What Social Determinants Influence American Veterans' Mental Health?

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Abstract

Background. Veterans face a multitude of challenges in their process of reintegrating into civilian society. Not only do the practical differences between military and civilian life contain roadblocks, but social factors also play a vital role in their well-being. Veterans comprise 15.9% of suicides (U.S. Department of Veterans Affairs, 2023), despite making up less than that same share of the general American population. **Aims.** As more and more veterans remain untreated, their risk of adverse life events exponentially increases. This paper examines the different intervention methods that have been applied to assist veterans throughout their reintegration into civilian life. **Sample.** Our sample size was 2,343 veterans from all 50 states, including those with irregular housing arrangements. **Methods.** We examined the effects of numerous factors relevant to mental health, particularly alluding to depression of non-active duty American veterans. Random sampling methods were applied in the data collection process. **Results.** Our findings concluded that social activity, educational attainment, therapy or lack thereof, and age were significant predictors of depression. **Conclusions.** More work needs to be done to smoothly and properly assist veterans when they conclude their military service and reintegrate into civilian life, major improvements can be made.

Literature Review

Introduction

Veterans face a unique set of challenges regarding their mental health, such as higher rates of suicide, post-traumatic stress disorder, depression, substance abuse, and anxiety (Finnegan & Randles, 2023). In 2021, 15.9% of suicides in America were veterans (U.S. Department of Veteran Affairs, 2023), making them 1.5 times more likely to commit suicide than a civilian (U.S. Department of Veterans Affairs, 2022). Between October 2001 and 2010, over 1.9 million veterans had been deployed to combat zones (Institute of Medicine, 2010). In the years following, research determined that approximately 14% to 16% of the veterans deployed to Afghanistan and Iraq have been affected by PTSD or depression (Moore et al., 2023). Beyond the negative effects on veterans themselves, the weight of untreated mental illness can strain personal and professional relationships.

In recent literature, attention has been placed on how active duty impacts day-to-day experiences during the transition to civilian life. However, it is important to note other social determinants that impact mental well-being. Individuals residing in urban areas may have more access to VA care centers, although there is no guarantee for the quality of care provided. Many complaints have been made regarding the wait times, quality of care, and specificity of treatments at VA centers (Hussey et al., 2015). Veterans and those on active duty have higher rates of divorce, extramarital affairs, and dissatisfaction in relationships (Alvarado et al., 2022). This is likely due to the unique emotional stress that comes with active duty. Possible disability, both physical and psychological, have a major impact on social functioning after retirement. Factors such as access to transportation, the ability to attend appointments, complete grocery

shopping, practice personal grooming, and maintain a clean home are all factors that play a crucial role in shaping someone's quality of life (Syed et al., 2014).

This study aims to weigh the importance of these factors and how heavy their impact is on veterans' mental health conditions. Our research addresses the gap in the literature by examining how the specific societal factors concerning marital status, education, and quality of care are impacted by a history of active duty. By collecting this information on veteran wellness, we can provide better resources to help those who have served our country and address the societal issues that prevent our veterans from seeking the mental health services they need.

Social Functioning

83% of U.S. veterans reside in urban areas, which may offer more substantial access to mental healthcare options (Pepprock & Greiman, 2024). A majority of Veterans Affairs (VA) hospitals are located in urban areas, often providing more care access to those who live in cities. While the majority of veterans in the United States live within forty miles of a VA healthcare facility (Hussey et al., 2015), it is crucial to note that living near a VA facility does not mean that it will be able to offer the specific healthcare service the veteran is seeking or that the facility will offer it in a timely manner. These factors can be off-putting in an individual's desire to seek care. While residing in an urban environment provides more healthcare options, it can also further exacerbate a veteran's mental health issues. Urban environments can introduce stressors such as environmental pollution and lack of access to green spaces, which can negatively impact mental health (Ventrigilo et al., 2021).

While urban or rural living can provide benefits and stressors in various ways, it's also important to understand how access to transportation, stores, meaningful activities, family, and friends are all vital for the well-being of veterans. According to the U.S. Census Bureau, in 2022

around 4.7 million veterans have a physical disability (2024), which amounts to about 30% of veterans in the U.S. Although these disabilities can vary, the most common are musculoskeletal disorders from the physical demands of military service (Halvarsson et al., 2019). These types of injuries can affect mobility, quality of life, and ability to work. One study found that 5.2% of the veteran population in the U.S. report difficulty completing at least one activity of daily living, such as eating, making appointments, bathing, dressing, and cooking (Meisler et al., 2023). The loss of ability to complete these tasks can be detrimental to the quality of life of an individual. A loss of purpose that comes from body autonomy and job loss can be detrimental. The prevalence of such disability is important to consider when looking at the broad picture of veteran mental health.

