specific gender

ideals (Best & Williams, 2001; Kilmartin, 2007). In the United States generally, male gender socialization tends to instill the values of emotional control, aggression, independence, and self-reliance (Mahalik et al., 2003) – all traits that are particularly emphasized within cultures of honor, and in the military.

Military training may foster even greater adherence to these scripts (Brooks, 2001; 1990) that are reflective of cultures of honor. Although gender socialization begins during early childhood, many service members join the military at a point in their development where they are transitioning from adolescence to adulthood and thus undergo a secondary form of socialization (Arkin & Dobrofsky, 1978). This “secondary socialization” process occurs during training, where values such as self-reliance and emotional stoicism are emphasized and engrained into young recruits with the intention to help them complete their mission and deal with combat and other stressful situations (Arkin & Dobrofsky, 1978; Held & Owens, 2012; Lorber & Garcia, 2010). These interpersonal and emotional behaviors instilled into service members often last long after service (Brooks, 2001; 1990). Researchers have suggested this secondary socialization process may be even more powerful for service members (see Eisenhart, 1975).

Arguably, this secondary socialization process is just as strong for women as it is for men (Brooks, 2001; DiRamio et al., 2015). Indeed, military women are often expected to act in traditionally masculine ways. Just like military men, they demonstrate strength by being physically dominant and by controlling their emotions (Maples, 2017). Civilian and veteran women alike often work to hide perceived weakness and value competition, power, emotional control, and self-reliance (Lorber & Garcia, 2010), although studies examining this topic in female veterans and service members is limited.

Service Branch Core Values

The military also promotes core values that are very much aligned with those emphasized within honor cultures. Honor and integrity are at the core of military service, but each service branch also has its own system of beliefs that is instilled upon young recruits from the time they enter service. The Army promotes values of “Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, and Personal Courage.” The Air Force emphasizes “Integrity First, Service Before Self, and Excellence in All We Do.” The Navy and the Marine Corps stress “Honor, Courage, and Commitment.” While recruits must learn the values of their service branch and be able to recite them upon command, these values also provide a structure for how each recruit is to approach their duties, mission, and life and how service members make every day decisions, both mission related and unrelated (Halvorson, 2010).

Creeds

Each service branch also has its own creed, or a set of beliefs that guide service members’ actions and provide structure by which to live. These creeds also emphasize many values shared by honor cultures, as highlighted by the Army’s “Soldier’s Creed” below (*italics added for emphasis*):

I am an American Soldier. I am a *Warrior* and a member of a *team*. I serve the people of the United States and live the Army Values. I will always place the mission first. I will *never accept defeat*. I will *never quit*. I will *never leave a fallen comrade*. I am *disciplined, physically and mentally tough*, trained and proficient in my *warrior* tasks and drills. I always *maintain* my arms, my equipment and *myself*. I am an expert and a professional. I stand ready to deploy,

engage, and *destroy* the enemies of the United States of America in close combat.

I am a *guardian* of freedom and the American way of life. I am an American soldier.

These creeds are important to service members' identities. They link "who" the service member is (e.g. "I am an American soldier") with "what" they do (e.g. "deploy, engage, and destroy the enemies") and with core values of their service (e.g. loyalty, duty, selfless service; Rondeau, 2011). While each creed is distinct to their individual service branch, there are also common themes including never failing or quitting, never leaving a fellow service member behind, serving others, and placing the mission first. Service members' identities are intertwined not only with their profession, but also with the warrior ethos each branch preaches. A service member's worth and identity are closely tied to their profession (Rondeau, 2011), and their reputation within their profession. Creeds such as the Soldier's Creed above connect a service members' identity to a skill; and the creeds of the military certainly underscore honor values, perhaps instilling alignment with these beliefs.

Slogans

The honor mentality of shunning and deterring any weakness is exemplified further in many slogans promoted by the military such as "embrace the suck" and "pain is just fear leaving the body." This is also evident in many of the military's promotional material, for example the Army's "Army Strong" and the Marine Corps' "The Few, The Proud." These slogans impact how military personnel view themselves and their relationship with their emotions and, in a way, become part of a service member's psyche. Observations of and reflections by male veterans show they often conflate what it

means to be a “service member” or “veteran” with what it means to be a “man” (Eisenhart, 1975), leading to them to view the display or experience of any emotion other than anger as a sign of weakness. These interpretations further lead to rigid emotional control, avoidance of feelings or talking about feelings, and learning to “turn off” their emotions.

Identity Fusion

Identity fusion, or a “blurring of boundaries” between the self and the larger group, also has been suggested to be present in members of honor cultures. Identity fusion creates a sense that the larger group is familial (Brown, 2016) and a visceral sense of “oneness” with the group (Swann et al., 2014). Swann and colleagues (2014) explored endorsement of sacrificing their own lives to save others through asking participants to respond to a moral dilemma in which they could save five members of their country by sacrificing themselves. They found only those who had identities strongly fused with the group chose to self-sacrifice, primarily out of concern for others rather than an absence of concern for self-preservation. Although not directly examined in their study, the authors suggested the identity fusion phenomenon may help explain the extreme emotional responses and reactions honor-oriented individuals have to perceived slights (e.g. Cohen et al., 1996; Cohen & Nisbett, 1994).

Indeed, research has demonstrated this type of permeable alignment is present among those from cultures of honor (Swann et al., 2012), particularly in regards national allegiance with country (e.g. Barnes et al., 2012; Barnes et al., 2014), and there is a strong association between an individual’s honor and the honor of the group in these cultures (Swann et al., 2012). Barnes and colleagues (2014) found honor endorsement

predicted the interpretation of country-level threats as a personal affront, and the degree to which participants identified with their nation mediated the relationship between honor and personalizing national threats. As Brown (2016) states, “honor is not merely a solitary pursuit. It is a collective endeavor, in which people bind themselves to one another in an ‘honor circle.’ In this way, the individual and the group become one” (p. 114). In cultures of honor, these connections form in an almost familial way, reflected in the strong ties Scottish clansmen had with their kin. The honor circle becomes an extension of the self and those who strongly endorse honor ideology appear to “fuse” their identity with that of the collective group (Barnes et al., 2012, 2014; Brown, 2016).

The present study suggested these forces are at play within the military as well, underscoring the hypothesized link between honor-endorsement among service members and veterans. In fact, this type of phenomenon is often what comes to mind when many think of those in the military. This is further highlighted by the fact service members across a range of eras have noted a strong bond with fellow service members, describing them as “family,” “brothers,” and “sisters” (Fredman et al., 2015; Swann et al., 2014). This connection is consistent with identity fusion and creates an inherent sense of closeness and loyalty (Swann & Buhrmester, 2015). Individuals with identities interlaced with the greater group demonstrate their group loyalty to the extreme, often willing to give up their lives for one another.

This type of fusion with the group is clearly evident within the military, and in considering its familial nature, the military might be an ideal environment for identity fusion to develop. However, the association between identity fusion and military service is largely anecdotal. For instance, Fredman and colleagues (2015) highlighted the

phenomenon of identity fusion through a story of a B-17 bomber crew in World War II who swore to never leave one another behind. After being shelled, the plane began to crash. When one of the crew members became trapped, the rest of the crew made the decision to stay with him instead of parachuting to safety, ultimately leading to all of their deaths. Few studies have assessed the link between identity fusion and military service empirically; those that have, have focused on non-US military and paramilitary samples (e.g. Atran et al., 2014; Whitehouse et al., 2014). Hart and Lancaster (2019) were the first and, to our knowledge, only to examine identity fusion and its relationship with US military personnel. In a sample of post-9/11 veterans, Hart and Lancaster (2019) found a significant relationship between identity fusion and extreme pro-group behavior, such as willingness to fight and die for another veteran. Additionally, identity fusion significantly predicted willingness to give money to another veteran in need.

Identity fusion may have played a role in a study investigating World War II soldiers who received Medals of Honor (Brown, Barnes, & Dodd, 2011; unpublished paper, as described in Brown, 2016). These medals, which are the highest and most-prestigious decoration a service member can receive, are often awarded posthumously for acts of valor that go “above and beyond the call of duty” and for displays of selflessness, heroism, and bravery (Brown, 2016). Brown and colleagues (2011) examined the incidence rates at which Medals of Honor were awarded across states and noted these medals were presented to soldiers from honor states more often than those from non-honor states (average of 4.73 per million white residents versus 3.17 per million white residents).¹ In considering the values emphasized and upheld by members of honor

¹ Due to institutionalized racism and segregation, Medals of Honor were only awarded to white males during World War II, thus why these rates were only assessed among white residents.

cultures, this is not surprising. Because an individual's identity becomes merged with their fellow soldiers', the honor of the group is the honor of one's self. As such, threats against the group is a threat against the personal self, and actions must be taken consequently, sometimes leading to the sacrifice of self for the betterment of the group (Brown, 2016).

Research on identity fusion in members of honor cultures, and some studies specifically on military personnel, offer preliminary evidence for consideration of the US military as a culture of honor. Additionally, many aspects of military culture and beliefs are reflective of those valued in cultures of honor. Not only is this likely due to the overrepresentation of Southern recruits, concentration of military installations in the South and active duty population in states considered to be honor states, but also due to the development of a "military caste" that retains many of members of these families, shared values and enculturation processes, and fused identities with the military as a whole.

Many of these honor characteristics represented in the US military can be incredibly beneficial, and can lead to a more effective and efficient warfighting force. Promotion of values such as loyalty, courage, self-reliance, and resilience are certainly necessary in times of war. Embracing and behaving according to such values is adaptive and protective for the service member, as is learning to control their emotions which allows them to place the mission first and better manage combat and other stressful situations. Additionally, promoting these values in the military and within the fighting force can possibly lead to the country as a whole earning the reputation of being willing and able to defend its interest with lethal force. Further, fusion with their brothers and

sisters in arms also is advantageous to service members and the military. As previously illustrated, the influence of these cultural ideals can even converge in combat to drive service members to incredible displays of courage and selflessness to save their fellow warriors. Indeed, as Brown (2016) states, “If you need to raise an army, people with a strong honor orientation make great recruits” (p. 128).

However, recruitment from honor cultures and effective military training and enculturation also may create many challenges. Such a strong fused identity may lead to difficulties in reintegrating with the civilian community after service. Honor-oriented individuals are also known to engage in risky behaviors (e.g. sky-diving, bungee jumping, binge drinking, and unsafe sex) to maintain their reputation (Barnes, Brown, & Tamborski, 2012). Furthermore, as discussed in detail below, the same cultural forces that serve to create an effective and powerful fighting force seem to also lead to higher levels of depression and suicide, and diminished levels of help-seeking for these issues.

MENTAL HEALTH AND STIGMA IN THE CULTURE OF HONOR

Honor concerns have been shown to influence stigma towards MHC (Foster et al., 2020), and the detrimental impact of stigma on mental health has been clearly established in the literature (Bos et al., 2009; Quinn & Chaudoir, 2009; Shah & Beinecke, 2009). Due to a variety of sources of stigma, those with mental health concerns are likely to avoid seeking care for these needs (Corrigan, 2004; Imura et al., 2014). In many cultures, mental illness is associated with negative stereotypes and individuals with mental illness are often viewed as weak, unpredictable, and dangerous (Brown et al., 2014). These stereotypes can be powerful enough to motivate people not to seek treatment (Corrigan,

2004; Corrigan & Matthews, 2003) in order to avoid being categorized as “mentally ill” (Quinn & Chaudoir, 2009).

Stigma towards mental illness is deeply intertwined with culture, and can vary as such (Rao et al., 2007). Although previous research has considered the influence of culture on mental health stigma, it has done so more generally and has primarily focused on broad racial and national group differences (see Abdullah & Brown, 2011 for a detailed review). However, it is also important to consider the nature, practice, manifestations, and outcomes of stigma towards mental illness among individual cultural groups at a deeper, more nuanced level. The present study suggests that, in respect to the military in particular, this specific socio-cultural approach has been neglected, particularly in regard to the influences of honor culture on mental health stigma.

Examining these relationships through such a lens may better inform interventions focused on reframing attitudes towards those with mental illness for unique cultural groups, such as the military. Research investigating the impact of honor culture ideology on stigma towards MHC has been sparse in the general population, and nonexistent within the military. Seeking services for mental health concerns may be impeded by cultural influences. As such, beliefs and values stemming from a culture of honor might serve to enhance the stigmatization of both having a mental illness, and also towards seeking treatment for that illness (see Brown et al., 2014; Crowder & Kemmelmeier, 2017; Osterman & Brown, 2011; Roberts et al., 2017).

It is important to note the distinction between stigma and the reputation maintenance emphasized in honor cultures. At first glance, it may appear that they do not differ much conceptually and, in some literature, stigma and reputation are used in

interchangeable terms. However, they are quite different phenomena. As previously discussed, stigma, at the most basic level, is the disapproval of, or disqualification from full social acceptance of a person based on certain social characteristics that differentiate them from other society members. Whereas reputation is a “transmission process” that can lead to positive *or* negative attitudes, beliefs, or values, stigma is a “social interactive process” where the effects are exclusively negative. An individual is able to take ownership and establish their own reputation; it is something that can be enhanced, and also damaged. Stigma, on the other hand, is often outside of the individual’s control; positive outcomes and changes are more largely dependent on broader socio-cultural change (Kearns et al., 2013). Reputational concerns in honor cultures are centered around maintaining a reputation for toughness and self-reliance, and seeking MHC is likely considered a sign of weakness in these cultures. In sum, research has suggested that, in regards to seeking MHC, honor-related concerns regarding reputation “fuel” the stigma associated with mental health help-seeking, preventing many individuals in these cultures from seeking out these services and resources (Foster et al., 2020).

Initial evidence for the link between honor-based norms and values and psychological well-being were presented by Osterman and Brown (2011). They reasoned that due to individuals in honor culture more often feeling under threat, and because responding to such threats is required, their emotional and psychological well-being might be especially tenuous. Hence, honor-oriented people might be more likely to experience psychological distress, such as anxiety or depression, as a result of honor-related failures. Osterman and Brown (2011) examined statewide depression levels between 2004 and 2005 utilizing data from the National Survey on Drug Use and Health, conducted by the

Substance Abuse and Mental Health Services Administration. Depression rates were significantly higher in honor states ($M = 8.34$ per 100,000 residents, $SE = 0.18$) than in non-honor states ($M = 7.67$ per 100,000 residents, $SE = 0.20$). The study also found endorsement of honor-related beliefs predicted scores on a measure of depression in regression analyses ($\beta = .10$, $t(796) = 2.30$, $p < .001$), suggesting endorsement of honor ideology predicts depression at an *individual* level, not just statewide rates.

Osterman and Brown (2011) also found individuals living in honor states had higher rates of suicide than those living in non-honor states, even when controlling for a number of covariates (e.g., temperature, collectivism, gun ownership, economic variables, and medical access) – this was especially true if individuals were from a small town, and if they were White. Age-adjusted White male suicide rates were significantly higher in honor states ($M = 25.53$ per 100,000 residents, $SD = 0.79$) as compared to non-honor states ($M = 19.15$ per 100,000 residents, $SD = 0.87$). The rates at which Black males died by suicide were also significantly higher in honor states ($M = 12.02$ per 100,000 residents, $SE = 0.67$) than in non-honor states ($M = 8.90$ per 100,000 residents, $SE = 0.74$). White female suicide rates were significantly higher in honor states ($M = 6.31$ per 100,000 residents, $SE = 0.27$) than in non-honor states ($M = 4.38$ per 100,000 residents, $SE = 0.30$). However, there were no differences in suicide rates between honor and non-honor states for Black females.

Crowder and Kimmelmeier (2014) extended the above findings and found similar results in a regression model predicting state-level suicide rates – honor states had significantly greater rates of suicide than non-honor states ($b = 3.34$, $p < .001$). In a later study, Crowder and Kimmelmeier (2017) examined the influence of honor ideology on

suicide across various demographic groups. They found older (greater than 75 years of age), White men in honor states were at higher risk of suicide than other populations examined ($b = 0.026, p < .001$). Although White women were generally less likely to die by suicide than men, they were more likely to die by suicide than Black women, and this was even more true for White women living in honor states ($b = 0.013, p = .19$).

Taken together, the above findings suggest there are significant mental health concerns among honor-oriented people, and that there are increased rates of depression and suicide among these individuals compared to those who are non-honor-oriented. In addition to rates of depression and suicide, Osterman and Brown (2011) examined the number of antidepressant prescriptions in each state per capita as an indirect proxy for mental health resource utilization. In a regression model examining whether antidepressant prescription rates were associated with classification of honor or non-honor states, the authors found honor states had significantly lower rates ($M = 0.66$ per 100,000 residents, $SE = 0.04$) than non-honor states ($M = 0.80$ per 100,000 residents, $SE = 0.04$). Not only did honor states have higher rates of depression, but they also had lower rates of antidepressant prescriptions than non-honor states.

Crowder and Kimmelmeier (2014) also examined state-wide rates of prescriptions for antidepressants. Notably, in non-honor states, the rates of antidepressant prescriptions were not only higher than in honor states, but they were also negatively associated with suicide in these states, but not in honor states. Further analyses demonstrated that prescription rates partially mediated the relationship between honor culture and suicide, but depression did not, suggesting higher rates of suicide in honor states may be due to not receiving or pursuing treatment when experiencing emotional distress.

In these cases, if we consider antidepressant prescription rates to be a reflection of at least some level of help-seeking behavior, then this may partially explain the difference in rates of suicide and depression between honor and non-honor states. It could be reasoned people in non-honor states might tend to seek help for emotional distress whereas people in states where honor is central might avoid seeking help (Osterman & Brown, 2011). This finding is interesting, as one might find it unsurprising if there were significant differences between honor and non-honor states in seeking help through psychotherapy, because this form of treatment requires deeper disclosure of vulnerabilities and thus presumably more associated stigma. However, results show that even treatment for depression through medication, a seemingly less-revealing form of treatment, is linked with stigma. This perhaps suggests revealing *any* vulnerability is viewed as weakness in honor cultures (Shackelford, 2005). This makes sense in the context of honor cultures as honor-oriented individuals avoid displaying any sign of weakness; thus, they could experience both public and self-stigma through suffering a mental illness and/or seeking help from mental health providers (Brown et al., 2014; Osterman & Brown, 2011).

Brown and colleagues (2014) were the first to directly investigate the unique association between strong endorsement of honor ideology and reticence to seek MHC. Specifically, they assessed whether people's endorsement of honor-related ideologies predicted their reluctance to seek MHC and related these beliefs to both self-stigma and public stigma. In a sample of 563 White, non-Hispanic undergraduate students at a large, Midwestern university, the authors demonstrated greater stigmatization of mental health conditions and services connected to honor-related beliefs. First, they noted no significant

differences between men and women on responses to honor-related questions or MHC concerns; thus, the researchers combined the responses of both genders in regression analyses, but included gender as a covariate. Regarding self-stigma, honor ideology significantly predicted personal concerns about seeking MHC ($\beta = .19$, $t = 3.99$, $p < .01$). Individuals who more strongly endorsed honor ideology had more personal concerns about seeking MHC services as compared to those who did not as strongly endorse honor-related beliefs. A similar pattern emerged when assessing honor-ideology influences on perceived public stigma towards seeking MHC. Endorsement of honor ideology again significantly predicted social concerns about seeking MHC ($\beta = .23$, $t = 5.38$, $p < .01$). Participants who more strongly endorsed honor ideology reported more social concerns with seeking MHC. Thus, honor-oriented individuals were more concerned seeking MHC meant revealing vulnerability and that they were personally inadequate or a failure (self-stigma) *and* that others would view them as weak, vulnerable, and “lesser” (public stigma) if they were to pursue such treatment.

In cultures of honor, aggressive retaliation against perceived threats through demonstrations of strength serves to maintain honor, or restore damaged honor. Anything that could potentially be perceived as weak directly undermines this and must be met with preventative measures. Brown and colleagues (2014) provided initial evidence that receiving care for mental health concerns is viewed as such in cultures of honor. Arguably, seeking out this type of care may also be perceived as a failure to provide or protect oneself or one’s family, which diminishes an honor-oriented individual’s sense of self-worth (Bosson et al., 2009) and also one’s public reputation and group worth (Cohen

& Vandello, 2001; Nisbett & Cohen, 1996). Accordingly, it is reasonable honor-oriented individuals would avoid seeking MHC.

In addition to viewing seeking MHC as a weakness and personal failure, honor-oriented individuals may be more likely to experience emotional distress as a result of honor-related failures. This may be due to their general hypersensitivity towards honor-related threats, as previously discussed. In other words, if members of honor cultures are more attuned to external or interpersonal insults or challenges to their reputations, and if these threats to their honor cannot be restored, then honor-oriented individuals may experience more emotional distress and potentially be more vulnerable to developing mental health issues.

Furthermore, it can be reasoned members of honor cultures are unlikely to seek help when experiencing significant emotional distress. If even help-seeking in general is frowned upon in these cultures (Vandello et al., 2009), then confessing that one needs help, particularly for mental health concerns, will be diminished in cultures of honor. In fact, seeking help from mental health providers might be perceived as rather antithetical to the emotional stoicism and self-reliance emphasized in cultures of honor. This may lead to a “culturally enhanced” stigma that further increases barriers to seeking out and receiving MHC (Brown et al., 2014).

SUMMARY AND RATIONALE FOR THE PRESENT STUDY

Unique stresses related to deployment and military life put service members and veterans at increased risk for developing a number of mental health concerns and challenges. Despite access to effective treatment, a significant number of military personnel are still reluctant to seek MHC. The discrepancy between the pervasiveness of

mental health issues among personnel seeking services is concerning given the negative impact of mental health issues on individual well-being and military readiness. Notably, rates of help-seeking remain low even with the implementation of policy changes and programmatic efforts by the DoD and VA to combat mental health-related stigma. The persistence of mental health stigma may be due to the neglect of the powerful influence of honor-related beliefs and values. If true, then extant literature regarding mental health stigma in the military may be missing a critical link. The present study sought to address this gap through offering a more complex socio-cultural model of stigma towards MHC in the military and examining this important cultural component that has been largely ignored.

The present study was based on the premise that the US military can be considered a culture of honor, as it not only draws many of its recruits from documented honor culture regions, but also because it promotes many of the shared values, beliefs, and behaviors central to cultures of honor. These honor-related values, particularly the maintenance of reputation through demonstrations of strength and deterrence of any sign of weakness, may serve the military mission of developing an effective and ready fighting force. However, they may also explain why service members and veterans are reticent to seek care when it is needed.

Previous research has shown honor cultures appear to have significant levels of mental health concerns, yet honor-oriented individuals are reticent to seek care. This is evidenced by the increased rates of depression and suicide among members of these cultures contrasted with the low rates of antidepressant prescriptions, which are presumed to reflect help-seeking intentions (Crowder & Kemmelmeier, 2014; Osterman & Brown,

2011). Further, endorsement of honor-related beliefs and values have been associated with enhanced stigmatization of seeking MHC (Brown et al., 2014).

The present study examined the extent to which honor-related beliefs and values influence service members' and veterans' attitudes and the perception of social norms towards MHC through stigma. Previous research has demonstrated endorsement of honor culture values is related to both increased perception of public and self-stigma towards MHC (Brown et al., 2014). Stigma has also been shown to lead to increased negative attitudes toward help-seeking for mental health concerns. Furthermore, Held and Owens (2013) demonstrated that self-stigma partially mediates the relationship between public stigma and attitudes towards seeking MHC. The influence of honor ideology endorsement on perceived social norms regarding seeking mental health care has yet to be examined. Social norms are the formal and informal codes of behavior within cultures and communicate what behaviors that are acceptable and expected of members (Bicchieri, 2006), whereas stigma, and particularly public stigma, is the social disapproval towards individuals who exude behaviors that deviate from these norms (Goffman, 1963).

Considering the existing literature, we developed a model in an effort to best conceptualize the proposed relationships among endorsement of honor culture values, stigma, and help-seeking for mental health issues (see Figure 1). Relations depicted in this model were examined. More specifically, the present study intended to replicate and extend the work conducted by Brown and colleagues (2014) and theorized the relationship between honor ideology and self-stigma and honor ideology and public stigma would exist in both military and civilian samples. Moreover, the present study

suggested public stigma would serve to partially mediate the relation between honor ideology and self-stigma, given honor-oriented individuals' hyper-concern with public reputation and how they are perceived by other group members (Brown, 2016; Brown et al., 2014). Furthermore, the present study aimed to replicate the findings demonstrated by Held and Owens (2013) that self-stigma serves as a partial mediator of the relationship between public stigma and attitudes, but within the context of honor ideology. Finally, the present study explored the role honor ideology plays in the perception of social norms regarding seeking MHC, and proposed this relationship may also be partially mediated by public stigma.

