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Soldiers at increased suicide risk after leaving hospital
Twelve months following inpatient psychiatric treatment is high-risk period-NIH funded study

U.S. Army soldiers hospitalized with a psychiatric disorder have a significantly elevated suicide risk in the year following discharge from the hospital, according to research from the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS). The yearly suicide rate for this group, 263.9 per 100,000 soldiers, was far higher than the rate of 18.5 suicides per 100,000 in the Regular Army for the same study period, the study found.

The researchers looked at data from the 12 months following a hospital discharge for more than 40,000 anonymous, Regular Army soldiers (full-time soldiers excluding Army National Guard and Army Reserve) who served on active duty from 2004 through 2009.

Ronald C. Kessler, Ph.D., of the Harvard Medical School in Boston, and colleagues, report their findings on Nov. 12, in JAMA Psychiatry. Army STARRS is a partnership between the Army and the National Institute of Mental Health (NIMH), part of the National Institutes of Health.

The Army's suicide rate began increasing in 2004, exceeded the rate among a similar group of U.S. civilians in 2009, and has remained high through 2014. This study of administrative data shows that 40,820 soldiers (0.8 percent of all Regular Army soldiers) were hospitalized with a psychiatric disorder in 2004-2009, the period covered by this research. Suicides occurring in this group during the year after a hospital discharge accounted for 12 percent of all Regular Army suicides during this period.

Researchers also found that it was possible to identify smaller, higher-risk groups within this at-risk population. Analyzing soldiers' characteristics and experiences, researchers identified the 5 percent of soldiers with the highest predicted risk of suicide after leaving the hospital. This top 5 percent accounted for 52.9 percent of the post-hospital suicides. Soldiers in the top 5 percent also accounted for a greater proportion of accident deaths, suicide attempts, and re-hospitalizations.

The researchers report that, for this group of hospitalized soldiers, some of the strongest predictors of suicide include being male, having enlisted at an older age, having a history of criminal offenses during Army service, having had prior suicidal thoughts or actions, as well as disorders diagnosed during hospitalization and aspects of prior psychiatric treatment. However, researchers found that many factors contributed toward predicting suicide risk in this group, individually and in combination. This fact underscores the complexity of assessing suicide risk and the added value of developing new approaches to better predict very challenging events.

"This is the first publication from Army STARRS that reports on the ability to use Army/Department of Defense data to identify specific subgroups within the Army that have very

significantly elevated suicide risk," said NIMH Director Thomas R. Insel, M.D. "However, there are sensitivities to using data to identify high-risk subgroups. It's important to remember that although a particular population may be at elevated risk, suicide remains a rare event."

Researchers concluded that the high concentration of suicide risk among this study group, and particularly in the smaller highest-risk groups, might justify targeting expanded post-hospital interventions for such people. Researchers continue to develop and refine computer models to help the Army predict suicide risk among soldiers and prevent self-harm.

References

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About Army STARRS: The Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS) is funded by the U.S. Army and the National Institute of Mental Health. The study is led by co-principal investigators Robert J. Ursano, M.D. (Uniformed Services University of the Health Sciences), and Murray B. Stein, M.D., M.P.H. (University of California, San Diego), with site investigators Steven G. Heeringa, Ph.D. (University of Michigan), and Ronald C. Kessler, Ph.D. (Harvard Medical School), and with collaborating scientists Lisa J. Colpe, Ph.D., M.P.H. (NIMH), and Michael Schoenbaum, Ph.D. (NIMH). Contact us at http://www.armystarrs.org/media_room

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