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**"Non-Self-Inflicted Vs. Self-Inflicted Facial Gunshot Wounds: A Comparison of Insurance Status and Race with Mortality and Cost at UMCNO"**

From the mid-1960s to the present, gun violence has continued to rise throughout the country. According to the Centers for Disease Control and Prevention (CDC) from 1999-2018, suicide in the United States was in the top 5 causes of death for age ranges 10-54. Age ranges 55-64 were in the top 8. Suicide by firearm was the main method for age ranges 15-64. Additionally, from this time period, homicide was in the top 4 causes of death for age ranges 1-34. Age ranges 35-44 were in the top 6. Homicide by firearm was the leading cause. Notably, Louisiana ranked #1 in the entire country for age-adjusted death rate secondary to firearms from 2001-2018 according to the CDC. The two main contributory causes for this were suicide and homicide. In Louisiana during this time frame, suicide and homicide death rates have increased across all ages and genders. This study sought to explore facial gunshot wounds (GSWs) at a large, urban Level I trauma center in Louisiana.

Patients with GSWs were evaluated on a range of demographic and output variables including non-self-inflicted and self-inflicted facial GSWs (N-SIGSW & SIGSW respectively), age, gender, race, mortality, insurance type, and cost. A student's t-test (2-tailed, $\alpha = 0.05$) was used for comparisons between uninsured vs. insured patient cost data and Black vs. White patient cost data. A chi-square ($\chi^2$) test of independence (df = 1, $\alpha = 0.05$) was performed to examine the relation between uninsured vs. insured patient mortality data and Black vs. White patient mortality data.

A retrospective sample of 152 patients who met inclusion criteria was obtained from UMCNO from 07/01/2012 to 06/30/2017. Ages ranged from 4-88. 106 patients were categorized as N-SIGSW (70%). 46 patients were categorized as SIGSW (30%). The relation between uninsured vs. insured patient mortality was significant for both N-SIGSW and SIGSW groups: $\chi^2$ (1, N = 106) = 19.8, p = << 0.05 and $\chi^2$ (1, N = 46) = 4.8, p = 0.03 respectively. The relation between Black vs. White mortality was not significant for N-SIGSW or SIGSW patients: $\chi^2$ (1, N = 100) = 1.4, p = 0.25 and $\chi^2$ (1, N = 44) = 0.34, p = 0.56 respectively. For N-SIGSW patients, the cost of treatment for uninsured individuals was not significantly different than those who were insured (Mean: $102,748 vs. 142,160, p = 0.17). However, for SIGSW patients, cost for uninsured patients was significantly different from insured patients (Mean: $45,418 vs. 199,231, p = 0.001). The cost of treatment for Black individuals was not significantly different than White individuals for either N-SIGSW or SIGSW groups: (Mean: $133,211 vs. 104,193, p = 0.42) and (Mean: $113,555 vs. 183,357, p = 0.29) respectively.

From these results, insurance status, rather than race, is more closely associated with mortality outcomes. Additionally, uninsured SIGSW patient costs were significantly decreased more than likely due to only a 12.5% survival rate. Further studies will elucidate why uninsured SIGSW patients have a higher mortality rate as opposed to insured.