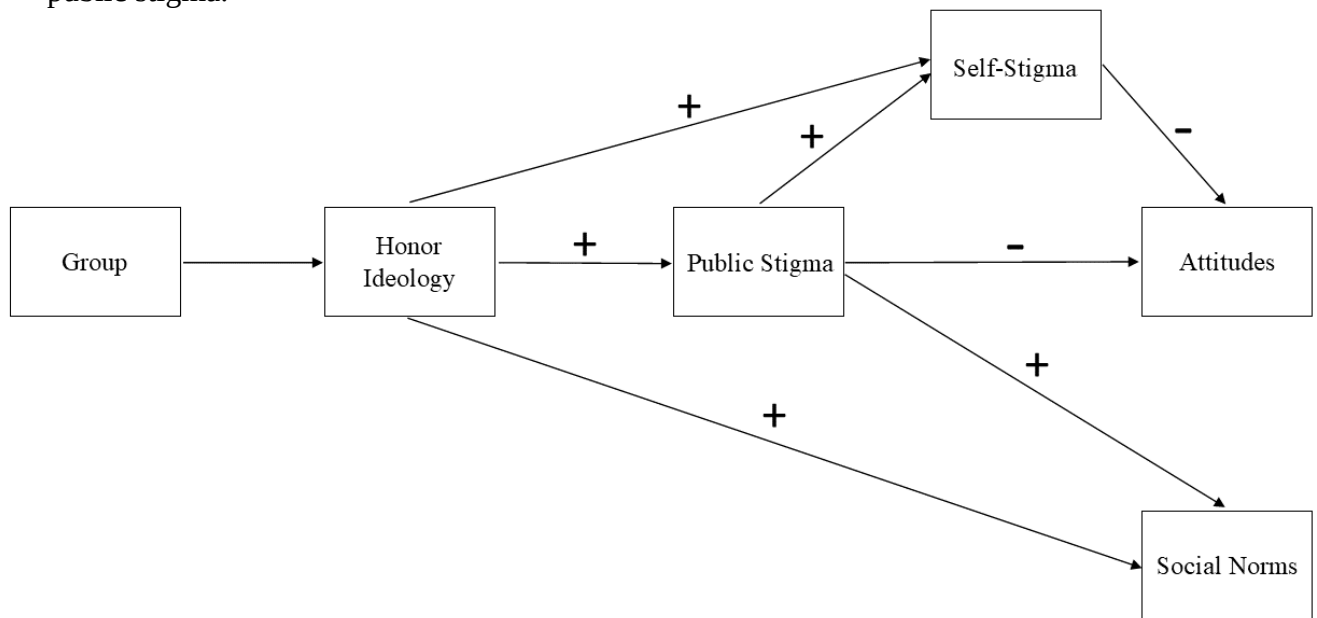


Figure 1. Structural model. Note: “+” indicates a hypothesized positive association between measures; “-” indicates a hypothesized negative association.

THE PRESENT STUDY

Disregard for the cultural characteristics of honor in the military, and service members' and veterans' alignment with such values, may help explain the failure to reduce stigma and increase MHC use in this population. Viewing MHC stigma as a by-

product of norms of a culture of honor could be a key factor in understanding the low rates of seeking help for mental health concerns among service members and veterans. Therefore, the purpose of the present study was to explore the relation between individuals' honor endorsement and stigma towards MHC in a military population, in an effort to identify potential areas of intervention that could significantly affect service members' and veterans' decision to seek care for mental health issues.

The present study sought to examine individual endorsement of honor-related beliefs and values among a US military sample and compared endorsement levels to those of a more general US civilian sample. To explore possible explanations for any differences, the groups were compared while controlling for gender, race, and age. States participants considered to be their "home state" were also examined as a potential factor influencing strength of honor ideology endorsement among participants. A significant difference in honor ideology endorsement between the groups, such that those in the military more strongly endorsed honor ideology even after controlling for these variables, would suggest there is perhaps something unique about the military itself in enhancing honor-related values. Therefore, the present study further explored specific military characteristics that may influence honor endorsement among service members and veterans, including time in service, branch of service, and rank. Findings from these analyses could highlight potential characteristics of military service that may be particularly influential in developing and/or maintaining honor ideology. Additionally, the present study tested the structural model in Figure 1, as previously discussed. Results may provide a crucial link explaining the high prevalence of mental health issues among service members and veterans, low help-seeking rates, and experienced reports of stigma,

despite the significant and commendable efforts to reduce stigma and increase MHC use in the military. Finally, the present study also assessed the novel use of two honor ideology measures in a military sample in an effort to add to the extant literature on measurement of these constructs.

Aims and Hypotheses

Rationale for Specific Aim 1

The United States military shares many values akin to those emphasized in cultures of honor. This reflection of honor values is likely due to the disproportionately high representation of Southern recruits, concentration of military installations in the South, large population of active duty service members and veterans living in honor states, development of a “military caste” composed of generations of family members, common values and enculturation processes, and fused identities with fellow service members and veterans and with the larger military as a whole. However, to date, no research has examined honor ideology endorsement in a US military sample, nor compared this to endorsement to that of US civilians. Additionally, certain demographic variables, such as gender and race, have been shown to be associated with honor ideology endorsement (see Barnes, Brown, & Osterman, 2012; Brown, 2016; Cohen et al., 1996; Nisbett et al., 1995) and may impact any identified differences in endorsement of honor ideology. Further, most previous research has examined individuals whose age typically range between 18 to 21 (i.e., undergraduate students); including other age groups may reasonably impact honor ideology endorsement. It has also been shown that honor ideology endorsement differs based upon respondents’ region of residence (Barnes, Brown, & Osterman, 2012; Brown, 2016; Cohen et al., 1996; Nisbett et al., 1995).

Assessing these variables would allow for the elimination of these factors as sole explanations for any observed differences between the groups. Of note, the state individuals considered to be their “home state” was examined in the present study instead of their current state/region of residence, due to the nature of frequent moves during military service. If it is determined active duty service members and post-9/11 veterans do indeed more strongly endorse honor ideology than those in the general population, even after controlling for gender, race, and age, then this would be consistent with the broader theoretical argument we make in that the military could be considered a culture of honor, and that perhaps there is something unique about the military itself in enhancing honor-related values.

Specific Aim 1

To examine the interaction of group (military vs. civilian) and respondents’ “home state” classification (as an honor state or non-honor state) on masculine honor ideology endorsement.

Hypothesis 1a: There will be a significant main effect of group (military vs. civilian), such that active duty service members and veterans will more strongly endorse masculine honor ideology than civilians, even while controlling for gender, race, and age. Additionally, a significant main effect of home state on masculine honor ideology will be found, such that respondents with a home state classified as an honor state will more strongly endorse masculine honor ideology than will those with a home state classified as a non-honor state, even while controlling for gender, race, and age.. These main effects will be modified by an interaction between group and respondents’ home state, such that

individuals who are in the military *and* whose home state is an honor state will score the highest in masculine honor ideology endorsement.

Rationale for Specific Aim 2

It is possible certain military characteristics influence honor endorsement among service members and veterans. Perhaps those who spend more time in the military are exposed to a higher and longer “dosage” of honor-related values. Additionally, the degree to which these values are emphasized may vary by branch, and some branches may more strongly reinforce these beliefs than others. Furthermore, an individual’s status as enlisted personnel or as an officer may influence this prominence of honor ideology. Exploring the influence of these variables on differences in honor ideology in a military sample could highlight potential characteristics of military service that may be particularly influential in developing and/or maintaining honor ideology.

Specific Aim 2

To explore the influence of certain military characteristics that may impact masculine honor ideology endorsement among active duty service members and post-9/11 veterans.

Hypothesis 2a: Among active duty service members and post-9/11 veterans, demographic characteristics (e.g. gender, race, age, “home state”) will account for a significant portion of the variance in masculine honor ideology endorsement.

Hypothesis 2b: Above and beyond demographic characteristics, military characteristics (e.g. time in service, branch, rank) will account for a significant portion of the variance in masculine honor ideology endorsement, while controlling for race and gender. Time in service will be positively related to

masculine honor ideology endorsement. Endorsement of masculine honor ideology will also be related to branch; specifically, it is expected members of the Marine Corps will score highest in masculine honor ideology endorsement followed, in order, by the Army, Navy, Air Force, and then Coast Guard. Rank will also be related to masculine honor ideology endorsement in that enlisted (E-1 to E-10) service members and post-9/11 veterans will score higher in masculine honor ideology endorsement than will service members and post-9/11 veterans who are/were officers (W-1 to W-3 and O-1 to O-10).

Rationale for Specific Aim 3

Very little research has examined the association between strong endorsement of honor ideology and stigma towards MHC. In fact, to date, only one study has examined this particular relationship (Brown et al., 2014), providing initial evidence members of honor cultures associate seeking care for mental health concerns with substantial amounts of both public and self-stigma. Given honor-oriented individuals' hyper-sensitivity to honor-related threats and concern with public reputation, public stigma may partially mediate the relation between honor ideology and self-stigma. No previous studies have assessed these relationships in the military, and only one has examined them in a sample of civilians (Brown et al., 2014). Furthermore, assessing the partial mediating role of self-stigma on the relationship between public stigma and attitudes towards seeking MHC (as previously found by Held & Owens, 2012) will further elucidate the relationships among these variables and the potential influence of honor ideology endorsement. Testing the proposed model may provide valuable insight into the relations of value systems, stigma, and help-seeking through a socio-cultural lens. Results further will help identify potential

areas for more targeted interventions to decrease stigma towards MHC within this population.

Specific Aim 3

To test the proposed model and hypothesized mediating role of public and self-stigma in understanding the relation of masculine honor ideology to attitudes and social norms towards seeking mental health care, as illustrated in Figure 1. Specifically, the following relationships are expected to exist:

- a) Direct positive effect of masculine honor ideology on public stigma
- b) Direct positive effect of masculine honor ideology on self-stigma
- c) Public stigma will partially mediate the effect of masculine honor ideology on self-stigma
- d) Direct positive effect of public stigma on self-stigma
- e) Direct positive effect of masculine honor ideology on social norms
- f) Direct positive effect of public stigma on social norms
- g) Direct negative effect of public stigma on attitudes towards mental health treatment-seeking
- h) Self-stigma will partially mediate the effect of public stigma on attitudes towards mental health treatment-seeking

Rationale for Specific Aim 4

The present study utilized the Honor Ideology for Manhood scale (HIM; Barnes et al., 2012) to assess endorsement of masculine honor ideology among participants. This measure is further described below in the Methods section. Several studies have reported on descriptive characteristics of the HIM and assessed the measure's psychometric

properties (e.g. Barnes, Brown, & Osterman, 2012; Imura et al., 2014; Osterman & Brown, 2011; Brown et al., 2014; Pomerantz et al., under review). However, the majority of this research has been conducted using samples of undergraduate students, and all participants have been civilians. In other words, no study to date has utilized or assessed the HIM in a military sample. The present study sought to further explore the descriptive characteristics and psychometric properties of the HIM in a military sample.

Although the HIM is the primary measure of interest in regard to honor ideology endorsement, the present study also included the Honor Ideology for Womanhood scale (HIW; Barnes et al., 2014), considered the counterpart to the HIM, for exploratory purposes. The HIW assesses individual feminine honor ideology, but research on the HIW is fairly limited in the general population, and non-existent within military samples. In an effort to add to the extant literature, the present study also sought to characterize the HIW's utility in a military sample.

Specific Aim 4

To explore the descriptive characteristics (i.e., mean, median, standard deviation) and assess the psychometric properties (i.e., internal consistency) of the novel use of honor ideology measures in a military sample. Specifically, exploratory analyses of group (military vs. civilian), gender (male vs. female), and race/ethnicity (White vs. Nonwhite) will be explored on the HIM as well as the HIW.

Because this aim is exploratory in nature, there are no associated hypotheses.

CHAPTER 2: Methods

STUDY DESIGN

The present study was part of a larger, cross-sectional, questionnaire-based project utilizing responses collected via an online survey assessing honor culture, mental health stigma, and moral injury in the military. The present study explored whether active duty service members and veterans of the United States military more strongly endorse honor ideology than those who have not served and further examined the association of honor endorsement, stigma, and attitudes toward seeking MHC. Variables of interest included demographics and military characteristics, honor ideology, public and self-stigma, attitudes, and social norms towards seeking MHC.

PARTICIPANTS

Data were collected through an Institutional Review Board (IRB) approved study conducted by Georgia College and State University (GCSU). Data were obtained through a formal data use agreement between GCSU, the Uniformed Services University of the Health Sciences (USUHS), and the Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. (HJF). Due to prior IRB approval from GCSU, additional IRB review was not required by USUHS and HJF. The present study analyzed responses from the first 160 active duty United States service members or post-9/11 veterans and the first 160 civilians with no military experience who completed the larger project's survey. Responses were solicited from throughout the United States.

Inclusion and Exclusion Criteria

Participants were included for analysis if they met the following criteria: (a) read and agreed to the informed consent form, (b) had the ability to comprehend and read English, (c) were at least 18-years-old, (d) and were a United States citizen. For the military sample, participants must have been currently active duty or a post-9/11 veteran. Participants were excluded from analyses if they (a) did not meet the inclusion criteria outlined above, (b) completed the survey in less than five minutes, and/or (c) failed one of the two embedded attention check questions (included below). Additionally, military participants who incorrectly answered three or more of the five military screening questions (described below) were excluded from analyses (Lynn & Morgan, 2016).

PROCEDURE AND MATERIALS

Although data collection for the larger project is ongoing, the present study analyzed responses from the first 160 active duty United States service members or post-9/11 veterans and the first 160 civilians with no prior military service. Data collection began on 01 July 2020 for both samples. Data collection for the civilian sample concluded 17 August 2020 after 160 civilian responses were obtained. For the military sample, data collection concluded on 13 January 2021 after 160 military responses were obtained.

The survey was available on Amazon's Mechanical Turk (MTurk). MTurk is a widely used web-based service that allows researchers to post surveys and other tasks to be completed by registered survey takers (aka "workers;" Lynn & Morgan, 2016). Research has supported MTurk as an inexpensive and viable source of data comparable to traditional survey methods (Bartneck et al., 2015; Casler et al., 2013). Although the

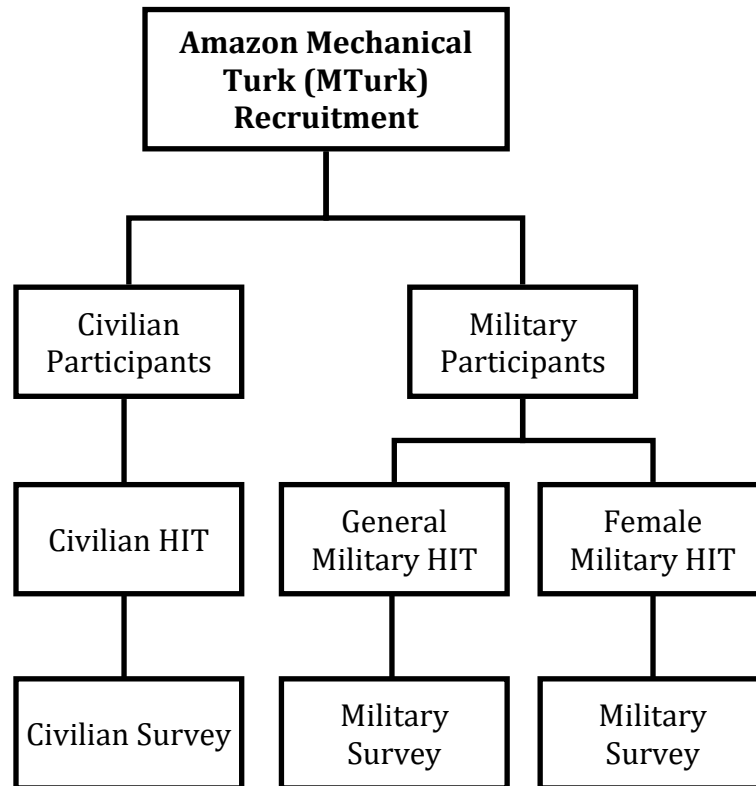
survey link was provided and advertised on MTurk, the survey itself was created and hosted on Qualtrics, an online survey platform. Participants' responses were anonymized by Qualtrics, meaning that no IP addresses or other identifying information was collected.

Participants also had the option of taking the survey without an MTurk account, as creating an account can be quite cumbersome and prohibitive. However, participants were not able to receive compensation through this method. Links to the survey were distributed via social media to raise awareness and invite eligible participants to participate either through MTurk or through the non-compensated option, if participants chose to do so. If they chose the non-compensated option, participants were brought directly to the survey on Qualtrics. A total of 222 participants (69.4%) completed the survey on MTurk; 98 participants (30.6%) completed the non-compensated option. In regard to the military sample only, 66 military participants (41%) completed the survey on MTurk; 94 military participants (59%) completed the non-compensated option. In the civilian sample, 156 participants (97.5%) completed the survey on MTurk; only 4 civilian participants (2.5%) completed the non-compensated option. Notably, participants who were compensated more strongly endorsed masculine honor ideology ($M = 90.39$, $SD = 27.29$) than did those who were not compensated ($M = 62.66$, $SD = 29.00$), $t(318) = -8.02$, $p < .001$. Due to the small number of civilian participants who completed the non-compensated option, we elected not to include "compensation status" as a control variable in our primary analyses, though this may be a consideration for future research.

On MTurk, workers are able to browse the site to select and complete "human intelligence tasks" (HITs) to earn compensation. Three separate HITs were published on MTurk to advertise the survey: one recruiting general active duty US military service

members and post-9/11 veterans, one recruiting only female active duty US military service members and post-9/11 veterans (in an effort to ensure this subgroup is well-represented in study analyses), and one recruiting US civilians with no prior military service. The present study was described as a survey about “culture, honor, morality, and mental health” and stated the researchers were seeking to “understand the connections among help-seeking behaviors, the degree to which individuals identify with certain cultural aspects, and their experiences as they relate to mental health concerns.” Additionally, participants were told the survey would take approximately 25 minutes to complete, although the MTurk window remained open for 1 hour. It was explicitly stated that all eligible participants must be US citizens and, for the military HITs, respondents must be a US service member or post-9/11 veteran. Participant recruitment flow is depicted in Figure 2.

By default, workers could complete each of the HITs only once. Additionally, workers who completed one of the study HITs were assigned a qualification that barred them from participating in any of the other HITs associated with the study. Moreover, MTurk workers possess certain system qualifications (e.g. location, number of approved HITs that are assigned by MTurk). The larger project required workers’ accounts to be associated with a location in the United States and workers also must have had a HIT approval rate greater than 95% (i.e. the rate at which workers’ responses have been approved for completing prior HITs; an approval rate of 95% or above has been shown to be sufficient for establishing high quality responses on MTurk; Peer et al., 2014). Custom qualifications also were assigned. The premium qualification of “military experience” was assigned to the military-related HITs as well as the additional premium qualification



- OR -

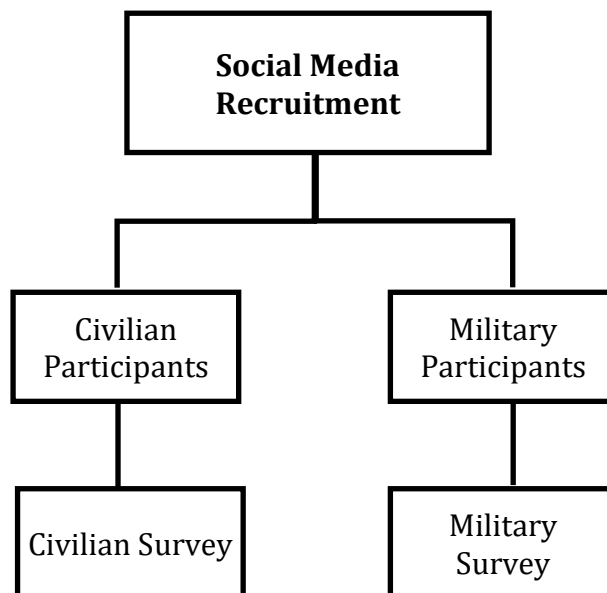


Figure 2. Participant recruitment flow.

of “female” for the HIT recruiting females with military experience. This allowed the specification of these particular participant criteria at the time of the creation of the project and recruited the appropriate workers for each HIT. Additionally, the “military experience” qualification was supplemented by further screening questions outlined in the “Measures” section below. This increased confidence that service members and veterans were identified and grouped as accurately as possible. Upon completion, participants who took the survey on MTurk were given a 7-digit validation code and were redirected from Qualtrics back to MTurk to submit a task completion notice and receive compensation (\$0.50). Participants who chose the non-compensated option did not receive a validation code.

When participants opened the survey, they first reviewed the Informed Consent document, which varied slightly if the participant was military or civilian. The full Informed Consent document for military participants is presented in Appendix A; the Informed Consent for civilian participants is presented in Appendix B. Participants were assured the survey was anonymous and that IP addresses were not collected. Expected risks and benefits were outlined, and the phone number for the National Suicide Prevention Lifeline (1-800-273-8255) was provided on the informed consents as well as each page of the survey. Participants were reminded they were free to withdraw from the study at any time or decline to answer any particular questions for any reason. Active duty service members must have agreed they were participating in the study during off-duty hours, or during approved leave status, pursuant to DoD 5500.07-R Joint Ethics Regulation. The military informed consent further stated that, by agreeing to participate, participants acknowledged they understood it is illegal to impersonate a veteran or

service member for the purpose of financial gains. At the end of the document, participants were provided with two radio buttons indicating “Yes, I agree to participate,” and “No, I do not agree to participate.” Those who indicated willingness to participate were forwarded to several screening questions, described in the following section. Those who declined to participate were directed to the end of the survey and thanked for their time. Upon consent, participants were administered the below measures in the presented order.

Measures

Demographic Information

Standard demographic information was collected (e.g. age, gender, race). If participants were in one of the military HITs, pertinent military characteristics (e.g. rank, time in service, branch of service, etc.) were collected as well. See Appendix C for demographic and military characteristic questions. In the military surveys, participants also were provided the opportunity to select “I am not a service member or post-9/11 veteran.” If they chose this option, they received a “Thank You” screen and no additional data were collected, nor were these participants compensated. On this screen, participants were informed there was a civilian-only survey if they were still interested in participating and had no prior military service. A similar process occurred in the civilian survey for those who indicated they were a service member or veteran.

Screening Questions

To confirm military status, participants completed a 5-item questionnaire as part of the survey before they were advanced to additional measures. These questions have been used previously for this purpose (Lynn & Morgan, 2016; see Appendix D).

Respondents were asked to enter the acronym for the place where final physicals are taken prior to going to basic training, the acronym for their branch's respective job fields, and the state in which their service's military academy is located. They were also tasked with ordering their branch's enlisted and officer ranks from lowest to highest. Participants were deemed to have "passed" this screener if they correctly answered three or more of the questions, in accordance with guidelines by Lynn and Morgan (2016).

Honor Ideology Endorsement

Honor Ideology for Manhood

Individual endorsement of masculine honor ideology was assessed through the Honor Ideology for Manhood scale (HIM; Barnes et al., 2012; see Appendix E), which was the primary measure of individual honor ideology endorsement for the present study. The HIM includes eight statements regarding qualities of self-sufficiency, toughness, and fierceness. It also includes an additional eight statements about the context in which men have the right to employ physical aggression to address perceived personal and reputation threats. Respondents rate how much they agree with each item on a scale ranging from 1 ("strongly disagree") to 9 ("strongly agree"). Notably, all participants were administered the HIM regardless of gender, as it measures how much an individual endorses the idea that men *should* behave in an "honorable" way, not how much the respondent themselves believes they embody these same qualities. It is also important to note that the HIM measures *individual* endorsement of specific honor-related values and beliefs; it is not a measure of *culture*.

The outcome of the measure is a continuous score – scores on each item were summed together for a total score. The higher the sum of the scores on the items, the

more the participant is said to endorse masculine honor beliefs (scores could range from 16 to 144). Currently, there are no normative data for the HIM. Previous research has typically compared participants' responses relative to the sample at hand and defined high and low scores as ± 1 SD from the mean score for the sample. Prior studies have also compared mean scores across differing samples (e.g., participants from Southern states vs. Northern states). The HIM has demonstrated strong psychometric properties, namely high internal consistency ($\alpha = .87$ to $.94$; (Barnes et al., 2014; Barnes, Brown, & Osterman, 2012; Barnes, Brown, & Tamborski, 2012; Osterman & Brown, 2011) and moderate association with IJzerman and colleagues' (2007) Honor Concerns (HC) scale ($r = .55$; Barnes et al., 2014). Other previously accepted measurements of honor also are predictive of HIM scores, including region of residence ($\beta = .14$, $t(317) = 2.62$, $p = .009$; Barnes, Brown, & Osterman, 2012) and Gastil's (1971) continuous state-level measure of southern cultural influence ($\beta = .19$, $t(317) = 3.55$, $p < .001$; Barnes, Brown, & Osterman, 2012). Additionally, the HIM correlates with Nisbett & Cohen's (1996) culture of honor dichotomous designation (Barnes, Brown, & Osterman, 2012), a heavily relied upon marker in honor culture research. In the present study, the HIM maintained excellent internal consistency across both samples (military: $\alpha = .95$; civilian: $\alpha = .95$).

Honor Ideology for Womanhood

The Honor Ideology for Womanhood scale (HIW; Barnes et al., 2014; see Appendix F) is considered the counterpart to the HIM and assesses individual feminine honor ideology. It was developed to address honor culture's associated emphasis on feminine honor. However, research on the HIW is relatively limited; as such it was included as a secondary measure of honor ideology and was used for exploratory

analyses only in an effort to add to the current literature. The scale is comprised of twelve items centered on the values of spousal devotion, familial loyalty, sexual purity, and self-sacrifice. Participants respond to these statements via a nine-point Likert scale (1 = “strongly disagree” to 9 = “strongly agree”). Similar to the HIM, all participants were administered the HIW, as it assesses how much an individual believes the idea that women *should* act in an “honorable” way, not how much the participant themselves believes they have these same qualities. Additionally, as with the HIM, the HIW is not a measure of culture and instead assesses *individual* endorsement of certain honor-related beliefs and values.

