

Sex- and age-specific risk indicators of suicide: occurrence and association with suicide across the life course

3. Epidemiology and surveillance

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Abstract text

Introduction. There is a striking heterogeneity in suicide incidence across sex- and age-groups. Suicide is twice as common among men than among women and more common in older age-groups. Paradoxically, the strongest risk factors for suicide occur more often among women and younger persons. We describe the sex- and age-specific occurrence of 25 diverse risk indicators in the year preceding suicide and report their associations with suicide in the following year. **Methods.** This population-nested case-control study comprised 19 741 suicide cases in Sweden 2009-2021, and 197 296 general population controls matched by sex, age and county of residence. Nationwide registers were used to collect suicide risk indicators across six domains (psychiatric contacts and self-harm, mental disorders, psychotropic medications, somatic conditions, bereavement and social difficulties). Conditional logistic regressions were used to estimate odds ratios of suicide in the year following exposure, and odds ratios were also transformed to risk differences.

Results. The occurrence of risk indicators and their associations with suicide varied considerably between sex- and age-groups. The most common risk indicators preceding suicide were dispensations of anti-depressants and sedatives, while suicide risk was most elevated following self-harm and in-patient psychiatric care. Nearly all risk indicators occurred less frequently among males than females who died by suicide and indicators were generally less common among those aged 65 years and above. Most indicators showed stronger associations with suicide among females in relative terms (i.e. odds ratios), but stronger associations among males in absolute terms (i.e. risk differences).

Conclusions. Most register-based risk indicators were fewer and less indicative of suicide (on the relative scale) among males than females, suggesting that high-risk males may be harder to single out. Our findings underscore the importance of considering sex- and age-specific effects of suicide risk factors and may prove useful for sex- and age-tailored suicide prevention.