Veterans are also at higher risk of homelessness due to a combination of unemployment, mental health struggles, and limited social support networks, which can isolate them from essential community resources (Tsai & Rosenheck, 2015). Veterans often face difficulties adjusting to civilian life. Military service has an emphasis on routine, structure, and orders that often make it difficult to adjust to another way of life. Furthermore, many veterans report feeling a difficulty with connecting with civilians who have not served as the experiences they had while serving can be difficult to communicate after coming home (Elnitsky et al., 2017). Social isolation as described can be extremely damaging to the mental health and wellbeing of any individual, especially when compounded with the existing stressors and trauma that can come with service.

Access to Care & Quality of Care

Access to mental health resources and care is vital to the quality of life for veterans. Long wait times, lack of healthcare professionals at local clinics, impersonal care, and geographical

distances put individuals at higher risk for worsening mental health conditions (Teeters et al., 2017). Of veterans with probable mental health or substance abuse disorders, only 27% utilize mental health treatment (Kline et al., 2022). Those who seek treatment likely have the most functional concerns associated with their disorders, compared to veterans who report higher levels of daily functioning (Kehle-Forbes et al., 2014).

Many veterans report substandard care in mental health facilities. It was reported that 80,556 Iraq and Afghanistan war veterans were identified as having PTSD, while only 22.8% of that population sought out mental health support and only 9.1% of those veterans completed a plan of treatment (Maguen et al., 2015). The high dropout rate of mental health programs constitutes a public health concern given the disproportionate risk of severe mental disorders for veterans. Studies suggest veterans' motivation to seek mental health care is strongly correlated to self-perceived need, reluctance to relive trauma, societal stigma, and lack of education surrounding the services (Kantor et al., 2017). Others cite concerns with the VA system itself, including long wait times and response times from clinics, difficulty scheduling appointments, lack of access to specialized care, and high turnover rates of healthcare professionals, which all exist as reasons why many veterans decide not to seek or continue programs (Cheney et al., 2018).

Working with this particular population offers a new set of barriers and challenges that may not be presented in civilians, as the military often promotes a culture of grit and resilience and frequently has a sense of stigma against seeking help. Previous research has been done to promote alternative approaches to care, such as telehealth appointments that can be accessed from home (Morland et al., 2021). However, these methods do not aim to reduce the overall stigma in this population or the systemic issues with VA healthcare.

Marital Status

Depressive symptoms often lead to emotional withdrawal, decreased communication, and increased irritability, which can create tension in intimate relationships (Renshaw & Campbell, 2011). For veterans experiencing depression or PTSD, higher stress is placed on personal relationships, resulting in high relationship dissatisfaction. Military personnel have a much higher rate of divorce– 4.8% to 2.5% in civilian populations (U.S. Department of Defense, 2021). Unique pressures of veteran life, including financial strain and social reintegration strategies, as well as trauma brought on by active combat create barriers to maintaining healthy relationships.

Given the higher rate of single veterans, it's important to then consider how single marital status subsequently impacts quality of life and depression rates further for veterans. Married individuals generally have lower overall rates of depression, although this may depend on the quality of the relationship (Scott et al., 2010). This trend could be due to the social support, companionship, and shared financial responsibilities that can mitigate symptoms of mental illness.

Education

Veterans have a lower level of educational attainment than the general population (American Community Survey, 2020). The GI Bill, which was created in 1944 but expanded in 2008, provides some financial aid to veterans in their pursuit of higher education (Young & Phillips, 2019). Completing higher education can be a positive experience as it can provide higher-paying jobs and personal development. After the enactment of this benefit post-9/11, there was an increase in the number of veterans who attained some level of college education, even surpassing the general population of non-veterans (Steele et al., 2010). Regardless, there is a

persisting problem in veterans being able to attain a full degree past a few credits (American Community Survey, 2020). However, veterans reentering formal education settings face unique personal circumstances that may alter or hinder their educational attainment. The U.S. Government Accountability Office, also known as GAO, (2024) found that student veterans face distinctive issues when participating in a higher education program that may affect their mental health, including trouble adjusting to a lack of schedule and juggling personal responsibilities. Student veterans were more likely to live and work off-campus, have dependents, be married, and be financially independent (Young & Phillips, 2019). These additional responsibilities can exacerbate academic-related stress and mental health diagnoses.

