

## Mental disorders and vulnerability to homicidal death: Swedish nationwide cohort study

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Casey Crump, clinical assistant professor, Kristina Sundquist, professor, Marilyn A Winkleby, professor, Jan Sundquist, professor and director

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### Abstract

**Objective:** To determine the risk of people with mental disorders being victims of homicide.

**Design:** National cohort study.

**Setting:** Sweden.

**Participants:** Entire adult population (n=7 253 516).

**Main outcome measures:** Homicidal death during eight years of follow-up (2001-08); hazard ratios for the association between mental disorders and homicidal death, with adjustment for sociodemographic confounders; potential modifying effect of comorbid substance use.

**Results:** 615 homicidal deaths occurred in 54.4 million person years of follow-up. Mortality rates due to homicide (per 100 000 person years) were 2.8 among people with mental disorders compared with 1.1 in the general population. After adjustment for sociodemographic confounders, any mental disorder was associated with a 4.9-fold (95% confidence interval 4.0 to 6.0) risk of homicidal death, relative to people without mental disorders. Strong associations were found irrespective of age, sex, or other sociodemographic characteristics. Although the risk of homicidal death was highest among people with substance use disorders (approximately ninefold), the risk was also increased among those with personality disorders (3.2-fold), depression (2.6-fold), anxiety disorders (2.2-fold), or schizophrenia (1.8-fold) and did not seem to be explained by comorbid substance use. Sociodemographic risk factors included male sex, being unmarried, and low socioeconomic status.

**Conclusions:** In this large cohort study, people with mental disorders, including those with substance use disorders, personality disorders, depression, anxiety disorders, or schizophrenia, had greatly increased risks of homicidal death. Interventions to reduce violent death among people with mental disorders should tackle victimisation and homicidal death in addition to suicide and accidents, which share common risk factors.