Scores on each item of the HIW were summed to create a total score. The higher the sum of the scores on the items, the more the participant is said to endorse feminine honor beliefs (scores could range from 12 to 108). Similar to the HIM, there are no developed norms for the HIW and prior research has defined high and low scores on the HIW as ± 1 SD from the mean score for the sample or compared means across samples. The HIW has demonstrated excellent internal consistency ($\alpha = .92$ to $.93$; Barnes et al., 2014) and is moderately correlated with the HIM ($r = .54$) and the HC scale ($r = .67$; Barnes et al., 2014). In the present samples, the HIW showed excellent internal consistency (military: $\alpha = .93$; civilian: $\alpha = .93$).

Attitudes Towards Treatment-Seeking

Attitudes Toward Seeking Professional Psychological Help Scale

Participants’ attitudes towards treatment seeking was assessed using a condensed, 8-item version of the short-form of the Attitudes Toward Seeking Professional Psychological Help scale (ATSPPHS-SF; Fischer & Farina, 1995). Typically, participants

respond to 10 items on the ATSPPHS-SF; however, in the present study, two items (item 4 and item 7) were initially inadvertently omitted from the survey package. This was identified while data collection was still ongoing and the survey was able to be re-launched after this error was corrected. Due to the length of time it took to collect military responses, and in order to not extend data collection significantly, further analyses were conducted to determine whether an 8-item version of the ATSPPHS-SF could be used. Data were examined from 101 (61 civilians and 40 military) participants who completed the full 10-item measure to examine the concordance of the two versions. Results revealed the two versions were comparable in the present samples. In both the military and the civilian samples, the 8-item version was strongly correlated with the 10-item version (civilian: $r = .99, p < .001$; military: $r = .99, p < .001$; combined: $r = .99, p < .001$). The measure also retained its internal consistency (civilian: $\alpha = .83$ for the 8-item version vs $.85$ for the 10-item version; military: $\alpha = .87$ vs $.87$; combined: $\alpha = .84$ vs $.85$). Previous research has demonstrated strong internal consistency on the ATSPPHS-SF ($\alpha = 0.82$ to 0.84 ; Fischer & Farina, 1995; Komiya et al., 2000). Additionally, one previous study (Ang et al., 2007) explored the factor structure of the ATSPPH-SF and found a unidimensional 9-item version of the scale produced the best fit after conducting confirmatory factor analysis. The authors suggested this 9-item version was more stable and robust compared to the original 10-item version of the scale (Ang et al., 2007). The item they dropped was one of the items (item 7) that was initially omitted from the present study. Given the previous research and the analyses conducted with participants

from the present samples, the condensed 8-item version of the ATSPPHS-SF was used to assess attitudes towards treatment seeking for the present study.

Items on the ATSPPHS-SF are assessed using a 4-point Likert scale ranging from 0 (“disagree”) to 3 (“agree”), and statements include “The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts” and “Personal and emotional troubles, like many things, tend to work out by themselves,” among others. Scores on each item on the 8-item version of the ATSPPHS-SF were summed together, with items 2, 8, 9, and 10 reverse scored. A higher total score indicated stronger positive attitudes regarding seeking professional help for mental health concerns. The potential range of scores for the 8-item version was 0 to 24. For reference, Fischer and Farina (1995) developed the 10-item scale utilizing a sample of 389 undergraduate students. The mean score in this sample was 17.45 ($SD = 5.97$), and the potential range for the 10-item scale was 0 to 30. In a study assessing police officers ($n = 150$), Karaffa and Tochkov (2013) found a mean ATSPPHS-SF score of 15.61 ($SD = 3.77$). Held and Owens (2013) examined a sample of 126 active duty and retired US military service members and found a mean score of 27.71 ($SD = 6.38$) on the ATSPPHS-SF. The ATSPPHS-SF is included in Appendix G. The omitted items are indicated by strikethrough text.

Social Norms

Social Norms Subscale of the Attitudes About Seeking Mental Health Services

The Social Norms Subscale of the Attitudes About Seeking Mental Health Services (AASMHS; Bohon et al., 2017; see Appendix H) was used to assess participants’ perception of the social norms and perceived social support regarding

seeking mental health services. Respondents rate how much they agree on a five-point scale (1 = Agree 0% to 5 = Agree 100%) with seven statements, such as “Many of the people with whom I am acquainted get help with their mental health issues” and “I would not want my employer to know I was getting professional help for a mental health problem.” Scores on each item of the subscale were summed together to create a total score (total scores could range from 7 to 35), with items 3 and 4 reverse scored. Thus, participants with *higher* scores on this measure are said to perceive seeking MHC as *less* socially normative. Currently, normative data for the Social Norms Subscale currently have not been published and, to date, studies have reported descriptive statistics specific to the Social Norms subscale of the AASMHS. Unfortunately, evaluation of psychometric properties for the Social Norms Subscale is also limited; however, it has shown good internal consistency ($\alpha = .83$ to $.87$; Bohon et al., 2017). In the present samples, the Social Norms Subscale demonstrated adequate internal consistency (military: $\alpha = .77$; civilian: $\alpha = .63$).

Public Stigma

Stigma Scale for Receiving Psychological Help

The Stigma Scale for Receiving Psychological Help (SSRPH; Vogel et al., 2006; see Appendix I) is a five-item measure assessing how much respondents *perceive* mental health help-seeking to result in or be a source of public stigma. Participants rate (0 = “strongly disagree; 3 = “strongly agree”) statements such as “It is a sign of personal weakness or inadequacy to see a psychologist for emotional or interpersonal problems.” Scores on each item were summed together to create a total score. The higher the participant’s score, the more the participant is concerned about public depreciation (total

scores could range from 0 to 15). In a sample of 126 active duty service members and veterans, Held and Owens (2013) found a mean score of 11.97 ($SD = 3.27$) on the SSRPH; however, they utilized a different Likert scale range (1 to 4 instead of 0 to 3), so this mean may appear more elevated when compared to the mean in the present study. The SSRPH has been shown to be both internally consistent ($\alpha = .81$) and a valid measure (Komiya et al., 2000). The SSRPH demonstrated good internal consistency in both the present samples (military: $\alpha = .85$; civilian: $\alpha = .80$).

Self-Stigma

Self-Stigma of Seeking Help Scale

Participants completed the 10-item Self-Stigma of Seeking Help scale (SSOSH; Vogel et al., 2006; see Appendix J) to assess perceived personal concerns regarding mental health help-seeking and responded to statements such as “I would feel inadequate if I went to a therapist for psychological help” and “It would make me feel inferior to ask a therapist for help.” Responses are rated on a scale from 1 (“strongly disagree”) to 5 (“strongly agree”). All scores were summed together, creating a total score for the measure, with items 2, 4, 5, 7, and 9 reverse scored. Greater perceived self-stigma is indicated by a higher total score (potential range of scores was 10 to 50). The mean SSOSH score in the study in which the measure was developed was 27.2 ($SD = 7.2$) among 470 undergraduate students (Vogel et al., 2006). In another study, Wade and colleagues (2015) examined a sample of 97 active duty service members evaluated in an outpatient neuropsychology clinic and found a mean score of 24.21 ($SD = 7.07$). In a sample of National Guard/Reserve service members who had recently deployed to Iraq and Afghanistan, the mean score was 28.18 ($SD = 7.70$; Blais & Renshaw, 2013). Results

found by Held and Owens (2013) indicated a mean score of 25.88 ($SD = 8.02$) in a sample of 126 active duty service members and veterans. The SSOSH has shown to be a psychometrically sound measure of self-stigma, demonstrating excellent internal consistency ($\alpha = .86$ to $.91$) and two-month test-retest reliability ($r = .72$; Vogel et al., 2006). The SSOSH demonstrated excellent internal consistency within the military sample ($\alpha = .92$) and good internal consistency in the civilian sample ($\alpha = .76$).

Embedded Attention Gauge Questions

Participants also were asked to respond to two questions embedded within the survey as attention checks. The first asked what the study was about, and participants were then instructed to select “Other” and type in “mental health.” The second question instructed respondents to please select “strongly agree” for the question.

DATA ANALYTIC PLAN

Data were downloaded from Qualtrics and all analyses were conducted using IBM SPSS Statistics version 27. Observed variable path analysis was performed using Amos 26, a structural equation modeling software program for SPSS. Normality was assessed prior to analyses and appropriate non-parametric tests and adjustments were employed as needed. Concerning missing data, one response on one of the HIM’s items for one participant was missing and two responses on two items of the Social Norms Subscale for two separate participants were missing. These missing values were replaced with each participant’s mean score on the same measure.

Specific Aim 1

Analyses were conducted to examine the interaction of group (military vs. civilian) and respondents' "home state" classification (as an honor state or non-honor state) on masculine honor ideology endorsement.

Hypothesis 1a: Hypothesis 1a was tested using a 2x2 analysis of covariance (ANCOVA), with group (military vs. civilian) and "home state" classification (honor state vs. non-honor state) as the independent variables, gender, race, and age as covariates, and masculine honor ideology as the dependent variable. The main effect of group on masculine honor ideology, the main effect of home state classification on masculine honor ideology, and the interaction between the independent variables were examined.

Specific Aim 2

Using the military sample only, analyses were conducted to explore the influence of certain military characteristics that may influence masculine honor ideology endorsement among active duty service members and post-9/11 veterans.

Hypothesis 2a-b: Multiple linear regression was employed to assess whether certain military characteristics were related to masculine honor ideology endorsement (dependent variable). In the first step of the regression model, the three demographic characteristic variables (i.e., gender, race, age, "home state") were included as independent variables to test Hypothesis 2a. In the second step, the military characteristics (i.e., time in service, branch, rank) were included as independent variables to test Hypothesis 2b. Branch was examined utilizing dummy coding. Follow-up analyses to assess differences in honor ideology

endorsement among branch were conducted via one-way ANOVA and Tukey's Honestly Significant Difference (HSD) post hoc test. Multicollinearity was also assessed.

Specific Aim 3

Preliminary analyses were conducted assessing distributional characteristics and zero-order correlations of the variables of interest. Observed variable path analysis was used to assess the potential mediating role of stigma in understanding the relation of masculine honor ideology to social norms and attitudes towards seeking mental health care. Multicollinearity was also assessed.

Specific Aim 4

Analyses were conducted to explore the descriptive characteristics and assess the psychometric properties of the novel use of two honor ideology measures in a military sample. In addition to descriptive statistics (i.e. mean, median, standard deviation), two three-way (2x2x2) independent analysis of variances (ANOVAs) were used to explore and characterize the influence of group (military vs. civilian), gender (male vs. female), and race/ethnicity (white vs. non-white). Internal consistency was assessed using Cronbach's alpha. These analyses were conducted separately on both the HIM and the HIW.

Sample Size Estimation

In order to achieve sufficient power ($\beta = .80$), previous research has suggested the most optimal sample size for observed variable path analysis should be 20 times the number of parameters in the proposed model (Kline, 2011). Thus, because the present

study contained 8 parameters in the model, the sample should have consisted of at least 160 total participants (minimum of 80 civilians and 80 active duty service members/post-9/11 veterans). The obtained sample of 160 civilian participants and 160 military participants (a total of 320 participants) therefore provided more than sufficient power for our analyses. Additional participants were recruited beyond the number required to sufficiently power the proposed analyses for several reasons. First, it ensured adequate power for any future or post hoc exploratory analyses of the data. Second, it allowed for the ability to control for any hidden variables and potential covariates that were not anticipated. Given the novelty of these analyses, a larger sample size also provided more confidence in the results and the ability to identify smaller effect sizes. Additionally, we intended to oversample female service members and veterans through the “female military-specific” HIT in an effort to ensure this subgroup was well-represented in the analyses. Prior research has suggested further exploration of the effect of sex on honor endorsement and other associated patterns (Foster et al., 2020). In fact, recent research has proposed honor-related patterns may be shifting among men and women (Chalman et al., 2021). This perhaps supports a more “active” role for women in cultures of honor than was previously reasoned. It is possible there may be related shifts in seeking MHC as well (Foster et al., 2020).

CHAPTER 3: Results

PARTICIPANT DEMOGRAPHICS

The age range of civilian participants was 23-years-old to 71-years-old, and their mean age was 36.02 (standard deviation = 11.48). About 36% of civilian participants were female and 64% were male. Civilian participants were fairly well-educated; 72.5% received a bachelor's degree, 16.3% received a master's degree, 3.8% received a high school or equivalent degree, 3.1% completed some college, 3.1% completed vocational or technical school or received an associate's degree, and 1.3% received a doctorate or professional degree. In terms of relationship status, 75.6% of the civilians in the sample were married, 21.3% were single, 1.9% were divorced, separated, or widowed, and 1.3% were a member of an unmarried couple. Regarding race, most civilian participants described themselves as White or Caucasian (88.8%), followed by Black or African American (7.5%), Asian (1.3%), American Indian or Alaskan Native (1.3%), and Native Hawaiian or Other Pacific Islander (0.6%). A total of 0.6% of participants selected a combination of these descriptions. Nearly 23% of civilian participants indicated they were of Hispanic or Latino origin. These characteristics and other sample demographics are presented in Table 1. Among civilian participants, 34 states in the US were represented as "home states," including the District of Columbia. Roughly 62% of civilian participants indicated a home state that is considered to be an honor state. The state with the largest representation among civilian participants was California, where 15% of the sample considered this state to be their home state.

Military participants' age ranged from 23-years-old to 79-years-old, with a mean age of 36.95 (standard deviation = 9.95). Approximately 42% of the military sample was female, with the remaining 58% being male. Military participants were also well-

educated, with the most frequent highest degree received being a bachelor's degree (31.9%), followed by doctorate or professional degree (17.5%), master's degree (16.9%), some college (14.4%), vocational/technical school completion or associate's degree (13.8%), and high school degree or equivalent (5.6%). In regard to relationship status, 66.3% of military participants were married, 15.0% were single, 11.3% were divorced, separated, or widowed, and 7.5% were a member of an unmarried couple. In terms of race, most military participants described themselves as White or Caucasian (82.5%), followed by Black or African American (6.9%), Asian (1.9%), and American Indian or Alaskan Native (1.3%). A total of 6.8% of military participants selected a combination of these descriptions and one participant (0.6%) elected not to answer this question. Sixteen percent of military participants indicated they were of Hispanic or Latino origin. These characteristics and demographics are also presented in Table 1. Among military participants, 42 states were represented as "home states," including the District of Columbia. Approximately 63% of military participants indicated a home state that is considered an honor state. The states with the largest representation among military participants were Florida and Texas, where 6.9% of the military sample considered Florida to be their home state and another 6.9% considered Texas to be their home state.

Each branch of the military was represented (USA = 40.6%, USN = 25.0%, USMC = 10.6%, USAF = 22.5%, USCG = 1.3%), generally reflecting the 2019 makeup of the active duty US military population as a whole (USA = 35.1%, USN = 24.3%, USMC = 13.6%, USAF = 24.0%, USCG = 3%; Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy & DoD, 2019) and the 2018 makeup of living veterans (USA = 47.2%, USN = 22.7%, USMC = 11.1%, USAF

Table 1*Sociodemographic Characteristics for the Military and Civilian Samples*

	Military (N = 160)	Civilian (N = 160)
Mean age (Years)	36.95	36.02
Gender		
Female	67 (42%)	58 (36%)
Male	93 (58%)	102 (64%)
Race		
White/Caucasian	132 (82.5%)	142 (88.8%)
Black/African American	11 (6.9%)	12 (7.5%)
Asian	3 (1.9%)	2 (1.3%)
American Indian/Alaskan Native	2 (1.3%)	2 (1.3%)
Native Hawaiian/Pacific Islander	0 (0%)	1 (0.6%)
Combination	11 (6.8%)	1 (0.6%)
Education level		
High school or equivalent	9 (5.6%)	6 (3.8%)
Vocational/technical school or Associate's degree	22 (13.8%)	5 (3.1%)
Some college	23 (14.4%)	5 (3.1%)
Bachelor's degree	51 (31.9%)	116 (72.5%)
Master's degree	27 (16.9%)	26 (16.3%)
Doctorate/professional degree	28 (17.5%)	2 (1.3%)
Relationship status		
Single	24 (15.0%)	34 (21.3%)
Married	106 (66.3%)	121 (75.6%)
Unmarried couple	12 (7.5%)	2 (1.3%)
Divorced/separated/widowed	18 (11.3%)	3 (1.9%)

=19.1%, USCG = data unavailable; National Center for Veterans Analysis and Statistics, 2018). Active duty service members made up approximately 43.1% of the military sample and veterans composed the other 56.9% of the sample. Those who were or are currently enlisted personnel represented 62.5% of the sample and the remaining 37.5% were or are warrant or commissioned officers; recent data indicate the 2019 active duty force was comprised of 82.4% enlisted personnel and 17.6% officers (Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy & DoD, 2019) and 2018 data showed a makeup of 93.6% enlisted personnel and 6.4% officers for the living veteran population (National Center for Veterans Analysis and Statistics, 2018). Participants served an average of 10.4 years in the military (standard deviation = 6.98, range = 0 to 34 years) and experienced an average of 2.33 deployments over their time in service (standard deviation = 3.40, range = 0 to 34). While they were growing up, 32.5% of military participants had parents or legal guardians who were in the military. These military characteristics are further presented in Table 2.

The civilian and military samples were compared on several different demographic variables to determine whether there were any significant differences in the composition of the two groups. There was no significant association between group and gender, $\chi^2(1) = 1.06, p = .302$, nor a significant association between group and race (White vs. Nonwhite), $\chi^2(1) = 2.54, p = .111$. There was also no significant difference in age between the two groups, $t(318) = -.775, p = .439$. There was a significant moderate association between group and education level, $\chi^2(5) = 70.73, p < .001$, Cramer's $V = .470$, and also a significant association between group and relationship status, $\chi^2(3) =$

Table 2*Military-specific Characteristics for the Military Sample*

	Military (N = 160)
Military status	
Active duty	69 (43.1%)
Post-9/11 veteran	91 (56.9%)
Branch	
USA	65 (40.6%)
USN	40 (25.0%)
USMC	17 (10.6%)
USAF	36 (22.5%)
USCG	2 (1.3%)
Rank	
Enlisted	100 (62.5%)
E-1 to E-4	30 (18.8%)
E-5 to E-7	60 (37.5%)
E-8 to E-10	10 (6.3%)
Warrant Officers	7 (4.4%)
W-1 to W-2	5 (3.1%)
W-3 to W-4	2 (1.3%)
Officers	53 (33.1%)
O-1 to O-3	33 (20.6%)
O-4 to O-6	20 (12.5%)
O-7 to O-10	0 (0%)
Time in service (mean years)	10.4
Number of deployments (mean)	2.3
Grew up in military household	
Yes	52 (32.5%)
No	107 (66.9%)

20.57, $p < .001$, although this relationship was only weakly associated, Cramer's $V = .254$.

Additionally, a full zero-order correlation matrix of all demographic variables and measures of interest assessed in the present study is presented in Table 3. This table also includes the means and standard deviations of each measure in the full sample. At the zero-order level, all measures of interest (i.e. HIM, HIW, ATSPPHS-SF, SNS, SSRPH, and SSOSH) were moderately to strongly significantly correlated with each other, with the exception of the HIW and the SNS and the HIW and SSOSH which were only weakly correlated. Of note, most demographic variables were not related to key outcome measures (i.e., HIM, HIW, ATSPPHS-SF, SNS, SSRPH). Those that were significant were only weakly related, aside from political orientation which was moderately positively related to the HIM ($r = .354, p < .001$) and the HIW ($r = .336, p < .001$).

SPECIFIC AIM 1

A 2x2 ANCOVA was conducted to examine whether there was an interaction of group (military vs. civilian) and respondents' home state classification (honor state vs. non-honor state) on endorsement of masculine honor ideology; gender, race, and age race served as covariates in this analysis. Preliminary checks were conducted to ensure there were no violation of assumptions, including normality, linearity, homogeneity of regression slopes, and reliable measurement of the covariate. Additionally, homogeneity of variance was assured via Levene's test, $F(3, 315) = 1.79, p = .150$. Means, adjusted means, standard deviations, and standard errors for masculine honor ideology endorsement are presented in Table 4. There was no statistically significant interaction between group and home state classification on masculine honor ideology endorsement,

Table 3

Zero-Order Correlations Among Demographic Variables and Measures of Interest in the Full Sample (N = 320)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	--												
2. Race	-.109	--											
3. Honor state	.026	-.129*	--										
4. Age	.067	-.011	-.014	--									
5. Political orientation	.123*	.166**	.101	.155***	--								
6. Branch	-.152	.000	-.041	.336***	-.049	--							
7. Rank	-.003	-.153	.084	.009	-.065	.032	--						
8. HIM	.275***	-.035	.060	-.049	.354***	-.178*	.204**	--					
9. HIW	.271***	-.066	.072	.185***	.336***	-.056	.161*	.620***	--				
10. ATSPPHS-SF	-.086	.045	-.074	.041	-.140*	.245**	-.096	-.329***	-.265***	--			
11. SNS	-.013	-.013	.064	-.049	.139*	-.113	.031	.455***	.198***	-.558***	--		
12. SSRPH	.040	-.030	.006	-.084	.117*	-.057	.117	.518***	.322***	-.475***	.713***	--	
13. SSOSH	.076	-.031	.053	-.150**	.100	-.119	.087	.360***	.155**	-.661***	.676***	.629***	--
<i>M</i>				36.48	5.57			81.90	73.28	14.29	19.90	7.40	26.47
<i>SD</i>				10.74	2.33			31.20	21.11	4.85	5.44	3.76	7.97

Note. HIM: Honor Ideology for Manhood scale; HIW: Honor Ideology for Womanhood scale; ATSPPHS-SF: Attitudes Toward Seeking Professional Psychological Help Scale-Short Form; SSRPH: Stigma Scale for Receiving Psychological Help; SSOSH: Self-Stigma of Seeking Help Scale.

* Correlation is significant at the 0.05 level; ** Correlation is significant at the 0.01 level;

*** Correlation is significant at the < 0.001 level

after controlling for gender, race, and age, $F(1, 313) = 0.75, p = .386$, partial $\eta^2 = .002$.

There was a significant main effect of group on masculine honor ideology endorsement, after controlling for gender, race, and age, $F(1, 313) = 73.10, p < .001$, partial $\eta^2 = .190$.

Tukey's least significant difference (LSD) post hoc test indicated a statistically significant difference of 26.94 in adjusted marginal mean scores on masculine honor ideology endorsement between military and civilian participants, such that military participants scored *lower* than civilian participants on our measure of masculine honor

ideology endorsement.² However, there was no significant main effect of home state classification on masculine honor ideology endorsement, after controlling for gender, race, and age, $F(1, 313) = 1.18, p = .278$, partial $\eta^2 = .004$.

Table 4

Means, Adjusted Means, Standard Deviations, and Standard Errors for Masculine Honor Ideology Endorsement (N = 319)

	Civilian		Military	
	Non-honor State	Honor State	Non-honor State	Honor State
<i>n</i>	61	99	59	100
<i>M</i>	93.26	96.53	65.00	70.01
<i>SD</i>	30.11	24.78	24.99	31.39
<i>M_{adj}</i>	89.65	90.17	70.94	70.01
<i>SE</i>	3.64	2.96	3.79	2.86

As part of the larger project, birth state and current state of residence were also collected. In an effort to better understand the non-significant main effects regarding home state classification on masculine honor ideology endorsement, we repeated Aim 1 analyses utilizing birth state as well as state of residence, instead of home state. The pattern of results remained the same. There was no significant main effect of birth state

² Of note, including compensation status as a covariate in Aim 1 analyses did not change the pattern of results; however, it was a significant covariate. There remained no significant interaction between group and home classification on masculine honor ideology endorsement, after controlling for gender, race, age, and compensation status, $F(1, 311) = .329, p = .567$. There was still a main effect of group on masculine honor ideology endorsement after controlling for gender, race, age, and compensation status, $F(1, 311) = 17.922, p = .000$. There was also no significant main effect of home state classification on masculine honor ideology endorsement after controlling for gender, race, age, and compensation status $F(1, 311) = 15.36, p = .000$.

classification on masculine honor ideology endorsement, after controlling for gender, race, and age, ($F(1, 301) = 0.367, p = .545$) nor a significant main effect of current state of residence on masculine honor ideology endorsement, after controlling for gender, race, and age, ($F(1, 312) = 0.371, p = .543$). There remained no statistically significant interaction between group and birth state ($F(1, 301) = 1.31, p = .254$) or state of residence ($F(1, 312) = 0.14, p = .708$), after controlling for gender, race, and age.. Significant main effects of group on masculine honor ideology endorsement, after controlling for gender, race, and age, remained in each of the follow-up analyses (birth state: $F(1, 301) = 69.817, p < .001$; state of residence: $F(1, 312) = 58.97, p < .001$).