It is also crucial to recognize that service-related disability status has the potential to influence educational attainment. Student veterans have been found to have higher rates of Post-Traumatic Stress Disorder (PTSD), depression, insomnia, and suicidal ideation than their traditional student peers (Hinkson et al., 2021). Morissette et al. (2019) find that PTSD has the most significant interference with education attainment within the student veteran population, compared to other mental health disorders. Overall, balancing mental health concerns and higher education can be quite difficult, especially for the veteran population. These factors can often force student veterans to leave higher education institutions without completing their program.

Thus, our research investigates how marital status, education attainment, and social functioning impact veterans in civilian settings. This study aims to assess how difficulty maintaining relationships, accessing care, or achieving higher education can correlate to higher rates of depression. Understanding the results of this study can improve treatment and resources given to veterans to support their reintegration into society.

Methods

Introduction

This study utilizes quantitative data obtained through the National Health Interview Survey (NHIS), designed by the Center for Disease Control's (CDC) National Center for Health Statistics and facilitated by the U.S. Census Bureau. The Census Bureau had 827 interviewers from six regional offices carry out the interviews. This observational data was then collected to assess various factors contributing to the mental health (specifically, cases of depression) of non-active American veterans. The variables of interest in this study were analyzed using RStudio (RStudio Team, 2020).

The purpose of this survey is to gather national data regarding the frequency and distribution of illness and its impact in the context of disability and chronic impairments. It also examines factors such as healthcare access as a possible determinant of depression. Policymakers may then use the survey data at all levels of governmental administrations to determine which health initiatives can be utilized to improve their communities. Medical professionals may also use this data to decide which programs are effective (NHIS Manual for NHIS Field Representatives, 2022, pp. 12-14).

Participants

The participants are selected through a series of random sampling. The NHIS divides the participants by geographic cluster and systematically selects 2,500 addresses per cluster. Bias factors are countered by giving lower weights to households "more likely to be selected" (NHIS Survey Description, 2022).

Sample

Our population of interest is non-active duty American veterans, taken from the NHIS conducted by the CDC in 2022. The CDC utilized a cross-sectional design to interview a target population of noninstitutionalized American citizens residing in all 50 states, including residents of homeless shelters, group homes, or rooming houses. Exclusion criteria included those who do not have a fixed household address (homeless people, civilians in military bases, people in long-term care institutions such as those residing in hospitals for the chronically ill or disabled or wards for abused/neglected children, people in correctional facilities, and U.S. citizens living in foreign countries).

The NHIS used geographically clustered sampling techniques to account for the substantial size of the sample and the cost of interviewing them face-to-face. The U.S. Census Bureau is the NHIS's data collection agent.

The NHIS Survey undergoes frequent monitoring to ensure quality is maintained throughout the data collection. It is monitored by supervisors and the Census Bureau's "Panda's System", which is a "performance and data analysis program that provides monthly checks on response rates, completion rates, item response and nonresponse times, telephone usage rates, and other indicators" (2022 NHIS Interview Survey). An overview of the demographic makeup of their sample can be seen below.

Table 1. U.S veterans by Education level in the clean data set

Education	Count
High school/equivalent	681
Higher education	821
Some degree	841

Table 2. U.S veterans by Marital status in the clean data set

Marital	Count
Married/Has Partner	1308
Single	1035

For the purposes of this research, the sample size was narrowed down from an initial pool of 27,651 observations of 637 variables to 2,343 observations across 10 variables. The inclusion criteria for this study modified the dataset to account for only those who had identified as non-active duty veterans, as indicated by a value of "1" in the AFVET_A question, and any missing observations were removed from the dataset.

