



H55 Suicide in Older Adults: A Retrospective Study in Cook County, Illinois

*Serenella Serinelli, MD, PhD**, State University of New York Upstate, Department of Pathology, Syracuse, NY 13210; *Ponni Arunkumar, MD*, Cook County Medical Examiner's Office, Chicago, IL 60612; *Lorenzo Gitto, MD**, State University of New York Upstate, Department of Pathology, Syracuse, NY 13210

Learning Overview: After attending this presentation, attendees will understand the incidence and circumstances surrounding suicides in older adults (65 years of age and over) that were referred during the past five years.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing an overview of suicide deaths in the elderly in an urban medical examiner's population, which may help determine risk factors, victim demographics, methods, and scenarios to help death investigators deal with this complex issue.

Suicide in older adults is a principal public health issue in many countries. The risk of suicide increases with age in almost all countries, and suicide rates reach 48.7/100,000 for older Caucasian men in the United States. Older adults may be more prone to self-harm behavior because of the higher prevalence and coexistence of financial issues, social isolation, bereavement, dependence, physical and mental illnesses, etc. In addition to this, when they decide to commit suicide, older adults make more lethal suicide attempts than younger subjects.

A retrospective study was conducted on suicides in subjects over 65 years of age based on the police investigation, autopsy, and toxicology reports collected from the Cook County Medical Examiner's office between January 1, 2015, and December 31, 2019. All of the cases were analyzed as to age, race, sex, suicide method, year of the suicide, toxicology results, medical/psychiatric history, social history, and presence of a suicide note at the scene.

The suicide cases in victims 65 years and older totaled 354, accounting for 15.2% of all suicides reviewed and for 4.4% of all the deaths in subjects over 65 years old in the same five-year period. Of these 354 cases, 84 (24%) were fully autopsied, 50 (14%) underwent head-only autopsy, and 220 (62%) were externally examined. The ages of suicide victims ranged from 65 to 95 years, with a mean age of 75. Males were 292 (82.5%) of the victims and females 62 (17.5%). The vast majority (300 cases) were Caucasian, 30 were African American, 22 were Asian, and 2 were "other". The male-to-female and Caucasian-to-African American ratios were 4.7:1 and 10:1, respectively. In 2015, 71 deaths occurred; in 2016, 58; in 2017, 72; and in 2018, 66. In 2019, the highest number of suicides (87) was registered.

Gunshot wound was the most common method of suicide, accounting for 51.4% of the cases. Other methods included hanging (17.8%), overdose (11%), fall from height (6%), plastic bag suffocation (4.8%), stab and incised wounds (2.8%), carbon monoxide poisoning (2.5%), train striking pedestrian (1.7%), drowning (1.7%), and disruption of dialysis catheter (0.3%).

This present study shows that the most common elderly suicide victim is a Caucasian male with an average age of 75 years, and the most common method is a gunshot wound. This study's results, including circumstances surrounding the deaths, toxicological data, and medical/psychiatric history, will be presented to the attendees.

Suicide, Elderly, Autopsy