SPECIFIC AIM 2

Aim 2 explored the influence of certain military characteristics hypothesized to impact masculine honor ideology endorsement among active duty service members and post-9/11 veterans. Multiple linear regression was conducted to predict masculine honor ideology endorsement based on demographic characteristics and military characteristics. At the first step of the regression demographic characteristics of race (coded as White = 1 and Nonwhite = 0), gender (coded as male = 1 and female = 0), home state classification (coded as honor state = 1 and non-honor state = 0), and age were entered; at the second step, time in service, rank (coded as enlisted = 1 and officer = 0), and branch (coded as Marine Corps = 1, Army = 2, Navy = 3, and Air Force = 4; Coast Guard was collapsed into Navy), were entered into the equation while retaining the aforementioned demographic variables. Tests to determine whether the data met the assumption of collinearity indicated that multicollinearity was not a concern. A significant regression equation was found for step 1, $F(4, 158) = 7.66, p < .001$, with an R of .407 and an R^2 of

.166. Military participants' endorsement of masculine honor ideology was equal to $62.86 - 7.20(\text{race}) + 23.11(\text{gender}) + 6.61(\text{home state}) - 0.17(\text{age})$. However, gender was the only significant independent variable in step 1 ($t = 5.23, p < .001$); race, home state, and age did not reach statistical significance ($t = -1.25, p = .214$; $t = 1.49, p = .140$; $t = -.762, p = .447$, respectively). A significant regression equation was also found for step 2, $F(3, 158) = 5.32, p < .001$, with an R of .514 and an R^2 of .264. In the second step, military participants' endorsement of honor ideology was equal to $-2.23 - 3.81(\text{race}) + 22.11(\text{gender}) + 4.76(\text{home state}) - .115(\text{age}) + .002(\text{time in service}) + 14.48(\text{rank}) + 54.98(\text{Army}) + 43.39(\text{Navy}) + 53.53(\text{Air Force}) + 61.97(\text{Marine Corps})$. Gender remained a significant independent variable in step 2 ($t = 4.96, p < .001$). Rank was also a significant independent variable in step 2 ($t = .317, p = .002$). Marine Corps, Air Force, and Army were also significant independent variables among branches ($t = 2.31, p = .022$; $t = 2.00, p = .047$; $t = 2.073, p = .040$). Race, home state, and time in service ($t = -.49, p = .625$; $t = 1.10, p = .273$; $t = -.35, p = .726$, respectively) did not contribute significantly to the final regression equation. A summary of results for the multiple regression is provided in Table 5.³

In order to determine differences of masculine honor endorsement among branch, Tukey's honestly significant difference (HSD) post hoc analyses were conducted after a one-way ANOVA assessing branch differences. Due to their small representation in the

³ Including compensation status (coded as 1 = compensated through MTurk and 0 = not compensated) in step 1 of the regression model indicated that this variable was indeed a significant predictor of masculine honor ideology endorsement. Gender remained a significant predictor. The inclusion of compensation status appeared to mitigate the impact of certain military characteristic variables in step 2. Most notably, rank and branch were no longer significant predictors of masculine honor ideology after including compensation status in the model ($t = 1.71, p = .089$ and $t = -1.62, p = .107$, respectively).

Table 5*Summary of Multiple Regression Analysis for Aim 2*

Variable	<i>B</i>	<i>SE(B)</i>	β	<i>t</i>	<i>p</i>
Step 1					
(Constant)	62.86	10.72	--	5.87	<.001***
Race	-7.20	5.77	-.09	-1.25	.214
Gender	23.11	4.42	.39	5.23	<.001***
Home state	6.61	4.45	.11	1.49	.140
Age	-.17	.22	-.06	-.762	.447
Step 2					
(Constant)	-2.23	28.61	--	-.08	.938
Race	-2.23	5.74	-.04	-.489	.625
Gender	22.11	4.46	.38	4.96	<.001***
Home state	4.76	4.33	.08	1.10	.273
Age	-.12	.33	-.04	-.35	.726
Time in service	.002	.46	.00	.00	.997
Rank	14.48	4.57	.24	.317	.002**
Army	54.98	26.53	.93	2.07	.040*
Navy	43.40	26.58	.65	1.63	.105
Air Force	61.97	26.84	.66	2.31	.022*
Marine Corps	54.98	26.53	.93	2.07	.040*

Note: N = 159; $R^2 = .166$ for Step 1; $R^2 = .264$ for Step 2

*** Significant at the 0.001 level; ** Significant at the 0.01 level; * Significant at the 0.05 level

sample, the two Coast Guard participants were combined with the Navy for these analyses. Results indicated only a significant difference between members of the Marine Corps and members of the Navy/Coast Guard, such that Marines scored higher than sailors or guardsmen ($p = .008$). The mean difference between these two branches was

26.61 points on the HIM. There were no significant differences among any of the other branches, although the pattern of non-significant differences was such that those in the Marine Corps scored higher on masculine honor ideology endorsement than those in the Army, followed by the Air Force, and then the Navy/Coast Guard. Figure 3 depicts this pattern of results.

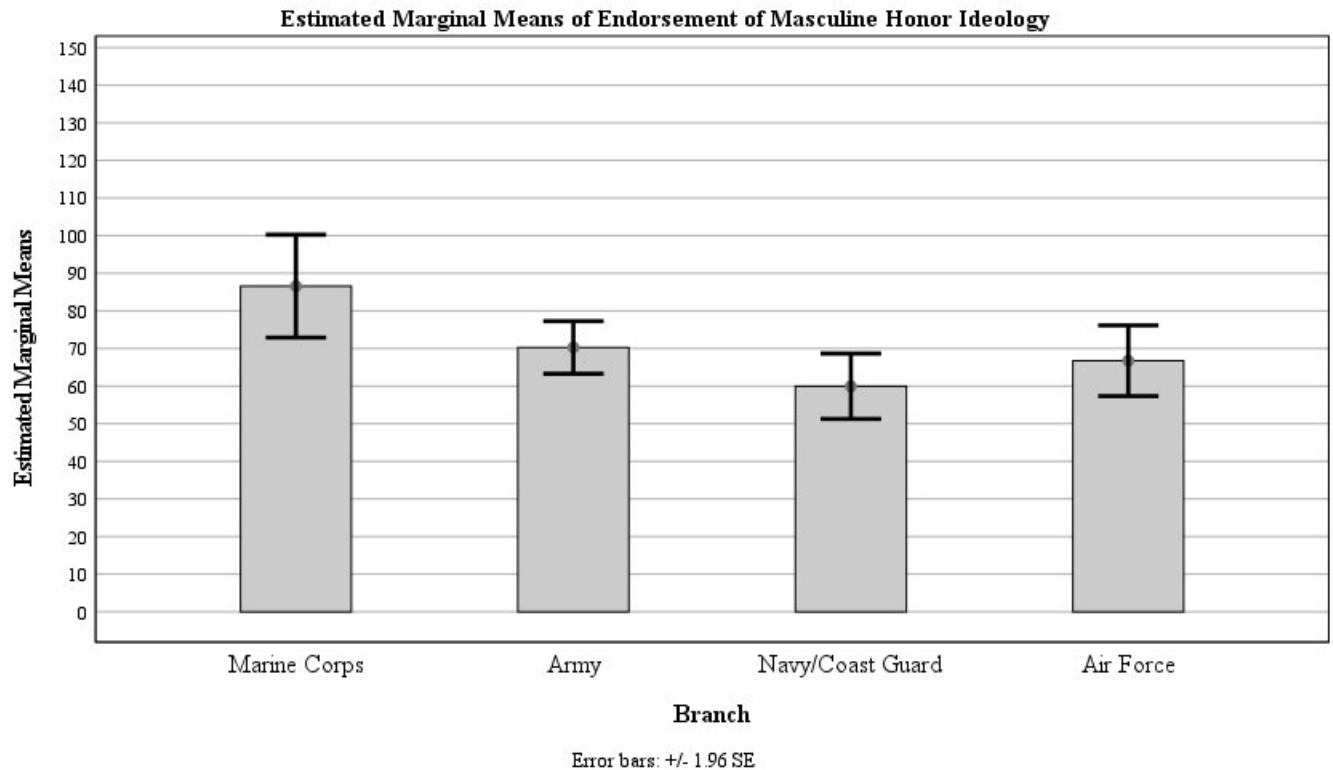


Figure 3. Profile plot of estimated marginal means of honor ideology endorsement by branch.

SPECIFIC AIM 3

Aim 3 sought to test the proposed model depicted in Figure 1 and the hypothesized mediating role of public and self-stigma in understanding the relation of masculine honor ideology to attitudes and social norms towards seeking MHC. All variables were evaluated and were found to be distributed normally. Table 6 presents the

descriptive statistics and zero-order correlations among the measures of interest for Aim 3, including the HIM, ATSPPHS-SF, Social Norms subscale, SSOSH, and SSRPH, for the full sample (military and civilians combined). Notably, each variable significantly correlated with the others at the 0.001 level. Multicollinearity among variables was assessed and results showed it was not a concern.

Table 6

Descriptive Statistics and Zero-Order Correlations Among Variables of Interest in the Full Sample (N = 320)

	<i>M (SD)</i>	1	2	3	4	5
1. HIM	81.90 (31.20)	--				
2. ATSPPHS-SF	14.29 (4.85)	-.329***	--			
3. Social Norms Subscale	19.90 (5.44)	.455***	-.558***	--		
4. SSRPH	7.40 (3.76)	.518***	-.475***	.713***	--	
5. SSOSH	26.47 (7.97)	.360***	-.661***	.676***	.629***	--

Note. HIM: Honor Ideology for Manhood scale; ATSPPHS-SF: Attitudes Toward Seeking Professional Psychological Help Scale-Short Form; SSRPH: Stigma Scale for Receiving Psychological Help; SSOSH: Self-Stigma of Seeking Help Scale.

*** Correlation is significant at the 0.001 level

To give some context, the full sample had a mean of 14.29 ($SD = 4.85$) on the ATSPPHS-SF, which is comparable to the mean score in the study in which the measure was developed ($M = 17.45$, $SD = 5.97$; Fischer & Farina, 1999) as well as in a sample of police officers ($M = 15.61$, $SD = 3.77$; Karaffa & Tochko, 2013). However, it was lower than previously found in a sample of service members and veterans ($M = 27.71$, $SD = 6.38$; Held & Owens, 2013), suggesting the full sample in the present study had less favorable attitudes regarding seeking professional help for mental health concerns than the sample used in the study by Held and Owens (2013). It must be noted this must be

interpreted cautiously, due to our use of an 8-item version of the ATSPPHS-SF rather than the 10-item version used in the previous studies. On the Social Norms Subscale, the full sample in the present study had a mean score of 19.90 ($SD = 4.85$). Unfortunately, there are no normative data for this scale currently nor published descriptive statistics on solely the Social Norms Subscale. On the SSRPH, the current sample had a mean score of 7.40 ($SD = 3.76$), which is lower than found in previous research conducted by Held and Owens (2013) in a sample of active duty service members and veterans ($M = 11.97$, $SD = 3.27$). This indicates the full sample in the present study may have perceived lower public stigma regarding seeking MHC than found in previous studies. However, it should be noted that Held and Owens employed different Likert scale anchors (1 to 4) than utilized in the present study (0 to 3), which may affect the difference in mean scores. Finally, the full sample in the present study had a mean score of 26.47 ($SD = 7.97$) on the SSOSH, which is in line with prior research examining undergraduate students (Vogel et al., 2006), active duty service members in an outpatient neuropsychology clinic (Wade et al., 2015), National Guardsmen/Reservists (Blais & Renshaw, 2013), and active duty service members and veterans (Held & Owen, 2013).

In assessing results from the observed variable path analysis, model fit was first examined. Practical indices of fit for observed variable path analysis with continuous data include the chi-square statistic of absolute model fit, the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Square of Approximation (RMSEA), and the Standard Root Mean Square Residual (SRMR; Kline, 2011; Hu & Bentler, 1999). Generally, the chi-square for models with good fit is not statistically significant. Values for the CFI and TLI compare the hypothesized model with the independent model and

range from 0 to 1. Values greater than 0.90 are indicative of an acceptable model fit to the data. RMSEA of less than or equal to 0.05 is considered a good fit, and an adequate fit is indicated by RMSEA less than or equal to 0.08. A model with SRMR of less than or equal to 0.08 is considered a good fit (Kline, 2011).

The proposed model (depicted in Figure 1) did not adequately fit the data, as indicated by the tests of absolute fit and descriptive fits. The model had a poor fit with a chi-square statistic of absolute model fit, $X^2 = 104.52$ ($df = 7$, $p = .000$; $X^2/df = 14.95$). Descriptive fit statistics also largely revealed an inadequate fitting model, CFI = .88, TLI = .75, RMSEA = .209, and SRMR = .091. This lack of fit meant we were unable to further interpret the results of the analyses. However, it suggests the variables tested in the model are related, but are related above and beyond what is accounted for by solely honor ideology endorsement. We included a depiction of the direct effects among these variables in the originally proposed model below in Figure 4, but stress caution in further interpreting these results due to the original model's poor fit. The figure was included merely as a visual compliment to the model as initially proposed in Figure 1.

To address the poor fit of the proposed model, some adjustments were made in accordance with the modification indices provided by the data analytic software. Permitting certain error terms to covary provided a better fitting model. Namely, error terms associated with social norms and self-stigma as well as error terms associated with attitudes and social norms were allowed to covary. Analysis incorporating these adjustments still revealed a significant chi-square ($X^2 = 35.60$, $df = 5$, $p = .000$; $X^2/df = 7.12$); however, the descriptive fit indices all improved (CFI = .96, TLI = .89, RMSEA = .139, and SRMR = .061). Still, only CFI and SRMR indicated a good fitting model; TLI

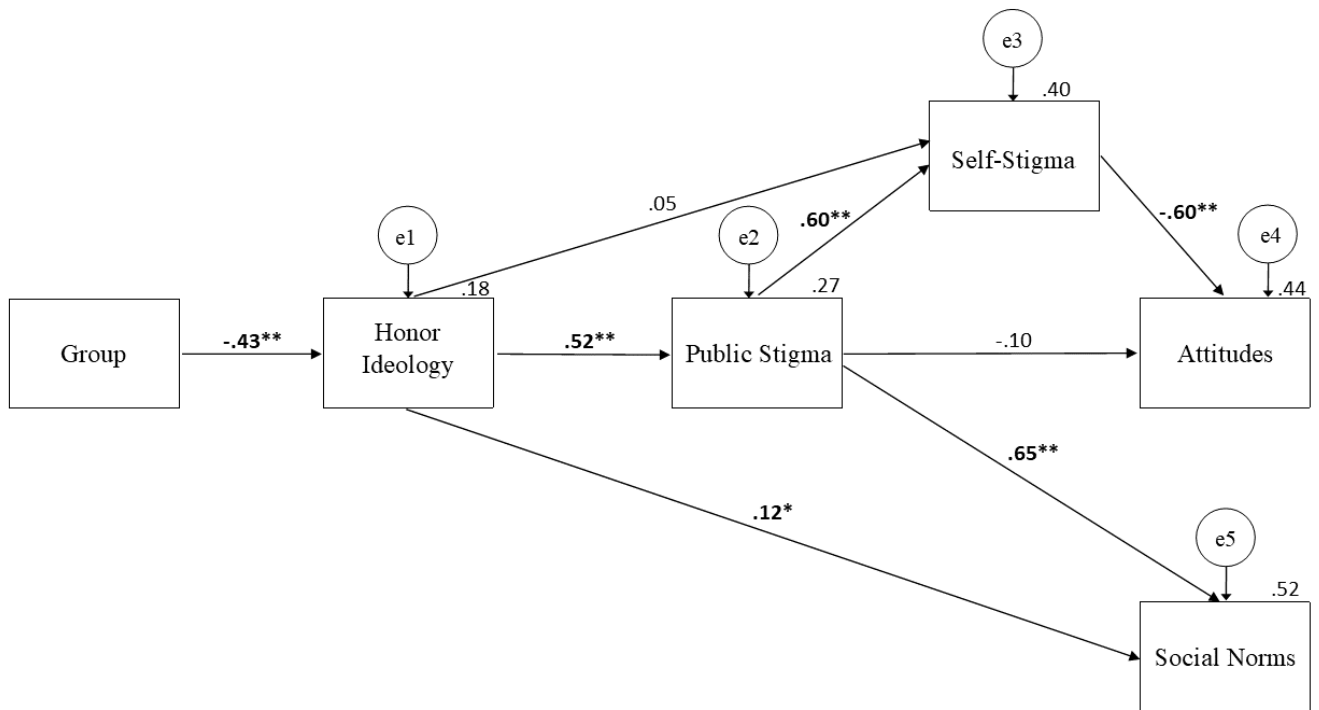


Figure 4. Results of the originally proposed observed variable path analysis. Standardized coefficients are presented.

** indicates significant at the 0.01 level; * indicates significant at the 0.05 level

and RMSEA did not. Although this version of the model may be rejected on an absolute basis due to the significant chi square, it still outperformed baseline models by a substantial amount. Even so, we were still unable to interpret the results of these analyses due to inadequate model fit. Modification indices suggested that, to potentially further improve model fit, we would need to allow group (military vs. civilian) to covary with the error associated with nearly every other variable in the model, suggesting that differences between military and civilian participants on measures of stigma, social norms, and attitudes toward help-seeking are mediated by constructs other than masculine honor ideology endorsement.

Because the proposed hypothesis regarding directionality of group differences in masculine honor ideology endorsement did not hold in Aim 1, and because masculine honor ideology failed to account for the relation of group to stigma, social norms, and attitudes towards seeking MHC, it was decided to drop the group variable (military vs. civilian) from the proposed model and conduct post hoc tests to examine the proposed relations among the variables other than group. Thus, we sought to examine whether masculine honor ideology endorsement was related to stigma, social norms, and attitudes towards MHC help-seeking were supported by the present data regardless of group. The error terms associated with social norms and self-stigma in addition to the error terms associated with attitudes and social norms were permitted to covary to allow for a better fitting model as suggested by the data analytic software. This adjusted model had a good fit with a chi-square statistic of absolute model fit, $X^2 = 30.09$ ($df = 1$, $p = .079$; $X^2/df = 3.09$), as well as with the descriptive fit statistics, CFI = .997, TLI = .972, and SRMR = .016. RMSEA of .08 indicated an adequate fit. This allowed further interpretation of the observed variable path analysis. Results demonstrated significant direct effects of masculine honor ideology endorsement on public stigma ($\beta = .518$, $p = .002$) and on social norms ($\beta = .106$, $p = .033$), significant direct effects of public stigma on self-stigma ($\beta = .605$, $p = .002$) and on social norms ($\beta = .658$, $p = .003$), and a significant direct effect of self-stigma on attitudes towards MHC help-seeking ($\beta = -.600$, $p = .002$). There was no significant direct effect of masculine honor ideology endorsement on self-stigma ($\beta = .047$, $p = .360$), but there was a significant indirect effect ($p = .001$), suggesting public stigma completely mediated the effect of masculine honor ideology endorsement on self-stigma. There was also no significant direct effect of public stigma on attitudes (β

= -.097, $p = .105$), but there was a significant indirect effect ($p = .002$), suggesting a complete mediation of public stigma on attitudes through self-stigma. R-square indicated that 44% of the variance in attitudes towards MHC help-seeking and 52% of the variance in social norms can be explained by this model. These results are further depicted in Figure 5.

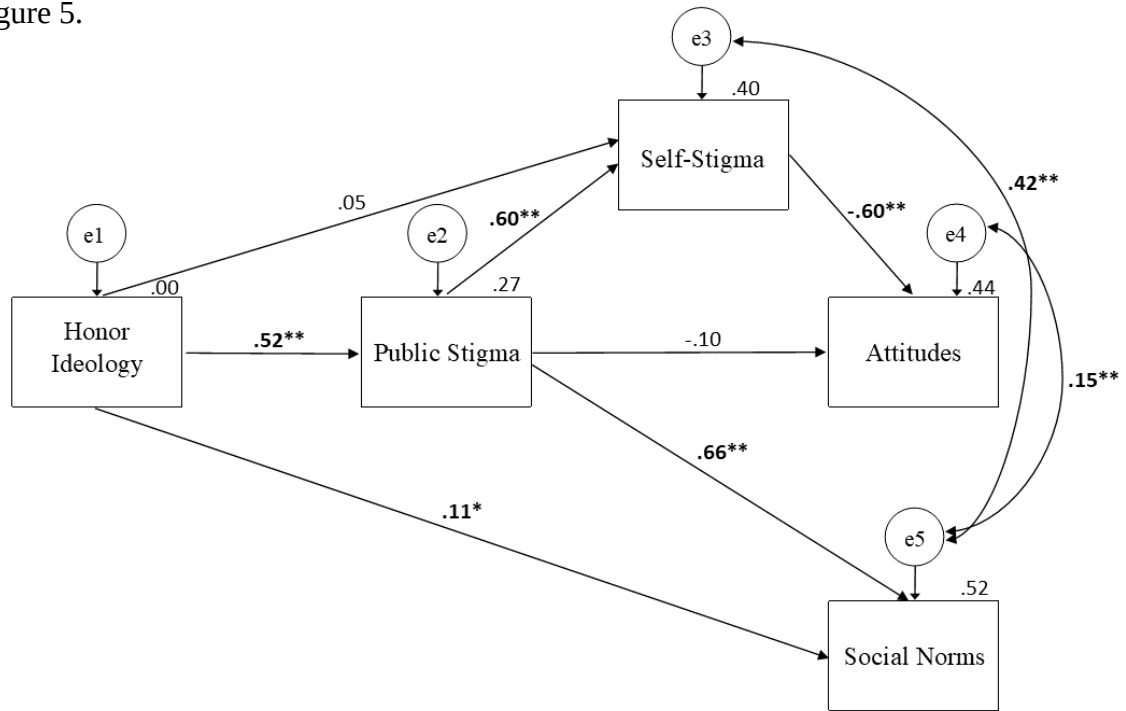


Figure 5. Results of the modified observed variable path analysis, including covarying for errors associated with self-stigma and social norms and attitudes and social norms. Standardized coefficients are presented.

** indicates significant at the 0.01 level; * indicates significant at the 0.05 level

Additional follow-up analyses were conducted to explore the hypothesized relationships among variables within each group by repeating the post-hoc observed variable path analysis separately on the civilian sample and also on the military sample. Utilizing data from the civilian sample, the model had an adequate fit according to the CFI (.929) and the SRMR (.070); however, it did not have a good initial fit as assessed by

the chi-square statistic of absolute fit ($X^2 = 23.93$, $df = 3$, $p = .000$; $X^2/df = 7.98$), the TLI (.763), or RMSEA (.209). The data analytic software modification indices suggested covarying the error associated with self-stigma with the error associated with social norms. Making this adjustment did not provide a non-significant chi-square ($X^2 = 6.35$, $df = 2$, $p = .042$; $X^2/df = 3.17$) or a good fit according to RMSEA (.117), but otherwise allowed for a good fitting model according to the remaining fit statistics (CFI = .985; TLI = .926; SRMR = .030). Interpretation of this model supported the same pattern of results found in the path model examining both groups together depicted in Figure 5. There were significant direct effects of masculine honor ideology endorsement on public stigma ($\beta = .546$, $p = .003$) and on social norms ($\beta = .050$, $p = .024$), significant direct effects of public stigma on self-stigma ($\beta = .576$, $p = .003$) and on social norms ($\beta = .518$, $p = .002$), and a significant direct effect of self-stigma on attitudes towards MHC help-seeking ($\beta = -.492$, $p = .001$). There was no significant direct effect of masculine honor ideology endorsement on self-stigma ($\beta = .215$, $p = .652$), but there was a significant indirect effect ($p = .001$), suggesting public stigma completely mediated the effect of masculine honor ideology endorsement on self-stigma. There was also no significant direct effect of public stigma on attitudes ($\beta = -.111$, $p = .238$), but there was a significant indirect effect ($p = .001$), suggesting a complete mediation of public stigma on attitudes through self-stigma. R-square indicated that 32% of the variance in attitudes towards MHC help-seeking and 44% of the variance in social norms can be explained by this model. These results are further depicted in Figure 6.

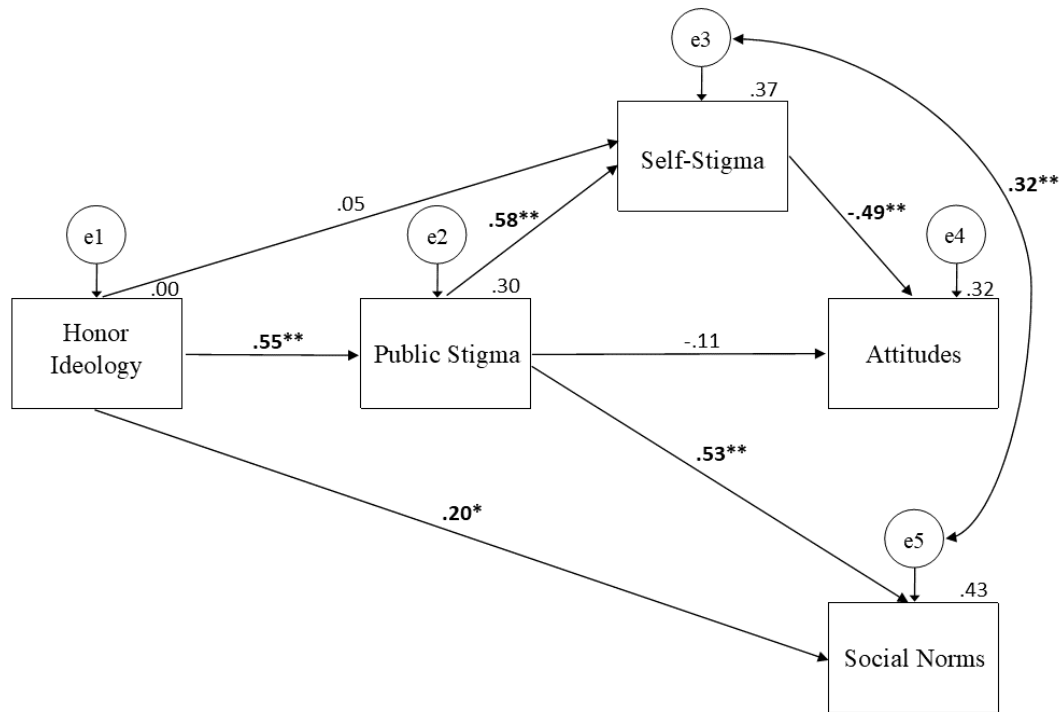


Figure 6. Results of the modified observed variable path analysis using the civilian sample only. Standardized coefficients are presented.

