D53 Gunshot Wounds in Police vs. Civilian Homicides: Analysis of Entrance, Trajectory, and Numbers

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After attending this presentation, attendees will be able to distinguish the pattern of injuries from police shootings versus civilian shootings. The goal of our study is to aid future crime scene investigations in distinguishing between justifiable homicide in the line of duty and criminal homicide.

The information provided by this study may impact the forensic science community by potentially helping to establish the position of the shooter in relation to the victim or the activity of the victim in controversial homicides involving police. Furthermore, the compilation of this data may prove useful as feedback information in the training of law enforcement officials.

Police or officer involved shootings (OIS) are a frequent part of containing a difficult and volatile situation, which may result in a homicidal death of a civilian or even law enforcement personnel. Frequently, the police respond to calls involving an armed individual and multiple shots may be fired. The manner of death in these cases is classified as homicide with the distinction of criminal homicide in cases involving only civilians or justifiable homicide in cases of police officers as the shooter acting in an appropriate manner.

Proper crime scene investigation as well as careful forensic post- mortem examination is necessary to establish the number of shooters, numbers of shots fired, the type of ammunition used, the cause of death, the extent of injury to the decedent, characterization of the gunshot wounds as well as the position of the shooter in relation to the victim. Currently, no research has been published which evaluates the difference in these variables between police and civilian shooters.

In the last five years, the Medical Examiner's Office of the City of St. Louis, Missouri has compiled over 500 cases of homicides from gunshots, some of which have involved police as the shooters. The study retrospectively analyzes homicides involving police officers versus civilian only homicides in relation to the number of shots fired, where the entrance wounds are located on the body (i.e., posterior, extremities, etc), and the bullet trajectory. Attempts were made to closely match the victims by age, sex, and race. In addition to recording demographic information, the victims will be divided into 2 categories: (A) officer involved shootings, and (B) civilian homicide. In each case, the following variables will be collected: (1) the number of entrance wounds, (2) the location of the entrance wounds, (3) the trajectory of the shots, (4) the type of ammunition used, and (5) the range of shot as characterized by the appearance of the gunshot entrance wound.

The hypothesis is that the officer involved shootings have fewer entrance wounds overall and thereby the gunshot wounds at the hands of law enforcement, although fewer in number, involve predictably lethal parts of the body such as the chest or head. In addition, it was found that gunshot entrance wounds in officer involved shootings are more often found on the anterior aspect of the body as most "face-off" situations— including "suicide by cop" —place the police officer in direct confrontation with the offender. In the cases of civilian only homicides, higher numbers of gunshot entrance wounds located on the posterior or lateral portions of the body and higher numbers of gunshot wounds that are not life threatening compared to homicides involving the police were found.

Officer Involved Shooting (OIS), Homicide, Gunshot Wound

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