

Toxicological considerations on suicide among people who use drugs

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People who use drugs (PWUD) are known to face an increased risk of death by suicide when compared to the general population. In Finland, the number of cases with findings of abused drugs in post-mortem investigations has increased over the last years. In this study, all suicides among PWUD between 2016 and 2022 were investigated in terms of age and sex of the deceased, suicide method, and toxicological findings.

The total number of suicides among PWUD in the studied 7 years was 583 which is 11% of all suicides in Finland during that same period. The yearly number of suicides among PWUD ranged between 66 and 96 which corresponds to 15–23% of the total number of cases with findings of abused drugs. No temporal trend in the yearly number of suicides among PWUD was observed in the study period whereas at the same time the number of all suicides decreased. Of the deceased, 18% were females and the mean age at death was 32 years.

The most common suicide methods were hanging (40%), poisoning (21%), and jump from a height (12%). Alcohol was detected in 34% of the cases and the mean blood alcohol concentration in alcohol-positive cases was 1.4‰. Cannabis was detected in 53% of the suicides, amphetamines in 48%, and opioids in 44%. Of the poisoning deaths (N=122), the primary intoxicant was an abused drug in 44%, a medicinal drug with no abuse potential in 49%, and some other substances, such as carbon monoxide, in 6.6%.

This study demonstrates that more than every tenth suicide is committed by a person with documented use of abused drugs. Earlier studies have shown that current attendance in opioid agonist treatment protects against death by suicide. In addition to preventing overdose death, providing easier access and retention to treatment among PWUD could potentially prevent suicides.