** indicates significant at the 0.01 level; * indicates significant at the 0.05 level

A path analysis using data solely the military sample also did not have a good fit ($X^2 = 55.87$, $df = 3$, $p = .000$; $X^2/df = 18.62$; CFI = .853; TLI = .511; SRMR = .102; RMSEA = .333). Amos modification indices again suggested covarying the error associated with self-stigma with the error associated with social norms. Making this adjustment allowed for a good fitting model as indicated by all measures of fit ($X^2 = 6.13$, $df = 2$, $p = .050$; $X^2/df = 3.07$; CFI = .989; TLI = .943; SRMR = .028) except as evaluated by RMSEA (.114). Results from observed variable path analysis indicated a similar pattern of results as obtained in the civilian sample, except the direct effect of honor ideology on social norms was no longer significant ($\beta = .006$, $p = .880$). Additionally, of

note, the beta weights were larger for every significant predicted relationship in the military sample than in the civilian sample, except for the relationship between honor ideology and public stigma. There was a significant direct effect of masculine honor ideology endorsement on public stigma ($\beta = .349, p = .002$), significant direct effects of public stigma on self-stigma ($\beta = .600, p = .002$) and on social norms ($\beta = .697, p = .002$), and a significant direct effect of self-stigma on attitudes towards MHC help-seeking ($\beta = -.693, p = .003$). There was no significant direct effect of masculine honor ideology endorsement on self-stigma ($\beta = .091, p = .113$), but there was a significant indirect effect ($p = .002$), suggesting public stigma completely mediated the effect of masculine honor ideology endorsement on self-stigma. There was also no significant direct effect of public stigma on attitudes ($\beta = .001, p = .984$), but there was a significant indirect effect ($p = .002$), suggesting a complete mediation of the impact of public stigma on attitudes through self-stigma. R-square indicated that 48% of the variance in attitudes towards MHC help-seeking and 49% of the variance in social norms can be explained by this model. These results are further depicted in Figure 7.

SPECIFIC AIM 4

Aim 4 explored descriptive and distributional characteristics and also assessed the psychometric properties of the first use of honor ideology measures in a military sample, specifically the HIM and the HIW. Table 7 shows these characteristics and properties in the military sample. The Cronbach's α for the HIM was .95 and .93 for the HIW, indicating excellent internal consistency for both measures. In the military sample, HIM scores were distributed normally and relatively symmetrically, with a skewness of 0.09 ($SE = .19$) and kurtosis of -0.92 ($SE = .38$). The distribution of scores on the HIW in the

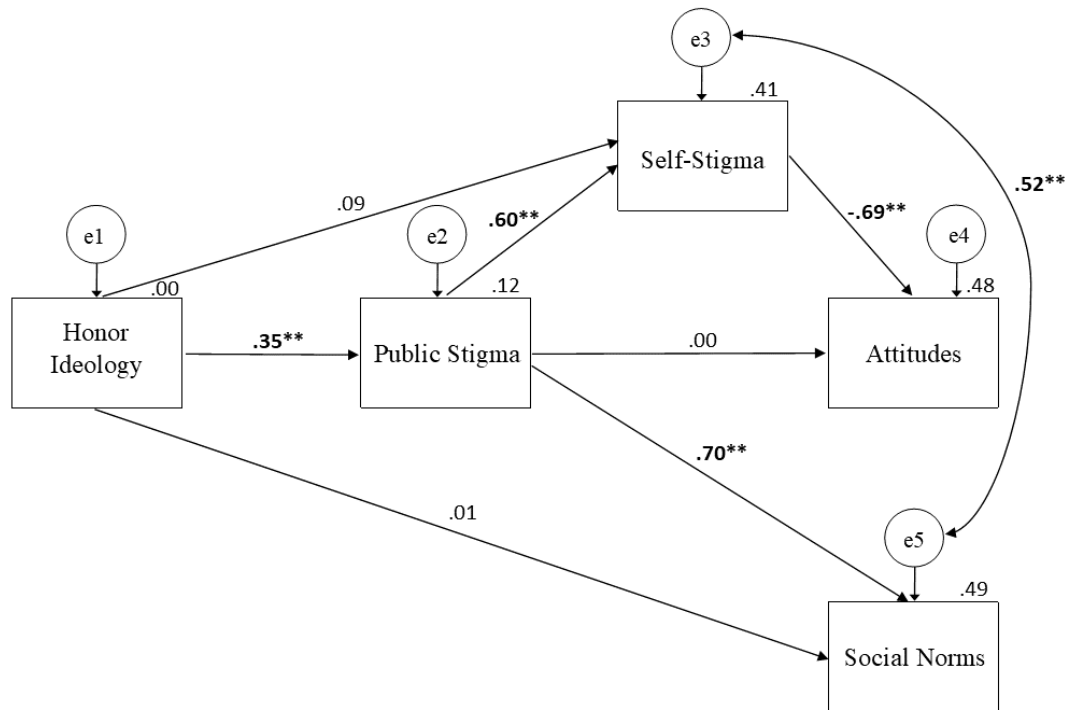


Figure 7. Results of the modified observed variable path analysis using the military sample only. Standardized coefficients are presented.

** indicates significant at the 0.01 level

military sample was normal, although slightly negatively skewed with a skewness of -0.24 ($SE = .19$) and kurtosis of -0.47 ($SE = .38$). For comparison purposes, a separate table (Table 8) with these same descriptive statistics was included for the civilian sample. Of note, the distribution of the HIW scores in the civilian sample was not normally distributed, as indicated by the Kolmogorov-Smirnov test ($D(160) = .077, p = .021$) and Shapiro-Wilk test ($W(160) = .932, p < .001$), and was instead negatively skewed (skewness = -1.13) and leptokurtik (kurtosis = 2.06).

Table 7

Descriptive Characteristics and Psychometric Properties of the HIM and HIW in a Military Sample (N = 160)

	<i>M</i>	<i>SD</i>	Median	Mode	Range	Cronbach's α	Skewness	Kurtosis
HIM	68.52	29.48	71.00	84	16-138	.95	.086	-.917
HIW	67.19	22.49	68.00	60	12-108	.93	-.237	-.468

Table 8

Descriptive Characteristics and Psychometric Properties of the HIM and HIW in a Civilian Sample (N = 160)

	<i>M</i>	<i>SD</i>	Median	Mode	Range	Cronbach's α	Skewness	Kurtosis
HIM	95.28	26.89	100.50	102	16-144	.95	-.896	.712
HIW	79.38	17.12	81.00	81	12-108	.93	-1.131	2.059

In addition to characterizing the novel use of the HIM and the HIW in a military sample, exploratory analyses of group (military vs. civilian), gender (male vs. female), and race (white vs. nonwhite) were conducted. Table 9 depicts the demographic breakdown of means and standard deviations for these measures. A three-way (2x2x2) ANOVA revealed a significant main effect of group on masculine honor ideology endorsement, $F(1, 312) = 8.90, p = .003, \eta_p^2 = .028$, indicating civilians more strongly endorsed masculine honor ideology than did service members and veterans. There also was a significant main effect of gender on masculine honor ideology endorsement, $F(1, 312) = 12.50, p < .001, \eta_p^2 = .039$, suggesting males more strongly endorsed masculine honor ideology than females. The main effect of race was not significant, $F(1, 312) =$

0.07, $p = .792$, $\eta_p^2 = .000$, indicating no difference between participants who identified as white and those who did not. There were no significant interactions among any of the variables, including a non-significant three-way interaction among group, gender, and race, $F(1, 312) = 3.390$, $p = .067$. Homogeneity of variance was evaluated and assured via Levene's Test, $F(7, 312) = 1.318$, $p = .241$.

Table 9

Demographic Breakdown of Means and Standard Deviations of HIM and HIW (N = 320)

	n	HIM		HIW	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Military	160	68.52	29.48	67.19	22.49
Males	93	78.08	28.54	72.42	20.59
Females	67	55.25	25.50	59.93	23.13
White	132	66.74	29.24	65.80	22.45
Non-White	28	76.89	29.70	73.75	21.86
Civilians	160	95.28	26.89	79.38	17.12
Males	102	98.48	22.87	82.82	13.65
Females	58	89.66	32.25	73.33	22.07
White	142	95.12	27.62	79.15	17.94
Non-White	18	96.56	20.84	81.22	16.27

A separate three-way (2x2x2) ANOVA was also conducted assessing the effect of group, gender, and race on feminine honor ideology. Homogeneity of variance was evaluated first via Levene's Test, which was significant, $F(7, 312) = 2.759$, $p = .002$, indicating this assumption was violated. There is unfortunately not a good non-parametric

equivalent test for factorial ANOVA (Field, 2016); we therefore sought to address this violation of the homogeneity of variance assumption, as well as the non-normality of the distribution, through transformation of HIW total scores in our sample. Scores were transformed by cubing to reduce the negative skew in the distribution, as suggested by Field (2016). Outliers, defined as ± 3 SDs from the mean within each respective sample group, were also removed (4 civilian participants were removed). These steps corrected the previously non-normal distribution of HIW scores in the civilian sample and also allowed for assurance of homogeneity of variance, as indicated by a non-significant Levene's Test, $F(7, 308) = 1.352, p = .225$. The results of the ANOVA were then able to be interpreted. There was a significant main effect of gender on feminine honor ideology endorsement, $F(1, 308) = 5.29, p = .022, \eta_p^2 = .017$, indicating that males more strongly endorsed feminine honor ideology than females. There was neither a significant main effect of group, $F(1, 308) = 2.93, p = .088, \eta_p^2 = .009$, nor a significant main effect of race on feminine honor ideology, $F(1, 308) = .10, p = .755, \eta_p^2 = .000$. There were no significant interactions among any of the variables, including a non-significant three-way interaction among group, gender, and race, $F(1, 308) = 0.297, p = .586$.

In addition to the analyses originally proposed in Aim 4, exploratory factor analyses were conducted in an effort to better understand our unexpected findings regarding the lower endorsement of masculine honor ideology among military participants. We hoped to better understand the patterns among civilians and service members/veterans in their endorsement of masculine honor ideology. First, principal axis factoring was conducted on the 16 items of the HIM with oblique rotation (direct oblim) in the full sample ($N = 320$). The Kaiser-Meyer-Olkin (KMO) measure verified the

sampling adequacy for the analysis, KMO = .95 (“marvelous” according to Hutcheson & Sofroniou, 1999), and KMO values for individual items were greater than .92, which is well above the acceptable limit of .5 (Field, 2016). An initial analysis was run to obtain eigenvalues for each factor in the data. Three factors had eigenvalues over Kaiser’s criterion of 1 and in combination explained 77.96% of the variance. The scree plot confirmed the selection of three factors. Table 10 shows the factor loadings after rotation. The items that cluster on the same factor suggest that factor 1 generally represents justified physical aggression/retaliation for relational insults or perceived slights (“relational aggression/retaliation”); factor 2, broadly, represents justified physical aggression/retaliation for destruction or mistreatment of property/belongings (“property aggression/retaliation”); and factor 3 represents concerns about reputation for self-reliance and toughness (“reputation”). These subscales of the HIM all had high reliabilities, all Cronbach’s $\alpha = .91$ to $.94$. Although the present factor analysis suggests three separate factors, the general pattern in our sample appears to be more or less a distinction between retaliation and reputation, which is supported by previous research demonstrating a two-factor makeup on the HIM in samples of undergraduate students (Pomerantz & Brown, 2019; Pomerantz et al., under review).

We further compared the pattern of responses on these subscales between the civilian and military samples. After summing participants’ scores for each factor, we reran the analyses conducted in Aim 1 and performed a 2x2 ANCOVA on each of the factors described above. We explored whether there were main effects of group (military vs. civilian) and home state classification (honor state vs. non-honor state) on endorsement of justified physical aggression/retaliation for relational insults or perceived

Table 10*Summary of exploratory factor analysis results for HIM in the full sample (N = 320)*

Item	<i>Rotated Factor Loadings</i>		
	Relational Aggression/ Retaliation	Property Aggression/ Retaliation	Reputation for Self-reliance/ Toughness
A man has the right to act with physical aggression toward another man who calls him an insulting name	.895	.003	-.047
A man has the right to act with physical aggression toward another man who slanders his family	.876	.234	-.150
A man has the right to act with physical aggression toward another man who insults his mother	.738	.251	-.003
A man has the right to act with physical aggression toward another man who openly flirts with his wife	.727	.253	-.008
A real man never leaves the score unsettled	.715	-.166	.298
A real man will never back down from a fight	.663	-.083	.338
A man has the right to act with physical aggression toward another man who mistreats his children	-.019	.867	.037
A man has the right to act with physical aggression toward another man who trespasses on his personal property	.051	.719	.175
A man has the right to act with physical aggression toward another man who vandalizes his home	.176	.691	.179
A man has the right to act with physical aggression toward another man who steals from him	.303	.586	.152
A real man can always take care of himself	-.074	.061	.835
A real man never lets himself be a “door mat” to other people	-.053	.137	.808
A real man can “pull himself up by his bootstraps” when the going gets tough	.006	.169	.682
A real man doesn’t let other people push him around	.115	.086	.673
A real man doesn’t take crap from anybody	.393	-.016	.561
A real man is seen as tough in the eyes of his peers	.473	-.116	.510
Eigenvalues	9.566	1.493	1.415
% of variance	59.79	9.33	8.84
α	.94	.92	.91

Note: Factor loadings over .50 appear in bold

slights (factor 1), justified physical aggression/retaliation for destruction or mistreatment of property/belongings (factor 2), and concerns about reputation for self-reliance and toughness (factor 3). Gender, race, and age gender were included as covariates.

In the first ANCOVA for relational aggression/retaliation (factor 1), homogeneity of variance was assured via Levene's test, $F(3, 315) = 1.57, p = .195$. There was a significant main effect of group on endorsement of justified physical aggression/retaliation for relational insults or perceived slights, after controlling for gender, race, and age, $F(1, 312) = 161.53, p < .001$, partial $\eta^2 = .341$. Tukey's LSD post hoc test indicated a statistically significant difference of 16.73 in adjusted marginal mean scores, such that military participants scored lower than civilian participants in endorsement of justified physical aggression/retaliation for relational insults or perceived slights. There was no main effect of home state classification, after controlling for gender, race, and age, $F(1, 312) = 0.84, p = .360$, partial $\eta^2 = .003$, and no significant interaction between group and home state classification, after controlling for gender, race, and age, $F(1, 312) = 2.12, p = .139$, partial $\eta^2 = .007$. Means, adjusted means, standard deviations, and standard errors for factor 1 are presented in Table 11.

Homogeneity of variance for the second ANCOVA assessing property aggression/retaliation (factor 2) was also assured via Levene's test, $F(3, 315) = 1.85, p = .138$. Notably, after controlling for gender, race, and age, there were no significant main effects of group ($F(1, 312) = 3.12, p = .079$, partial $\eta^2 = .010$) or home state classification ($F(1, 312) = 0.73, p = .395$, partial $\eta^2 = .002$) on endorsement of justified physical aggression/retaliation for destruction or mistreatment of property/belongings. There was also no significant interaction between group and home state classification, after

controlling for gender, race, and age, $F(1, 312) = 0.39, p = .535$, partial $\eta^2 = .001$. Means, adjusted means, standard deviations, and standard errors for factor 2 are presented in Table 12.

Table 11

Means, Adjusted Means, Standard Deviations, and Standard Errors for Relational Aggression/Retaliation (Factor 1) on the HIM (N = 319)

	Civilian		Military	
	Non-honor State	Honor State	Non-honor State	Honor State
<i>n</i>	61	99	59	100
<i>M</i>	34.12	34.10	15.73	18.51
<i>SD</i>	12.42	12.16	9.15	11.74
<i>M_{adj}</i>	34.37	33.62	15.69	18.85
<i>SE</i>	1.47	1.14	1.47	1.14

Table 12

Means, Adjusted Means, Standard Deviations, and Standard Errors for Property Aggression/Retaliation (Factor 2) on the HIM (N = 319)

	Civilian		Military	
	Non-honor State	Honor State	Non-honor State	Honor State
<i>n</i>	61	99	59	100
<i>M</i>	22.77	23.86	20.83	21.96
<i>SD</i>	8.78	7.56	9.41	10.05
<i>M_{adj}</i>	23.16	23.39	20.75	22.24
<i>SE</i>	1.12	0.88	1.13	0.87

For the ANCOVA assessing reputation for self-reliance and toughness (factor 3), the assumption of homogeneity of variance was violated as indicted by Levene's test,

$F(3, 315) = 4.71, p = .003$. However, ANCOVA is a robust test, particularly when group sizes are roughly equal, and the homogeneity of residuals assumption was not violated. Therefore, we felt confident in interpreting further results despite the significant Levene's test. Results showed a significant main effect of group on endorsement of concern about reputation for self-reliance and toughness, after controlling for gender, race, and age $F(1, 312) = 54.73, p < .001$, partial $\eta^2 = .149$. Tukey's LSD post hoc test indicated a statistically significant difference of 9.10 in adjusted marginal mean scores, such that military participants did not as strongly endorse concern about reputation for self-reliance and toughness as did civilians. There was no main effect of home state classification, after controlling for gender, race, and age, $F(1, 312) 0.90, p = .345$, partial $\eta^2 = .003$, and no significant interaction between group and home state classification, after controlling for gender, race, and age, $F(1, 312) = 0.09, p = .770$, partial $\eta^2 = .000$. Means, adjusted means, standard deviations, and standard errors for factor 3 are presented in Table 13.

Table 13

Means, Adjusted Means, Standard Deviations, and Standard Errors for Reputation (Factor 3) on the HIM (N = 319)

	Civilian		Military	
	Non-honor State	Honor State	Non-honor State	Honor State
<i>n</i>	61	99	59	100
<i>M</i>	36.56	38.38	27.78	28.90
<i>SD</i>	10.90	8.40	11.48	12.81
<i>M_{adj}</i>	37.08	37.89	27.63	29.15
<i>SE</i>	1.37	1.07	1.38	1.06

CHAPTER 4: Discussion

SPECIFIC AIM 1

Results of the present study revealed unexpected, yet intriguing findings. In Aim 1, we examined honor ideology endorsement in a US military sample, while controlling for demographic variables (e.g., gender and race) previously shown to be associated with such endorsement and also included age as a covariate. Results indicated no difference in masculine honor ideology endorsement between participants whose identified home state was classified as an honor state and those whose home states were non-honor states. Additionally, our findings showed there was a significant difference between civilian and military participants; however, contrary to what was expected, civilians more strongly endorsed masculine honor ideology than did service members and veterans. Further, there was no significant interaction between group (military vs. civilian) and home state classification.

Finding no association between home state and endorsement of masculine honor ideology was rather surprising, given previous literature has suggested those hailing from honor states more strongly endorsed honor-related beliefs compared to those from non-honor states (Barnes, Brown, & Osterman, 2012; Brown, 2016; Cohen et al., 1996; Nisbett et al., 1995). In the present study, we initially elected to examine home state instead of birth state or region of residence. This was done for two reasons: first, we believed home state best represented the construct of interest, and, second, we thought home state would be more consistent across time and moves, which is especially pertinent to a sample made up of frequently transient military members. However, as part of the larger project, birth state and current state of residence also were collected. Thus, because we found no relation regarding home state and endorsement of honor ideology,

we repeated Aim 1 analyses with birth state and state of residence. Contrary to much of the prior literature, these analyses also showed no relation to endorsement of honor ideology.

The foundational research on honor cultures in the US almost exclusively used Census Bureau divisions as an indirect indicator of endorsement of honor ideology and has focused on regional differences in honor beliefs by comparing participants from honor states and those from non-honor states (Saucier et al., 2016). In other words, those states in the Southern and Western regions of the US, and the individuals residing in them, have been presumed to be more concerned with honor beliefs and values than those in other parts of the country, namely the Northern US (Barnes et al., 2012; Cohen, 1998). Accordingly, we included state classification in the present study. However, this manner of assessing honor endorsement is certainly not without limitations, particularly because not all members of a culture may agree with certain ideologies (i.e., intracultural variability; Leung & Cohen, 2011) and because individual endorsement does not always perfectly follow state/regional borders (Cohen & Vandello, 2001; Leung & Cohen, 2011). In fact, even Nisbett (1993) noted that the cultural notion of honor could be persistent outside of its historical geographic boundaries. Further, differences among regions do not necessarily represent differences in alignment with honor ideology among *individuals* (Barnes et al., 2012).

In order to assess individual masculine honor endorsement more directly, Barnes and colleagues (2012) created the HIM. Although, in assessing the measure, they found that scores on the HIM were uniquely predicted by participants' region of residence, at least among White males assessed in their study. More recent research on honor has

adopted this approach to measuring individual differences in assessment of honor ideology (e.g., Imura et al., 2014; Barnes et al., 2016; Pomerantz & Brown, 2019). Such an approach is less inferential than one that relies on geographic boundaries. As such, we also included an individual measure of honor (i.e., the HIM) in our analyses for the present study.

In understanding our failure to find a relationship between honor states and endorsement of masculine honor ideology, we must take these limitations into consideration. As Nisbett (1993) suggested, honor ideology may be disseminated to other regions not originally characterized by honor-related beliefs and cultural norms. This might be the case in the present study. Indeed, the more transient and interdependent nature of today's modern world may permit the transmission of honor culture more readily. According to a recent report released by the US Census Bureau, approximately 31 million Americans reported living at a different residence than the year prior (U.S. Census Bureau, 2020). Computer use and internet access has also increased substantially over the last couple of decades. In 2019, 93% of all US households had at least one type of computer and nearly 87% had some type of internet subscription (American Community Survey, 2020). The present study's sample inarguably highlights the interconnectedness of today's contemporary society, as the survey was distributed across the US online and each participant needed access to the internet in order to complete the study.

Relatedly, it also may be that the influence of social media may serve as, at least, a partial explanation for the lack of state effect on masculine honor ideology endorsement. According to recent research, social media has become even more popular

in today's globalizing society (Saywer & Chen, 2012), allowing for ubiquitous connectivity and transmission of communication through the exchange of messages, knowledge, and other interactions among individuals who may be physically separated by thousands of miles (Acerbi, 2016). The influence of social media thus cannot be understated. It is possible that social media may not have only created a sense of interconnectedness but may have also promoted "intercultural adaptation." In other words, it may serve to link individuals to their own culture of origin and also encourage them to integrate into a new culture. Perhaps, home state was not shown to influence masculine honor ideology endorsement in the present study due to the transmission of cultural norms, honor and otherwise, through online social media platforms and connections. For further reading, Acerbi (2016) provides a thorough review of the current literature assessing the transmission of cultural norms.

There is also a possibility other communities within the US (e.g., Latinx, Black urban) that are not geographically limited may share some characteristics of cultures of honor. Though there have been some preliminary discussions (e.g. Gul et al., 2020; Felson & Pare, 2010; Dietrich & Schuett, 2013; Guerra et al., 2013), prior research has not focused on the influence of honor-related beliefs in these communities and honor as a concept has been implicitly intellectualized and examined as a "white" phenomenon (Pomerantz et al., under review). A recent study by Pomerantz and colleagues (under review) argued that this conceptualization of honor is limited in scope and that, in fact, present-day US minority group members may even be more likely than white individuals to endorse honor ideology. These individuals, particularly those within Black and Hispanic communities, may be more likely to experience the situational contexts

necessary for honor cultures to develop (i.e., lack of law enforcement and resource scarcity; (Nowak et al., 2016; St. Vil et al., 2018). Indeed, some cultural frameworks within these communities bear great resemblance to cultures of honor, such as the “code of the street” (Felson & Pare, 2010; Kirk & Papachristos, 2011). In fact, Pomerantz and colleagues (under review) found that individuals from different ethnic and racial backgrounds similarly endorsed beliefs and values related to both the masculine and feminine facets of honor. Thus, honor endorsement among individuals from communities of color in the present study also may have reduced the apparent geographical differences found in previous research.

Therefore, assessing alignment with honor ideology based on regional boundaries is limited and risks omitting important information regarding *individual* beliefs. Even areas without historical ties to the Scots-Irish culture of honor could still be influenced by this ideology. Further, assessing honor beliefs in an individual manner provides new avenues for research regarding how this ideology affects attitudes and behaviors. Our results from Aim 1 indicate that utilizing state classification as a proxy of identification with honor-related beliefs may be outdated and could lead to significant interpretational difficulties. Nonetheless, future research should continue to investigate whether any differences exist within the selection of home state versus birth state/state of residence in individual endorsement of honor ideology in additional diverse samples, as well as continuing to include individual level of analyses and direct assessments of honor-related beliefs.

Our findings suggesting civilians more strongly endorse masculine honor ideology than service members or veterans were even more unexpected. This particular

finding was quite perplexing because, as outlined in the introduction, the US military outwardly looks like a culture of honor. In fact, it shares many of the beliefs also promoted in cultures of honor, which is evidenced by service branch core values, creeds, and slogans. Furthermore, there is a high concentration of military installations in the Southern region of the United States, which has been documented for years to be a culture of honor, and recruits from these areas make up nearly 50% of total US military recruits every single year (Quester & Shuford, 2015). Despite this, the present results indicate service members and veterans do not endorse masculine honor ideology as strongly as civilians. We explore several possible explanations for this finding below.