Measures

The dependent variable in this study is the mental health outcome of non-active duty American veterans, specifically their history of depression, measured by 2 levels of binary responses. The "No" response refers to having no difficulty or inability in each predictor. In contrast, the "Yes" response refers to having difficulty or being unable to successfully complete behaviors within the predictors. The independent and control variables were separated into four categories, which are as follows: First, "Help-Seeking Behaviors," determined by responses in the predictor variables of "MedDepression" (whether or not a person in the sample is taking medication for diagnosed depression) and "Therapy" (whether or not a person in the sample received counseling or therapy in the past 12 months). Second, "Financial Problems," determined by responses in the predictor variables of "DeniedTherapy" (whether or not a person was unable to receive therapy or counseling due to cost) and "DeniedMedCare" (whether or not a person was unable to receive medical care due to cost). The third category was "Social Functioning," which was determined by responses in the predictor variables of "ErrandAlone"

(whether or not a person has difficulty completing errands alone) and “SocialActivity” (whether or not a person has difficulty participating in social activities). The final category was “Demographic Information,” determined by responses in the demographic identifiers of “Education” (the level of education a person has received) and “Marital” (the marital status of a person). Each category was implemented into the data processing by creating logistic regression models to assess their validity.

We hypothesize that factors such as financial issues, social functioning, and help-seeking behaviors, as well as demographic characteristics (such as marital status and education), play a significant role in predicting depression among American veterans. Each of these measures provides a comprehensive overview of the factors in predicting depression among this population.

Data Analysis

We weighted prevalence in a 95% confidence interval ($p < 0.05$) to assess the significance of the predictor variables in the study. Individual tests on each of the predictor groups were also conducted to account for the possibility of multicollinearity in the logistic regression outcome.

The statistical analysis for this study was performed in R, which offers an open environment for data manipulation and visualization. The data cleaning process included filtering for veteran status and selecting relevant data from the original data set using the “dplyr” and “tidyverse” packages available in R.

The purpose of this study was to evaluate the significant environmental and demographic factors contributing to depressive disorder in American veterans.

Results

The following results provide an overview of the sample demographics, followed by the analysis of significant predictors of depression derived from logistic regression models. Key findings show that social activity, therapy attendance, and medication use for depression are the most statistically significant within each of the models. Subgroup analyses were conducted to assess depression levels, particularly when access to therapy or medication is limited.

The respondents were limited to those who had previously held active military status. The tables below show the demographics of these respondents.

Table 3. Distribution of U.S veterans by education level and marital status

Education Level & Marital Status	Percentage
High School/Equivalent	29.1%
Higher Education	35.0%
Some Degree	35.9%
Married	55.8%
Single	44.2%

Percentages were calculated after the dataset was adjusted to include only those that fit the study criteria of holding veteran status.

The full model includes all the predictor variables we have chosen as hypothesized determinants of depression among American veterans. According to the logistic regression model, in which significance was measured in a 95% confidence interval, social activity, taking medication for depression, having attended therapy, or having been denied therapy, as well as having had an education up to some degree, showed p-values of < 0.05. We were able to reject the null hypothesis, as these values of significance indicate a potential relationship between these

predictors and the mental health outcomes of veterans. A detailed table of each of these predictors and their effects on the dependent variable of depression can be seen in Table 1 below.

Table 4. Logistic regression model of predictors for depression

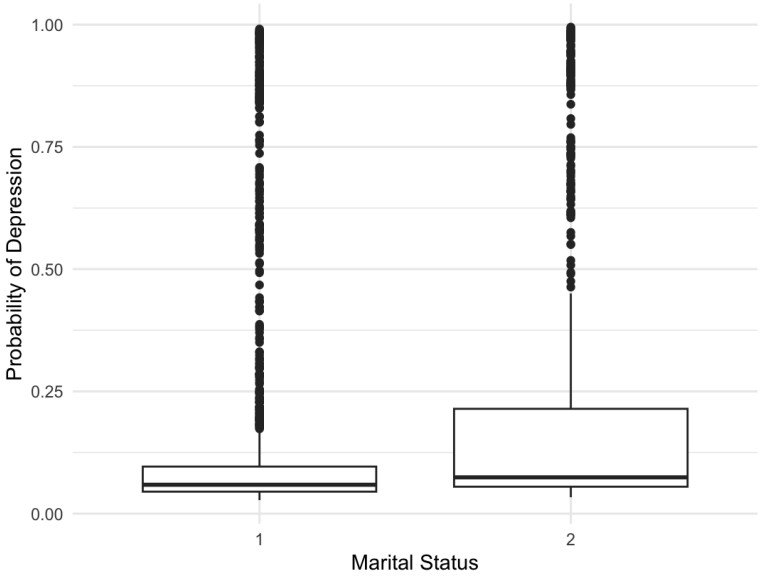
Predictor	Estimate	Standard Error	Z-Value	P-Value
Intercept	-2.137	0.330	-6.477	< 0.001***
ErrandAlone1	-0.201	0.247	-0.812	0.417
SocialActivity1	1.694	0.203	8.326	< 0.001***
MedDepression1	3.457	0.211	16.416	< 0.001***
Therapy1	1.265	0.192	6.590	< 0.001***
DeniedTherapy	0.687	0.396	1.735	0.083
DeniedMedCare1	0.304	0.359	0.845	0.398
Education3	0.429	0.187	2.297	< 0.05*
Education4	0.160	0.198	0.809	0.418
Marital2	0.202	0.148	1.365	0.172
Age	-0.014	0.004	-3.248	< 0.01**

