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The Interpersonal Theory of Suicide: Military Populations

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Honors Thesis

THE INTERPERSONAL THEORY OF SUICIDE: MILITARY POPULATIONS

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ABSTRACT

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MILITARY POPULATIONS

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With military populations being at a higher risk for suicide than the general public and military culture reinforcing the three variables of the Interpersonal Theory of Suicide; this research set out to answer the hypothesis that military populations would score highly on assessments measuring interpersonal needs and acquired capability. In 2018 for example, active-duty military suicides resulted in the death of 28.4 soldiers for every 100,000, and for reserve they were higher at 30.6 per 100,000 (Department of Defense, 2021). This statistic can be compared to the average suicide rate of the general population within the United States in 2018, which was 14.2 per 100,000 (National Institute of Mental Health, 2019). This research analyzed nine articles in which participant (n = 9,229) belonging to both active and reserve military components responded to the Interpersonal Needs Questionnaire (INQ) and Acquired Capability for Suicide Scale (ACSS). The examination was conducted using a meta-analysis to combine the means of each study while accounting for individual population sizes and standard errors. Data was

weighted and standardized before conducting the computations. It was hypothesized that the mean scores after the meta-analysis would show high scores for the following variables: perceived burdensomeness (PB), thwarted belongingness (TB), and acquired capability (AC). Since there are no control groups and only clinical groups in the literature for comparison, researchers used the measure's Likert scales to measure whether the respondents answered above or below the middle point. This was done because higher scores correspond to higher PB, TB, and AC. The results indicated that on all three variables the total population across all nine studies scored below the middle point of the Likert scale, which, according to the IPTS, indicates low suicidality.

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Introduction

Thomas Joiner's Interpersonal Theory of Suicide (IPTS) states that an individual who experiences feelings of perceived burdensomeness, thwarted belongingness, and has an acquired capability for long enough, will seek death (Joiner, 2005). Perceived burdensomeness (PB) refers to an individual's feeling that they are a burden to others and that those in their life would be better without them. Thwarted belongingness (TB) is a feeling that the individual does not belong and cannot make interpersonal connections. Acquired capability (AC) is a desire to die, and the capability to do so, by overcoming the innate human desire to self-preserve (Joiner, 2005).

Death by suicide accounts for around 800,000 deaths globally per year, which translates to one death every 40 seconds (World Health Organization, 2021). Within this population, US military personnel are a particularly high-risk cohort. In 2020 46,510 Americans died by suicide and of that number 6,435 or 14% were veterans (US Department of Veteran Affairs, 2020). Since the year 2015, the total number of military deaths by suicide in both active and reserve military populations have increased every year, from 267 total deaths by suicide in 2015 to 384 in 2020 (Department of Defense, 2020).

In June of 2020, I enlisted in the Utah Army National Guard and subsequently attended initial entry training at Fort Sill Oklahoma, and Fort Huachuca Arizona. During my time as a soldier in training, I noticed obvious ways that military culture and behavior reinforced the three variables of the IPTS that reinforce suicidal ideation. As a result of these experiences, I decided to conduct a meta-analysis on suicide in the military for my honors thesis. I personally knew people in training that had suicidal ideation, and in one situation, someone who died by suicide. I

felt motivated by my position as a soldier and as a psychology major to conduct research on this topic.

Initially I met with Dr. David Wood, my honors thesis chair, and an Army psychologist, about doing research on military suicide for this paper. After talking, we decided to find articles that assessed the interpersonal needs of soldiers along with suicidality. We identified a measure called the Unit Risk Inventory (URI) that assessed the readiness and resilience of soldiers. This metric was chosen because it measured suicidality, thwarted belongingness, and perceived burdensomeness in some of its items. However, upon gathering articles through the database, I came to find that all the articles I had access to used the same two data sets throughout all of them. Upon finding this issue, I consulted with Dr. Wood and Dr. Kari O'Grady on what I should do. I kept my original theme of analyzing the IPTS in relation to soldiers but decided to pick different measures. This turned out to be a serendipitous outcome because I was able to identify two new measures: the Interpersonal Needs Questionnaire (INQ) and the Acquired Capability for Suicide Scale (ACSS) which did a better job of analyzing suicidality from an interpersonal standpoint than the URI did. I was also able to find more articles with many different data sets.

