

# Child Homicide Spectrum

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• Violence toward children is an acknowledged pediatric problem, but physicians may not be aware that it is a leading cause of pediatric mortality. Therefore, I used homicide data for persons younger than 18 years of age to characterize child homicide. There are two broad categories: The first predominates until the victim age of 3 years, is intrafamilial, and is associated with bodily force and poorly defined precipitating events. It might be described as fatal child abuse. The second type predominates after the victim age of 12 years, is extrafamilial, involves guns or knives, occurs during arguments or criminal acts by the offender, and may represent children unsupervised in an adult environment. Homicides that occur in children between 3 and 12 years of age are a mixture of these two types.

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Homicide is one of the five leading causes of death for all persons in the United States who are 1 to 17 years of age.<sup>1</sup> Nationally, 5.1% of all deaths of persons 1 to 17 years of age were caused by homicide, compared with 1.0% of all deaths of persons 18 years of age or older. Since 1925, homicide rates for persons 1 to 4 years old have risen more than sixfold, and for persons 5 to 14 years old, rates have risen more than onefold (National Center for Health Statistics, unpublished data for 1978, obtained in 1981).<sup>1</sup>

Comparisons with other countries are enlightening. However, they must be interpreted with caution because of variations in quality and timeliness of reporting. In general, then, a number of countries rank above the United States in infant (persons, <1 year old) homicide rates. These countries include Cuba, Mexico, Austria, Finland, Hungary, Denmark, Japan, Argentina, Switzerland, and England/<sup>2</sup>

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Wales.<sup>2</sup> The United States, however, ranks first in homicide rates for the age group 1 to 4 years old and fourth for the age group 5 to 14 years old.<sup>2</sup> For the age group 5 to 14 years old, the United States ranks above every developed country except Luxembourg.<sup>2</sup> Child homicide is thus not a problem unique to the United States; however, it is clearly a relatively great problem in this country.

Homicides of children by their parents have been discussed in medical,<sup>3-6</sup> psychiatric,<sup>7-15</sup> child abuse,<sup>16</sup> and historic<sup>17-21</sup> literature. They have been broadly categorized as neonaticide,<sup>14,22-24</sup> infanticide,<sup>9,13,17,18,20,25</sup> filicide,<sup>5,11,26</sup> and, less precisely, as fatal child abuse.<sup>6,16,27</sup> However, cases of nonparentally perpetrated child homicide have rarely been examined or integrated with studies of parentally perpetrated cases, to show the broad spectrum of fatal violence toward children.<sup>3-5,12,15</sup> Homicide data from the Federal Bureau of Investigation—Uniform Crime Reporting System (FBI-UCR) from 1976 through 1979 were therefore used to examine epidemiologically all child homicide cases.

## MATERIALS AND METHODS

Computerized data concerning murder and nonnegligent manslaughter were obtained from the FBI-UCR for the years 1976 through 1979. Details of this reporting program have been described elsewhere.<sup>28</sup> Summarily, law enforcement agencies across the United States voluntarily contribute crime statistics on a monthly basis to the FBI-UCR for eight Crime Index offenses. Murder and nonnegligent manslaughter together constitute one of these eight reportable offenses. More than 96% of homicide reports are accompanied by supplementary data concerning details about the victim, offender, and event. It is assumed that these supplementary data are representative of all offenses.

Child homicide will be defined using legal age limits, ie, as the homicide of persons younger than 18 years old. The term *homicide* in this report refers only to those offenses reported to the FBI-UCR as "murder and nonnegligent manslaughter." This

category is outlined by the FBI-UCR as follows<sup>28</sup>:

The willful [nonnegligent] killing of one human being by another. The classification of this offense, as in all other Crime Index offenses, is based solely on police investigation as opposed to the determination of a court, medical examiner, coroner, jury, or other judicial body. Not included in the count for this offense classification are deaths caused by negligence, suicide, or accident; justifiable homicides, which are the killings of felons by law enforcement officers in the line of duty or by private citizens; and attempts to murder or assaults to murder, which are scored as aggravated assaults.