As shown above, those in our sample who indicated having some level of difficulty with participating in social activities, those who had attended therapy in the last 12 months, those who were medicated for depression, and those who had received education at the “Some Degree” level all showed significantly higher rates of probability for depression than their counterparts. Since age shows a negative intercept value with a significant p-value, it indicates that lower age is associated with an indication of depression.

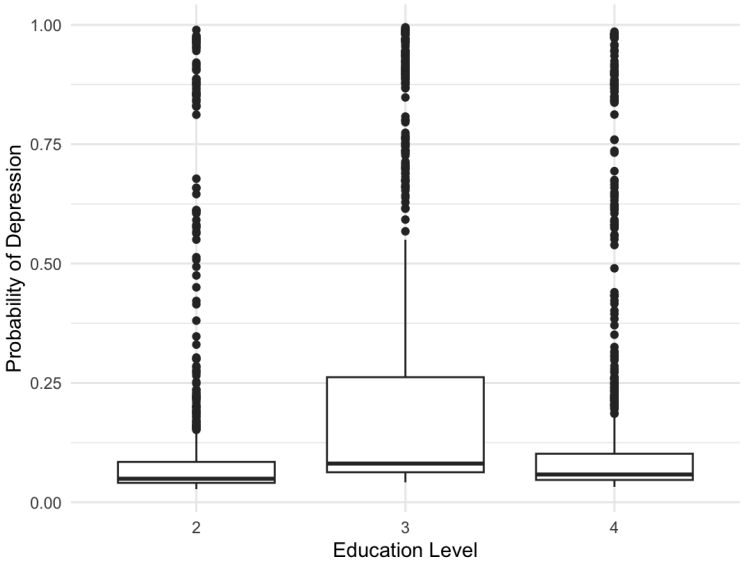
While the predictors of a person’s marital status and education level were initially included to provide better context for the sample, we were curious to see the potential effects it

would have on the probability of depression in veterans. As can be seen in Graph 1 and Graph 2 below, single veterans tended to show more signs of depression than their married counterparts. Furthermore, veterans with some type of degree tended to be the most likely to show signs of depression as opposed to other levels of education.

Graph 1. Predicted probability of depression by marital status



Graph 2. Predicted probability of depression by education level



We also performed subgroup models for thorough analyses, accounting for whether some of the variables such as whether a person was taking medication for depression were preventing other variables from showing significance. To do so, we conducted another logistic regression without the medication variable and gathered the following outcome.

Table 5. Logistic regression model of predictors for depression without the medication variable

Predictor	Estimate	Standard Error	Z-Value	P-Value
Intercept	-2.091	0.293	-7.137	< 0.001***
ErrandAlone1	0.017	0.213	0.078	0.938
SocialActivity1	1.672	0.179	9.340	< 0.001***
Therapy1	2.360	0.153	15.384	< 0.001***
DeniedTherapy	0.465	0.365	1.273	0.203
DeniedMedCare1	0.376	0.321	1.171	0.242
Education3	0.431	0.161	2.679	0.007**
Education4	0.141	0.170	0.828	0.408
Marital2	0.121	0.128	0.940	0.347
Age	-0.009	0.004	-2.224	0.026*

We theorized that receiving medication for depression and both of the therapy-related variables were highly correlated with the probability of depression, likely due to an unknown causality of depression leading to these help-seeking behaviors or vice versa. Therefore, we performed another test removing these variables in our model. In the absence of medication and therapy, the analysis suggests that therapy and social participation become even more significant, while education and age remain a consistent factor.