Methods

Participants and Subjects

The total number of participants for this meta-analysis was 9,229 individuals across nine different studies. Of these participants, 841 (9.11%) were female, 6,021 (65.24%) were male, and 2,367 (25.64%) had no sex information reported. The mean age of participants across eight of the studies was 30.5 with a standard deviation of 3.83. One study did not account for the age of their participants but presented a range of ages from 18-24 (Bryan et al., 2009). Of the nine articles,

demographic information is listed for 7,919 of the total 9,229 subjects. These numbers are as follows: 5,141 (64.491%) Caucasian, 1,281 (16.176%) Black, 846 (10.683%) Hispanic/Latino, 274 (3.460%) Asian/Pacific Islanders, 102 (1.288%) Native Americans, 169 (2.134%) other, and 28 (.343%) non-reporting. The remaining 1,310 individuals who lack demographic information pertaining to race/ethnicity came from one of the studies that recruited some of its participants but supplementarily added past INQ and ACSS results from a different study (Podlogar et al., 2017). Lastly, participants fell into the following categories: 185 (2.005%) veterans, 3,342 (36.212%) active duty, 1267 (13.728%) reserve/guard, 87 (.094%) failed to report, and 22 (.024%) others. There were also 4,326 (46.874%) individuals for whom the study did not list their military component.

Procedure

Articles for the meta-analysis were found using the online database called *PsycInfo.* The search criteria included the word "military," and the acronyms for the measures that were desired "*INQ" and* "*ACSS."* This search yielded 15 results and all articles were subject to review. While reviewing the articles for inclusion in the study, six articles were disqualified. Three of these articles were disqualified because of extreme scores, which, upon further review, did not present enough information on their procedures for researchers to feel comfortable including them in the results (Monteith et al., 2017; Nademin et al., 2008; Silvia et al., 2016). Two articles were disqualified on the basis that the researchers used different versions of the ACSS which did not line up with the other articles being studied (Bryan et al., 2013; Chu et al., 2020). The final article was disqualified because while they did administer the INQ to all of their participants, the article only included descriptive statistics for the PB variable and not TB.

The results from the remaining nine articles were entered into an Excel spreadsheet and put through a process to clean up the data. Some articles used a seven-point instead of a five-point Likert scale for the ACSS (Baer et al., 2019; Monteith et al., 2013; Podlogar et al., 2017; Ribeiro et al., 2015). In order to account for this, a formula was used to reverse weight the values of the seven-point items on an equal plane to the five-point Likert scales. Some of the articles had pooled means for their INQ data, and a formula was used to account for the number of participants and questions to make the total average rather than a pooled average. One article did not list the total numbers of soldiers but rather separated them by organization (Bryan et al., 2012). To mediate this, a formula was used to combine all the scores of the different branches of service to make one large mean for all soldiers. This was done because the meta-analysis was not looking into cross-department differences in the populations.

Upon completion of the standardization process the remaining datum was entered into statistical software called STATA. Once all of the information was entered, a meta-analysis was run with the means and standard errors for all study groups. The result was a combined study with its own mean and confidence intervals. The command that was used in order to receive this output through the software was *meta forestplot*. The software was also used to generate tables to illustrate results.

Measures

The *Interpersonal Needs Questionnaire* is an 18-item measure on a seven-point Likert scale. This assessment calculates scores for both PB and TB variables within the IPTS. The Likert scale ranges from one (*not at all true for me*) to seven (*very true for me*). The higher the score, the more the individuals feel burdensome or a lack of belonging.

The *Acquired Capability for Suicide Scale* is a 20-item measure on a five-point Likert scale. This assessment evaluates the extent to which someone wants to die, has a lack of fear towards death, and has the ability to die by suicide. The Likert scale runs from a score of zero (*not at all like me*) to five (*very much like me*). A higher score on the ACSS indicates a higher risk for potential lethal harm.

Results

All three variables upon analyzing the results showed lower scores below the middle point of the Likert scale. The mean for ACSS of all nine studies was *m = 2.41(95%CI = 2.40-2.43)*, for PB, *m = 1.10 (95%CI= 1.09-1.11)*, and for TB, *m = 2.00 (95%CI= 1.98-2.02)*. The results of the study did not line up with the hypothesis that military populations would score highly on all three of these variables. This theory was in conjunction with the IPTS, which is a well-established theory between suicide researchers (Joiner, 2005). Since there were no non-clinical civilian scores on the INQ and ACSS in the literature, researchers hypothesized that the scores would at least fall past the middle point of the Likert scale, suggesting a positive response to the items. However, the scores presented in this meta-analysis elicit scores on the negative side of the Likert scale. This means that there were a high frequency of results indicating that the individuals did not feel suicidal. From the present meta-analysis, it was found that this population was not high in suicidal ideation according to the IPTS and the null hypothesis is reinforced.