For incidents involving more than one victim, the weapon used, relationship between offender and victim, and circumstances of each incident are given only for the first-specified (listed) victim and each offender. Analyses of these variables are therefore based on all incidents in which the first-specified victim was younger than 18 years old. The first-specified person represents 91% of all identifiable victims and 89% of all identifiable offenders. In incidents involving multiple victims or offenders, these are not specified in any predetermined order (FBI-UCR, oral communication, 1982).

Racial comparisons will be made for only the two predominant categories, ie, whites, including Hispanics, and blacks. These together account for 99% of known perpetrators and 98% of victims involved in child homicides.

Rates using all victims younger than 18 years old in each homicide incident as the numerator will be referred to as *victim-specific*. Age-specific rates use all victims in the specified age group as the numerator. Numerators for national rates were calculated as follows: (number of all child homicide victims or offenders with the described characteristics) × 1.04. This factor is based on the FBI-UCR estimate that 96% of all homicide reports are accompanied by supplementary data. Denominators are based on population estimates obtained from the US Bureau of the Census<sup>29,30</sup> (and Current Population Survey tapes) and are specific for the population represented by the associated numerator. Statistical analyses were done using goodness-of-fit  $\chi^2$  techniques.<sup>31</sup> Differences were considered significant when *P* was less than .05.

Table 1.—Victim-Specific Rates of Child Homicide in United States (1979) by Sex and Race of Victim\*

|                | Race |     |        |
|----------------|------|-----|--------|
|                | W    | B   | Total† |
| Sex            |      |     |        |
| M (n = 1,013)  | 2.3  | 8.9 | 3.3    |
| F (n = 604)    | 1.5  | 5.1 | 2.0    |
| Total          | 1.9  | 7.0 | 2.7    |
| No. of victims | 946  | 632 | 1,620  |

\*Data are from Federal Bureau of Investigation—Uniform Crime Reporting System, 1979. Rate is expressed as the rate per 100,000 persons of specified race and sex. For rate calculation, see "Materials and Methods" section.

†Total includes 42 persons of other races and of unknown race.

## RESULTS

From 1976 through 1979, 73,931 homicide victims were reported to the FBI-UCR; 6,301 (8.5%) of these victims were younger than 18 years old. Three percent of these child homicide victims were 1 week old or younger, and 9% were older than 1 week but younger than 1 year of age. In the latest year obtainable, 1979, rates for males were 1.6 times those for females ( $P < .001$ ), and for blacks, rates were 3.7 times those for whites ( $P < .001$ ) (Table 1). By the victim age of 14 years, homicide was predominantly a male victim/male offender phenomenon. Victim age-specific incidence rates for child homicide in 1979 are shown in Fig 1. Rates peaked in infancy and the teenage years. Rates for victims older than 15 years exceeded those for children younger than 1 year old.

The relationships between victims and offenders are given in Table 2 and broken down by the victim's age in Fig 1. The relationships between victims and offenders varied with the victim's age, independently of his/her sex or race. Standard Metropolitan Statistical Areas (SMSAs), largely representing urban areas, had a lower proportion of familial homicides and a higher proportion of homicides by acquaintances or strangers than did non-SMSAs, largely representing rural areas (Table 3). Nationally, 29% of child homicides were perpetrated by the victim's parent or stepparent, 35% were perpetrated by acquaintances,

