

D63 Trends in Suicide: An 11-Year Retrospective Review From the Wayne County Medical Examiner's Office With Emphasis on 0-18 Age Group

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After attending this presentation, attendees can expect to learn about trends in child suicide observed from Wayne County Medical Examiner's Office during an 11-year period, where 5.1% of all suicides involved people aged 0-18 years.

This presentation will impact the forensic science community by influencing the direction of where future emphasis may be placed as it relates to child suicide prevention as five out of seven cases with prior suicide attempts had histories of depression. A need for increased therapy and follow-up may be warranted in some cases as evidenced by child suicide data reviewed by the Wayne County Medical Examiner's Office.

In the United States, suicide is the leading cause of injury mortality for all age groups combined surpassing motor vehicle crashes. To assess trends in suicidal persons in the interest of prevention, a retrospective study was conducted at the Wayne County Medical Examiner's Office, with emphasis on 0-18-year-olds. A total of 2,083 suicide cases for all age groups were reported between the years 2000 and 2011. There were 107 (5.1%) childhood suicides involving people between ages of 0 and 18 years old. Ninety-eight child suicides occurred within teenage groups, constituting 4.7% of all suicides. More males (74 cases) compared to females (33 cases) committed suicide in childhood. There was an equal incidence among White and Black youth suicides with 49 cases each. Other races comprised 9 cases. The leading method was hanging (65 cases), followed by gunshot (35 cases), drugs (4 cases), and multiple injuries (3 cases).

Outside the United States, a study from Jamaica found that hanging was the method of suicide in the majority (96%) of adolescent suicide deaths. The U.S. Centers for Disease Control found in a 2013 study that most youth suicides were by hanging/strangulation/suffocation. Throughout the state of Michigan, the leading mechanism of suicide for all age groups is firearms. Firearms attribute to death in most suicides across all age groups combined, this study found. It could be postulated that prevalence of firearms may contribute to the occurrence rate of gunshot suicides versus hangings in youth. The adjusted suicide rate of 2.1 in this study is similar to the average adjusted suicide rate across the state of Michigan. The trend of increased teen suicides observed nationwide (8.2 for age group 15-19 years of age, as compared to 1.5 for age group 10-14 years of age) is supported by this study where the majority of the child suicide deaths were of teens.

Comparisons can be made to adult data, where the highest incidence of suicide was observed among adult Whites (1,560 cases), followed by adult Blacks (513 cases), and other races (49 cases). The 31- to 40-year-old age group conveys the most suicides (469 cases) in this study. A suicide note (written/verbal/text) was left behind by 20 of the child suicide cases (19%). Seven cases of suicide ages 18 years of age and under had a history of prior unsuccessful suicide attempts (6.5%). Twenty-nine cases had a medical history of depression, suicide ideation, developmental delays, or substance abuse (27%). There was reported history of bullying in one case and rape in another. Five people out of seven with previous suicide attempts had a history of depression, further signifying the need of interpersonal therapy and follow-

References:

- Rockett IR, Regier MD, Kapusta ND, Coben JH, Miller TR, Hanzlick RL, Todd KH, Sattin RW, Kennedy LW, Kleinig J, Smith G. Leading Causes of unintentional and intentional injury mortality; United States 2000-2009. Am J Public Health 2012:102:11:84-92.
- 2. Holder-Nevins D, Bridgelal-Nagassar R, Bailey A, Thompson E, Eldemire H, Sewell C, Abel WD. Suicide among adolescents in Jamaica: what do we know?. West Indian Med J. 2012 Aug;61:5:516-20.
- 3. Karch DL, Logan J, McDaniel DD, Floyd CF, Vagi KJ. Precipitating circumstances of suicide among youth aged 0-17 years by sex: data from the national violent death reporting system, 16 states, 2005-2008. J Adolesc Health. 2013:53:1:suppl:51-3.

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