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Sharp rise in UK teen poisonings over past 20 years, particularly among girls

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*Most socioeconomically deprived 2-3 times as likely to poison themselves as least deprived*

There has been a sharp rise in the overall number of teen poisonings over the past 20 years in the UK, particularly among girls/young women, reveals the largest study of its kind published online in the journal *Injury Prevention*.

The rises are strongly linked to social and economic deprivation, with those living in the most deprived areas of the UK two to three times more likely to poison themselves either deliberately or unintentionally as those living in the least deprived areas, the findings show.

Poisoning is one of the most common causes of death among teens worldwide, with much of it related to self-harm, which in turn, is often linked to mental health problems.

But most of the evidence on the incidence and risk factors for poisonings is restricted to data on hospital admissions or emergency care visits, with little information on time trends.

In a bid to rectify this, the researchers reviewed anonymised general practice records submitted to the UK Health Improvement Network database (THIN) between 1992 and 2012 on poisonings--both deliberate and unintentional--for more than 1.3 million 10 to 17 year olds.

In all, there were 17,862 cases of poisoning among the teens between 1992 and 2012.

They calculated the incidence rates per 100,000 person years--in other words, the number of poisonings occurring in 100,000 young people in a year--for all poisonings; intentional poisonings; unintentional poisonings; those of unknown intent; and alcohol related poisonings, broken down by age, sex, calendar period and level of socioeconomic deprivation, as measured by the Townsend Index.

This analysis revealed that the overall numbers of new cases of recorded teen poisonings rose by 27% between 1992 and 2012 from 264.1/100,000 person years to 346.8/100,000 person years.

The largest increases during this period were seen for intentional poisonings among 16-17 year old girls, and for alcohol related poisonings among 15-16 year old girls, both of which roughly doubled.

Between 2007 and 2012 almost two thirds (64%) of poisonings were recorded as intentional, with only 4% unintentional. Some 16% were related to alcohol, while the intent was unknown in 16% of cases.

There was a clear gender divide in the poisoning rates, with sex differences in intentional and alcohol related poisonings widening over time. The rate of poisoning in boys/young men was less than half that in girls/young women, and this was particularly true of intentional poisonings which were 80% lower in boys/young men.

Alcohol related poisonings were 10% lower in boys/young men.

But overall rates were strongly linked to socioeconomic deprivation, with those from the most deprived areas two to three times more likely to have poisoned themselves than those from the least deprived areas.

The link with poverty and deprivation did not reduce over time, and may reflect a difference in levels of mental anguish, stress, and social and psychological support, suggest the researchers.

They highlight certain caveats to their findings. "We must consider whether this [the increasing rates seen among young women] reflects real changes, increased health seeking behaviour or changes in GP coding practices, or popular trends, such as clinicians perceiving intentional poisonings as more frequent and therefore recording events as such," they write.

And they add: "One potential explanation for the increase in alcohol poisonings over time is increased availability, with the relative affordability of alcohol in the UK increasing steadily between 1980 and 2012, licensing hours having increased since 2003, and numbers of outlets increasing alongside alcohol harm."

But they conclude: "Since intentional and alcohol related adolescent poisoning rates are increasing, both child and adolescent mental health and alcohol treatment service provision needs to be commissioned to reflect this changing need. Social and psychological support for adolescents should be targeted within more deprived communities to help reduce the current social inequalities."

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