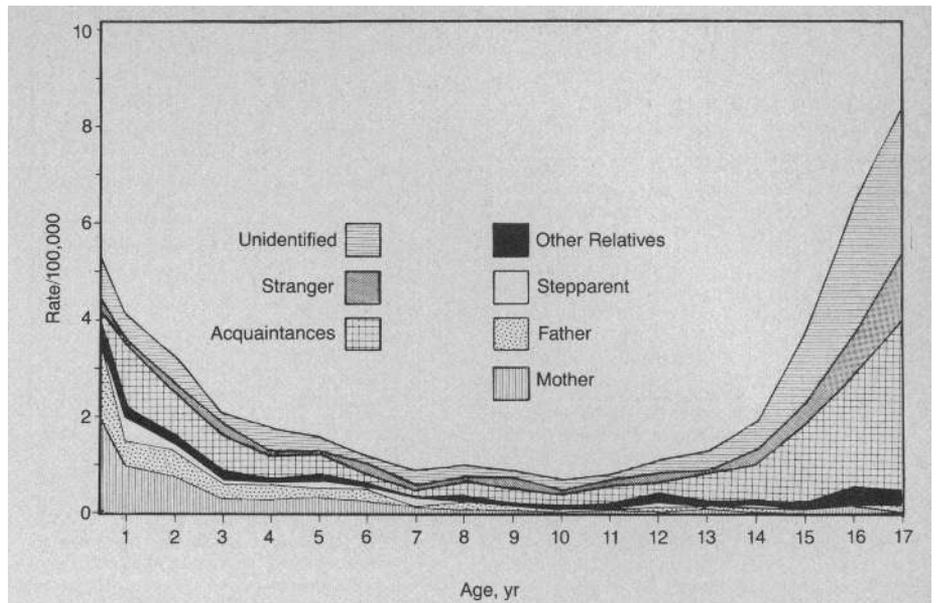


Fig 1.—Victim-specific rates of child homicide in the United States (1979) by victim age and by relation of offender to victim. Number of victims was 1,620; rate is per 100,000 children in that age group. Data are based on relationship between first-specified victim and first-specified offender for incidents in which first-specified victim was child. Proportion of homicides associated with described relationship is represented by its designated shaded area.

and 10% were perpetrated by strangers (Table 2). As the victim age increased, relationships shifted from being intrafamilial to extrafamilial in nature. By the victim age of 3 years, the majority of homicides were not committed by close relatives of the victim; after the victim age of 12 years, homicides by acquaintances clearly predominated.

As with relationship, the weapon used in homicide varied with the age of the victim (Fig 2). This variation was independent of the child's sex, race, or relationship to the offender. The use of bodily force, strangulation, or a blunt object predominated until the victim age of 9 years. Guns or knives were used in more than a third of the homicides after the victim age of 3 years and in more than half of the homicides after the age of 9 years. Overall, guns were used in 40% of child homicides, knives were used in 15%, strangulation was used in 6%, and other specified means were used in 31%. The weapon was not specified in 7% of cases.

For the majority of child homicides, the event precipitating the homicide incident was not given or was poorly described. Forty-seven percent of all child homicides had undefined precipitating circumstances, 25% occurred

during arguments, 3% occurred during gang fights, 4% occurred during sexual assault by the offender, and 10% occurred during the offender's perpetration of another crime. Eleven percent were caused by other miscellaneous circumstances.

The event precipitating the homicide incident also varied with the relationship between the victim and offender. The majority (78%) of intrafamilial homicides had undefined precipitating circumstances, 18% involved an argument, and 4% were caused by other miscellaneous circumstances. Thirty-eight percent of homicides by an acquaintance had undefined precipitating circumstances, 44% involved an argument, 5% involved a gang fight, and 13% had other miscellaneous circumstances. Thirty-six percent of homicides by a stranger had undefined precipitating circumstances, 22% involved an argument, 37% occurred during the offender's perpetration of another crime, and 5% had other miscellaneous circumstances.

## COMMENT

Interest in the problem of violence toward children has grown in association with the public's increasing aware-

**Table 2.—Percent Distribution of Child Homicide in United States (1976 to 1979) for Relation of Offender to Victim (N = 5,740)\***

| Relation            | %          |
|---------------------|------------|
| Mother†             | 13         |
| Father†             | 10         |
| Stepparent          | 3          |
| Sibling             | 2          |
| Other family member | 4          |
| Acquaintance        | 35         |
| Stranger            | 10         |
| Unidentified        | 23         |
| <b>Total</b>        | <b>100</b> |

\*Data are from Federal Bureau of Investigation—Uniform Crime Reporting System from 1976 to 1979, and based on the relationship between first-specified offender and first-specified victim only. Multiple victims or offenders are not specified in any predetermined order.

†An additional 2% of first-specified victims had a mother listed as a second- or third-specified offender, and an additional 1% of first-specified victims had a father listed as a second- or third-specified offender.

