



Pathology/Biology Section - 2014

G96 Firearm-Related Deaths in Tarrant County, Texas

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After attending this presentation, attendees will have learned the incidence of gun-related deaths and the proportion related to manner, age group, gender, and race/ethnicity in Tarrant County, Texas, from January 2006 to December 2012 and its comparison to larger studies.

This presentation will impact the forensic science community by increasing understanding of the types of gun-related deaths and the demographics most commonly affected by gun violence.

Introduction: Over 30,000 people die annually in the U.S. from injuries caused by firearms.^{1,2} Texas ranked 23rd among states for firearm deaths in 2010 with a rate of 11 deaths per 100,000 population, which is higher than the U.S. average of 10.1 deaths per 100,000 population.¹ Tarrant County had a rate of 10.8 firearm deaths per 100,000 population, which is slightly lower than Texas but higher than the national average. The issue of gun control is a current popular topic given the recent national tragedies. Regardless of personal or political opinion, firearm deaths affect every demographic and it is important to recognize the distribution in order to identify strategies to reduce them.

Material and Methods: This study included all firearm-related deaths in Tarrant County, Texas, from January 2006 to December 2012. The data was collected from the Tarrant County Medical Examiner's Office records retrospectively. The deaths were grouped by manner and were analyzed according to age group, gender, and race/ethnicity, then compared to national data obtained from the Centers for Disease Control and Prevention's (CDC's) web-based Injury Statistics Query and Reporting System.¹

Results: There were a total of 44,495 deaths recorded in Tarrant County, Texas, from January 2006 to December 2012 and 1,161 of these deaths were related to the use of firearms (2.6%). Nationally, only 1.3% of deaths were related to guns between 2006 and 2010. The largest portion of gun deaths were suicides (60% of gun deaths, 53% of all suicides), followed by homicides (37% of gun deaths, 53% of all homicides), accidents (1% of gun deaths, 0.4% of all accidents), and undetermined (1% of gun deaths, 5% of all undetermined deaths). Males were more likely to die by firearms compared to females (82% males, 18% females). There was a higher incidence of gun suicide than homicide in males and the reverse was true of females. The majority of gun deaths occurred in those 19-65 years of age (83%) and manner was usually suicide or homicide. The deaths that occurred between those 0-18 years of age were primarily homicides while those greater than 65 years were largely suicides. Compared to the overall U.S. population, Tarrant County has a smaller Caucasian and larger Hispanic population; however, Caucasians accounted for 63% of gun deaths followed by African Americans (19%), Hispanics (14%), Asians (4%), and Native Americans (0.2%). Caucasians accounted for the majority of suicides by gun (85%); however, homicide victims were mostly African Americans (40%) followed by Caucasians (28%) and Hispanics (25%).

Conclusion: Tarrant County has a larger incidence of suicide by gun (53.1%) compared to the U.S. (50.5%) and less homicide by gun (53.8%) compared to the U.S. (68.5%). In both, suicides are the most common manner of death in relation to guns, accounting for 58% of gun deaths and more than 50% of all types of suicide. There have been major achievements in other safety issues such as tobacco cessation and motor vehicle accident prevention and it has been proposed that similar tactics could be applied to firearms, such as: (1) a public-awareness campaign to increase gun safety and recognize at-risk individuals; (2) limit the depiction of gun violence on TV and video games; and, (3) take safety measures to limit access to appropriate users, etc.⁵ There has been a lack of rigorous research on firearm fatalities since 1996 due to a bill restricting CDC funds on research that would advocate or promote gun control.⁶ However, recently the CDC was granted funds to conduct further research on the causes and prevention of gun violence.⁶ Research can have lasting effects as shown by the decrease in motor vehicle, fire, and drowning fatalities over the last 20 years, which was accomplished without banning these things but instead from translating findings into effective interventions.⁴ Identifying the at-risk demographics will help to create better solutions.

References:

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