Table 6. Logistic regression model of predictors for depression without the medication and therapy variables

Predictor	Estimate	Standard Error	Z-Value	P-Value
Intercept	-1.074	0.252	-4.264	< 0.001***
ErrandAlone1	0.256	0.193	1.221	0.186
SocialActivity1	1.854	0.162	11.417	< 0.001***
DeniedTherapy	0.934	0.328	2.844	0.004**
DeniedMedCare1	0.369	0.293	1.262	0.207
Education3	0.579	0.150	3.868	< 0.001***
Education4	0.355	0.167	2.266	0.0234*
Marital2	0.208	0.117	1.772	0.076
Age	-0.021	0.003	-6.274	< 0.001***

When both the medication and therapy variables are removed from the model, denied therapy due to cost and higher education become significant as well, and the remaining variables show more significance in predicting depression.

These subgroup model results illustrate how certain variables might affect the presence of depression when other factors are absent. For example, the model run without the therapy variable shows that financial barriers become more important if therapy is unavailable. Similarly, social engagement becomes even more relevant when medication is inaccessible, as displayed in the model run without the medication variable. This nuanced view brings attention to the need for a holistic approach in the area of depression care addressing social and economic obstacles.

Discussion

Our study sought to examine the impacts of everyday social factors on veterans' mental health in the United States. We found that veterans' social activity, depression medications, and access to therapy were all significant predictors of higher depression rates when compared with the rest of the population. Age was a significant factor in differentiating depression levels across the veteran sample. We also found that single veterans were more likely to experience symptoms of depression, as well as less-educated veterans (Scott et al., 2010). When the medication variable was left out of the model, we found that access to therapy as well as social participation factors became more significant predictors of depression symptoms. Many of these variables are directly related. Financial factors are much more significant in the absence of free therapy, while social engagement plays a more critical role when veterans do not have access to medication.

Our research showed that difficulty in social participation was a significant predictor of higher depression probabilities. This is consistent with previous research that found that lack of access to social support can negatively affect a veteran's psychological health (McQuire et al., 2023). One of our most important findings was that participation in social activities remained significant, even when other variables were controlled. This highlights the protective role that social participation plays in veterans' mental health. Our research also found that there was a significant relationship between depression and demographic factors. We found that single veterans had much higher depression rates than married veterans, which supports existing research that claims that married individuals in general have lower rates of depression due to social support, companionship, and even shared finances that can all mitigate symptoms of mental illness (Scott et al., 2010). Education also played a significant role. Veterans who reported to have "some degree" had significantly higher rates of depression compared to the other

education groups. Veterans in this group generally never had the chance to finish their educational pursuits, possibly due to the unique personal situations faced by nontraditional students, as well as not feeling connected to traditional college-aged peers (U.S. Government Accountability Office, 2024). Access to care was one of our most significant variables to predict depression, as social isolation is another factor that can impact both social support networks and mental health outcomes (McGuire, 2023).

Veterans who had attended therapy in the past year had a significantly higher prevalence of depression. Depression and therapy attendance are closely intertwined with each other since it would be unlikely that those individuals are seeking health-care assistance prior to the existence of the problem. Additionally, medication for depression is positively correlated with depressive issues. Initially, we had accounted for the variable indicating whether or not each individual was being treated for depression. This correlation does not possess the predictor relationship we were looking for, due to the nature of treatment following a diagnosis, not predicting it. Because of the strength of the significance of this correlation, it diminished the significance of the rest of our predictor variables. Additionally, we also accounted for a variable for whether or not the participants had been to therapy in the past year. This variable, in a similar manner, had a much higher rate of significance when compared to the rest of our predictor variables. Veterans who received medication or therapy had significantly higher rates of depression probability, for the same reason that these individuals are in the more severe stages of depression when they seek treatment.

Due to the directionality of these relationships, we determined that neither of these measures were reliable predictors. We excluded these factors and reran our model without this relationship and the rest of our predictor variables showed varying levels of significance

following that change. When we ran our models without the depressive medication variable, we saw that social activity and therapy were both still significant and within education, some degree (education above high school and below a bachelor's) also became significant. When we ran the models excluding the therapy variable, depression medication remained the most significant. Factors such as social activity, unable to receive therapy or counseling due to cost, and “some degree” of education were also significant.