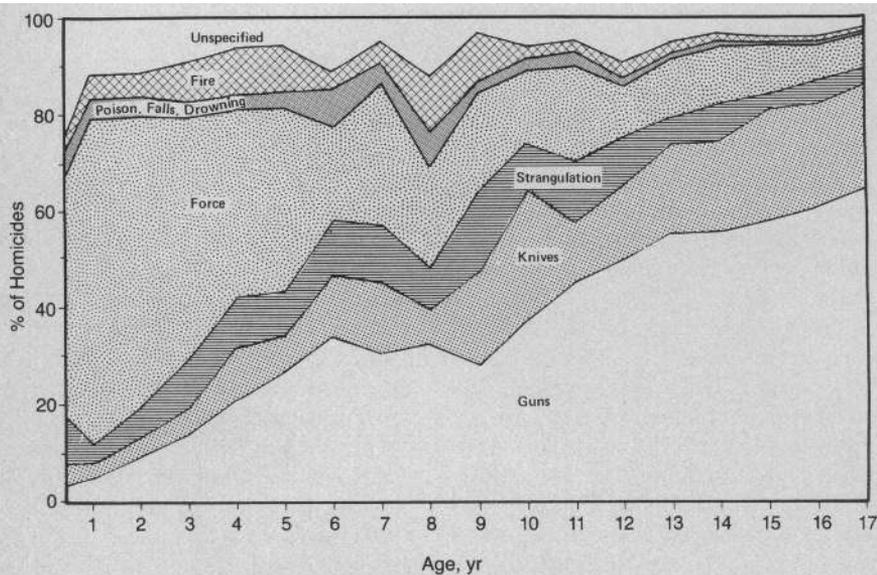
**Table 3.—Percent Distribution of Child Homicide in United States (1976 to 1979) for Relation of Offender to Victim by SMSA/ non-SMSA Status\***

| Relation        | %     |           |
|-----------------|-------|-----------|
|                 | SMSAs | Non-SMSAs |
| Family          | 40    | 49        |
| Acquaintance    | 47    | 40        |
| Stranger        | 14    | 11        |
| Total†          | 100   | 100       |
| No. of victims‡ | 3,636 | 759       |

\*Data are from Federal Bureau of Investigation—Uniform Crime Reporting System from 1976 to 1979, and based on the relationship between first-specified offender and first-specified victim for each homicide involving a child. Multiple victims or offenders are not specified in any predetermined order. SMSAs indicates Standard Metropolitan Statistical Areas (largely urban in nature); non-SMSAs, non-Standard Metropolitan Statistical Areas (largely rural in nature).

†Totals may not equal sums because of rounding.

‡Excludes 1,216 SMSA and 129 non-SMSA homicides in which the relationship could not be determined.



**Fig 2.—Percent distribution of weapons used in child homicide in United States (1976 to 1979) by victim age. Number of first-specified victims was 5,740. Data are based on weapon used by first-specified offender on first-specified victim in all homicide incidents in which first-specified victim was child. In incidents involving multiple victims or offenders, weapons were not specified in any predetermined order. Proportion of homicides associated with described weapon is represented by its designated shaded area.**

ness of the issue of child abuse. Data on child abuse are limited by definition variability and surveillance artifact; however, a recent national study estimated the incidence of child abuse at 3.4 per 1,000 children.<sup>32</sup> Child homicide represents extreme violence toward children and has been equated with

fatal child abuse.<sup>6,16,27</sup> Fatal child abuse, however, might reasonably include deaths caused by neglect, failure to thrive, malnutrition, exposure, and absence of appropriate care for medical problems. This analysis considers only cases of law enforcement-recorded child homicide. Thus, it ex-

cludes more subtle cases of homicide and concentrates on cases of active, lethal violence.

