

Military Culture and Its Impact on Mental Health and Stigma

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Abstract

This article reports two studies that used the Ganz Scale of Identification with Military Culture (GIMC), developed for these studies, to evaluate the relationships between military culture and aspects of mental illness, such as stigma (Study 1), substance use, and trauma (Study 2). The first two authors are veterans of the United States Armed Forces. Study 1 found that active-duty military scored higher on the GIMC total score, and on the component values of duty, selfless service, honor, and personal courage than did a general population sample, but not on the values of loyalty, integrity, and commitment. Level of GIMC endorsement (low, moderate, high), was related to attitudes toward those suffering from mental illness. Additionally, level of GIMC endorsement was found to be either a risk or protective factor toward self-harm and suicide. Study 2 found that service personnel who had sought mental health treatment after joining the military reported less concerns about whether such treatment would hurt their careers than did those who did not seek mental health services. Combined, the results of the two studies indicate that acculturation to the military culture can have positive or negative effects, and mental health stigma and concern about one's future in the military are impediments to service members obtaining mental health services.

As the wars in Iraq, Afghanistan, and elsewhere draw on, service members are often surviving what were once lethal incidents. This is largely due to improved war fighting technologies such as enhanced personal and vehicle protection, along with advances in medical care. The cost of increased survival of traumatic incidents is represented by the growing number of service men and women, and their families, who live with physical and behavioral health consequences. For example, as of September 10, 2019, since 2001 a total of 52,981 military troops were physically wounded in action while deployed (Blum & DeBruyne, 2019). These statistics represent a small fraction of those negatively impacted by their service. The mental health concerns of service members and veterans, including suicide, are higher than ever experienced in the United States, with epidemic levels of suicide, posttraumatic stress disorder (PTSD), traumatic brain injuries (TBIs), and other mental health-related injuries.

For example, approximately 8.4% of the overall military force (ranging from 6.8% to 10.0% across services) were formally diagnosed with a mental health disorder in 2019, which accounted for 1.9 million outpatient encounters (Department of Defense [DOD], 2019). Of these, 3.8% were formally diagnosed with PTSD, 7.3% with anxiety, and 7.5% with depression, and 2.6%

with Alcohol and Substance Related Disorders (DOD, 2019). This is concerning on account of the 'healthy soldier effect,' which suggests that because recruits are screened prior to enlistment, mental health rates in the military should be well below civilian norms. Also of concern is the fact that many military members do not report their mental health symptoms or substance use issues, and therefore go undiagnosed (Dabovich et al., 2019b). This means that the statistics presented here may represent a small fraction of the military's actual mental health burden.

In addition to elevated mental health diagnoses in the military, suicide rates are the highest since data from the recent wars have been collected (Orvis, 2019). In 2018, a total of 325 active-duty military members completed suicide (Orvis, 2019), with the suicide rate varying between 256 and 325 deaths annually since 2012. This represents an average of one service member completing suicide every 30.5 hours (Orvis, 2019). Unlike physical wounds, which are often visible and thereby objectively validated, mental health issues and suicidal ideations are invisible, which means they are harder to recognize and validate in both the self and others. This invisibility inhibits an individual's willingness to engage in clinical care and community support (i.e., help-seeking behaviors) in the military, which may otherwise be of benefit.

Specifically, the reasons include concerns about being seen as weak, being treated differently, losing the confidence of fellow soldiers, and harming their own careers (Zinzow et al., 2013). Other barriers to treatment are associated with issues of trust and confidentiality among the individual, the military health system, and command structures (Miggantz, 2013; Quartana et al., 2014; Zinzow et al., 2013), all of which amount to a loss of personal agency when exposing personal vulnerabilities (Dabovich et al., 2019a). With these concerns in place, many service personnel choose to “tough it out” (Miggantz, 2013), which means they ignore their symptoms and hope they will resolve on their own (Miggantz, 2013). Alternatively, some service members report the practice of self-treatment and self-medication is common, which often includes substance misuse (Dabovich et al., 2019b).

To highlight the extent of these problems, one study found that of returning service members who screened positive for PTSD, 75% acknowledged they had mental health concerns, and only 40% of those were interested in seeking help (Miggantz, 2013). This is problematic because PTSD is often comorbid and also because it is widely accepted that early help-seeking behavior and interventions for mental health issues are one of the most reliable predictors of recovery across a wide range of conditions. The help-seeking barriers faced by military personnel and the behaviors they espouse suggest further examination of the military culture and its impact on help-seeking behaviors and outcomes.

