



Pathology & Biology Section – 2004

G15 Suicide: A Ten-Year Retrospective Review of Kentucky Medical Examiner Cases

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The goal of this presentation is to present a retrospective analysis of information gleaned from postmortem examinations of all suicides from the medical examiners' records in Kentucky between 1993 and 2002; and to correlate this data with national trends regarding suicides.

This comprehensive report aims to dispel the conventional image of the suicide victim as an elderly Caucasian male afflicted by physical disease and demonstrate how suicidal trends have been drastically altered over the years; and to delineate distinguishing characteristics present at the scene and revealed in the medical history that may aid investigators in ascribing the manner of death as suicide.

According to the Center for Disease Control's Monthly Vital Statistics Report in 2000, suicide ranks eleventh in the United States and accounts for approximately 30,000 deaths annually. A host of biological and psychosocial components interplay in the investigation of a suicide. Precipitating factors may include domestic quarrels, loss of employment, financial difficulties, substance abuse, chronic disease, or mental illness. The commonly held belief of the typical suicide victim includes either an elderly Caucasian male with a debilitating disease or a female dying from acute drug intoxication commonly referred to as an overdose. Men are more likely to commit suicide than women. Researchers attribute the lower number of female suicides to a larger number of women who may attempt, but fail to commit, suicide by drug overdose. Furthermore, women may be prone to ventilate emotional problems with others in an attempt to avert suicide whereas men are less likely to admit hardships and are more impulsive in their actions. Although a suicide note may illustrate suicidal intent, it is present in less than one third of cases reported by some authors.

This study presents all 2,866 medical examiner cases of suicide between 1993-2002 in Kentucky. The majority of victims were males (81.8%) and Caucasian (94.8%). Black females comprised the smallest group of decedents, consisting of only 0.59% of suicides. Individuals ranged between 11 and 96 years of age with an average age of 42.0 years. The greatest number of suicides occurred in the fourth decade of life followed by the fifth decade and then the third decade. The preferred mode of death was by gunshot (67.6%), followed by hanging (13.7%), overdose (10.0%), and carbon monoxide poisoning (4.6%). Of the 1,934 gunshot wound fatalities, 79.5% of the wounds involved the head, 18.3% the chest, and 2.6% the abdomen. Both males and females chose a firearm as their primary means of committing suicide, 71.4% and 50.5%, respectively. The head was the most likely target of the gunshot wound in all shooting victims, specifically, 80.4% of the men and 72.7% of the women. 65.5% of black victims utilized a firearm to commit suicide, and 83.8% of these were head wounds. In men, the second and third most common causes of death respectively were hanging (14.5%) and overdose (5.9%). Conversely, this pattern was reversed in women: the second leading cause of death was overdose (28.1%) and the third, hanging (10.3%).

The review analyzes a myriad of factors that may have prompted an individual to commit suicide: medical and psychiatric history, domestic relationship problems, substance abuse, financial and legal difficulties, and seasonality. The presence of a suicide note, previous suicide attempts, family history of suicide, dyadic murder-suicide, and suicide by cop have also been documented. A discussion of "playing" with a gun known in Russian Roulette and issues related to schizophrenic patients who commit suicide will also be presented. Furthermore, this study inventories and discusses the variety of disease processes and toxicological findings uncovered at autopsy.

Forensic Science, Forensic Pathology, Suicide