Perhaps most plausibly, physical aggression and retaliation, and reputation for such, were strongly emphasized in the present study in our conceptualization and in our assessment of masculine honor ideology through the HIM. There are limitations to understanding, conceptualizing, and defining cultures of honor in this way. First and foremost, much of the prior research examining honor culture has focused primarily on White males, usually a convenience sample of undergraduate students, assessed via self-report measures or by using the state in which a participant is born or currently resides as a proxy for possessing a culture of honor. Indeed, Southern, White non-Hispanic men appear to be more often willing to defend their masculine honor and reputations with aggression or violence (Barnes et al., 2012). In fact, this relationship between masculine honor ideology and male aggression has been most often assessed in the US by simply comparing state categorization as honor or non-honor states (Barnes et al., 2012), as described above. Furthermore, it has been suggested that the culture of honor is “so much more than defending one’s [masculine] reputation” (Adams, 2011, as cited in Brown

2016). As columnist and Southern comedian Lucy Adams questioned, is not honor also “a willingness to take a stand for one’s convictions... holding high expectations for the conduct of others... protecting the weak, rescuing the stranded, and opening the door for a lady?” (Adams, 2011, as cited in Brown, 2016, p. 181). Is not honor doing what is “right?” Certainly – and, given the outward statements of the US military, we are not willing to conclude the military does *not* embody or promote honor-oriented beliefs and values. Instead, perhaps service members and veterans more strongly align with a different *dimension* of honor than was focused on and assessed in the present study.

Indeed, different facets of honor have been suggested and examined previously, although the current literature is quite sparse. Social and cultural psychologist Patricia Rodriguez Mosquera is one of the pioneering advocates for what she calls a “multidimensional” view of honor. She suggests honor is more than has been depicted in the extant literature and maintains that, in order to understand the role of honor in group life, culture, and society more deeply, honor is better defined and measured as a multidimensional, rather than unitary, construct (Rodriguez Mosquera, 2016). Rodriguez Mosquera (2016) has proposed four distinct dimensions of honor: masculine honor, feminine honor, family honor, and integrity/morality-based honor. Masculine honor, as previously discussed in depth and as emphasized in the current study as well as much of the prior literature, is the extent to which one is willing to protect one’s honor and one’s family or property with retaliatory aggression or violence. This definition and conceptualization of honor, Rodriguez Mosquera argues (2016), is restrictive and likely stems from the literature’s focus on particular demographic groups (i.e., Southern White males, undergraduate students).

Alternatively, Rodriguez Mosquera (2016) advocates for the consideration of multiple facets of honor when discussing and assessing cultures of honor. This multidimensional approach is theoretically grounded in anthropological perspectives on the role of honor in cultures, which have typically been examined through a variety of methods including demographic analyses, archival data, observation, and consultation with literary and historical texts. Ethnographic research suggests honor can be associated with many other emotions and behaviors beyond that of aggression and retaliation. Rather this perspective implies that honor-oriented groups develop a wide array of behaviors and customs to enhance, maintain, and protect honor. As previously alluded to, honor can only be possessed when one is *known by others* to act in ways consistent with the values and norms of the particular honor code emphasized within one's society (Rodriguez Mosquera, 2013, 2016; Rodriguez Mosquera et al., 2002b, 2002a). In cultures where honor is at the center of society and social standing, the opinions of other members are extremely important because, in an honor culture, one's worth is almost exclusively dependent upon others (Leung & Cohen, 2011).

Viewing honor through a multifaceted lens examines honor in a manner that allows for an assortment of behaviors and practices. Masculine honor stresses the importance of toughness and strength, but Rodriguez Mosquera (2016) argues the emphasis on these qualities "does *not* imply that violence or aggression are necessarily seen as a desirable or legitimate means to protect male honor" (p. 433). This distinction is important in trying to understand the results of the current study. Ethnographic research has found that establishing and maintaining honor through aggressive or violent means is in fact unacceptable even in some honor cultures due to the risk of it interfering with

social order and norms (Rodriguez Mosquera, 2016). It has even been suggested that in many cultures, including those that are considered to be cultures of honor, aggression and violence may instead be interpreted as immaturity and aggressive retaliation is only permissible as a last resort (e.g., Abu-Lughood, 1999). Rodriguez Mosquera (2016) argues instead that the masculine honor code in many cultures views autonomy, social status, and providing for one's family as indicators of toughness and strength (Abu-Lughood, 1999; Pitt-Rivers, 1966). This multifaceted approach suggests that viewing honor generally, and masculine honor more specifically, through the strict lens of physical aggression and retaliatory violence (as emphasized in previous studies involving honor) is extremely limited and should not serve as exclusive criteria for identifying or defining cultures of honor.

Consequently, restricting honor to a unidimensional conceptualization of solely masculine honor may have masked our understanding of the military as a culture of honor. It is plausible the limitations inherent in this definition could explain, at least in part, the lower endorsement of honor ideology on the HIM by military participants as compared to civilians. To be sure, the military teaches and reinforces a sense of stoicism and recruits are instructed to be in control of their emotions and behaviors from the time they enter into service. Often, recruits are lambasted and insulted by more senior military members during basic training in order to encourage this growth in stoicism and self-control. They are expected to not react to provocations and to "man up and take it." In fact, retaliating against these "insults" with physical aggression or otherwise is highly discouraged and could be a punishable offence. It is also likely interpreted as a sign of immaturity in the military community. Whereas honor has been largely linked in the

extant literature with a “lack of restraint in the face of reputational threats,” in the military “it is almost always associated with such restraint” (Mandel & Litt, 2012, p. 386).

Along the same lines, it could be reasoned that the US military still promotes values stemming from a culture of honor, but these values are not solely restricted to the dimension of masculine honor. Instead, those in the military might more strongly align themselves with another dimension of honor – that of morality-based honor. Rodriguez Mosquera (2016) defines morality-based honor as that dimension of honor which stresses honesty and trustworthiness, and emphasizes that one must behave, and be known, as such. Honorable people possess a reputation for honesty, fairness, and loyalty to both others and their own principles (Rodriguez Mosquera et al., 2002b). A noteworthy distinction between cultures that emphasize masculine honor and the honor-bound culture of the military is that, in the military, honor is likely maintained through keeping one’s reputation as trustworthy and loyal rather than tied to aggression and retaliation. Morality-based honor is also explicitly referred to in many of the creeds and service branch values in the US military. For example, the Marine Corps’ official website (*Marine Corps Values*, n.d.) explains and defines honor as such (italics added for emphasis):

Honor guides Marines to exemplify the ultimate in *ethical and moral* behavior. Never *lie*, never *cheat* or *steal*; abide by an *uncompromising code of integrity*; respect human dignity and respect others. Honor compels Marines to act *responsibly*, to fulfill our *obligations* and to *hold ourselves and others accountable* for every action.

In the military, honor is demonstrated by “doing the honorable thing,” thus building a solid reputation wherein you are known as trustworthy. In fact, in the military there is the conviction that “having honor defines you to others” (Gibson, 2013).

Rodriguez Mosquera (2016) also touches on the idea that the military emphasizes morality-based honor through her citation of the US Army cadet song. She connects the song’s statement that “honor is my touchstone” to the Army’s assessment of a soldiers’ honor by their “commitment to live up to the group’s values of integrity, selfless service, loyalty, and duty” (i.e., four of the Army’s core values, p. 431). A study conducted in 2012 by Mandel and Litt hints at the idea that the military is indeed a culture of honor by examining the motivational role of morality-based honor in a sample of Canadian Force members. Service members were asked to rate the virtue of their fellow service members at, below, and above their own rank. They then indicated how willing they would be to risk their own lives as part of several military missions. The authors found that service members were strongly motivated by morality-based honor; the more the service member believed their peers embodied the values of morality-based honor, the more connected and loyal they were to their group, so much so they indicated they were willing to risk their lives in service of the mission and other group members. This idea is reminiscent of the identity fusion phenomenon found in members of honor cultures discussed prior.

This consideration of morality-based honor in the military also brings to mind the Medal of Honor study conducted by Brown and colleagues (2011). As discussed in previous sections, these awards are given to those who “make honor a matter of daily living, [those] who develop the habit of being honorable, and solidify that habit with every value choice they make” (Rodriguez Mosquera, 2016, p. 431). According to the

official Medal of Honor website (Congressional Medal of Honor Society, n.d.), the medal is awarded to service members who “distinguish [themselves] conspicuously by gallantry and intrepidity at the risk of [their] life above and beyond the call of duty,” emphasizing the reverence the military appears to place on morality-based honor. In their study, Brown and colleagues (2011) found that these medals were received more often by soldiers hailing from honor states than those from non-honor states, and concluded that members of honor cultures might be more willing to risk their lives for their fellow service members and in support of the military mission. Of course, the limitations of making conclusions based off regional classifications has already been acknowledged, however, these findings align with those found by Mandel and Litt (2012) among military members examining morality-based honor on an individual level.

Therefore, perhaps the US military is a culture of honor that does not necessarily emphasize the masculine honor code as strongly as originally proposed. Rather, the military might be more centered on the dimension of morality-based honor and service members’ and veterans’ attitudes and behaviors may be driven more by concern attached to this facet of honor. Now, importantly, that is not to say that values of strength and toughness do not matter in the military. Rather, it may be that the military emphasizes different facets of honor at different intensities, and morality-based honor may be a more strongly emphasized dimension of honor than masculine honor. Similarly, we are also not arguing that other honor cultures, including that of the Southern US, do not also view morality-based honor as important, rather the more central emphasis may be on other facets (i.e., masculine honor, feminine honor, or family honor).

All cultures of honor share an emphasis on matters of social standing and reputation (Barnes et al., 2012). Honorable individuals earn the respect of others when they abide to socially approved rules on how to earn and maintain reputation and social status (Guerra et al., 2013). More specifically, honor is bestowed when behaviors align with the honor code of that culture; it is maintained through social image and reputation (Rodriguez Mosquera, 2016; Guerra et al., 2013). However, the reputation for what makes a person honorable can vary even within cultures of honor, as does the importance awarded to the various facets of honor codes. For instance, cultures in South America place a stronger emphasis on protecting the family name (i.e., family honor; Rodriguez Mosquera et al., 2002a) whereas the military might be more concerned with reputation for being trustworthy and loyal (i.e., morality-based honor). The military can still be considered a culture of honor, and service members and veterans likely endorse honor-related beliefs, but perhaps military personnel align more strongly with a different facet of honor than they do with masculine honor.

Approaching honor from a multidimensional framework also lends support for the way in which psychologists understand culture more generally. Examining how individuals learn to take on or emphasize different aspects of cultural values broadly is worth exploring. Regarding the military, it may be that it outwardly appears to be concerned with masculine honor and masculinity, which could attract a large percentage of recruits from cultures wherein this facet of honor is indeed strongly emphasized. One could think of military training and indoctrination as a strategy for shifting recruits from a “masculine honor emphasis” to a “morality-based honor emphasis.” A deeper examination of this theorized process may provide further insight into honor culture

generally, and more specifically the culture of the military, in regard to addressing the more negative consequences of the “prototypical” honor culture, such as interpersonal violence, homicide, suicide, and stigma towards MHC (Osterman & Brown, 2011; Brown et al., 2014). Further, a multidimensional approach to honor could offer new pathways for future research investigating the consequences of specific honor codes. For instance, it might be worthwhile to investigate how men embedded within cultures that emphasize the masculine code of honor might disagree with societal norms that expect aggression or violence from them. Societal customs and cultural norms are maintained, and relatedly changed, by individuals and groups within culture. Understanding the customs, and also the oppositions to such norms could help reduce the exacerbation of conflicts and cycles of violence seen in typical US Southern honor cultures (Saucier et al., 2016). There are also other important questions for future research to consider, such as the importance and benefits of morality-based honor. If morality-based honor encourages pro-social behaviors, such as being willing to risk one’s life for the group, then perhaps there are avenues for influential group leaders to promote morality-based honor to enhance group cooperation and cohesion. Relatedly, future research should investigate the interaction of different dimensions of honor within the same group (Saucier et al., 2016), and particularly within the military.

The results of the present study may also be a consequence of the way in which honor was conceptualized and assessed. Notably, we utilized the HIM as the principal measure of honor ideology. This measure, at face value, appears to be heavily weighted towards attitudes consistent with endorsement of aggressive behavior. In establishing the HIM, Barnes and colleagues (2012) did consider this and sought to demonstrate the

measure was not “isomorphic with dispositional aggressiveness, despite the emphasis on aggressive retaliation in some of the HIM’s items” (p. 1022). In developing the HIM, they also sought to assess participants’ general aggressive tendencies through their level of agreement with three items (e.g., “It’s easy for me to get angry,” “I have a short fuse,” and “It doesn’t take much to set me off”). In addition, participants indicated the extent to which they believed certain adjectives were self-descriptive or not (e.g., aggressive, peaceful [reverse scored], belligerent, and quarrelsome). Results indicated these items were moderately positively correlated ($r = .37, p < .01$) with the HIM; although, the HIM still uniquely predicted the study’s outcome measures (i.e., militant responses to terrorism), even after controlling for aggressiveness and other potential covariates. Previous studies have also linked higher rates of homicide and interpersonal violence to regions considered to be cultures of honor (Brown et al., 2014; Osterman & Brown, 2011). However, no studies currently exist that have specifically examined the relationship of the HIM and actual, enacted aggressive behavior at the individual level. Perhaps, examining whether individual endorsement of honor ideology is linked with past or future aggressive behavior would be a worthy path for future studies.

Still, relying on a measure of honor ideology that strongly emphasizes physical aggression, as was done in the present study, ignores the other potentially influential dimensions of honor (Sauicer et al., 2016). In order to encourage the examination of honor as a multidimensional construct, Rodriguez Mosquera created the Honor Scale (Mosquera Rodriguez, 2016; Rodriguez Mosquera et al., 2002a). This self-report specifically measures the “extent to which individuals and groups value each of the four honor codes” (Rodriguez Mosquera et al., 2002a, p. 20). Future studies should consider

the utilization of such a measure to assess the various facets of honor, particularly within the military. Additionally, including various other self-report measures of honor in addition to the HIM and the Honor Scale, such as the Honor Concerns scale (IJzerman et al., 2007) and Masculine Honor Beliefs Scale (MHBS; Saucier et al., 2016), would further elucidate our understanding and conceptualization of the military as a culture of honor, as well as the alignment of its members with various dimensions of honor-related beliefs and values. Relatedly, a multidimensional perspective also should encourage a multi-methodological approach to future research. To date, honor research has primarily utilized surveys, but there are other available methods that could deepen our understanding in how honor codes shape group processes, including qualitative interviews, emotional narratives, experiments, and longitudinal studies.

In sum, in the context of the present results and in relation to other honor research (e.g., Rodriguez Mosquera, 2016; Rodriguez Mosquera et al., 2002a-b; Guerra et al., 2013), viewing one particular dimension of honor (i.e., masculine honor) as the *defining* feature of the honor construct is likely myopic and limited. Relying on the masculine honor code as the sole operationalization of honor ideology or “qualification” for what makes a culture an honor culture is ultimately a “theoretically reductionist approach to honor” (Rodriguez Mosquera, 2016, p. 439). The full complexity of the honor construct must be recognized in order to gain a more complete understanding of the ways in which honor operates. Honor within the military should, therefore, be further assessed through a multidimensional approach, as the argument that the military could be considered a culture of honor cannot be ruled out based solely on the present results. As previously mentioned, it may be that masculine honor values are still important, but the military may

more strongly emphasize other facts of honor-related beliefs, most plausibly morality-based honor. In order to gain a more complete understanding of the importance of honor in social contexts more broadly additional research on honor-bound cultures is imperative, including that of the military where maintenance of a moral reputation could be paramount.

Briefly, another explanation for our findings in Aim 1, beyond the idea of multidimensional facets of honor, is that cultures of honor develop in very specific conditions - people have to feel insecure, unstable, and uncertain economically and also feel, in a very real sense, that law enforcement is unreliable. When these two conditions coincide, it becomes incredibly important for individuals to respond aggressively to perceived threats and maintain a fierce reputation (Cohen & Nisbett, 1994). Arguably, these conditions are fairly non-existent within the larger US military, and so, perhaps these behaviors are not as necessary. Financial stability exists through steady income and job security. In addition to paychecks, active duty military personnel also receive allowance for housing, and health care and meals are generally provided. There is also a clearly defined, unique, and effective legal system within the military - the Uniformed Code of Military Justice (UCMJ). So, perhaps, honor-related values and beliefs, at least in regard to physical aggression and retaliation, is not as strongly reinforced in the military as originally hypothesized because the situational context for which these behaviors are adaptive does not exist (except admittedly somewhat in deployed environments). As such, reputation maintenance through physical aggression and retaliation may not be as strongly emphasized in the way it is in other cultures of honor.

Relatedly, the context in which participants completed the present is important to consider. This is further discussed in the limitations section of the current paper; however, they are worth briefly mentioning here in an effort to explain the high endorsement of masculine honor among civilian participants compared to military participants. Participant responses were collected between July 2020 and January 2021, which was undoubtedly a tumultuous time for many people, both in the United States as well as across the world. Due to uncertainties related to a global pandemic, increased racial tension and discrimination, and associated political unrest, many people experienced financial insecurity and distrust in law enforcement. It could be that civilian participants experienced these consequences more severely than those in the military, resulting in stronger endorsement of masculine honor ideology. Stated more explicitly, those in the military may have been buffered against some level of uncertainty related to these events since they had stable jobs and income, reliable law enforcement, and an effective legal system built into their culture and larger organization. That is to say, due to the timing of the assessments in the greater social context, perhaps civilians experienced conditions more akin to those necessary for the development and persistence of honor cultures, whereas those in the military may have not.

SPECIFIC AIM 2

Aim 2 examined whether certain military characteristics might be associated with honor ideology endorsement among service members and veterans. First, demographic characteristics were assessed; gender significantly predicted endorsement of masculine honor ideology. Consistent with prior literature (see Brown, 2016) and with our hypotheses, males more strongly endorsed this ideology than did females. Race and home

state, however, were not significant. Together, these demographic variables explained 16.3% of the variance in the model. Notably, the inclusion of certain military characteristics (i.e., rank, time in service, branch) significantly improved the model, which then explained 25.7% of the variance. However, contrary to what was expected, time in service did not significantly predict honor ideology endorsement, suggesting that merely spending more time embedded within the military does not necessarily strengthen endorsement of masculine honor ideology. Future research should consider examining the influence of time in service as it relates to other dimensions of honor, particularly morality-based honor.

Rank was a significant predictor of masculine honor ideology, indicating enlisted personnel more strongly endorsed masculine honor ideology than did officers. This suggests there might be something unique about the culture of enlisted personnel and culture of officers in terms of masculine honor-related beliefs and values. It is possible this difference exists due to the different training, purposes, and missions of enlisted personnel versus the officer corps. Broadly speaking, enlisted service members engage in specific job functions and specialties in the military. They are the military's "backbone" and are tasked with carrying out orders and accomplishing missions. Enlisted service members often process paperwork, cook meals, maintain and fix equipment, patrol streets, and complete various other responsibilities required to keep the military functioning (Halvorson, 2010). Officers, on the other hand, are managers and leaders of the enlisted workforce. They must issue orders and organize missions. Unlike enlisted service members, officers are commissioned by the US President, from which they attain their authority, and are confirmed by the Senate (Halvorson, 2010). Another distinction

between enlisted personnel and officers is that active duty officers typically have the choice about where they live in regard to housing. They may be able to live on-post, or off-post in housing that they choose. Enlisted personnel, generally speaking, must live on-post in barracks – particularly if they are unmarried (Halvorson, 2010). As such, it might be the case that enlisted personnel are more inundated with masculine honor beliefs than officers. Furthermore, officers are usually older than enlisted personnel due to needing to complete their college degree before commissioning. Age was not included as a covariate in the present analyses, nor examined in the current study. However, the difference between enlisted personnel and officers may, in part, be due to age wherein younger individuals endorse honor ideology more so than those who are older. In other words, enlisted personnel might be more comparable to the undergraduate samples in which much of the prior honor research has been conducted, given that they are likely similar in age and education.

Also, branch of service significantly predicted masculine honor ideology endorsement, although follow-up analyses indicated there was only a significant difference between Marines and Sailors/Coast Guardsmen. This may be related to interference from outliers, which were not removed due to the small sample size of some branches and the implications their removal would have in terms of statistical power and our ability to make comparisons. However, the overall pattern of scores indicated some variation in masculine honor ideology endorsement by branch. This pattern of results suggests Marines more strongly endorse masculine honor ideology than Soldiers, followed by Airmen, and then Sailors/Coast Guardsmen. Future research should continue to examine differences by branch within a larger, more equally distributed representation

from each service in an effort to better understand potential honor-related values promoted within each branch. It is possible this identification with masculine honor ideology could further impact branch differences in terms of perception of stigma, social norms, and attitudes towards seeking MHC. Further, identification with honor-related beliefs prior to joining the military may be associated with a desire to join certain branches over others. Relatedly, the ways in which each branch promotes themselves to potential recruits differs; it may be that they emphasize different aspects of honor culture in these advertisements, which could help explain branch differences in endorsement of honor ideology. Future research should continue to explore honor ideology within the military and across branches.

SPECIFIC AIM 3

Although the proposed model did not adequately fit the observed data, many of the hypothesized relationships among the variables of interest were supported by the adjusted models with better fit. Namely, analyses examining these correlates demonstrated seven main findings in the overall sample: (1) civilians more strongly endorsed masculine honor ideology than service members or post-9/11 veterans; (2) stronger endorsement of masculine honor ideology was associated with greater perceived public stigma surrounding seeking MHC; (3) greater perceived public stigma was associated with greater self-stigma regarding seeking MHC; (4) greater perceived public stigma was associated with the perception that seeking MHC is less socially normative; (5) greater perceived self-stigma was associated with less favorable attitudes towards seeking professional help for mental health concerns; (6) the association between masculine honor ideology endorsement and self-stigma was completely mediated by

public stigma; and (7) the association between public stigma on attitudes towards seeking MHC was completely mediated by self-stigma. Furthermore, in the models assessing the full sample and the civilian sample, stronger endorsement of masculine honor ideology was associated with the perception that seeking MHC is less socially normative. This relation did not remain when looking at solely military participants.

Although service members and post-9/11 veterans did not endorse masculine honor ideology as strongly as civilians did, there still remained significant relationships among the variables of interest in our model, largely in the manner we predicted (albeit with some caveats). While the strength of the relationships among the examined variables varied, the association between masculine honor ideology, stigma, and attitudes remained across all tested models. The relationship of these variables with perceived social norms also persisted when examining the full sample and the civilian sample (but not in the military sample). Additionally, consistent with the results by Brown and colleagues (2014), our findings suggested endorsement of masculine honor ideology did indeed influence both perceived public stigma (directly) and self-stigma (indirectly) towards MHC. Specifically, masculine honor-oriented individuals perceived greater public stigma towards MHC; were more concerned seeking MHC would indicate a vulnerability; and that seeking such treatment would indicate they were inadequate, weak, or a failure. Our study further demonstrated that this stigma, in turn, also influences individuals' attitudes towards treatment seeking, as previously found by Held and Owens (2013) assessing a military sample. Finally, civilians who strongly endorsed masculine honor-related beliefs and values believed seeking MHC was less socially normative and that they would have less support from friends and family if they were to engage in MHC. This relationship

was not significant among service members and veterans, suggesting that perception of social norms towards seeking MHC is unrelated to personal endorsement of masculine honor ideology among military personnel.

In the current study, we further hypothesized perceived public stigma would partially mediate the relationship between endorsement of honor ideology and self-stigma. Instead, results indicated public stigma actually fully mediated this relationship. These findings suggest one significant mechanism underlying the relationship between masculine honor-related beliefs and self-stigma is perceived public stigma. Honor-oriented individuals perceived more public stigma towards seeking MHC (e.g., they believed people would look upon those who seek MHC less favorably, others would like people who seek MHC less, and that people who do seek care should hide it from others) and, in turn, reported more personal concerns regarding mental health help-seeking (e.g., seeking help would make them feel inadequate, inferior, or less intelligent and that their self-esteem and self-confidence would decrease). These findings appear to be consistent with the honor culture narrative wherein one's self-worth is largely influenced by others and is intricately tied to one's reputation and social standing within their group. In cultures of honor, the opinions of others are extremely important (Leung & Cohen, 2011) and, although an individual's honor is certainly partially dependent on an internal sense of honor in some ways, individual claims to honor are largely validated by other group members (Rodriguez Mosquera et al., 2002a; Leung & Cohen, 2011). Put simply, it is others who deem an individual as honorable or non-honorable. Given the strong emphasis on social image and reputation in cultures of honor, it stands to reason this interdependence between social image and self-image (Rodriguez Mosquera, 2016) also

might manifest in judgements about mental health and seeking MHC. Results from the present study support this notion by arguing for the primacy of other's opinions in forming an individual's own negative self-perception about MHC, at least for those with strong honor orientations. If the opinions of others are important for honor-oriented individuals, then perceived public stigma for any behavior, including seeking MHC, will reasonably influence one's internal sense of self, leading to self-labeling and "internalization" of negative public attitudes.