A widely accepted component of the military culture is to “tough it out,” which has also been described as the inclination to “push through” limitations to achieve mission success (Dabovich et al., 2019a). Failures to “tough it out” and “push through”—that is, to unflinchingly perform one’s role in the military—are often associated with personal failure, weakness, and therefore vulnerability, which can have devastating psychosocial consequences for the individual, in addition to the original physical or psychological trauma (Dabovich et al., 2019a). This attitude, and the culture it creates, is often strengthened by military leaders. For example, a major general (2-star General) at Fort Bliss, Texas, stated, “I have now come to the conclusion that suicide is an absolutely selfish act” (National Alliance on Mental Illness [NAMI], 2012, p. 6). Such a response reinforces the notion that psychological or emotional suffering is akin to personal failure within the culture of the military. Indeed, Zinzow

et al. (2013) documented that military leaders believed service members with mental illness were malingering. This skewed view increases stigma toward help-seeking behavior within the unit, which poses a significant barrier to mental health treatment (Zinzow et al., 2013).

Although the attitude of needing to “tough it out” or “push through” (Dabovich et al., 2019b) can be problematic to help-seeking behavior in the military, it must be acknowledged that the attitude is adaptive in context and begins during basic training (Dabovich et al., 2019a; Hsu, 2010), when the core values are inculcated. For example, the US Army has a core value of “Selfless Service,” which encourages putting the unit or the mission before the individual self. The other core values among the military are “Loyalty,” “Duty,” “Respect,” “Honor,” “Integrity,” “Personal Courage,” and “Commitment” (www.army.mil/values; www.navy.mil). Of these, the greatest barrier to treatment may stem from the core value of Personal Courage, which encourages members to face fear, adversity, and danger with both physical and moral courage (U.S. Army Center of Military History, 2011)—all of which are necessary for mission success. The degree to which this core value extends to enabling service members to ask for help when facing their personal fears, adversity, or dangers, remains underexplored.

Study 1: GMC and Military Mental Health Stigma

Study 1 was designed to identify the prevalence of negative attitudes and beliefs toward mental health services among military members who do not seek mental health treatment. The targeted sample was active-duty personnel who had not sought mental health services, and an additional sample of civilians (or general population) who had never been in the military was created as a comparison. The essential component of Study 1 was the implementation of the GMC, constructed for this study, along with two other measures that assess mental health stigma between active-duty personnel and a non-military civilian sample.

Methods

Participants

Samples of active-duty military personnel and individuals from the general population were recruited using snowball and purposive sampling. A snowball sample technique was used due to the close-knit nature of the military group, in an attempt to increase the flow of participation and

maximize authenticity of participants' inclusion criteria and eligibility (minimize hesitation on the part of the participants and maximize authentic responses). The two primary authors of this study initiated the snowball samples with their personal contacts who then subsequently recruited additional military participants to complete the survey. The inclusion criteria for Study 1 were active-duty participants who were at least 18 years old. There were no restrictions regarding gender, rank, or ethnicity.

Initial contact with all participants (both active-duty military and the general population) was made via e-mail through personal contacts. There were no known connections between military and general population participants, and these were two separate snowball samples. The e-mail contained information about informed consent, how to access the digital Qualtrics survey, the time requirements of the study, what participation entailed, risks and benefits of participation, voluntary participation, and where to seek additional information regarding the study. Participants were required to complete the survey and give their consent. The participants were asked to forward the e-mail to other prospective participants. Additionally, the recruitment e-mail and a hyperlink to the Qualtrics survey were posted to a social media website. The goal of recruitment was to locate service members who had not had professional mental health treatment. Participants from the general population needed to be at least 18 years old, and they could not have any history of service in the United States Armed Forces. The final active-duty sample was 129 participants; the final general population sample was 80 participants. The mean age of active-duty personnel was 26.38 years ($SD = 9.26$, range 18 to 60). The general population mean age was 43.65 years ($SD = 13.07$, range 19 to 72).

The sample included participants from the Air Force ($n = 23$), Army ($n = 18$), Marine Corps ($n = 86$), and Navy ($n = 2$). The rank breakdowns were: Junior Enlisted (E1-E5; $n = 86$); Senior Enlisted (E6-E9; $n = 26$); Junior Officer (O1-O4; $n = 10$); and Senior Officer (O5-O9; $n = 6$), and one "no answer." Of the 129 active-duty participants, 49 (38%) indicated they had deployed to a combat zone at least once and 80 (62%) indicated they had never deployed to a combat zone. Twenty-five (19%) indicated they had received mental health treatment before serving, 103 (79%) indicated they had not received treatment, and one participant did not answer the question.

