

Study finds homicidal poisoning rising, more likely in infants and elderly

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Homicidal poisonings are rare but on the rise -- and infants are the most common victims -- according to a new University of Georgia study that aims to raise awareness of this often overlooked crime.

Greene Shepherd, clinical professor in the UGA College of Pharmacy, and recent graduate Brian Ferslew examined seven years of recent federal mortality data and identified 523 deaths due to homicidal poisoning—a figure that corresponds to a rate of 0.26 poisonings per million people. The study found that although poisonings account for less than one percent of all homicides, they appear to be on the rise. The study documented a low of 0.20 cases per million in 2000 and a high of 0.35 in 2004. In 2005, the last year for which data is available, the rate was 0.3 per million people.

"Homicidal poisoning is rare relative to a lot of other causes of death, but the numbers are trending higher," said Shepherd, whose results appear in the May issue of the journal *Clinical Toxicology*. "We may never know the true incidence because some cases undoubtedly evade detection and classification."

Shepherd is a former poison control center director who had heard several anecdotal accounts of homicidal poisonings but found very little data on their incidence. Because such data is a critical starting point for efforts to reduce the risk of poisonings, he and Ferslew began combing through data compiled by the National Center for Health Statistics.

While books and television dramas often portray homicidal poisoning as a premeditated crime committed against adults, the researchers found that infants are the most common victims. Children less than one year old are approximately nine times more likely to be victims than the general population, the study found. Shepherd said that rather than being premeditated acts, the majority of these poisonings are likely negligent homicides committed by parents or caretakers.

"Anyone who has been a new parent knows about the long hours and the [stress](#) of an inconsolable child," Shepherd says. "In some cases people make bad decisions and try to sedate their children with medication or alcohol. I think there's a role for pharmacists and other health care workers to better educate new parents about the inappropriateness of sedating newborns."

Further analysis by race found that African-American infants—who are 21 times more likely to be victims than the general population—are most at risk. Shepherd said this increased risk among African Americans is "a tragic result of socioeconomic status," as stressful situations and poor coping skills are more common in young parents lacking family support and economic stability.

The study found that older adults also had a significantly higher rate of poisoning than the general population. Older adults who require institutional or home care are particularly susceptible to abuse, Shepherd said, and are at risk of being administered excessive doses of sedatives or other medications.

The study also found that drugs, medications and other biological substances accounted for 65 percent of the poisonings during the 1999 to 2005 study period, while assault by gasses and vapor accounted for 28 percent of poisonings. The remaining seven percent of assaults involved other chemicals, corrosive substances or pesticides.

"Though rare, these crimes do happen," Shepherd said. "Now that we've identified at-risk populations, we have the potential to raise awareness and possibly save lives."

Source: University of Georgia ([news](#) : [web](#))

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