Discussion

The present study was conducted on what would be considered healthy population groups. After disqualifying six articles, it was found that only one article with in-patient suicidal

populations remained to be analyzed. This meant that out of the total number of subjects, only 134 (2.56%) were inpatients at a psychiatric facility and most of the remaining individuals were not being treated for suicide attempts or ideation (Baer, 2018). It could be that populations in this study were not suicidal and did not score high on INQ or ACSS because they were simply not struggling with the target issue. In that sense this study could be an example of what healthy military populations would score on these measures. Another possible explanation for the results is that an interpersonal cause for suicide ideation in these populations is not the best explanation for military deaths by suicide. In the future it would behoove researchers to compare inpatient military populations, outpatient military populations, and civilian populations to see how scores differ. This would give investigators better insight into not only the differences between civilian and military populations but the differences in pathological levels of in- and out-patient subgroups. Furthermore, a study with more articles would be beneficial since this research only ended up analyzing nine articles with a population of 9,229 individuals. With suicides on the rise in the military, especially because of the pandemic and change from conflict to peace time, the researcher feels that military suicide needs to be investigated more now than ever before. Furthermore, the high suicidality score of a few soldiers within a large study will not be enough to move the overall mean into a high range. With this in mind the researcher feels that individual screening is imperative to lowers the suicide rate in the armed forces. The results of this study better support a Stress Diathesis based explanation for high suicidality in these populations. The stress diathesis model states that *mental and physical disorders develop from a genetic or biological predisposition for that illness (diathesis) combined with stressful conditions that play a precipitating or facilitating role* (APA Dictionary, 2022).

Appendix

Table 1

Table 2

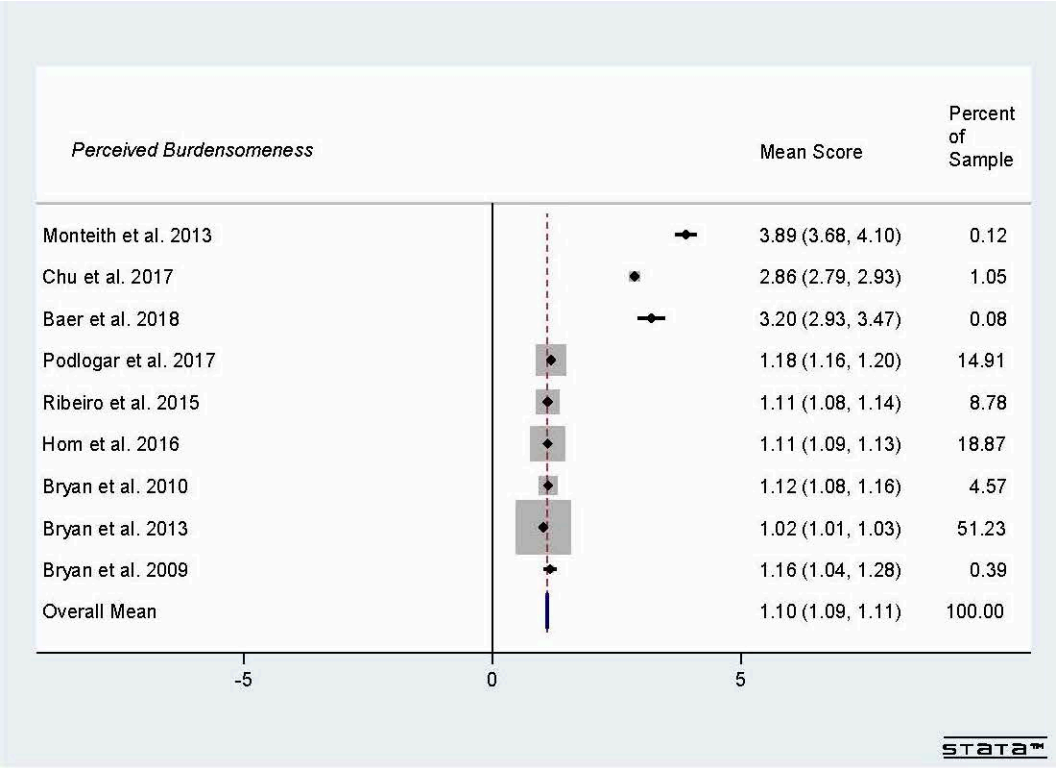
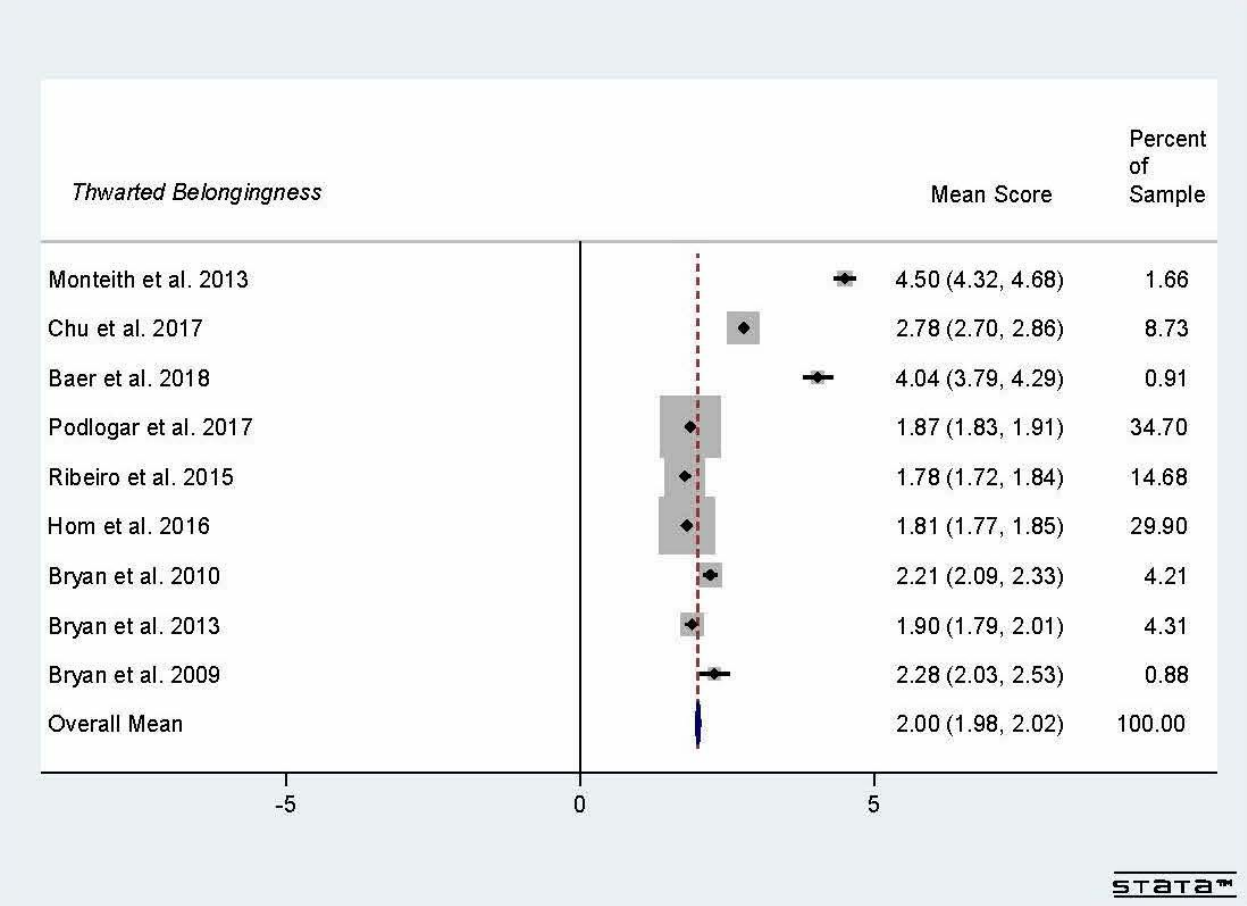