Measures

Demographic questionnaire. The demographic questionnaire was included in the e-mail and participants need to complete it as part of the online Qualtrics survey. All measures were anonymous and no personally identifiable information was collected. The demographic questionnaire asked for the branch of service, the status of service (active, reserve, or national guard), rank, age, marital status, number of dependents, occupational status, and gender. The respondents indicated whether they had received treatment for mental health concerns, believed they needed treatment but did not get treatment, or did not need treatment.

Attribution questionnaire. The Attribution Questionnaire (AQ-27; Corrigan et al., 2003) was used to assess stigma. The AQ-27 consists of 27 items regarding attitudes toward individuals with mental illness. Each statement has a 9-point Likert scale answer choice labeled from *not at all* to *very much*, indicating the respondent's disagreement or agreement with the attitude toward an individual with mental illness. With permission from the author of the AQ-27, the scale was adapted for the military population to include a vignette that was more representative of mental illness within the military culture and values.

Scoring AQ-27 consists of using the AQ-27 Score Sheet, which identifies the questions loading onto each of the nine factors (Corrigan et al., 2012). Validity and reliability of the AQ-27 were psychometrically tested by Brown (2008). It was found to have an overall high reliability and validity, and to have high convergent validity with other measures of stigma (Brown, 2008).

Self-stigma of mental illness scale–short form. The respondents completed the Self-Stigma of Mental Illness Scale–Short Form (SSMIS-SF; Corrigan et al., 2012), which consists of 20 items that respondents rated on their level of agreement on a 9-point Likert scale from *I strongly disagree* to *I strongly agree*. The SSMIS-SF is scored using the SSMIS-SF Score Sheet, which identifies which questions load onto the four subscales: *Awareness*, *Agreement*, *Application*, and *Hurts Self*. *Hurts Self* refers to whether the application of the stereotype to oneself is increasing harmful behavior. The higher the score, the more the individual endorses negative beliefs and attitudes related to mental health stigma. Corrigan et al. (2012) conducted psychometric analysis on the SSMIS-SF to psychometrically compare it to the original SSMIS, and found internal consistency ranged from $\alpha = .65$ to $\alpha = .87$ across the four subscales.

Ganz scale of identification with military culture. At the time this research was conducted, there did not appear to be an existing instrument measuring identification with the US military culture. Therefore, a scale was created for this study to address the extent to which the individual endorsed the components of military culture core values delineated in the literature (www.army.mil/values; www.navy.mil). The GIMC consists of eight statements that addressed eight core values of the armed forces without naming the value on a 5-point Likert scale from *Not at All* to *Very Much*. Table 1 shows the list of statements and corresponding core values. As this was the first use of the GIMC, its reliability and validity are currently unknown. This scale was given to the general population participants to begin to develop a validity indicator. Active-duty personnel scored significantly higher than the general population on overall GIMC scores, thus supporting the validity of this measure.

Procedures

The prospective participants who accessed the online Qualtrics Survey were first presented with an Informed Consent page on the screen. Participants acknowledged consent by selecting “yes” at the bottom of the first page of the survey. Another way in which participants consented was by completing the survey. After indicating their consent to participate, all sample participants completed the GIMC, the AQ-27, the SSMIS-SF,

and the demographic questionnaire, in that order. The total time for survey completion was approximately 15 to 20 minutes. The final page of the online Qualtrics survey contained a Debriefing Statement that included general information about the study and mental health resource information in case the study caused any distress or participants were interested in seeking services. Also, respondents were notified in the Informed Consent that their voluntary participation in this research study would result in a \$5.00 donation to the Wounded Warrior Project for each completed survey, up to \$750.00, as a token of appreciation for their participation. This study was approved by the Argosy University, Southern California Institutional Review Board.

Statistical analyses for both studies were conducted using the SPSS software (Version 2017) package.

Study 2: Military Culture and Substance Use

Study 2 was designed to focus on the etiology of substance misuse among service members, as it relates to military culture and help-seeking behaviors.

Methods

Participants

The respondents were active-duty US Military service members, aged 18 or older, with at least one year of time in service including boot camp and military occupational specialty school. There were

Table 1. GIMC Items and Corresponding Core Values

Item Statement	Core Value
Believe in and devote yourself to something or someone; allegiance to others.	Loyalty
Fulfill obligations to the military, mission, and unit.	Duty
Trust that all people have done their jobs and fulfilled their duty, putting forth their best effort.	Respect
Put the welfare and needs of the nation, the military, and your peers and subordinates before your own.	Selfless Service
Live by the military moral code and value system in everything you do.	Honor
Do what is right, legally and morally.	Integrity
Face fear, adversity, and danger, with both physical and moral courage.	Personal Courage
Exhibit the highest degree of moral character, technical excellence, quality and competence in what I have been trained to do.	Commitment

Note. GIMC items were scored on a Likert Scale from *Not at all* to *Very Much*.

no other restrictions. The sample was recruited using snowball sampling for the same reason as specified for Study 1. An initial survey was sent via email to a list of active-duty military personnel from personal contacts for further dissemination to their personal contacts. The email included a recruitment letter that provided details about the expected time required to fill out the survey. A digital form of informed consent was attached to the recruitment email and included instructions on the SurveyMonkey survey. Completion of the survey on SurveyMonkey indicated that the informed consent was acknowledged and given by participants.

