Understanding Suicidal Behavior among US Army Soldiers: Intent, Lethality, and their Prediction

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BACKGROUND

- The US Army suicide rate has sky-rocketed over the past decade, yet our understanding of suicidal behaviors among Soldiers remains very limited. The Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS; www.ArmySTARRS.org) is a multiphase epidemiological and neurobiological study designed to gather actionable, evidence-based recommendations to reduce Army suicides and increase knowledge about risk and resilience factors for suicidality.

- This is the first report on Soldier Health Outcomes Study-A (SHOS-A), an Army STARRS case-control study of 9,104 consecutive hospitalizations due to a suicide attempt. We examined the severity and predictors of suicide intent and medical lethality among recent Army suicide attempts using data from a structured clinical interview.

- Prior studies have reported conflicting findings regarding the association between suicide intent and lethality, with some studies finding a strong correlation, whereas others report no such association. One reason for this divergence could be problems in the measurement of these constructs.

METHOD

Sample:
- Army suicide attempters (N=120) were recruited from psychiatric inpatient units at five military treatment facilities in the continental US. Patients were screened based on active psychosis or medical incapacity, as determined by the attending physician.

- Cases were predominantly male (82%), while Non-Hispanic (56%), at least high school educated (67%), married (59%), and with a mean age of 28-years-old.

Measures:
- Suicide attempt history & characteristics: An adapted version of the Self-Injurious Thoughts and Behaviors Interview (STBI)5 was used to assess previous suicide attempts and the characteristics of the most recent attempt (i.e., the attempt that precipitated current hospitalization). Here we examined STBI items assessing method of attempt or actualized injury, the circumstances reported as contributing to the attempt, alcohol or illicit drug use in the week prior to hospitalization, and number of alcoholic drinks in the 24 hours prior to attempt.

- Suicide intent: Level of suicide intent (i.e., intent to die) was assessed using the Suicide Intent Scale (SIS)3 based on behaviors, feelings, and after the most recent suicide attempt. The SIS was modified for administration as a structured interview. The interviewer rated each of the 15 items on a 0-2 scale, with a higher score indicating greater suicide intent.

- Lethality: Level of medical lethality (i.e., danger to life) resulting from the recent suicide attempt was assessed using the Beck Lethality Assessment Scale (BLAS). The interviewers rated lethality on a 0-10 scale (corresponding to method of attempt) based on participant-reported injuries and medical treatment, with a higher score indicating greater medical lethality. When multiple methods were used, lethality was determined based on the category with the highest score.

Interrater Reliability:
- To assess interrater reliability, interviewers at each study site took turns administering the interview via teleconference to achieve trained to simulate psychiatric symptoms. During each teleconference, interviewers at the other sites listened silently and independently coded the responses (coding decisions were not discussed).

RESULTS

- Average interrater reliability (Cohen's Kappa) for the 8 simulated interviews was 0.82 for items assessing suicide intent (SIS), 0.54 for items assessing method and circumstances (STBI) and lethality (LS), and 0.57 for items assessing suicide intent (SIS).

CONCLUSIONS

- Consistent with some prior civilian studies, but not with others,2,4,9 no association between suicide intent and medical lethality in this sample of hospitalized US Army suicide attempters. It is important to continue work on resolving this complex relationship, as evidence clearly demonstrates that both suicide intent and lethality play a critical role in understanding and preventing suicide.

- The finding that more life-time suicide attempts was associated with a less lethal most recent suicide attempt conflicts with evidence from civilian research indicating repeated suicide attempts tend to increase in severity.7 This discrepancy may be due to sociodemographic, psychological, and environmental exposure characteristics that differentiate the civilian population. It may also be due to recall and reporting bias in the assessment of lethality among SHOS-A cases, as the civilian findings were based on lethality ratings derived from medical records. It would likely be informative for future Army studies to examine the correspondence between self-reported and administrative indicators of lethality.

References: