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Suicide in the military: Army–NIH funded study points to risks, potentially protective factors

The largest study of mental health risk and resilience ever conducted among U.S. military personnel today released its first findings related to suicide attempts and deaths in a series of three JAMA Psychiatry articles. Findings from The Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS) include: the rise in suicide deaths from 2004 to 2009 occurred not only in currently and previously deployed soldiers, but also among soldiers never deployed; nearly half of soldiers who reported suicide attempts indicated their first attempt was prior to enlistment; and soldiers reported higher rates of certain mental disorders than civilians, including attention deficit hyperactivity disorder (ADHD), intermittent explosive disorder (recurrent episodes of extreme anger or violence), and substance use disorder.

“These studies provide knowledge on suicide risk and potentially protective factors in a military population that can also help us better understand how to prevent suicide in the public at large,” said National Institute of Mental Health (NIMH) Director Thomas R. Insel, M.D. NIMH is part of the National Institutes of Health.

Although historically, the suicide death rates in the U.S. Army have been below the civilian rate, the suicide rate in the U.S. Army began climbing in the early 2000s, and by 2008, it exceeded the demographically matched civilian rate (20.2 suicide deaths per 100,000 vs. 19.2). Concerns about this increase led to a partnership between the Army and the NIMH to identify risks.

The articles reflect different strategies to evaluate information on suicide risk and potentially protective factors. An article by lead author Michael Schoenbaum of NIMH examined the suicide and accident death rates in relation to basic socio-demographic and Army experience factors in the 975,057 regular Army soldiers who served between Jan. 1, 2004 and Dec. 31, 2009. This study found that the suicide rates increased during this time period, even among those who had never deployed, and also found that being deployed increased suicide risk for women more than it did for men. However, suicide risk still remained lower for deployed women than for deployed men. Additionally, the study identified a correlation between demotion and suicide risk: soldiers who had been demoted in the past two years experienced increased suicide risk, compared to those without such demotions. There was also increased risk in soldiers without at least a high school diploma or a GED certificate, compared to

soldiers with similar or higher degrees. The data suggest that being male, white, or a junior enlisted rank put individuals at the highest risk of suicide.

The second article, by lead author Matthew Nock, Ph.D., at Harvard University, Cambridge, Mass., explains the findings from a survey of more than 5,000 non-deployed soldiers, designed to shed light on suicidal thoughts, plans, and attempts before and after entering the Army. Recruitment interviews revealed that 13.9 percent of soldiers considered suicide at some point in their lifetime, 5.3 percent made a suicide plan, and 2.4 percent attempted suicide, with between 47 to 60 percent of these outcomes first occurring prior to joining the Army. Researchers found that soldiers attempting suicide appeared to be lower-ranking, enlisted, female, and to have been previously deployed. Certain pre-enlistment mental disorders, including panic disorder and post-traumatic stress disorder, linked to increased rates of suicide attempts after joining the Army. In fact, approximately one-third of post-enlistment suicide attempts tied back to pre-enlistment mental disorders. Pre- and post-enlistment mental disorders accounted for 60 percent of first suicide attempts in the Army. The soldiers' pre-enlistment patterns of suicidal thoughts and behaviors remained lower than suicidal thoughts and behaviors reported by a demographically matched civilian group. However, once in the Army, the onset of suicidal thoughts and planning became more common than among comparable civilians. Both groups had similar rates of suicide attempts.

The last article, by lead author Ronald C. Kessler, Ph.D., at Harvard Medical School, Boston, Mass., describes a comparison of the same set of non-deployed soldiers and a group of similarly aged civilians. Rates of common mental disorders in the U.S. Army are compared with a demographically-matched civilian population from the National Comorbidity Survey Replication, a national household study that assesses mental disorders. The Kessler study estimated how common certain mental health disorders are among Army soldiers, and whether the disorders developed prior to entering the Army. The most common disorders in soldiers included ADHD and intermittent explosive disorder. Almost 85 percent of those who self-identified as having had a mental health disorder reported that the problem began prior to joining the Army. For some of the disorders—including ADHD, intermittent explosive disorder, and substance use disorder—an early age of onset occurred more among soldiers than in civilians. The study also looked at role impairment, which is whether the disorders seriously affected the soldiers' home life, work performance, social life, or close relationships. Severe role impairment was found to be substantially more common among soldiers with a mental disorder, than those without.

Although the root causes for the rise in Army suicides still remain unknown, these three studies point to risk factors, which may help identify potential protective factors, focus existing prevention programs, and foster the development of novel efforts to reduce suicide and suicidal thoughts and actions among service members at higher risk.

References

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The mission of the NIMH is to transform the understanding and treatment of mental illnesses through basic and clinical research, paving the way for prevention, recovery, and cure. For more information, visit <http://www.nimh.nih.gov>.

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