Relatedly, findings from the present study also suggest greater perceived public stigma predicts less favorable attitudes towards seeking MHC, and that this relationship is fully mediated by self-stigma, rather than partially mediating it as originally proposed. When accounting for the role of self-stigma, there was no longer a direct link between public stigma and attitudes towards MHC. This suggests that public stigma seems to lead to an internalization of negative external messages and images, and that this internalization is a stronger predictor of ensuing help-seeking attitudes, consistent with findings from prior research (e.g., Held & Owens, 2012; Vogel et al., 2006, 2013).

Prior research in both civilian and military samples has investigated the process by which negative societal judgments regarding seeking MHC (i.e., public stigma) lead to negative individual consequences, such as loss of self-worth and self-esteem, disempowerment, internalized devaluation, and feelings of inadequacy and inferiority (i.e., self-stigma; Vogel et al., 2006, 2013; Held & Owens, 2012; Kim et al., 2011; Ludwikowski et al., 2009). The lowering of self-worth results from an individual labeling themselves as "socially unacceptable" if they were to seek MHC (Vogel et al., 2006). This may be especially true among those who strongly endorse masculine honor-related

beliefs and values. Further, self-stigma may be a stronger influence on attitudes towards seeking MHC. Engaging in mental health treatment may serve to confirm negative societal stereotypes (public stigma), which then makes these stereotypes personally relevant (self-stigma). This internalization then results in the individual making efforts to distance themselves from the relevant behavior and developing or reinforcing negative attitudes towards seeking MHC (Link et al., 1989). This explanation is known as the Modified Labeling Theory (MLT) and has been used in extant literature to understand the relationship between public stigma and self-stigma as well as the impact of stigma on help-seeking attitudes (Link et al., 1989). According to MLT, for those contemplating pursuing MHC, individuals' internal sense of self (i.e., self-stigma) can be negatively influenced by external messages (i.e., public stigma; Vogel et al., 2010). Consequently, they are likely to self-label and internalize devalued aspects of a stigmatizing identity and avoid behaviors or situations that might further confirm a "diminished status" (Link & Phelan, 2001), such as seeking MHC (Corrigan, 2004). Results of the present study provide further support for this theory and indicate the importance of attending to self-stigma in conjunction with public stigma in encouraging both military personnel and civilians alike to seek care.

Although masculine honor-related beliefs do appear to influence stigma and attitudes, surrounding seeking MHC in the military, findings from the present study suggest there are likely additional underlying factors contributing to perceived stigma and service members' and veterans' reluctance to seek care for mental health concerns. One aspect might be other dimensions of honor not assessed in the present study, namely morality-based honor. As mentioned previously, morality-based honor plays a key role in

group life as it creates and maintains trusting relationships among group members. There is an emphasis on creating and maintaining a reputation for being trustworthy, and this alignment with morality-based values promotes interpersonal bonds. So, if morality-based honor is about “behaving and being known as someone who is honest, [reliable], and trustworthy” (Rodriguez Mosquera, 2016, p. 437), then an individual within a culture that emphasizes morality-based honor would likely avoid behaviors that would damage this reputation. Seeking MHC may be such a behavior. In the military, for example, it may be that taking the time to seek treatment for mental health concerns could be perceived as “abandoning” fellow service members. Possibly, it also could be viewed as placing the needs of the self over the needs of the unit. As such, one might feel they are letting the group down (i.e., are unreliable) by failing to take care of their responsibilities and completing their duties within the unit. Additionally, seeking treatment may result in the individual being seen by others as unable to handle stressful situations, selfish, unreliable, and untrustworthy. If one perceives others may view them as unreliable and untrustworthy for seeking MHC (i.e., public stigma), they may also be likely to internalize these ideas and view themselves as such. Thus, they may have more negative attitudes towards seeking care and consequently be less likely to engage in MHC. However, these hypotheses of course require testing. Specifically, future research should consider examining the influential aspect of morality-based honor, as well as other dimensions of honor, in conjunction with stigma and attitudes towards seeking MHC. Additionally, the results of the present study suggest public stigma may be more important than endorsement of honor ideology in predicting self-stigma, which may play a key role in predicting attitudes toward seeking MHC. As such, research also should

continue to examine the influence of both public and self-stigma in shaping attitudes and social norms surrounding mental health. Further, researchers should consider expanding upon our model by also including assessments of intentions to seek care as well as actual engagement in treatment.

SPECIFIC AIM 4

Aim 4 explored the distributional characteristics and psychometric properties of the HIM and the HIW in their novel use in a military sample. Results demonstrated both measures had excellent internal consistency, indicating these self-reports of masculine and feminine honor ideology are reliable in a sample of active duty service members and post-9/11 veterans. The distribution of scores on the HIM and the HIW were both normal, though scores on the HIW were slightly negatively skewed. For comparison purposes, we elected to also examine the distributional and psychometric properties of the HIM and the HIW in our sample of civilians. Similarly, the HIM scores had a normal distribution among civilian participants, and the HIW was negatively skewed.

We additionally conducted two separate three-way ANOVAs to explore and characterize the influence group, gender, and race/ethnicity might have on endorsement of both masculine and feminine facets of honor ideology. Results from Aim 4 further supported several findings from Aims 1 and 2. In accordance with Aim 1, there remained a significant difference in endorsement of masculine honor ideology between the civilian and military samples (when demographic variables were not controlled), such that civilians more strongly endorsed masculine honor ideology than did service members and veterans. Additionally, there was a significant difference in masculine honor ideology scores according to gender, with males more strongly endorsing masculine honor

ideology than females, as also found in Aim 1 and in some previous studies (e.g., Pomerantz et al., under review). However, there was no significant difference according to race, which is in contrast with previous literature finding individuals identifying as White more strongly endorse masculine honor ideology (as assessed by the HIM) than those of other races (e.g., Brown et al., 2014). There were also no significant interactions among any of the variables when examining the HIM. In regard to the HIW, there was not a significant difference in either group or race on endorsement of feminine honor ideology. In terms of gender, however, men more strongly endorsed feminine honor ideology than did women; in contrast, recent findings by Pomerantz and colleagues (under review) demonstrated that women endorsed feminine honor ideology more than men. There were no significant interactions among these variables in terms of scores on the HIW.

We conducted additional tests in order to better understand the unexpected lower endorsement of masculine honor ideology in our military sample. An exploratory factor analysis using data obtained from the full sample (civilians and military combined) suggested three subscales of the HIM - justified physical aggression/retaliation for relational insults or perceived slights, justified physical aggression/retaliation for destruction or mistreatment of property/belongings, and concerns about reputation for self-reliance and toughness. Compared to service members and veterans, civilians more strongly endorsed justified physical aggression/retaliation for destruction or mistreatment of property and belongings and also were more concerned about their reputation for being known as self-reliant and tough. We found no difference between civilians and military personnel regarding justified physical aggression/retaliation for destruction of

property/belongings. Notably, there also were no significant differences among home state classification on any of the subscales, nor were there any significant interactions.

As touched upon previously in the discussion of findings from Aim 1, it might be that different cultures of honor might emphasize distinct aspects of honor, and that there are aspects of masculine honor ideology that are held differently by various cultures of honor. In the present study, we found civilians were more likely to view physical aggression as an appropriate response to relational insults and perceived slights (e.g., being called an insulting name, having their family slandered, their mother being insulted) than those in the military. More surprisingly, civilians were also more concerned with their reputation for being self-reliant and tough (e.g., being able to take care of themselves, not being known as a “door mat,” not letting others push them around) compared to service members and veterans. This is interesting as the individual service branches, as well as the military as a whole, strongly emphasize and preach self-reliance and toughness from the very beginning of basic training. Perhaps the military, at this point in time, might provide a sense of self-worth and pride that makes it less important to “prove” one is tough and self-reliant. If one is trained (arguably, even indoctrinated) to see oneself as tough and self-reliant, then maybe there is less concern with needing to prove those characteristics to others. The military also emphasizes teamwork, self-sacrifice, and identification with fellow service members, other values that are strongly emphasized in cultures of honor. Perhaps these values take precedence over self-reliance and toughness, at least in the context of justified physical aggression against relational insults and what it means to be a “real man.” Future research should continue to explore these constructs among service members and veterans. Examining

patterns of endorsement of honor ideology among military personnel who served in different eras (e.g., Vietnam, Korea, OEF/OIF/OND), as well as any potential differences in responses between active duty and retired personnel in addition to various military occupational specialties (MOS), could be informative and better our understanding of these cultural beliefs in the military. Furthermore, the utility of the HIM and the HIW should continue to be evaluated in other diverse samples, including across gender, race/ethnicity, age, and various educational levels.

IMPLICATIONS

The results of the present study suggest individuals who more strongly endorse honor ideology experience greater public stigma towards seeking MHC, and internalize this public stigma. However, our results also indicate that masculine honor ideology is not as strongly endorsed among service members and veterans as originally proposed and thus may be less important to understanding stigma and attitudes toward MHC in the military. Regardless, the degree to which an individual endorses masculine honor still appears to significantly impact public stigma, self-stigma, and attitudes towards seeking MHC. The present study highlights the idea that individuals, especially those who more strongly embrace masculine honor-related values, tend to internalize perceived public stigma and this self-stigma is an essential component in understanding attitudes towards seeking MHC. These findings also draw attention to the complexity of addressing the reticence to seek care for mental health concerns in the military, as well as in the general population. Policy, clinical, research, and theoretical implications are discussed below.

As policy makers, both within and outside of the DoD and VA, debate the best strategies to combat stigma towards seeking MHC, they would be well advised to

consider the role self-stigma plays when thinking about the development and implementation of anti-stigma interventions and public health campaigns aimed at increasing service utilization. It has been suggested that self-stigma may be more crucial in predicting help-seeking attitudes and behavior (e.g., Vogel et al., 2007, 2013). Results from the present study provide additional evidence for this assertion. Consistent with previous studies (e.g., Dickstein et al., 2010; Held & Owens, 2012), our findings suggest that public stigma was not directly related to attitudes towards help-seeking; rather the relationship between public stigma and attitudes only existed through self-stigma, suggesting service members, veterans, and civilians alike are likely to internalize negative public perceptions regarding seeking MHC and consequently label themselves as weak, inferior, or inadequate. Thus, it is especially important for policy efforts to focus on decreasing individuals' own self-stigmatizing thoughts about what engaging in treatment might mean about them, in order to decrease negative attitudes towards seeking MHC.

As discussed previously, many strategies have been implemented in an effort to reduce mental health stigma in the general public as well as within the military. Approaches to self-stigma specifically have been developed; however, efforts have primarily focused on public stigma (Dickstein et al., 2010; Mills et al., 2020). Further, there is a relative paucity of research examining the effectiveness of extant self-stigma reduction strategies (Acosta et al., 2014), although the studies that do exist have demonstrated some initial success (for a complete review, see Mittal et al., 2013 and Yanos et al., 2015). Interventions to reduce self-stigma in the military, such as Ending Self-Stigma (Drapalski et al., 2021; Ludwikowski et al., 2009), have begun to show some

promising results (Zinzow et al., 2013). However, these programs typically require group engagement and participation in therapy-like activities. Therefore, brief interventions like educational brochures (Cornish et al., 2019) and self-help interventions (Mills et al., 2020) have been suggested to provide options to individuals who may be unwilling to engage with a group or are not yet ready to commit to more time-intensive processes. Results from the present study suggest interventions targeting self-stigma, rather than public stigma, may best succeed in increasing positive attitudes towards seeking MHC. As such, further development and formal evaluation of these interventions, particularly within the military, are necessary.

From a clinical perspective, understanding the difficulty and reticence to seek MHC is of utmost importance. Many of the policy changes suggested above are also relevant to clinicians, particularly in regard to ways to decrease self-stigma. Self-stigma and negative attitudes towards MHC have been established as barriers to seeking treatment (Drapalski et al., 2021) that also have been shown to persist, and even increase, once individuals actually engage in care (Lucksted et al., 2017; Rosen et al., 2011). It has been suggested that utilizing MHC may make stigma more immediately salient and thus bring self-stigmatizing beliefs to the forefront (Drapalski et al., 2021). Therefore, it is especially pertinent that mental health providers remain cognizant of the significant influence of self-stigma and should be prepared to implement strategies aimed at assisting patients in reducing self-stigma. Foundational cognitive therapeutic principles might be beneficial, such as normalizing help-seeking and challenging the idea that one is weak or inadequate for pursuing MHC.

Given that individuals who more strongly endorsed masculine honor ideology reported greater public stigma towards seeking MHC (and subsequently internalized this public stigma) in the current study, it may be beneficial for clinicians working with honor-oriented patients to reframe the decision to seek MHC in a way that is more consistent with honor-related beliefs and values. Clinicians should emphasize the message that seeking care for mental health concerns reduces burden on oneself, one's family, and one's fellow group members while promoting it as an honorable behavior and sign of strength. Providers who develop cultural competency in cultures of honor may be better able to understand behaviors or beliefs that may initially appear illogical to others. As such, they may be better able to reduce negative outcomes of honor norms (e.g., suicide, interpersonal violence, domestic abuse) through appealing to the more positive, prosocial elements of honor. Coupling the values of respect and reputation maintenance with the critical nature of seeking care when needed (e.g., "A real man will never back down from a fight and engaging in treatment is fighting emotional distress;" "there's nothing honorable about being unwell or dead") may be beneficial to promote engagement in MHC among honor-oriented patients, although future research is needed in this area. For example, Gul and colleagues (2020) recently published an article examining the culture of honor, Latinx communities, the impact of honor-related beliefs on help-seeking, and how clinicians can work successfully within this framework. In addition, integrating mental health services into teams of primary care providers may be useful in reducing stigma, normalizing care for mental health, and increasing access to care among honor-oriented individuals. Doing so has been shown to increase mental health service utilization and decrease mental health stigma in the general public (Rowan

et al., 2020) as well as in honor-oriented communities (Bridges et al., 2014; Comas-Díaz, 2006). Similarly, the DoD and VA have implemented programs providers directly into primary care clinics to increase accessibility and utilization and decrease stigma associated with seeking MHC. While still young, these programs are starting to show promise in increasing MHC utilization and decreasing stigma among service members and veterans (Landoll et al., 2019; Shim & Rust, 2013).

The present results also have several important research and theoretical implications. First, these findings provide support for the idea that self-stigma should be included as a separate construct in future models assessing stigma, attitudes, and social norms surrounding mental health. Further, we assert self-stigma should be considered for those assessing intention to seek MHC due to its importance as an indicator in attitudes towards treatment seeking. Second, results contribute to the current conceptualization of honor culture theory. They provide further evidence for understanding the influence of public opinion, and the tendency to internalize these external perceptions, among those who strongly embrace honor culture beliefs and values. Finally, although we did find alignment with masculine honor ideology was significant in influencing stigma, attitudes, and social norms surrounding seeking, beliefs and values stemming from the masculine honor code were less influential among military participants. As discussed above, the idea that the military is a culture of honor cannot be ruled out. Instead, it may be the military emphasizes another dimension of honor ideology than originally proposed however, future research is necessary to make any conclusions in this area. Specifically, future studies should investigate whether morality-based honor might better characterize the military culture/community. Relatedly, researchers and theoretical models should

consider other dimensions of honor and how each dimension might affect stigma, attitudes, and social norms about seeking care for mental health concerns.

LIMITATIONS

Several limitations of the present study must be acknowledged. First, the context in which many completed the survey should be considered. Data collection began in July 2020 for both samples and concluded mid-August 2020 for the civilian sample and mid-January 2021 for the military sample. This time period was characterized by numerous stressful world events, including the global COVID-19 pandemic and associated quarantine and social isolation, the heated 2020 American Presidential election, economic impacts, racial tension and discrimination, and the storming of the US Capitol Building on 06 January 2021. It is likely these events impacted, both positively and negatively, endorsement of honor ideology, public stigma, self-stigma, social norms, and attitudes towards seeking MHC. Participants may have been less willing to disclose certain honor-related values given the context of the United States at the time of data collection; alternatively, they may have been more willing to endorse these values, depending on their social situation. The results of present study cannot speak to exactly which direction individuals may have been influenced, but it is important to note that the experience of these events may have factored into the endorsement of certain honor-related values and beliefs. Relatedly, a recent study published by Schiffer and colleagues (2021) examined the influence of masculine honor values, among other beliefs, on COVID-19 moral decision making. Interestingly, individuals who were more strongly honor-oriented reported more distress about the pandemic but were less favorable of virus-mitigation tactics. They also noted difficulty in deciding between public health and economic

hardship when making nationwide decisions about how to manage the pandemic, but eventually would favor the economy. However, when presented with a hypothetical situation wherein lives were at risk, masculine honor-oriented individuals were more socially-motivated in their decision-making, consistent with honor culture's prioritization of protecting others (Saucier et al., 2016). The authors concluded that the patterns of decision-making among those who more strongly endorsed masculine honor were seeking to maintain a touch social reputation and that they may have perceived virus-mitigation efforts as demonstrating weakness and that an economic fallout may have been even more damaging than COVID-19 itself. Now, of course, the study conducted by Schiffer and colleagues (2021) does not perfectly align with the goals of the present study and there are likely other underlying factors (e.g., political orientation, patriotism/national allegiance) influencing these relationships. However, it nonetheless highlights the fact that endorsement of honor ideology values and beliefs may have been affected by the events of 2020, even if by merely making them more salient to participants.

Throughout this time, there has also been a significant increase in individuals experiencing mental health symptoms (Panchal et al., 2021). Towards the end of 2020 and into the beginning of 2021, 40% of adults reported symptoms of depression and/or anxiety compared to 10% in 2019 (Panchal et al., 2019). The fact that so many people are and were suffering from emotional distress, however, might have had the unanticipated effect of reducing stigma toward mental health and seeking services. In an article published in *Time Magazine* in early May 2020, Dr. Jessica Gold wagered the pandemic in particular could “actually be what mental health needed to stop being stigmatized and start being valued (Gold, 2020). In the US, many people have spent the past year self-

isolated and working from home, while trying to manage other responsibilities and dealing with grief and uncertainty. For the first time, mental health has had to be thought about and talked about openly in the workplace (Gold, 2020). Of course, there are likely many more steps that need to be taken to combat stigma more broadly, but these recent events generated changes in the way mental health and MHC are perceived in the US. In regard to the present study, it is possible these changes are reflected in the way participants answered questions about stigma, attitudes, and social norms surrounding seeking MHC.

Second, although we utilized diverse samples, it is important to note they were not completely representative of the general civilian or military populations. The civilian sample in particular was composed of predominately White, non-Hispanic males and over 90% had obtained a bachelor's degree or higher. Notably, 36% of the civilian sample was composed of females. In the general population, females makeup closer to 50%. The military sample also largely consisted of White male participants, although the makeup of this sample was generally more representative of the general military population. Sixty-six percent of military participants completed a bachelor's degree or higher; however, 17.5% had attained a doctorate or professional degree. The average education level of all participants in our study was higher than most other studies in these areas and it is possible this may have affected the way in which participants perceive stigma as well as their attitudes towards MHC. Particularly, more education may affect the knowledge about where and how to seek care as well as the understanding of stigma and the negative impacts mental health conditions can have on an individual. Additionally, there was a larger representation of women in our sample (42%) than is true

of the larger military population. In an effort to ensure this subgroup was well-represented in the analyses of the present study, we specifically sought to overrecruit females. It should be acknowledged this is not an accurate representation of the composition of the general military population wherein females made up 16.9% of the active duty population in 2019 (DoD, 2019) and 10.3% of the veteran population in 2020 (National Center for Veterans Analysis and Statistics, 2021). However, gender was included as a covariate in Aim 1 and Aim 2 analyses and specifically examined in Aim 4. Further, we intentionally sought to study active duty service members and post-9/11 veterans, and therefore results may be difficult to generalize accurately of veterans of difference eras, reservists, or National Guardsmen. The military sample also consisted primarily of members of the Army, and thus may not be completely generalizable across branches.

Third, although administering our survey online certainly had several advantages, it did mean we had to make certain concessions. Inherent with any online survey, there is restricted participant control and assurance individuals were accurately categorized as “civilian” or “military” was limited. We attempted to rectify this potential issue by utilizing previously validated military screening measures (Lynn & Morgan, 2016) and requiring the “military experience” qualification on MTurk, but we were still unable to be completely confident that every participant who passed the screener was indeed an active duty service member or post-9/11 veteran, as they so claimed. Similarly, there is an unknown accuracy of responses. We designed the study with multiple “checks” to encourage engagement and accuracy, including embedding attention gauge questions throughout the survey and, for participants who completed the survey on MTurk, an

approval rate of greater than 95% was necessary in addition to entering a provided completion validation code. Furthermore, there is a question of motives of participants, particularly because the majority of civilian participants were compensated whereas less than half of the military participants received payment for completion of the survey.

Finally, we relied heavily on self-report measures. These measures are used commonly in social scientific and psychological research, but may be particularly vulnerable to under- or over-reporting, self-serving biases, or lack of agreement between different raters (Warnecke et al., 1997). While one of the simplest ways to know how and what people think and feel is to merely ask them, there are important limitations on how much and what people can or will share when asked outright (Brown, 2016). Sometimes individuals may not want to share what they truly think or feel, how they have behaved previously, or how they think they would behave in the future. This may be particularly true when researching topics that can be perceived as part of a socially sensitive domain. Participants may have been more reticent to endorse honor ideology explicitly and may also been more hesitant to report their true beliefs about mental health stigma and attitudes towards seeking MHC. This may have been especially true given the heightened and tense social and political environment throughout 2020. These forces may have created a situation in which participants were influenced, perhaps even implicitly, by a sense of social desirability. It could be argued that items presented in the HIM might have been less desirable beliefs to hold in the climate of 2020, or at least individuals may have been less inclined to share or advertise these beliefs explicitly to others. Indeed, it has been previously noted that explicit measures of attitudes are vulnerable to social desirability biases as well as to raters' level of self-awareness (Kihlstrom, 2004). Similar

concerns have been stated in previous honor culture research and, in fact, (Imura et al., 2014) designed a study to determine whether honor orientation could be measured at an implicit level. Results demonstrated that individuals who more strongly explicitly endorsed honor ideology also scored significantly higher on an implicit measure of honor ideology than people low in explicit honor. Future research may consider replicating the present study utilizing a less explicit or face valid measure of honor ideology endorsement in order to avoid some of the biases inherent in self-report measures.

This discussion regarding the limitations of self-reports leads to a broader discussion of the difficulty in operationalizing and assessing cultures of honor, and measuring culture more broadly. Rodriguez Mosquera (2016) hinted at this as well, as discussed above. These difficulties are also highlighted by the findings of the present study; taken in isolation our results suggest that honor ideology may not be an important influence in the military, at least in the manner in which it was measured in the present study. However, to be sure, there are certainly limitations to understanding and defining honor cultures. Questions also remain in how to best approach the examination and operationalization of culture more generally.

A recent article by Collin Barnes (2020) presents a number of critiques in how psychology in particular attempts to study and examine culture. A full discussion of these critiques is beyond the scope of the current paper, but the implications are still worth mentioning here. Barnes (2020) suggested psychology largely as a field does not properly conceptualize, measure, define, or understand culture. He argues cultural views and beliefs operationalized by or regional/national dichotomies (e.g. Barnes, Brown, & Tamborski, 2012) or itemized self-report measures (e.g. Yao et al., 2017) by their nature

exclude “extended interpersonal contacts where explicit statements of cultural beliefs are richly conditioned by individuals’ tacit knowledge of their social existence” (p. 264), which is “how the most vital dimensions of cultural life are transmitted” (p. 264). Barnes’s (2020) paper focuses on honor culture in order to highlight these limitations and further maintains that *operationalizing* honor cultures are not necessarily the same as *understanding* them. He suggests that current research methodologies “detach” researchers from their subject of study by “reducing it often to triviality” (Polyani, 1963, as cited by Barnes, 2020, p. 266). He further maintains that, in the social sciences especially, “individuals who are capable of creative and nuanced expressions of their personal and cultural lives” are reduced to “mere pointing or indicating” in self-report measures that require participants to respond “to statements of cultural beliefs by circling numbers (“1: *Strongly Disagree*” to “9: *Strongly Agree*”) or merely reporting their state of residence/country of origin in a survey” (p. 266). This, he argues, allows only for the most superficial reflection of their daily life and of their culture. Instead, he argues, psychologists should strive to understand through “intense participation” within the culture:

In pursuing such integrations with members of other cultures, psychologists aiming at understanding must submit themselves to these members’ personal and cultural frames of reference by directly encountering the dispersed and seemingly dissociated clues to it available in their free communications (p. 268).

Indeed, some of the important limitations of the present study are clear in this idea argued by Barnes (2020). Operationalizing honor ideology through self-reports (i.e., primarily the HIM), leave aspects of deeper (and possibly truer) understanding up for

debate. In the current study, culture was viewed and examined largely from the outside. We theorized the military would be a culture of honor because it outwardly appeared so. Therefore, we reasoned military members would strongly align themselves with honor-related beliefs and values, particularly those related to masculine honor. However, this was not the case as our military respondents actually endorsed this ideology to a lesser extent than even those from the general civilian population. Findings from the current study appear to support Barnes's (2020) conclusions. Before it can be concluded that the military is *not* a culture of honor, and that service members and veterans do *not* align themselves with honor-related beliefs and values, further research is needed. Namely, studies assessing morality-based honor, as well as culture in the military more broadly, is necessary.

