Children living in areas where homicides committed have lower reading, verbal test scores

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Children living in areas where homicides are committed have lower reading and verbal test scores, a study by New York University Sociology Professor Patrick Sharkey shows. The research, which appears in the latest issue of the *Proceedings of the National Academy of Sciences*, examined test scores of children living in Chicago.

"These findings make clear the impact violence can have on children living in the area, regardless of whether they witness violence directly or are personally victimized," said Sharkey, an assistant professor in NYU's Department of Sociology. "The results suggest that children may carry the burden of violence with them as they take part in daily life within the neighborhood or school settings."

To conduct the study, Sharkey combined data on reported homicides occurring in Chicago from 1994 through 2002 with a survey of children and families interviewed through the Project on Human Development in Chicago Neighborhoods (PHDCN) that was conducted over the same time period. He then replicated his analysis using another independent survey of youth in Chicago—the "Three City Study of Welfare, Children and Families," a longitudinal survey of low-income families living in Chicago and two other cities.

To measure the impact of a local homicide, Sharkey compared the test scores of children who were assessed directly after a homicide in their

neighborhood with other children in the same neighborhood who were assessed at different times. He took into account three geographic areas of increasing size: "block groups," which are small sets of city blocks that have about 1,500 residents; "census tracts," which are slightly larger and have about 4,000 residents; and "neighborhood clusters," which have about 8,000 residents. Because all comparisons were made among children living within the same neighborhoods, the analysis can be thought of like an experiment in which some children are randomly picked to be assessed in the days following a local homicide while other children are picked to be assessed at a different point, further removed from the date of the homicide.

Sharkey examined separately the potential impact of a local homicide on African Americans and Hispanics. Whites and other ethnic groups were excluded because they were almost never exposed to local homicides in the samples Sharkey used for his study.

The PHDCN survey relied on two measurements to assess vocabulary and reading skills: the Wechsler Intelligence Scale for Children-Revised (WISC-R) and the Wide Range Achievement Test (WRAT3), both of which measure performance relative to a national sample of children of the same age. These assessments capture dimensions of cognitive skill that are strongly predictive of later educational attainment, labor market success, health, and criminal behavior. The dataset used for the replication, the Three City Study, conducted assessments of cognitive skills based on a letter-word identification test and an applied problems test from the Woodcock-Johnson Psycho-Educational Battery-Revised.

Overall, the results showed that African-American children who were assessed directly after a local homicide occurred scored substantially lower than their peers who live in the same neighborhood, but were assessed at different times. As the duration of time between the homicide and the assessment increased beyond a week, the estimated

effects of homicides faded away. Further, as the distance between the child's home and the location of the homicide widened, the impact of the homicide became weaker. While the results were extremely strong for African Americans, there was no effect of local homicides for Hispanics—a finding that Sharkey plans to explore in ongoing research. Very similar patterns were found when the analysis was replicated in the second dataset, the Three City Study. Again, the effects of local homicides were extremely strong for African Americans and non-existent for Hispanics.

"The estimated effects of recent local homicides are substantial, suggesting that local homicides have an acute effect on African-American children's performance on cognitive tests that fades as the window of time between the homicide and the assessment widens," observed Sharkey. "When one takes into account the prevalence of homicide in the most violent neighborhoods in cities like Chicago, these results mean that some children spend about one week out of every month functioning at a low level as they navigate the home or school environment."

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