A total of 90 service personnel completed a portion of the questionnaires, with 81 members responding to every question. Of those 81, 17 were men and 64 were women. Three branches of military service were represented: 2 Navy, 6 Army, and 73 Marines. In terms of years of service, 44 had 1–5 years, 21 had 6–10 years, 9 had 11–15 years, and 7 had 16 or more years of service.

Measures

Demographic questionnaire. The demographic questionnaire was kept anonymous and did not collect any personally identifiable information. The demographic questionnaire asked for branch of service, status of service, rank, age, gender, marital status, military occupation, time in service, combat experience, and whether they had sought treatment for mental health concerns prior to or after joining the military, were open to mental health treatment, were open to physical health treatment, had used substances (such as alcohol and/or prescriptions prior to joining the military), or had been diagnosed with or treated for substance-related disorders.

Ganz scale of identification with military culture. The GIMC (as described above and in Table 1) consists of eight statements that address the eight core values of military service. Each statement allowed the participant to identify their level of agreement with how each core value affected their views or beliefs relevant to the military culture. A 7-point Likert scale was used with ratings ranging from *Not at All* to *Very Much* to indicate how each value applied to them.

Procedures

By accessing the survey, participants acknowledged consent to participate. Participants then completed the Informed Consent form, then completed in sequence, the online survey

that consisted of the demographic questionnaire, along with other questions to identify participants' beliefs, attitudes, and behaviors related to aspects of mental health, lifestyle, and GIMC. All information was anonymous as no identifying information was obtained. Once the survey was completed by a participant, each respondent received a digital debriefing statement. Respondents were notified that their voluntary participation in this study would result in a \$5.00 donation to the Disabled American Veterans Charitable Service Trust for each completed survey as a token of appreciation for their participation. This study was approved by the Argosy University, Southern California Institutional Review Board.

Results

A multivariate analysis was conducted for gender differences between the military sample and general population sample. No significant differences were found regarding gender on the GIMC (Pillai's Trace = 1.864, $p = .073$), AQ-27 factors (Pillai's Trace = 1.488, $p = .162$), or the SSMIS-SF subscales (Pillai's Trace = .228, $p = .922$). A multivariate analysis was also conducted to determine whether age and gender combined contributed to any significant differences between the military and general population samples on the GIMC, AQ-27, and SSMIS-SF. No significant interactions were found for any of the measures used. Therefore, further analyses combined the two genders. Age was assessed as a covariate when differences were found and was indicated where necessary.

Overall Differences between Active-Duty Military and General Population on the GIMC

Study 1 compared the scores for the general population and active-duty military personnel on the GIMC, for which the means and standard deviations are presented in Table 2. As there was a difference in the mean age between the two groups ($F = 11.201$, $p = .000$), age was used as a covariate in these analyses. Analyses of Variance (ANOVAs) were analyzed for the GIMC, with the active-duty military having significantly higher scores for overall GIMC (identification with military culture), and the individual core values of Duty, Selfless Service, Honor, and Personal Courage. Interestingly, the general population had a statistically significantly higher score on Respect.

Table 2. GIMC Statistics for Military vs. General Population

	Active Duty		General Population		<i>F</i> (1, 197)	<i>p</i> ($\alpha=.05$)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Total GIMC	34.65	5.380	31.49	5.584	13.563	.000
Loyalty	4.56	.904	4.50	1.052	-	n.s.
Duty	4.69	.905	3.49	1.172	58.838	.000
Respect	3.22	1.193	3.66	1.040	7.171	.008
Selfless Service	4.36	.957	3.62	1.083	20.421	.000
Honor	4.23	.972	3.37	1.056	40.213	.000
Integrity	4.56	.839	4.55	.855	-	n.s.
Personal Courage	4.57	.818	3.95	.965	10.862	.001
Commitment	4.46	.769	4.36	.875	-	n.s.

Note. Active Duty, $n=129$. General Population, $n=80$. n.s. = not significant. GIMC items were scored on a Likert Scale from *Not at all* to *Very Much*.

