

SUICIDE AND HOMICIDE RATES AMONG U.S. INDIAN HEALTH SERVICE AREAS: THE INCOME INEQUALITY HYPOTHESIS

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Analysis of data for all 12 U.S. Indian Health Service (IHS) areas yielded a significant Spearman's correlation coefficient of .65 between absolute poverty and suicide and a significant Rho of .52 with homicide rates. Nonsignificant correlation coefficients were found for relative poverty and suicide and homicide rates. Implications for the income inequality hypothesis are discussed.

Keywords: suicide, homicide, U.S Indian, income inequality.

Researchers have studied how economic conditions are related to suicide and homicide rates. However, this issue is complicated by a debate on the best way to measure poverty. According to Vold and Bernard (1986), "poverty is always in part a subjective condition, relative to what others have, rather than any simple subjective fact of the presence or absence of a certain amount of property or other measure of wealth" (p. 138). The Social Science Council (1968) also has claimed that "relative" poverty (i.e., income inequality) is more relevant than "absolute" poverty in explaining social problems.

The income inequality hypothesis assumes that the percentage of community members who are poor in absolute terms may not be the most important correlate of suicide and homicide rates. Instead, rates of suicide and homicide should vary with the degree of inequality in the distribution of wealth or income.

To test this hypothesis, unpublished data from the U.S. Department of Health and Human Services were used to calculate 1979-1981 suicide and homicide rates for all 12 U.S. Indian Health Service (IHS) areas: Aberdeen, Alaska, Albuquerque, Bemidji, Billings, California, Nashville, Navajo, Oklahoma City, Phoenix, Portland, and Tucson. This source also provided data on absolute and relative poverty for each IHS area.

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Absolute poverty was measured by using the percent of the population below the poverty line. Relative poverty rates (i.e., income inequality) for all IHS areas were calculated based on a method described by Carrol and Jackson (1983). That is, income inequality was the dollar difference between the 1979 median household income for a given IHS area and for the overall IHS population, divided by the median household income for the general U.S. population.

The suicide and homicide rates for the general IHS population (18.6 & 20.2 per 100,000 population, respectively) were greater than those for the general U.S. population (11.5 & 10.5 per 100,000 population, respectively). Approximately 31.1% of the IHS population lived below the poverty level, compared to 12.4% of the U.S. population. The 1979 median household income for the U.S. population (\$16,841) was 46.8% greater than the median household income for all IHS areas (\$11,471). IHS areas were clearly marked by high rates of poverty, suicide, and homicide.

Contrary to the income inequality hypothesis, the correlation coefficients for relative poverty and IHS suicide ($Rho = .32, p > .05$) and homicide rates ($Rho = .00$) were nonsignificant. In contrast, absolute poverty rates yielded statistically significant correlation coefficients with IHS suicide ($Rho = .65, p < .05$) and homicide rates ($Rho = .52, p < .05$). Patterson (1991) reported similar findings in a study of 57 residential areas in New York, Missouri, and Florida.

The present study fails to support the hypothesis that relative poverty (i.e., income inequality) is related to suicide and homicide rates. Instead, these findings provide cross-cultural support for the hypothesis that suicide and homicide rates are greater in areas characterized by severe conditions of material disadvantage.

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