



H94 Is Methamphetamine Use Associated With an Increased Suicide Risk in Adolescents and Young Adults?

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After attending this presentation, attendees will better understand the role methamphetamine abuse plays in leading to mental instability and suicide.

This presentation will impact the forensic science community by drawing attention to the recent increase in suicides associated with methamphetamine abuse occurring in the adolescent and young adult population.

Methamphetamine is a potent central nervous system stimulator elevating mood and leading to a heightened sense of euphoria. Chronic use is known to manifest as mood/anxiety disorders, psychosis, violent behavior, and suicidal ideation. This is achieved by methamphetamine's interaction with the dopaminergic system ultimately damaging nerve terminals leading to psychiatric pathology.

According to the National Institute on Drug Abuse, in 2012, 1.2 million people (0.4% of the United States population) reported having tried methamphetamine. This report has made an observation concerning the association of methamphetamine use with suicide among young adults within the Kansas City, MO, metropolitan area. This study undertook a retrospective record review of cases at the Jackson County Medical Examiner's Office (JCMEO) between the years of 2012 and 2016, reviewing suicide data of individual closed cases. This study defined the age range for "young adult" as less than the age of 40 years. All cases contained associated toxicology and investigative reports.

For the years 2012-2016, the JCMEO had 976 cases of suicide. Of the 976 cases, 416 were cases of individuals ranging in age from 11 to 39 years. In 2016, 12% of reviewed suicide cases involved intoxication with methamphetamine, 75% of which demonstrated recent suicidal ideation and depression per investigative history. Data from 2015 revealed 15% of suicide cases were positive for methamphetamine. Suicidal ideation and depression were noted in 77% of case histories; arguments and pending incarceration were thought to be contributory factors in the remaining cases. In 2014, methamphetamine positivity in suicide cases sharply decreased to 6.6%. Of these cases, 60% of histories reported suicidal ideation, and the remaining 40% were thought to be the result of arguments. Data from 2013 revealed 11% of cases demonstrated methamphetamine positivity, 86% of which revealed suicidal ideation and depression. In 2012, 15% of suicide cases revealed methamphetamine positivity and 62.5% had reported suicidal ideation. The overall average percentage of methamphetamine-positive cases for this total time period was 14.4%.

The suicide data was compared to closed cases ruled as accidents in which methamphetamine was considered the direct cause of death or as a contributing factor. Between the years of 2012 and 2016, 1,983 cases were deemed accidents, 162 of those listed methamphetamine as the cause of death or as a contributing factor, with 54 of these cases within the study's age range. In the adolescent and young adult ages with accidental manners, the overall average of methamphetamine-positive cases for this time period was 3%.

In conclusion, the results of this study reveal that methamphetamine abuse is much higher in younger adults committing suicide than in accidental overdose cases within the Kansas City metropolitan area.

Methamphetamine, Suicide, Young Adult