Perceived Burdensomeness
Mean Score
Percent of Sample
Monteith et al. 2013
3.89 (3.68, 4.10)
0.12
Chu et al. 2017
2.86 (2.79, 2.93)
1.05
Baer et al. 2018
3.20 (2.93, 3.47)
0.08
Podlogar et al. 2017
1.18 (1.16, 1.20)
14.91
Ribeiro et al. 2015
1.11 (1.08, 1.14)
8.78
Hom et al. 2016
1.11 (1.09, 1.13)
18.87
Bryan et al. 2010
1.12 (1.08, 1.16)
4.57
Bryan et al. 2013
1.02 (1.01, 1.03)
51.23
Bryan et al. 2009
1.16 (1.04, 1.28)
0.39
Overall Mean
1.10 (1.09, 1.11)
100.00
-5
0
5
stata™

Table 3


Thwarted Belongingness
Mean Score
Percent of Sample
Monteith et al. 2013
4.50 (4.32, 4.68)
1.66
Chu et al. 2017
2.78 (2.70, 2.86)
8.73
Baer et al. 2018
4.04 (3.79, 4.29)
0.91
Podlogar et al. 2017
1.87 (1.83, 1.91)
34.70
Ribeiro et al. 2015
1.78 (1.72, 1.84)
14.68
Hom et al. 2016
1.81 (1.77, 1.85)
29.90
Bryan et al. 2010
2.21 (2.09, 2.33)
4.21
Bryan et al. 2013
1.90 (1.79, 2.01)
4.31
Bryan et al. 2009
2.28 (2.03, 2.53)
0.88
Overall Mean
2.00 (1.98, 2.02)
100.00
-5
0
5
stata™

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