The FBI-UCR data were used to examine child homicide in detail. This data source, rather than vital statistics or information from protective services, was chosen for four reasons: First, homicide recording on the FBI-UCR is comparable with vital statistics data,<sup>33</sup> but contains more detail about the event. Second, although child homicide is probably underrecorded or sometimes misclassified by all data sources,<sup>34-36</sup> law enforcement data have been used profitably in the past to examine this topic.<sup>5,6,10,14,15</sup> Third, when protective services' data on reported fatal child abuse are compared with either law enforcement or vital statistics child homicide data, fatal child abuse seems to be highly underreported to protective services agencies.<sup>1,37,38</sup> Fourth, and most important, a previous comparison of child homicides reported to the Georgia Department of Protective Services and to law enforcement agencies suggested that data from protective services agencies may give an incomplete picture of this problem.<sup>38</sup>

Although child abuse is not specifically a parent-child phenomenon, investigators frequently concentrate on this aspect of the problem. Similarly, studies of child homicide have concentrated on cases of child homicide by parents.<sup>3-27</sup> My findings discussed herein differ from those reported by others<sup>9,10,12,15</sup> in that they indicate that child homicide by parents constituted a minority of all child homicides. This could be due to reporting or to cross-cultural differences for two of these studies, which are from Denmark<sup>9</sup> and Canada.<sup>12</sup> The other two studies are based on data from Detroit<sup>10</sup> and New York.<sup>15</sup> Their age groups differed somewhat from the one in the present study: Myers<sup>10</sup> examined homicides of preadolescents, and Kaplun and Reich<sup>15</sup> examined homicides of children younger than 15 years old. However, the difference between the presented findings and those of these two studies are, at most, only partly explained by differences in age limits, since for FBI-UCR data, homicide by parents represents a minority of child homi-

cides at almost all victim ages. Differences could also not be explained by these studies' urban origins, since FBI-UCR data show a higher proportion of nonparentally perpetrated child homicides in SMSAs than in non-SMSAs. However, some differences could reflect variability caused by the small numbers of homicides that these investigators studied: Myers<sup>10</sup> studied 83 homicide victims, and Kaplun and Reich<sup>15</sup> studied 140 victims.

The FBI-UCR child homicide data from 1976 through 1979 indicate that acquaintance homicides, and not parental or familial homicides, predominate at nearly all victim ages. By the victim age of 17 years, acquaintance homicides represented 42% of all homicide victim-offender relations. Relationships between offenders and victims shifted from parent to acquaintance as the victim age increased. Thus, with increasing age of the victim, child homicide became increasingly similar to adult primary homicide (homicides not occurring during the perpetration of another crime).<sup>39</sup> This shift might be expected, but it begins at a remarkably early age, as indicated by the following: (1) The relative rate for males compared with females exceeds 1.0 by the victim age of 13 years. (2) After the victim age of 9 years, guns and knives are the predominant weapons used.

This analysis of national child homicide data from 1976 through 1979 suggests that there are, in fact, two patterns of child homicide. The first predominates before the victim age of 3 years and is characterized by familial-parental violence, ill-defined circumstances, and the use of bodily force rather than guns or knives. This type of child homicide could be defined as fatal child abuse. The second type of child homicide, predominant by the victim age of 12 years, is characterized by extrafamilial violence, association with arguments or the offender's criminal behavior, and the use of guns or knives. This type of child homicide and violence might be defined as fatal parental-societal neglect. Based on the relationship between the victim and perpetrator, the weapons used, and the precipitating events, homicide events that occur in those children

between 3 and 12 years of age seem to be a mixture of these two homicide patterns.

### FINAL REMARKS

In summary, homicide is a leading cause of child mortality in the United States, but physicians' knowledge of this problem usually relies on the child abuse literature. In the past, a disproportionate emphasis has been placed on homicide of infants and on homicide by parents. In fact, these represent only one aspect of the child homicide spectrum. The other component, which is often ignored, is homicide of preadolescents and adolescents. The extent to which the latter represents instances of parental neglect of their supervisory role is unknown, as is the extent to which these cases represent extrafamilial replication of intrafamilial patterns of violence. Preventive measures based on parent education, family planning, neighborhood networking, and stress reduction might be expected to have an impact on fatal child abuse. Research is needed to determine if they will also have an impact on fatal parental-societal neglect and whether this second pattern of child homicide represents extrafamilial duplication of intrafamilial violence.

Computerized data were obtained from the Federal Bureau of Investigation-Uniform Crime Reporting Program (FBI-UCR).

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