STRENGTHS

The present study represents a significant addition to the literature on honor culture as well as stigma, social norms, and attitudes towards seeking MHC. To our knowledge, this is the first study to directly assess honor ideology in a sample of US active duty service members and veterans. The only other study to somewhat touch on the influence of culture of honor in the military was conducted in a sample of Canadian Forces wherein the researchers examined how participants viewed the honor of their peers at ranks below, at, or above their own. There remains a paucity of psychological literature on the role of honor in the US military, despite it being so explicitly prominent in the creeds, slogans, and mottos of the armed forces. The present study sought to close that gap by directly assessing honor within the US military and comparing results to that of a civilian sample.

Additionally, participants in the present study were fairly diverse. We included 160 military service members and post-9/11 veterans and 160 civilians with no prior military service. Also, as mentioned previously, our obtained military sample was fairly similar to the make-up of the general US military in terms of branch. Different than many previous studies on honor, we also included a total of 125 women (67 in the military sample and 58 in the civilian sample) in our analyses, nearly 40% of the entire sample. Our sample also was diverse in racial and ethnic backgrounds, including individuals who identified as White, Black/African American, Asian, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, or some combination. Furthermore, our research included participants whose average age was 36-years-old and who were highly educated. The majority of prior research has examined endorsement of honor ideology among White, non-Hispanic male undergraduate students.

There were also several strengths in the design and methodology used in the current study. First, we utilized well-validated and reliable self-report measures. The use of self-reports is directly relatable to clinical care, as many healthcare providers employ these in intakes, assessments, and treatment plans. The military also frequently uses self-reports to gauge the wellness of its members and assess troop readiness. In addition, self-reports are less dependent on an interviewer or interviewer interpretation, allowing them to be distributed online and completed independently by the participant. Utilizing an online survey also provided for a wide geographical distribution of participants, anonymity, rapid data collection, and accessibility (which was especially important during the COVID-19 pandemic and necessity of social distancing).

There were also several general advantages of utilizing MTurk to collect data from participants. MTurk has been shown to be comparable to traditional survey methods (Bartneck et al., 2015) in that these procedures are not only time-effective, but also a cost-effective way to obtain high-quality data (Buhrmester et al., 2011; Chandler & Shapiro, 2016). MTurk also allows the assignment of “qualifications” to workers, which helps determine which workers are eligible to complete the survey and provides some level of verification. In the present study, we were able to restrict the account location to the United States and advertise the survey to workers with an approval rate of 95% or more, which has shown to be a good cutoff for determining high quality responses on MTurk (Peer et al., 2014). We were also able to add the additional qualification of “military experience” for the military survey, and another “female” qualification to bolster our sample with female participants. Finally, we were able to restrict participants to only taking the survey once and were able to review work for quality control before paying participants.

CONCLUSION AND SUGGESTIONS FOR FUTURE DIRECTIONS

The current study contributes to the growing literature on stigma towards MHC through the utilization of a sociocultural lens. Overall, in combination with previous studies on honor ideology, mental health stigma, and help-seeking attitudes, the present study provides a unique perspective into potential barriers to care for mental health concerns. Contrary to what was originally theorized, our results suggest that military participants, as a group, do not as strongly endorse beliefs and values associated with masculine honor compared to civilians. Nonetheless, an association among masculine honor ideology, stigma, attitudes, and social norms regarding seeking MHC was still

found, suggesting this cultural code of honor can still influence attitudes towards seeking care for honor-oriented individuals. Namely, people who align more strongly with masculine honor ideology tend to perceive greater public stigma associated with seeking MHC, which is then internalized towards the self. Further, this self-stigma is a crucial piece to predicting individuals' attitudes regarding MHC, above and beyond that of public stigma.

Our findings lay the foundation for several important avenues for future research. First, there is a clear need for a deeper examination of how honor, reputation, morality, and associated concepts operate among service members and veterans in order to better understand the culture of the military. Relatedly, a more comprehensive exploration of military cultural characteristics, such as moral honor and identity fusion, and how they might impact mental health, mental health stigma, and mental health help-seeking is warranted. Despite significant strategies aimed at increasing utilization of MHC, there remains a significant number of service members and veterans suffering from mental health concerns who do not seek care (Hoge, 2011; Hoge et al., 2004; Kim et al., 2011). Mental health research in the military needs to go beyond that of logistical and organizational barriers and consider including the impact culture has on self-stigma in particular. More specifically, we suggest future research first replicate and extend the findings from the current study. In addition to assessing solely masculine honor, subsequent studies should also incorporate measures of morality-based honor, feminine honor, and family honor in a diverse sample of US active duty service members and veterans. Along with assessing the extent to which individuals in the military align with these various facets of honor and how these facets uniquely impact mental health stigma

and help-seeking attitudes, researchers should also consider how endorsement of these ideologies and perceptions of stigma may differ based upon various demographic variables and military characteristics. Variables such as political orientation, health insurance status, current mental health symptoms, and previous experiences with seeking care could impact not only reported perceived stigma, attitudes, and social norms regarding MHC but also endorsement of honor ideology. Additionally, there may be unique differences in the military on these outcomes based on branch, rank, military occupational specialty, time in service, number of deployments, regions to which an individual has deployed (i.e., Middle East vs. South America), and era of service (i.e., post-9/11 or Vietnam). Further, conducting separate analyses on key outcomes based on gender may provide further insight in understanding the results of the present study. Lastly, replicating the current study at a different point of history would be interesting, as the constructs of interest were likely influenced by the current world context.

Second, it would be wise to assess the actual use of mental health care among service members and veterans in future studies. Knowing whether military personnel are actually seeking care may shed further light on understanding stigma towards MHC in the military. Additionally, knowing where these individuals are seeking help (i.e., mental health professionals, primary care physicians, religious leaders, or family/friends) may influence perception of stigma and, relatedly, attitudes and social norms surrounding mental health. Lastly, findings from the present study call for attention to the necessity of addressing mental health stigma, particularly within the military. It has been well-established that there are serious risks to avoiding seeking MHC when experiencing significant distress; not only does it lead to decreased force readiness, but also increased

risk for suicide and potential for security concerns (Defense Counterintelligence and Security Agency, 2020). Further research is necessary to be able to better address this important issue, and current stigma-reduction intervention strategies within the DoD and VA need to be formally evaluated.

The present study adds a number of important advancements to the field of psychology, specifically within the social, cultural, and clinical domains. First, it examined the psychometric and distributional properties of a prominent self-report measure of honor ideology, the HIM, in a novel military sample for the first time. Moreover, the psychometric literature on these same characteristics for the HIW in general is limited, as prior research has not focused much on feminine honor ideology. The current study further adds to the literature on this topic by reporting results from diverse samples of both military and civilian participants. Second, the present study integrated and extended the available literature by being the first to date to include a full theoretical model incorporating honor ideology, stigma, attitudes, and social norms towards seeking MHC. Finally, the present study examined stigma through a sociocultural lens, which offered several advantages. Understanding an individual's behavior necessitates insight into that individual's culture and the context in which specific behaviors occur (Best & Williams, 2001). A sociocultural perspective emphasizes the broader social and cultural context and provides insight into how people's behaviors affect, and are affected by, others and social forces and institutions. Instead of viewing individuals in isolated capacities and as lone actors, a sociocultural perspective provides for a more vivid picture by concentrating on the "fluid boundary" between one's self and others, and is attentive to both the individual as well as cross-cultural diversity

(Miller, 2011). Researchers and clinicians alike will have a more informed view and understanding of individuals' motivations for behavior by taking such an approach. Incorporating important cultural beliefs, values, and norms in developing stigma-reduction interventions is likely to be beneficial in encouraging utilization of MHC services when needed.

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APPENDICES

APPENDIX A

Military HITs Informed Consent:

INFORMED CONSENT

Culture and Mental Health Study

INTRODUCTION:

You are being invited to participate in a research study about culture, honor, morality, and mental health. This study is being conducted by Dr. Stephanie Jett (faculty) from Georgia College & State University Department of Psychological Science. For additional information not covered in this informed consent, please contact Dr. Jett by phone (478-445-0868) or email (stephanie.jett@gcsu.edu). Research at Georgia College involving human participants is carried out under the oversight of the Institutional Review Board. You may also address questions or problems regarding these activities to the Georgia College IRB Chair by emailing irb@gcsu.edu.

PURPOSE OF THE STUDY:

The goal of this study is to understand the connections among help seeking behaviors, the degree to which individuals identify with certain cultural aspects, and their experiences as they relate to mental health outcomes.

TIME:

The survey will take about twenty-five (25) minutes to complete.

CONFIDENTIALITY AND PRIVACY:

This survey is anonymous. Please do not indicate your name anywhere on the survey. The online survey platform, Qualtrics, will remove any identifying information (e.g. IP addresses) from your responses and we are not asking for any identifying information in the survey questions. If you are accessing this survey through Amazon Mechanical Turk (MTurk), Amazon will not have access to the responses of any individual taking this survey. Workers through Amazon MTurk are understood to have read and agreed to Amazon's Privacy Statement and Participation Agreement prior to beginning this survey. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.

BENEFITS:

While you are not likely to immediately benefit from the results of this study, this research project is being conducted because of its potential benefits to service members, veterans, and humans in general. The expected benefits of this study include a better understanding of the cultural, social, and psychological factors which may influence individuals' perception of seeking mental health in the context of diverse stressors. A better understanding of these concepts may inform clinical care and policy to ensure individuals receive the highest quality of care available.

RISKS:

The risks associated with this study are minor. You may find that some questions make you uncomfortable or cause some distress. You may skip any questions that you do not wish to answer. You may decline to participate at any time and/or withdraw at any time. Although unlikely, if you do experience any negative reactions while responding to this survey, you are free to discontinue at any time. However, only those participants who go through every question and have accessed the survey through MTurk are able to be compensated. Upon completion of the survey, you will be directed to a list of resources for those who may be experiencing mental health concerns. Participants are encouraged to raise mental health concerns to their primary care physician or their behavioral health services provider. If you experience an acute emotional reaction during the survey, please call the **National Suicide Prevention Lifeline** at **1-800-273-8255** or go to your nearest emergency department.

Your participation in this study is completely voluntary. By clicking, “Yes, I agree to participate” below, you are voluntarily agreeing to participate and you are acknowledging that you are **18 years of age or older**. You are free to stop answering questions at any time or to decline to answer any particular question you do not wish to answer for any reason. **Active Duty Service Members who agree to participate in this survey attest that they are participating in this survey during off-duty hours or during an approved leave status, and that participation does not otherwise interfere with their military duties pursuant to DoD 5500.07-R, Joint Ethics Regulation.**

Furthermore, by agreeing to participate, you are acknowledging that you understand it is illegal to impersonate a veteran or service member for the purpose of obtaining financial gains (e.g. monetary incentives from MTurk).

- Yes, I agree to participate
- No, I do not agree to participate

APPENDIX B

Civilian HIT Informed Consent:

INFORMED CONSENT

Culture and Mental Health Study

INTRODUCTION:

You are being invited to participate in a research study about culture, honor, morality, and mental health. This study is being conducted by Dr. Stephanie Jett (faculty) from Georgia College & State University Department of Psychological Science. For additional information not covered in this informed consent, please contact Dr. Jett by phone (478-445-0868) or email (stephanie.jett@gcsu.edu). Research at Georgia College involving human participants is carried out under the oversight of the Institutional Review Board. You may also address questions or problems regarding these activities to the Georgia College IRB Chair by emailing irb@gcsu.edu.

PURPOSE OF THE STUDY:

The goal of this study is to understand the connections among help seeking behaviors, the degree to which individuals identify with certain cultural aspects, and their experiences as they relate to mental health outcomes.

TIME:

The survey will take about twenty-five (25) minutes to complete.

CONFIDENTIALITY AND PRIVACY:

This survey is anonymous. Please do not indicate your name anywhere on the survey. The online survey platform, Qualtrics, will remove any identifying information (e.g. IP addresses) from your responses and we are not asking for any identifying information in the survey questions. If you are accessing this survey through Amazon Mechanical Turk (MTurk), Amazon will not have access to the responses of any individual taking this survey. Workers through Amazon MTurk are understood to have read and agreed to Amazon's Privacy Statement and Participation Agreement prior to beginning this survey. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.

BENEFITS:

While you are not likely to immediately benefit from the results of this study, this research project is being conducted because of its potential benefits to service members, veterans, and humans in general. The expected benefits of this study include a better understanding of the cultural, social, and psychological factors which may influence individuals' perception of seeking mental health in the context of diverse stressors. A better understanding of these concepts may inform clinical care and policy to ensure individuals receive the highest quality of care available.

RISKS:

The risks associated with this study are minor. You may find that some questions make you uncomfortable or cause some distress. You may skip any questions that you do not wish to answer. You may decline to participate at any time and/or withdraw at any time. Although unlikely, if you do experience any negative reactions while responding to this survey, you are free to discontinue at any time. However, only those participants who go through every question and have accessed the survey through MTurk are able to be compensated. Upon completion of the survey, you will be directed to a list of resources for those who may be experiencing mental health concerns. Participants are encouraged to raise mental health concerns to their primary care physician or the mental health services provider. If you experience an acute emotional reaction during the survey, please call the **National Suicide Prevention Lifeline** at **1-800-273-8255** or go to your nearest emergency department.

Your participation in this study is completely voluntary. By clicking, “Yes, I agree to participate” below, you are voluntarily agreeing to participate and you are acknowledging that you are **18 years of age or older**. You are free to stop answering questions at any time or to decline to answer any particular question you do not wish to answer for any reason.

- Yes, I agree to participate
- No, I do not agree to participate

APPENDIX C

Demographics:

Please answer the following questions.

1. What is your age?
2. Please select your gender.
 - Male
 - Female
 - Other
3. How would you best describe yourself? (Please check all that apply)
 - American Indian or Alaskan Native
 - Asian
 - Black or African American
 - Native Hawaiian or Other Pacific Islander
 - White or Caucasian
4. Are you of Hispanic or Latino origin?
 - Yes
 - No
5. What is the highest degree or level of school you have completed? If you are currently enrolled in school, please indicate the highest degree you have *received*.
 - Less than a high school diploma
 - High school degree or equivalent (e.g. GED)
 - Vocational or Technical School (2 years)
 - Some college, no degree
 - Associate's degree (e.g. AA, AS)
 - Bachelor's degree (e.g. BA, BS)
 - Master's degree (e.g. MA, MS)
 - Doctorate or professional degree (e.g. PhD, MD, DDS)
 - Other (please specify)
6. What best describes your current relationship status?
 - Single (never married)
 - Member of an Unmarried Couple
 - Married
 - Divorced
 - Widowed
 - Separated
7. How would you describe your political orientation?

1 2 3 4 5 6 7

Very Liberal

Very Conservative
8. Please enter the state in which you were born.
9. Please enter the state you consider to be your "home state."
10. Please enter your current state of residence.
11. Do you currently have health insurance? (*if participants answer no, they are not presented with the following question*).
 - Yes

- No
12. What best describes the type of health care coverage that you have? (Please check all that apply)
- Private insurance
 - TRICARE
 - Civilian Health and Medical Program of the Department of Veteran's Affairs (CHAMPVA)
 - Medicare
 - Medicaid
 - Other (please specify)

Military HITs Only:

13. Please select the category that best represents your current status.
- Active duty service member
 - Post-9/11 veteran
14. Please select the category that represents your current or most recent pay grade.
- E-1 to E-4
 - E-5 to E-7
 - E-8 to E-10
 - W-1 to W-2
 - W-3 to W-5
 - O-1 to O-3
 - O-4 to O-6
 - O-7 to O-10
15. Please select your branch of service.
- Air Force
 - Army
 - Coast Guard
 - Marine Corps
 - Navy
16. Please enter your number of years in service.
17. Please enter the number of deployments you have experienced.
18. Considering **all** of your deployments, how many **total months** have you spent deployed?
19. Please list the countries to which you have deployed.

APPENDIX D

Military Screener:

1. What is the acronym for the locations where final physicals are taken prior to shipping off for basic training? (4 letters) *[looking for MEPS]*
- I am not a service member or post-9/11 veteran.
2. What is the acronym your branch uses for various job fields/rates? (3 or 4 letters) *[looking for MOS (USA and USMC), AFSC (USAF), or NEC or Rate (USN) depending on branch indicated previously]*
- I am not a service member or post-9/11 veteran.
3. In which state is your military branch's academy located? *[looking for New York (USA), Colorado (USAF), or Maryland (USN and USMC) depending on branch indicated previously]*
- I am not a service member or post-9/11 veteran.
4. Please put these officer ranks in order: *(participants given visual insignia to rank order) [will vary by branch depending on response indicated previously]*
- I am not a service member or post-9/11 veteran.
5. Please put these enlisted ranks in order *(participants given visual insignia to rank order) [will vary by branch depending on response indicated previously]*
- I am not a service member or post-9/11 veteran.

APPENDIX E

Honor Ideology for Manhood

Please read each of the following statements carefully and rate your degree of agreement.

1. A man has the right to act with physical aggression toward another man who calls him an insulting name.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

2. A real man doesn't let other people push him around.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

3. A man has the right to act with physical aggression toward another man who slanders his family.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

4. A real man can always take care of himself.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

5. A man has the right to act with physical aggression toward another man who openly flirts with his wife.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

6. A real man never lets himself be a “door mat” to other people.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

7. A man has the right to act with physical aggression toward another man who trespasses on his personal property.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

8. A real man can “pull himself up by his bootstraps” when the going gets tough.

1 2 3 4 5 6 7 8 9
Strongly disagree *Strongly agree*

9. A man has the right to act with physical aggression toward another man who mistreats his children.

1 2 3 4 5 6 7 8 9
Strongly disagree *Strongly agree*

10. A real man will never back down from a fight.

1 2 3 4 5 6 7 8 9
Strongly disagree *Strongly agree*

11. A man has the right to act with physical aggression toward another man who steals from him.

1 2 3 4 5 6 7 8 9
Strongly disagree *Strongly agree*

12. A real man never leaves the score unsettled.

1 2 3 4 5 6 7 8 9
Strongly disagree *Strongly agree*

13. A man has the right to act with physical aggression toward another man who vandalizes his home.

1 2 3 4 5 6 7 8 9
Strongly disagree *Strongly agree*

14. A real man doesn't take crap from anybody.

1 2 3 4 5 6 7 8 9
Strongly disagree *Strongly agree*

15. A man has the right to act with physical aggression toward another man who insults his mother.

1 2 3 4 5 6 7 8 9
Strongly disagree *Strongly agree*

16. A real man is seen as tough in the eyes of his peers.

1 2 3 4 5 6 7 8 9
Strongly disagree *Strongly agree*

APPENDIX F

Honor Ideology for Womanhood

Please read each of the following statements carefully and rate your degree of agreement.

1. A respectable woman knows that what she does reflects on her family name.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

2. A good woman is loyal to her family members, even when they have behaved badly.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

3. A good woman stands by her man at all times.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

4. A respectable woman avoids any behavior that might bring shame on her family.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

5. A good woman never flirts with a man who is not her husband or boyfriend.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

6. A good woman teaches her children the importance of family traditions.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

7. A good woman never tolerates disrespect.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

8. A good woman is always truthful, even when it hurts her.

1 2 3 4 5 6 7 8 9
Strongly disagree Strongly agree

9. A good woman never wants to be known as being sexually permissive.

1	2	3	4	5	6	7	8	9
<i>Strongly disagree</i>								<i>Strongly agree</i>

10. A respectable woman never betrays her husband.

1	2	3	4	5	6	7	8	9
<i>Strongly disagree</i>								<i>Strongly agree</i>

11. A good woman always puts her family first.

1	2	3	4	5	6	7	8	9
<i>Strongly disagree</i>								<i>Strongly agree</i>

12. A good woman is willing to die for her family.

1	2	3	4	5	6	7	8	9
<i>Strongly disagree</i>								<i>Strongly agree</i>

APPENDIX G

Attitudes Toward Seeking Professional Psychological Help-Short Form

Please read each of the following statements carefully and indicate your degree of agreement.

1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.

0	1	2	3
<i>Disagree</i>	<i>Partly disagree</i>	<i>Partly agree</i>	<i>Agree</i>

2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.

0	1	2	3
<i>Disagree</i>	<i>Partly disagree</i>	<i>Partly agree</i>	<i>Agree</i>

3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.

0	1	2	3
<i>Disagree</i>	<i>Partly disagree</i>	<i>Partly agree</i>	<i>Agree</i>

- ~~4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.~~

0	1	2	3
~~<i>Disagree</i>~~	~~<i>Partly disagree</i>~~	~~<i>Partly agree</i>~~	~~<i>Agree</i>~~

5. I would want to get psychological help if I were worried or upset for a long period of time.

0	1	2	3
<i>Disagree</i>	<i>Partly disagree</i>	<i>Partly agree</i>	<i>Agree</i>

6. I might want to have psychological counseling in the future.

0	1	2	3
<i>Disagree</i>	<i>Partly disagree</i>	<i>Partly agree</i>	<i>Agree</i>

- ~~7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.~~

0	1	2	3
~~<i>Disagree</i>~~	~~<i>Partly disagree</i>~~	~~<i>Partly agree</i>~~	~~<i>Agree</i>~~

8. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.

0	1	2	3
<i>Disagree</i>	<i>Partly disagree</i>	<i>Partly agree</i>	<i>Agree</i>

9. A person should work out his or her own problems; getting psychological counseling would be a last resort.

0	1	2	3
<i>Disagree</i>	<i>Partly disagree</i>	<i>Partly agree</i>	<i>Agree</i>

10. Personal and emotional troubles, like many things, tend to work out by themselves.

0	1	2	3
<i>Disagree</i>	<i>Partly disagree</i>	<i>Partly agree</i>	<i>Agree</i>

APPENDIX H

Social Norms Subscale

Please read each of the following statements carefully and indicate your degree of agreement.

1. I would be embarrassed to ask a professional for help with a mental health problem.

1	2	3	4	5
<i>Agree 0%</i>	<i>Agree 25%</i>	<i>Agree 50%</i>	<i>Agree 75%</i>	<i>Agree 100%</i>

2. Most people who are important to me think that getting professional help for a mental health problem is not useful.

1	2	3	4	5
<i>Agree 0%</i>	<i>Agree 25%</i>	<i>Agree 50%</i>	<i>Agree 75%</i>	<i>Agree 100%</i>

3. Many of the people with whom I am acquainted get help with their mental health issues.

1	2	3	4	5
<i>Agree 0%</i>	<i>Agree 25%</i>	<i>Agree 50%</i>	<i>Agree 75%</i>	<i>Agree 100%</i>

4. People would expect me to get help for mental health issues.

1	2	3	4	5
<i>Agree 0%</i>	<i>Agree 25%</i>	<i>Agree 50%</i>	<i>Agree 75%</i>	<i>Agree 100%</i>

5. Most people whose opinions that I value would not approve of me seeking mental health services for mental health problems.

1	2	3	4	5
<i>Agree 0%</i>	<i>Agree 25%</i>	<i>Agree 50%</i>	<i>Agree 75%</i>	<i>Agree 100%</i>

6. People would judge me negatively if they thought I was seeking mental health services for a mental health problem.

1	2	3	4	5
<i>Agree 0%</i>	<i>Agree 25%</i>	<i>Agree 50%</i>	<i>Agree 75%</i>	<i>Agree 100%</i>

7. I would not want my employer to know I was getting professional help for a mental health problem.

1	2	3	4	5
<i>Agree 0%</i>	<i>Agree 25%</i>	<i>Agree 50%</i>	<i>Agree 75%</i>	<i>Agree 100%</i>

APPENDIX I

Stigma Scale for Receiving Psychological Help

Please read each of the following statements carefully and indicate your degree of agreement.

1. Seeing a psychologist for emotional or interpersonal problems carries social stigma.

0 1 2 3
Strongly disagree *Strongly agree*

2. It is a sign of personal weakness or inadequacy to see a psychologist for emotional or interpersonal problems.

0 1 2 3
Strongly disagree *Strongly agree*

3. People will see a person in a less favorable way if they come to know that he/she has seen a psychologist.

0 1 2 3
Strongly disagree *Strongly agree*

4. It is advisable for a person to hide from people that he/she has seen a psychologist.

0 1 2 3
Strongly disagree *Strongly agree*

5. People tend to like less those who are receiving professional psychological help.

0 1 2 3
Strongly disagree *Strongly agree*

APPENDIX J

Self-Stigma of Seeking Help Scale

People at times find they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean. Please use the 5-point scale to rate the degree to which each item describes how you might react in this situation.

1. I would feel inadequate if I went to a therapist for psychological help.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree Equally</i>	<i>Agree</i>	<i>Strongly Agree</i>

2. My self-confidence would NOT be threatened if I sought professional help.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree Equally</i>	<i>Agree</i>	<i>Strongly Agree</i>

3. Seeking psychological help would make me feel less intelligent.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree Equally</i>	<i>Agree</i>	<i>Strongly Agree</i>

4. My self-esteem would increase if I talked to a therapist.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree Equally</i>	<i>Agree</i>	<i>Strongly Agree</i>

5. My view of myself would not change just because I made the choice to see a therapist.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree Equally</i>	<i>Agree</i>	<i>Strongly Agree</i>

6. It would make me feel inferior to ask a therapist for help.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree Equally</i>	<i>Agree</i>	<i>Strongly Agree</i>

7. I would feel okay about myself if I made the choice to seek professional help.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
		<i>Equally</i>		

8. If I went to a therapist, I would be less satisfied with myself.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
		<i>Equally</i>		

9. My self-confidence would remain the same if I sought professional help for a problem I could not solve.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
		<i>Equally</i>		

10. I would feel worse about myself if I could not solve my own problem.

1	2	3	4	5
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree & Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
		<i>Equally</i>		