Parents' Attitudes Toward Firearm Injury Prevention Counseling in Urban Pediatric Clinics

Karen Haught, MD, MPH*; David Grossman, MD, MPH†‡; and Frederick Connell, MD, MPH†‡

ABSTRACT. Objectives. To examine characteristics and experiences associated with gun ownership among parents of pediatric patients who attend urban pediatric clinics and to determine the receptivity of these parents to firearm injury prevention counseling.

Design. A focus group discussion was followed by a cross-sectional survey.

Setting. Four public pediatric clinics in a large metropolitan area were included.

Participants. A focus group discussion was held with parents and was used to develop the questionnaire, which was then distributed over a 6-week period to parents accompanying children to the clinic. The anonymous, self-administered questionnaire was completed by 510 parents or guardians, with an 88% response rate.

Results. Twenty percent of respondents reported that they had a firearm in the home. Twenty-seven percent of respondents had experienced having a family member shot. Eighty-two percent of all respondents indicated that they would find information about the safest way to store a gun helpful or very helpful. Of all respondents, 47% would follow and an additional 37% would think over this advice. Only 6% of all respondents reported that they would ignore or be offended by such advice.

Conclusions. Children attending public urban pediatric clinics are exposed to guns in their homes, and their parents appear to be receptive to firearm injury prevention counseling from their child's health care providers. Pediatrics 1995;96:649-653; firearms, injury prevention, physician counseling.

In the United States, 4941 children died as a result of firearm injuries during 1990, accounting for approximately 16% of all deaths among children between 1 and 19 years of age.1 It has been estimated that nonfatal injuries occur about five times more frequently than fatal injuries.2 The majority of unintentional firearm deaths among young children occur when children play with loaded guns found in the home.3−5 The presence of guns in the home has also been associated with an increased risk of suicide among adolescents.6 Chil-

Methods

This study was carried out in two parts. First, a focus group of parents was used to explore attitudes and concerns of parents about guns and potential gun injury prevention counseling from their child's health care provider. Based on information gathered...
from the focus group, a structured questionnaire was developed for distribution to parents in four urban pediatric clinics.

Focus Group

Subjects for the focus group discussion were recruited from one of the urban pediatric clinics. Ten parents participated in the 90-minute discussion, which was moderated by one of the authors (K.H.) and audiotaped for transcription. Eighty percent of the participants were female; 50% were African American, 10% Asian, and 40% white. Open-ended questions were used to explore the following topics: (1) opinions on the values or dangers of keeping guns in the home, (2) possible alternatives to guns for protection, (3) past experience with safety counseling from their child’s health care provider, and (4) attitudes toward counseling on prevention of firearm injuries from their child’s health care provider.

Survey

A 29-item structured questionnaire was developed, covering the following domains: (1) demographic characteristics, (2) experiences with guns and concerns about gun injuries, (3) perceptions of children’s abilities related to guns, (4) the presence of guns in the home and how any guns are stored, (5) experience with safety counseling from their child’s health care provider, and (6) attitudes toward firearm safety counseling from their child’s provider.

The questionnaire was distributed in four clinics that serve primarily low-income urban families. Two of these clinics were associated with a university teaching program and were staffed by pediatric residents, attending physicians, and nurse practitioners; one clinic was operated by the local health department and was staffed by pediatricians and pediatric nurse practitioners; and the fourth clinic was part of a community health center network and was staffed by family physicians. The clinics served children up to 18 years of age.

During a 6-week period in the summer of 1993, consecutive adults accompanying a pediatric patient to the clinic were approached by one of the authors (K.H.), a research assistant, or, in one clinic, by clinic staff, and asked to participate. Families accompanied by interpreters were not approached because the use of interpreters in completing the questionnaire may have led to bias.

Respondents completed the questionnaires and returned them in a sealed envelope to the researcher or to a box in the clinic. The survey was distributed in four clinics that serve primarily low-income urban families.

Results

A large majority of parents worried about protection for their home and family. However, there was a sense of futility about whether there was any effective way to provide this protection. Keeping a gun in the home was not considered to be a particularly good approach, and no parents viewed any of the alternative methods of protection, such as mace, house alarms, or dogs as feasible because they were either ineffective or expensive.

Parents appreciated any safety advice they had received from their child’s health care provider. They reported that the advice was most helpful when the health care provider combined it with an interest in the parents’ personal situation. A few parents were unfamiliar with the concept of safety counseling and expressed some concern that safety counseling might distract the provider from the main task of performing a good physical examination.

Most of the parents expressed an interest in firearm injury prevention counseling from their child’s health care provider. One concern that was expressed was that discussion of firearms in the home may lead to a report to child protective services if parents reveal that there are guns in their home.

Findings From Analysis of Questionnaire Responses

Of the 697 adults approached in the three clinics where questionnaires were handed out by a researcher, 20% were ineligible because of language barriers. The response rate among eligible adults was 88%. (The number approached, the number ineligible, and the number of refusals were not available from the clinic in which questionnaires were handed out by clinic staff.)

