

**NORWEGIAN
SURVEILLANCE SYSTEM
FOR SUICIDE**

in Mental Health and Substance
Misuse Services

Suicide among young people in contact with Child and Adolescent Mental Health Services in the year prior to death 2008-2018

- A national registry study

English Summary

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Background

Suicide is one of the leading causes of death in young people. Young people with mental disorders constitute a well-known high-risk group for suicide. In Norway, we have so far lacked an overview of suicide during and after contact with Child and Adolescent Mental Health Services (CAMHS). Consequently, characteristics and information about the treatment and service contact before suicide have been missing. More knowledge about this group and the treatment they received prior to death is important in order to prevent more suicides among young people in contact with CAMHS. This is the first national registry study in Norway on suicide among young people in contact with CAMHS in the year prior to death.

Methods

The report is based on a linkage between the Cause of Death Registry and the Norwegian Patient Registry containing all deaths by suicide (X60-X84, Y10-Y34, Y87.0, Y87.2) in young people aged 10-23 years in the period 2008-2018 that were registered with activity in Child and Adolescent Mental Health Services (CAMHS) in the year prior to death. CAMHS is a separate secondary mental health service in Norway, serving children and adolescents up to 18 years of age. However, it is possible to proceed with treatment in CAMHS until the age of 23 if treatment started before the age of 18. There were fewer than three cases over the age of 19 who were in contact with CAMHS in the year before suicide. Thus, the proportion in contact with CAMHS was calculated based on all suicides registered in the Cause of Death Registry in the age group 10-19 years.

Results

- 73 young people (of which 49 girls and 24 boys) had contact with CAMHS in the year prior to death between 2008 and 2018, which corresponds to 23 % of all children and adolescents in the age group 10-19 years who died by suicide in Norway in this period.
- The proportion of girls in contact with CAMHS was higher than the proportion of boys, 40.5 % and 12.3 %, respectively.
- The average suicide rate in CAMHS was 0.23 per 1 000 patients for girls and 0.10 per 1 000 patients for boys. However, suicide rates differed by age and gender. In girls, the suicide rate gradually increased with age, in boys, the suicide rate increased sharply from the age group 14-16 years to 17-19 years.
- 85 % died by violent methods and hanging was by far the most used method of suicide in both genders (63 % in total). Fewer than three died by poisoning. There were no deaths by cutting or firearms.
- Everyone in the sample had outpatient contact in CAMHS and 21.9 % had outpatient contact in adult mental health services.
- The average number of outpatient contacts during the year prior to death was 28 contacts, in all sectors combined.
- 29 young people (39.7 %) had at least one inpatient admission during the year prior to death. However, only seven had inpatient admissions in CAMHS. More than half of those with inpatient admissions had at least one inpatient admission in substance use services.
- In total, seven were inpatients at the time of death. However, only one was inpatient in CAMHS.

- 24.7 % had contact in substance use services. Nevertheless, few were diagnosed with substance use disorders in CAMHS in the year prior to death (6 girls and less than 3 boys).
- Many of the girls (71.4 %) had ongoing outpatient contact. Half of the boys were registered with a terminated outpatient contact at the time of death.
- Unspecified diagnosis was the largest diagnostic group at last contact, followed by affective disorders. For diagnoses received during the year prior to death, affective disorders were the largest diagnostic group. There were important gender differences – 34.7 % of the girls and 66.7 % of the boys had either not been diagnosed or had been diagnosed with an unspecified diagnosis at the last contact. The proportion with no diagnosis/unspecified diagnosis were respectively 18.4 % and 37.5 % during the year prior to death.

Conclusion and implications

This report is the first description of suicide after contact with Child and Adolescent Mental Health Services in Norway using national registry data.

Compared to the adult population, a lower proportion is in contact with CAMHS before suicide. Thus, primary prevention in this age group is particularly important, especially among boys.

Suicide rates increase considerably from the age of 17 years. Therefore, it is important to facilitate the transition from CAMHS to mental health services for adults.

Outpatient services are the most important arena for suicide prevention among young people in CAMHS, as inpatient treatment in CAMHS is rare. Half of the boys had terminated outpatient contact, thus, coordination and

planning of follow-up after the termination of outpatient treatment by involving next of kin, providing a good safety plan and follow-up are important.

It is important to ensure that young people with mental illness receive help quickly at the right service level in both secondary mental health- and municipality services. Preventive measures in the municipality and collaboration between GPs and other first-line services, health centers and school health services, chat services, and emergency lines should be emphasized. It is also important to ensure that suicide prevention programs are aimed at engaging boys.

It is also important that CAMHS review their services and assess whether they are well enough adapted for boys. Adequate quality treatment and a reduction in the number of unspecified diagnoses/no diagnoses should be strived for. This seems to be a potential for improvement in young people with substance use disorders.

Registry data is well suited to describe the number and proportion in contact with the services. However, information regarding social conditions, previous suicidal behavior, and details about the treatment are missing in the registry data. Data from *The Norwegian Surveillance System for Suicide in Mental Health and Substance Misuse Services* will contribute to more knowledge about suicide among young people in contact with CAMHS.

Addendum: Gender and age-differences are studied in more details in Astrup H, Myhre MØ, Kildahl AT and Walby FA (2022) Suicide After Contact With Child and Adolescent Mental Health Services—A National Registry Study. *Front. Psychiatry* 13:886070. doi: 10.3389/fpsy.2022.886070

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