Further Analyses of GIMC Scores

The active-duty service members were classified into GIMC categories of low (total score ≤ 24), moderate (total score 25–32), and high (total score ≥ 33) on the GIMC to determine whether there were any differences on the separate measures and endorsement of the GIMC. The GIMC was used as an independent variable with three levels (i.e., high, medium, and low) along with the general population sample. These analyses are reported in the following sections.

Relationship of Levels of GIMC Endorsement to the AQ-27

An analysis was conducted to determine within-group differences of GIMC endorsement on scores on the AQ-27. Results of a multivariate analysis revealed a significant difference between levels of GIMC endorsement among active-duty military on the linear combination of the AQ-27 constructs and the SSMIS-SF scales (Pillai's Trace = 2.006, $p = .003$).

Follow-up univariate ANOVAs revealed a significant difference between the level of GIMC endorsement on the AQ-27 attitudes of help and coercion. Means and standard deviations for the three levels of GIMC endorsement and the factors of the AQ-27 are presented in Table 3, showing

that the only effects were for the attitudes of help and coercion.

Because significant overall differences were found for the help and coercion factors, pairwise comparisons were conducted to identify which levels of the GIMC differed from which other levels. With regard to the help scale, Table 3 shows that active-duty military members who were classified as having the lowest identification with the military culture (low GIMC score) endorsed helping behaviors (e.g., talking to someone with mental health problems or helping them seek treatment) less frequently than both those who scored moderate ($p = .014$) and those who scored high ($p = .000$) on GIMC endorsement. Additionally, the active-duty military personnel who were classified as having the highest identification with military culture (high GIMC score) endorsed helping behaviors more frequently than those who scored moderate ($p = .003$). Thus, those who scored the highest in their endorsement of the military culture endorsed helping behaviors higher than either the moderate or the lowest endorsers of the military culture.

Taken together, the findings related to help and coercion indicated those who identified the least with the military culture endorsed lower levels of helping behavior for people with mental

illnesses, but also endorsed less use of what many would consider coercive behaviors toward people obtaining treatment for mental illnesses than did both those who scored moderate ($p = .004$) and those who scored high ($p = .005$) on GIMC endorsement. Coercive actions with regard to treatments for mental illnesses could be involuntary medication, involuntary treatment, and medical discharge of personnel with mental illnesses. An alternative way to express these findings is that those who identified with higher levels of endorsement of the military culture endorsed higher ratings of providing help to people with mental illnesses, including actions that many would consider coercive, such as forced treatment or discharge from service.

Relationship of Levels of GIMC Endorsement and the SSMIS-SF

Follow-up univariate ANOVAs were conducted to examine the relationships among the three levels of the GIMC and the mental illness stigma

measure (i.e., SSMIS-SF). Means and standard deviations for each of the three levels of GIMC endorsement and the subscales of the SSMIS-SF are presented in Table 4. A significant difference was found between levels of GIMC and the SSMIS-SF subscale of *Hurts Self*. Post hoc analysis revealed active-duty military with the highest GIMC level scored lower than those endorsing moderate identification with the military culture with regard to supporting self-injurious beliefs about mental illness (*Hurts Self* subscale; $p = .003$). The *Hurts Self* subscale finding indicates active-duty military with moderate identification with military culture believe if they had a mental illness they would be at fault for having such an illness, and they would be dangerous, unpredictable, and unable to recover or take care of themselves. Those with the highest endorsement of the military culture asserted less than any other group that these negative beliefs (i.e., stigmas) would apply to them if they suffered from mental illness.

Table 3. Military GIMC Endorsement and AQ-27 Attitudes

	Low GIMC Endorsement		Moderate GIMC Endorsement		High GIMC Endorsement		<i>F</i> (2, 121)	<i>p</i> ($\alpha=.05$)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Help	16.20	10.085	21.32	5.588	24.13	3.207	11.856	.000
Coercion	7.00	3.808	13.92	4.663	13.31	4.919	4.408	.014

Note. Low GIMC, $n=5$. Moderate GIMC, $n=25$. High GIMC, $n=94$. AQ-27 items were scored on a Likert Scale from *Not at all* to *Very Much*.

Table 4. Military GIMC Endorsement and SSMIS-SF Scales

	Low GIMC Endorsement		Moderate GIMC Endorsement		High GIMC Endorsement		<i>F</i> (2, 121)	<i>p</i> ($\alpha=.05$)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Awareness	21.20	2.490	26.16	6.421	25.35	8.475	-	n.s.
Agreement	20.80	6.099	20.36	5.859	18.93	6.541	-	n.s.
Application	19.40	6.580	20.36	8.225	17.05	7.286	-	n.s.
Hurts Self	24.20	5.933	28.24	10.441	21.14	10.367	4.781	.010

Note. n.s. = not significant. SSMIS-SF Subscales were scored on a Likert Scale from *I Strongly Disagree* to *I Strongly Agree*.