Eighty-two percent of the 510 adults who completed questionnaires were female. Eighty-five percent of the respondents were parents or step-parents, and the remainder were predominantly grandparents, other relatives, or foster parents. The ethnic background of the respondents was 48% African American, 19% white, 13% Asian, 7% Pacific Islander, 4% Hispanic, 3% American Indian, and 6% other. Twenty-five percent of the respondents were the only adult in the household, 35% were married and living with their spouse, 14% lived with a boyfriend or girlfriend, 15% lived with parents, 19% lived with other adult relatives, and 4% lived with other adult friends. (Respondents may have marked more than one choice when there were more than two adults in the household.)

Twenty percent of the respondents reported that they had at least one gun in their house, car, or garage, and one third of gun owners had more than one type of firearm. Eighty-one percent of gun owners reported having a handgun, 28% had a rifle, and 24% had a shotgun. A fifth of the respondents reported that they were aware of a gun in the homes of friends or relatives where their child played. In total, 34% of the parents reported that their child was potentially exposed to a firearm in their home or the home of a friend or relative.

The prevalence of guns in the home did not differ significantly among ethnic groups or by the ages of the children in the home. The highest prevalence of guns in the home was among parents less than 20 years of age (37%) (Table 1), but almost half (47%) of this group reported that the gun belonged to their parents or an adult in their household other than themselves or their spouse or partner. The lowest prevalence was among parents aged 30 to 50 years (15%).

Guns were three times more prevalent in the homes of those who were married or lived with a boyfriend or girlfriend than in the homes of those who were a single head of household (Table 1). Sixty-four percent of the men but only 23% of the women who had a gun in the home reported that they owned the gun themselves ($P < .001$).

Eighty-one percent of those with guns reported that personal protection was the reason for having a gun, and nearly half (49%) reported that they had had an incident involving a threat or intruder that
 TABLE 1. Gun Ownership by Age of Respondent and Household Composition

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percentage With Gun in Home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of respondent, y</td>
<td></td>
</tr>
<tr>
<td>&lt;20 (n = 41)</td>
<td>37*</td>
</tr>
<tr>
<td>20–29 (n = 191)</td>
<td>21</td>
</tr>
<tr>
<td>30–50 (n = 221)</td>
<td>15*</td>
</tr>
<tr>
<td>&gt;50 (n = 21)</td>
<td>24</td>
</tr>
<tr>
<td>Other adults in household</td>
<td></td>
</tr>
<tr>
<td>Spouse (n = 134)</td>
<td>24</td>
</tr>
<tr>
<td>Boy/girlfriend (n = 57)</td>
<td>31*</td>
</tr>
<tr>
<td>Parents (n = 52)</td>
<td>23</td>
</tr>
<tr>
<td>Other relatives (n = 89)</td>
<td>20</td>
</tr>
<tr>
<td>Friends (n = 20)</td>
<td>5</td>
</tr>
<tr>
<td>None—single adult (n = 116)</td>
<td>9*</td>
</tr>
</tbody>
</table>

* Difference from the mean in rate of gun ownership significant at P < .05.

made them feel fortunate to have a gun in their home.

Almost half of the gun owners reported that they kept their gun in a locked place separate from the bullets (Fig 1), and 35% of gun owners reported having a trigger lock. Thirty percent of gun owners reported keeping at least one of their guns loaded, either in an unlocked or a locked place, and 10% of gun owners kept a loaded gun in an unlocked place.

The most frequent reasons non-owners cited for not having a gun in the home were that guns were too dangerous (60%), that they had no need for a gun (31%), were afraid of guns (20%), or couldn't afford a gun (8%). Among the respondents who reported not having guns in their homes, 38% stated that they or someone else in their home had seriously considered acquiring a gun.

A majority of respondents expressed a fear of firearm injuries to themselves or family members: 38% of the respondents reported that they worried often or constantly that someone in their family might be shot, and another 27% worried sometimes. Twenty-seven percent of the respondents reported that someone in their family had been shot, and 16% of these respondents reported that more than one family member had been shot. More than half (57%) of these incidents involved a family member who was shot on purpose by someone else, 23% involved a shooting that occurred when a gun went off accidentally, another 23% involved a shooting by a bullet intended for someone else, and for 12% the incident was a suicide. Guns were more prevalent in the households of respondents who reported the history of a family member being shot than in households of respondents who did not report this history (27% vs 17%; P < .009). This association was most pronounced when the family member was shot by a bullet intended for someone else, with 47% of these households owning guns (P < .001).

When asked what they thought would be useful sources of gun safety information, respondents most frequently mentioned television and radio (43%). Other sources of information considered useful were pamphlets in the clinic (40%), police (37%), friends and family (35%), and posters in the clinic (34%). Only 17% of respondents felt that talking with a doctor or nurse would be useful. Gun owners were more likely to consider gun owner organizations as useful sources of information than were non-owners (27% vs 12%; P < .001). Eight percent of respondents said that they did not want any gun safety information from any source.

Only 11% of respondents reported that they had previously received some type of firearm injury prevention counseling from their child's health care provider. Many more had received counseling on the use of bicycle helmets (27%), poisoning prevention (50%), and car seats and seat belts (62%).