Another limitation of our study was the slightly limited demographic data that our logistics were based on. Our data was collected from the NIHS 2022 survey and excluded individuals institutionalized in any capacity. For the veteran population, this disregards anyone in a skilled nursing facility, or otherwise needing assistance. Since we did not collect the data ourselves, there are inherent risks to both accuracy and validity, including potential non-response bias or self-reporting bias. Due to the nature of the collection method, the surveys did not return a 100% completion rate. Those who chose not to participate could have done so for a multitude of reasons, one being shame or embarrassment about their conditions. Along with this, relying on the participants in the study to report their own depression rates introduces a strong self-reporting bias which could sway their answers either way. Strong traditional masculinity norms within the military community contribute to the stigma surrounding seeking mental health resources (Kantor et al., 2017), which can further limit the data. This issue with collecting reliable responses leads us to question the reliability of the data. Additionally, the global political climate and foreign policy have undergone significant changes in recent years, which could further impact the veteran population. With numerous active conflict zones across the world currently, military personnel play a crucial role.

With social support being one of our most significant predictors, the importance of community outreach initiatives on veterans' mental health cannot be overlooked. Social connections such as veteran-led support groups can be utilized to combat isolation and encourage community engagements. Universities should consider implementing veteran-centered resources on campuses to help student veterans transition back into civilian life. This could potentially help veterans connect with their peers and tackle the unique challenges that traditional college students do not encounter. Expanding subsidized therapy programs, especially in more rural areas, could also help to combat the financial obstacles faced by veterans in their daily lives. Society should also consider implementing improved transportation solutions for veterans to remove some of the barriers that veterans face in getting to medical appointments or therapy and getting the help that they need (Tsai et al., 2024). Another interesting finding is the reliance veterans have on their spouses for support, considering that veterans have higher rates of divorce, extramarital affairs, and dissatisfaction in relationships (Alvarado, et al., 2022). Future research should look at identifying strategies to prevent marital dissatisfaction to better support veterans' mental health.

Most previous research has supported the conclusion that more support is needed in the veteran community, whether it is through social outreach programs, alleviating financial obstacles, or implementing programs to help veterans connect with each other. Though these programs are proven to help veterans, it is hard to receive and maintain government funding to support these programs that could improve the mental health of veterans (U.S. Government Accountability Office, 2021). While we set out to find the effects of environmental factors such as transportation and rural versus urban living, marriage, and education levels had much stronger effects on depression rates. Ultimately, we found that social activity has the greatest impact on

the mental health of veterans, as well as access to therapy. While access to therapy could be tied to access to transportation and place of residence, social activity is still the biggest predictor of veterans' mental health. Future research could explore what types of social activity best limits depression symptoms in veterans.

Veterans working to reintegrate into society require support in various areas of their lives. Social functioning, in particular, plays a critical role in depression outcomes. When reintegrating, veterans often report that they do not have things in common with civilians, heavily impacting their ability to maintain relationships (U.S. Government Accountability Office, 2024)**.** Providing support through social groups can positively impact mental health outcomes by connecting them with peers with shared experiences and interests. Regardless of the activity– whether going out to dinner with friends or going on a group hike–these social connections act as a powerful protective factor for the outcomes of the veteran population (France, 2020). Although transitioning in and out of the military are life-altering transitions, continuing to explore new opportunities and form new connections are essential in maintaining social structure. Activities such as hiking, canoeing, biking, lifting, running, or walking, have been proven to reduce symptoms of anxiety and depression (Fossati, 2021). Not only do these activities provide physical exercise and engagement, but also provide a sense of support and community that veterans can learn to rely on. Integrating activity groups into the lives of veterans reintegrating into society can provide the support and structure necessary for their successful adaptation and well-being (Sunderlin, 2022).

Similarly, long-term support is important. Support groups, for example, are a great way for people to meet those with similar experiences as them. When speaking about personal experiences, there is often a special level of trust and belonging with the others you share with,

and, in turn, listening to others' stories provides insight into their lives, allowing support both ways. Open communication is an effective protective coping mechanism, and encouraging this discussion would lead to positive outcomes (Lorenz-Artz, 2023). Finding accessible and time-efficient ways to incorporate therapeutic support methods into the daily lives of veterans would significantly enhance long-term mental health outcomes. Providing flexible and easily accessible support outside working hours would help ensure that mental health care is integrated into their routines without added strain. In conclusion, providing veterans with accessible, time-efficient, and flexible therapeutic support, particularly through group interactions and physical activity, is essential for fostering long-term mental health resilience and facilitating a smoother transition back into civilian life.

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