Endorsement of GIMC and Substance Use

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

Comparing Service Members Who Did and Did Not Have Mental Health Treatment after Joining the Military

Of the 81 respondents, only 8 reported having had mental health treatment prior to entering the military, while 50 reported having had mental health treatment after joining the military. In

Table 5. Means, Standard Deviations, and One-Way Analyses of Variance in Differences Between Service Members Who Sought Treatment and Those Who Did Not after Entering Military

Item Theme	Yes		No		F (1, 77)	p (α=.05)
	M	SD	M	SD		
Support within Command	2.98	1.220	2.19	1.078	8.26	.005
Talking About Struggles is Weak	2.14	1.088	2.90	1.399	6.905	.010
Exercise as Self-Care	2.32	1.133	1.74	0.999	4.987	.028
Self-medicating emotions	3.46	1.297	4.13	1.147	5.972	.017
Negative Consequences for personal problems	2.20	1.010	2.96	1.221	7.644	.007
Unfit for Duty if talk to Chaplain or Psychologist	2.58	1.180	3.23	1.146	6.035	.011
Asking for help is looked down upon	2.14	0.969	2.77	0.990	8.239	.005
Experienced lasting effects of traumatic event	1.12	0.328	1.39	0.495	7.840	.006
Constant worry and anxiety	1.12	0.328	1.65	0.486	3.142	.000

Note. Total n = 81, Service Members Who Sought Treatment: Yes n = 50; No n = 31. Participants responded to multiple choice questions based on agreeableness.

Table 6. Means, Standard Deviations, and One-Way Analyses of Variance in Relationship of Deployment and Military Culture (GIMC)

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

Note. Total n = 83, Service Members Who were Deployed: Yes n = 38; No n = 45. Participants responded to multiple choice questions based on agreeableness.

particular, some significant differences were shown on nine questions. The means, standard deviation, F , and p values are presented in Table 5.

Relationship of the Military Culture (GIMC) and Deployment

Deployment

Two significant effects were found on the GIMC for those who were deployed compared to those who were not. The means and standard deviations for those two significant differences are presented in Table 6. It can be seen in Table 6 that those who were deployed more highly endorsed the military values of Loyalty ($F(1, 81) = 6.54, p = .012$) and Commitment ($F(1, 81) = 6.54, p = .019$) than did those who were not deployed.

Discussion

In general, the results of the current studies support the finding that identification with military culture is related to beliefs about seeking mental health treatment. The military culture does not tend to foster an environment that is conducive to seeking mental health services. Service members are indoctrinated to “tough it out,” and to identify any sign of a problem as a weakness or vulnerability (Hsu, 2010; NAMI, 2012). Interestingly, we found that those who reported having obtained treatment since joining the military report less concern about negative consequences from the military than those who reported not having mental health treatment. This could be due to the fact that their individual level of distress was strong enough to overcome any stigma-related barriers to treatment.

Differences between Active-Duty and General Population Participants on GIMC

One of the first steps of these studies was to develop some validity data for the GIMC. A significant difference was found between the active-duty military personnel and the general population participants with regard to the GIMC total score. Active-duty military participants endorsed a higher overall identification with military culture than the general population participants, which supports the validity of the GIMC.

Concerning the individual military cultural constructs, active-duty military endorsed those values that are seemingly more unique to military culture, such as duty, selfless service, honor, and personal courage (Hsu, 2010; U.S. Army Center of Military History, 2011). Though the general population participants are likely dutiful,

honorable, and engage in acts of personal courage, the wording is unique to military culture.

Selfless service is the concept of putting the welfare and needs of the nation, military, peers, and subordinates before one's own. The idea of putting an entire nation and military before one's own needs is likely what bonds service members together. It is also possible that identification with this cultural construct is a barrier to treatment. Identifying as having a mental health problem that needs treatment is contradictory to this military value.

Honor is defined as living by the military moral code and value system. The finding that the active-duty military participants rated honor more highly than did the general population participants may be the result of the wording, as it is likely that individuals in the general population who have strong religious or moral codes or who greatly value integrity would endorse this construct more strongly if it did not uniquely state the military moral code.

Personal courage is defined as facing fear, adversity, and danger with both physical and moral courage. This cultural value is unlikely to be generalizable to the general population but may be generalizable to law enforcement and first responders; however, it is the basic understanding that military personnel face danger and fear as a way of life.

