Intoxicant use increased among Norwegian adolescents between 1992 and 2002, and attempted suicides increased among girls

Rossow I, Groholt B, Wichstrom L. Intoxicants and suicidal behavior among adolescents: changes in levels and associations from 1992 to 2002. *Addiction* 2005;100:79–88.

This article contains extra text on the EBMH website

Q What is the prevalence of substance abuse and attempted suicides in Norwegian schoolchildren in 1992 and 2002?

METHODS

Design: Ecological study.

Setting: Norway; 67 schools in 1992 and 73 schools in 2002.

Population: 11 000 schoolchildren in 1992 and 12 000 in 2002, aged 13–19 years. Exclusion criterion: a severe inability to read.

Assessment: Schoolchildren completed a questionnaire and were asked if they had ever attempted suicide or used intoxicants in the past year.

Outcomes: Prevalence of ever attempting suicide and intoxicant use in the past year.

Follow up period: Ten years.

MAIN RESULTS

The prevalence of self-reported suicide attempts was significantly higher among girls in 2002 than 1992, with no significant difference among boys. Use of intoxicants in the past year was significantly higher among boys and girls in 2002 than 1992 (see <http://www.ebmentalhealth.com/supplemental> for table).

CONCLUSIONS

Use of intoxicants increased among Norwegian schoolchildren from 1992 to 2002. Further studies are needed to establish if there is an association between intoxicant use and suicidal behaviour.

NOTES

No information was collected about the substance use patterns in schoolchildren who completed suicide. Multiple regression analysis found an independent association between intoxicant use and self-reported suicide attempts. After adjustment for independent risk factors, including depressive mood, loneliness, global self-worth, parental care, and living with both parents, intoxicant use was significantly associated with self-reported suicide attempts

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($p < 0.001$). However, the temporal relation between suicidal behaviour and intoxicant use was not examined, therefore causality cannot be assumed.

Commentary

The rate of adolescent suicidal attempts ranges from 2.8% in the Netherlands¹ to 13.2% in British adolescents.² The study by Rossow *et al* investigated the trends in suicidal behaviour and substance abuse among 13–19 year old school children in the Netherlands. Suicidal attempts amongst students increased from 8.3% in 1993 (girls = 10.6%; boys = 6.0%) to 10.0% (girls = 13.6%; boys = 6.2%) in 2002. This is a statistically significant increase over a 10 year period, and highlights a higher prevalence of suicidal attempts among girls. The present report confirms previous epidemiological findings of an increased prevalence of suicidal behaviour: a similar trend in adolescent suicidal behaviour has been reported in America and Canada^{3,4} and also in developing countries such as Trinidad and Tobago.⁵

Rossow *et al* also identify a significant increase in substance abuse between 1992 and 2002. Although a causal relation cannot be assumed from Rossow *et al*'s study because a temporal sequence between individuals' substance abuse and suicidal attempts was not established, it is interesting to note that a previous study reported the absence of alcohol abuse to be a protective factor in adolescent suicidal behaviour.⁵

This study should alert practitioners and researchers in all communities to the potential role of substance abuse in suicidal behaviour among adolescents. Although there may be variations in protective and risk factors in different cultures,⁶ the potential of the association between substance abuse and suicidal behaviour must be further investigated. Should a causal relation be found to exist, the early treatment of substance abuse would have an important role to play in the planning of suicidal behaviour interventions and related public health policy.

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