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### Research Brief: "Physical Activity, Suicide Risk Factors, and Suicidal Ideation in a Veteran Sample"

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# Physical Activity, Suicide Risk Factors, and Suicidal Ideation in a Veteran Sample

## PUBLICATION

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## ABSTRACT

“The association between current level of suicidal ideation and physical activity was tested in a broad sample of veterans seeking care from the Veterans Health Administration. It was hypothesized that the two variables would be significantly inversely related. It was further hypothesized that the relationship would be mediated by depressive symptoms, disturbed sleep, and a measure of heart rate variability based on existing research regarding physical activity and sleep. Due to the first hypothesis not being supported, the second could not be tested. Post hoc correlation analyses did find associations between physical activity and depressive symptoms, in expected directions, and are discussed. Possible explanations for the negative findings along with recommendations for future research to continue exploring links between suicide risk and physical activity are presented. We conclude by suggesting that physical activity may have promise as a risk reduction intervention and that prospective data are more likely to yield significant results than the cross-sectional methodology employed in the current study.”

## RESEARCH HIGHLIGHTS

- Approximately 20 percent of the estimated 41,000 suicides in the United States in 2010 involved veterans. Since increased physical activity has been linked to a decreased suicide risk, physical activity has been proposed as a potential intervention to address the high suicide rate among veterans. To examine if physical activity reduces suicide risk among veterans, this study collects the self-reported suicide ideation scores, depression ratings, ratings of sleep quality, physical activity levels and basic physiologic data from 97 patients at Department of Veterans Affairs (VA) Medical Centers (VAMC) with a history of suicide ideation.
- Despite past research, the current researchers found no relationship between exercise and suicide ideation. However, the authors found that physical activity is associated with a decreased risk for depression.
- These findings serve as an initial exploration of the connection between suicide ideation, suicide risk factors, and the influence of physical activity in veteran populations. Continued research in high-risk populations should be conducted.



## IMPLICATIONS

### FOR PRACTICE

Despite this study not finding a statistically significant association between physical activity and suicide ideation, veterans should continue exercising. Veterans who are interested in beginning a fitness regimen should discuss physical activity with their medical provider. Veterans interested in physical activity in a group should consider the many group exercise events available in their community and to the veteran community. For example, veterans interested in working out with other veterans can team up with Team Red, White, and Blue, which has weekly workout sessions/runs for veterans. Joining a group workout could also provide motivation and a network of support. Health care providers should discuss a physical activity regimen with their patients and educate them on the benefits of exercising, including a decreased risk of depression. Health care providers should discuss adaptive sports for veterans with service-connected disabilities and encourage veterans to be physically active for their physical and mental health. Engaging in group exercise activities could also be good socially, and reduce feelings of loneliness among veterans. Health care providers should follow-up with their patients after starting an exercise regimen to determine the impact of its implementation and make suggestions and changes as necessary. Family members should consider partaking in physical activity with their veteran.

### FOR POLICY

Given the high risk of depression and suicide in returning service members, the Department of Defense (DoD) is advised to collaborate with local Department of Veterans Affairs (VA) to help develop physical and mental transition plans to ensure continuity of care between the service and civilian life. These continuity of care plans can include physical activity recommendations. Including this in the plans could help veterans remain active years after their military service, which could improve their long-term health. The VA might continue organizing its primary care teams to include physical therapists, mental health providers, and dietitians. The VA might evaluate if access to a personal trainer would be beneficial to veterans with mental health concerns, including anxiety and depression. The VA might consider providing more community based programs and opportunities for veterans to engage in team sports. The VA might also explore how physical activity can be encouraged in rural areas and for veterans who are not easily able to access a full medical center for treatment. Policy makers might consider allocating funding and resources to further explore the association between suicide ideation and physical exercise. Funding could also be used to allow for new physical activity programming and educational campaigns, and provide avenues to integrate physical activity into existing suicide prevention programs.

### FOR FUTURE RESEARCH

This article provides an initial consideration of the relationship between physical activity and suicide ideation. However, as their initial hypothesis was not supported, more research is needed to understand the connection between physical activity and suicide ideation. One particular area to improve from the current study is the means through which data were collected, which was likely unreliable. To increase reliability, researchers could collect data through patient interviews, medical records, and more detailed surveys. Another limitation of this study is that the suicide ideation levels were derived from the Adult Suicide Ideation Questionnaire (ASIQ). Sample scores fell primarily below the clinical cutoff, making it difficult to show a relationship between variables. Future studies should utilize a longitudinal study design to study the influence of physical activity on suicide ideation over time rather than at one point in time. At-risk populations should be given special attention in future studies, including veterans with various physical and psychological disabilities. The current researchers proposed that it is not necessarily the amount of exercise, but the change in activity level which impacts suicide information. To test this hypothesis, future studies should implement a third participation group who is introduced to a new exercise program or an exercise program of greater intensity than their current program.

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