![Fig 1. How the gun is stored.](http://pediatrics.aappublications.org/)

Total is greater than 100% because some respondents had more than one gun stored in a different manner.
Respondents were asked to rate their perceptions of the helpfulness of three different approaches to gun injury prevention counseling: (1) information about children's developmental understanding of guns, (2) risks of home firearm ownership, and (3) information about the safe storage of guns (Table 2). The majority of respondents viewed all three approaches as either helpful or very helpful. Four percent reported that they would not find any of the three approaches to advice helpful. Responses did not differ significantly between gun owners and non-owners (data not shown).

Almost half of the respondents (47%) stated that they would follow advice by a provider not to have guns in the home, and an additional 37% reported that they would think it over. Four percent reported that they would like to follow the advice, but other adults in the household would not agree. A very small proportion (3%) said they would ignore the advice or would be offended by the advice (3%). Gun owners were more likely to think over rather than follow a provider’s advice not to have a gun in the home. However, a total of 74% of gun owners were willing either to think over or follow the advice, whereas only a minority would ignore or be offended by the advice (Fig 2).

**DISCUSSION**

This study provides new information about the reported prevalence of gun ownership, experiences with firearm injuries, and parental attitudes to firearm injury prevention counseling among low-income urban families attending pediatric clinics.

The prevalence of guns in homes in this population, though substantial, is lower than in national reports and other reports from suburban and rural settings. Other reports of gun ownership in urban settings have included families from a range of economic strata and have estimated that approximately one quarter of families have guns in the home. The prevalence of gun ownership in this study may have been lower because guns are more common in homes with male adults, and our study respondents were more often single women.

A strikingly high proportion of respondents in this study reported that someone in their family had been shot with a gun. The higher gun prevalence in families reporting past firearm injuries may stem from a heightened sense of need for protection or because the same family characteristics that motivate them to keep guns in the home also place them in situations at risk for violence. It is also possible that the higher prevalence of gun ownership preceded and was causative of the increased rate of injury.

The overall receptivity to clinical counseling about gun injury prevention was surprisingly high. The majority of parents were receptive to counseling about firearm safe-storage practices, as were parents in the Maryland study, but, unlike parents in the Maryland study, the majority of the adults, regardless of gun ownership, were willing to consider the advice that they should not have a gun in their home with children. Almost three quarters of gun owners in our sample would either follow or think over advice to remove guns from the home, compared with 17% of gun-owning parents in the Maryland study who were very likely or somewhat likely to follow such advice. The difference in results may be due in part to the differences in socioeconomic status between the study populations. The current study was from a low-income urban population, whereas the Maryland study was from a more middle-class, suburban and rural population.

A surprisingly low proportion of respondents considered talking with doctors or nurses as one of the useful sources of firearm injury prevention information, but office pamphlets and posters were often rated as useful. Most parents, however, rated all three of the specific informational approaches that a provider might use in counseling as helpful or very helpful. This discrepancy suggests that the initial concept of talking about guns with health care providers may seem novel to parents, possibly because few parents have had any experience with such discussions, but when the specific approaches are described, the information appears helpful. Alternatively, the information itself may be useful, but parents would prefer to acquire it from pamphlets or posters rather than from conversation with providers. Informational materials to take home from a clinic visit may be of particular value in gun injury prevention counseling. Because a significant proportion of respondents reported that the gun in their home was the possession of another adult in the household, pamphlets brought home from the clinic may facilitate further discussion of the issue with other adults in the home. Because television and radio were frequently rated as useful sources of information, public service announcements that promote firearm injury prevention may also be worthwhile and should be explored.

This study has several limitations. Because this study was limited to adults who bring their children to urban pediatric clinics, the results cannot be generalized to all poor urban parents. These are the adults, however, who can be reached by a pediatric primary care provider. Results may also not be generalized to non-English-speaking parents.

The sensitive nature of discussions about guns may lead to falsely negative responses about gun

**TABLE 2.** Perceived Helpfulness of Firearm Counseling Approaches

<table>
<thead>
<tr>
<th>Information on child development and when children can understand gun risks (n = 484)</th>
<th>Helpful/Very Helpful</th>
<th>Somewhat Helpful</th>
<th>Not at All Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information about the risks of having guns in the home (n = 475)</td>
<td>81%</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>Information about the safest way to store guns if kept in the home (n = 481)</td>
<td>72%</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Information on child development and when children can understand gun risks (n = 484)</td>
<td>82%</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>
ownership. However, one previous study validated the use of scientific survey questions about gun ownership among registered handgun owners. The likelihood that participants rated the responses to advice not to have any guns in the home by gun ownership.

Our data demonstrate that a significant percentage of low-income children using urban pediatric clinics are exposed to firearms in their homes and that many have previously experienced firearm violence in their families. Furthermore, our study demonstrates that most parents and guardians who bring their children to urban pediatric clinics are receptive to recommendations not to have a gun in the home. Further research is needed to determine the feasibility and effectiveness of firearm injury prevention counseling in the pediatric health care setting.

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