The finding that the general population participants endorsed the construct of respect higher than did the active-duty participants may be an artifact of the idea that the military is defined by a rank structure and power differentials. Therefore, lower-ranking individuals may not feel they have experienced respect from higher-ranking individuals. With regard to the military values identified as loyalty, integrity, and commitment, these are not unique to the military culture or lifestyle. Therefore, it makes sense that there were not statistically significant differences between the general population participants and the active-duty military participants regarding these values. Our data shows that the military and the general population share some values equally. Specifically, the general population and the military sample both endorsed the same (moderate) level of identification with military culture values.

Differences between Levels of GIMC Endorsement within Active-Duty Military

The service members who had the lowest endorsement on the GIMC also had the lowest

endorsement of seeking help or talking with others regarding their mental health problems and helping them seek treatment. Those with the lowest identification with military culture may not think of the military as a brotherhood and other service members as family to the same extent as those who identified more strongly with the military culture. Consequently, they may not feel as compelled to help a fellow service member, as one would if he or she considered that individual similar to a family member. This was consistent with the finding that those with the lowest endorsement of identification with military culture also had the lowest endorsement of coercion or using coercive means to force treatment (e.g., involuntary medication, hospitalization, or medical discharge). In contrast, those who endorsed a high level of identification with military culture had the highest level of endorsement of helping behaviors as well as forcing (i.e., coercing) treatment.

Another significant difference is related to the epidemic of suicide among military personnel and veterans (Blum & DeBruyne, 2019; NAMI, 2012). This study shows that individuals who endorsed a moderate level of identification with military culture had a statistically significantly higher endorsement of the *Hurts Self* subscale. The *Hurts Self* subscale reflects whether the application of the stereotype toward oneself increases the risk factors for harmful behavior, such as decreased self-esteem, increased depression, and decreased help-seeking efforts. The *Hurts Self* subscale consists of items that describe mental instability, including being dangerous, unpredictable, at fault for one's mental illness, and unable to recover or take care of oneself. The belief that one is unpredictable, unable to take care of oneself, unable to recover, and to blame for the mental illness could decrease self-esteem and increase depression. Our study suggests that a moderate level of identification with military culture is equivalent to feeling marginalized or isolated from any culture, which may be a key risk factor for engaging in self-harm or suicidal behaviors and avoiding treatment. Research shows isolation and a lack of cultural identity are risk factors for suicide (Best Practices Advocacy Centre New Zealand, 2010). The World Health Organization (WHO, 2014) identifies a lack of social support and isolation (i.e., feeling disconnected from one's social circle such as partners, family, peers, and friends) as a contributing factor for suicide. Social cohesion creates a sense of purpose, security, and connectedness, which may be lacking in

the service members who identified a moderate level of endorsement (WHO, 2014). Additionally, Thompson et al. (2017) discuss the development of identities while transitioning across major life events, which include joining military service, and that "identity crisis" and "culture shock" can occur when one struggles to adapt to the unfamiliar culture (e.g., military culture). They argue that when an individual feels socially isolated and has difficulty immersing in the new culture, it can have profound negative effects on mental and physical health and well-being (Thompson et al., 2017)

Effects of Having Received Mental Health Treatment after Joining the Military

Those who reported receiving mental health services after joining the military indicated that they were less likely to use alcohol to deal with their problems than service members who did not seek help, that they felt that the military had not been as much of an influence on them to self-medicate, and that they were more likely to use physical exercise to "refresh" their minds. They reported feeling that someone in the chain of command understood them, that seeking mental health services did not likely make them look unfit for duty, that they were less likely to feel that telling a superior about personal problems may lead to a negative consequence, and that they were less likely to feel that talking to a chaplain or military psychologist may be perceived as unfit for duty. In addition, they also felt less concerned that asking for help will be looked down upon.

In contrast, those who had not obtained treatment after joining the military reported feeling that such action would be looked down upon, would cause them to be seen as unfit for duty, that even talking about such problems would make them look unfit, and even more so if they talked to the chaplain or a psychologist.

Effects of Deployment and the Military Culture (GIMC)

Findings related to those who deployed to a combat zone and military culture indicate that those who had been deployed at least once indicated greater endorsement of the military values of loyalty and commitment. However, it is not possible to assert whether deployment itself increased their endorsement of loyalty and commitment. It is possible that deploying to a combat zone would increase one's loyalty to the mission, the unit, and other service members because lives are at

stake. Therefore, seeking treatment for any mental health issues would be contradictory to loyalty and commitment to others.

Smith et al. (2008) find that self-reported symptoms of PTSD were significantly higher among service members with combat exposures in comparison with service members without exposures. Moreover, a large longitudinal study of effects of military service in 2001 indicated that there was a significant correlation between service members who have deployed to combat areas and substance abuse, especially alcohol abuse (Jacobson et al., 2008). McCabe et al. (2008) identified a rising trend of prescription misuse over the previous 20 years in the general population of the US. This is consistent with our findings from Study 2. A majority of service members who did not or could not seek mental health-related treatment reported using alcohol as coping mechanism. It is crucial to recognize that a majority of service members endorsed prescription use, which is an increasing problem. The high endorsement of loyalty and commitment could be contributing to the misuse of substances, as drinking alcohol is socially acceptable in the United States and widely condoned within the US military.

Clinical Implications and Recommendations

Based on our findings in these studies, those working with active-duty personnel might want to be especially sensitive to identification with the values of military culture. Our findings suggest that the moderate endorsement of the military culture (as reflected in the GIMC) may be a risk factor for suicide due to endorsing the *Hurts Self* subscale more than other levels of endorsement of military culture. Moderate levels of the GIMC were also consistent with the themes of lower self-esteem, depression, and other mental health risk factors, while high levels of endorsement of loyalty and commitment were associated with increased substance use and misuse of prescription medication. Therefore, the military leaders who have expressed negative views toward mental health or who have expressed the opinion that suicide is a selfish decision (NAMI, 2012) can be educated on the risk and protective factors for self-harm in relation to military culture. Educating the Military Leadership on risk and protective factors for self-harm, especially as it pertains to military culture, will hopefully highlight how mental health treatment contributes to the overall mission and readiness of the force. The GIMC can also be used as a screener in mental health

treatment or medical settings, in conjunction with other suicide risk factor screeners.

One positive finding from the research suggests that service members who obtained treatment after joining the service did not appear to be as affected by treatment-seeking stigma than those who did not seek help. Seeking treatment decreased self-medicating behaviors. Requiring counseling sessions with mental health professionals as a routine activity would be beneficial. It would remove much stigma from mental health services by including treatment in the same way as any other basic training activity or medical physical. It is essential for military culture to mainstream mental health services to address issues before they become unmanageable and to support the well-being of all service members.

This research found that job security is a concern regarding treatment-seeking behaviors. Prior to 2008, any mental health treatment had to be reported for a security clearance, which then changed in 2008 to no reporting requirement for mental health treatment by reasons of “combat-related” and family/marital issues (Dingfelder, 2009). It is important to note that this policy still limits which service members qualify for mental health services.

Limitations and Directions for Future Research

A limitation of the present research is that a majority of potential participants were from one branch of service (US Marines). Compared to other branches, the Marines have relatively low mental illness diagnoses (DOD, 2019). The relationship between identification with the military culture and alcohol use may differ among the branches of the military. Similarly, the study samples did not represent the genders equally or represented the gender breakdown within the military. Another limitation is that no independent data were available regarding participants’ actual uses of substances. Additionally, although the new GIMC does not yet have established reliability and validity, it produced meaningful results in the present studies. We hope it will be a useful tool for future work.

Future research may focus on finding ways to overcome barriers to mental health help-seeking that are introduced by the military culture. This may be done by highlighting other aspects of this culture, such as the importance of peer-support and reliance on peers’ assistance (Caddick et al., 2015; Greden et al., 2010). Military members and veterans may be more willing to seek psychological

help if the therapist is also a veteran (Johnson et al., 2018). If more veterans and service members are provided with psychotherapy, it might reconcile the perception that service members who seek mental health services are incompatible with military culture.

Conclusion

Although there are many behavioral programs designed to address mental health concerns of service members and promote engagement in mental health treatment, the rate of mental health problems is high and suicide rates are holding alarmingly steady. More must be done to address negative mental health behaviors and substance misuse in the military from a cultural and etiological perspective.

This research adds to the body of literature regarding the stigma related to mental health and treatment-seeking behaviors among active-duty military personnel. This article presents a new tool for evaluating the relationships between military culture and aspects of mental illness, such as stigma (Study 1), substance use, and trauma (Study 2). Using the new Ganz Scale of Identification with Military Culture (GIMC), we conducted two studies to compare how samples from active-duty military and the general population scored on the GIMC total score and on several values (e.g., duty, selfless service, honor, and personal courage). We find that level of GIMC endorsement (low, moderate, high) was related to attitudes toward people with mental illnesses. Additionally, level of GIMC endorsement was found to be either a risk or protective factor toward self-harm and suicide. Specifically, individuals who identified moderately with military culture endorsed a significantly higher belief of self-harm. Our research finds that service personnel who had sought mental health treatment after joining the military reported less concerns about whether such treatment would hurt their careers than did those who did not seek mental health services. The results of the two studies indicate that acculturation to the military culture can have positive or negative effects, and mental health stigma and concern about one's future in the military are impediments to service members obtaining mental health services.

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