“They’re Too Smart for That”: Predicting What Children Would Do in the Presence of Guns

Susan M. Connor, PhD*, and Kathryn L. Wesolowski, BS‡

ABSTRACT. Objectives. We examined parents’ beliefs about how children would react to finding guns, with particular emphasis on how parents reasoned about children’s actions.

Methods. Based on a randomized telephone survey of Northeast Ohio residents, we focused on the 317 urban and 311 rural respondents who had children 5 to 15 years old in their homes. Respondents were asked about gun ownership and their expectations of how children would react to finding guns. Analysis examined responses in relation to various demographic and socioeconomic variables.

Results. All respondents—regardless of gun ownership, geography, race, gender, education level, income, or child age—were equally likely (%87%) to believe that their children would not touch guns they found. Fifty-two percent of those reasoned that children were “too smart” or “knew better.” Only 40% based their predictions on specific instructions they had given their children. Only 12% (15/122) of owners stored guns locked and unloaded. Only 3 of 13 variables tested were positively associated with safe storage: having a child 5 to 9 years old, having at least a 4-year college education, and having an income ≥$65 000 per year.

Conclusion. Results indicate that parental beliefs may effectively relieve adults of responsibility and place the burden on children to protect themselves. The implication for injury prevention is that caregivers’ unrealistic expectations of children’s developmental levels and impulse control may influence storage decisions or the inclination to address gun safety issues with children or other adults with whom children spend time (relatives, playmates’ parents). Pediatrics 2003;111:e109–e114. URL: http://www.pediatrics.org/cgi/content/full/111/2/e109; firearms, parents, child behavior, child development.

The United States has the highest rate of pediatric firearm-related mortality of any industrialized country. An estimated one third of American homes with children contain at least 1 firearm, and national surveys estimate that nearly half of all firearms in homes with children are not stored safely—that is, unloaded and locked, either in a compartment (such as a safe or lockbox) or with a device (trigger lock). Annual firearm injury rates per 100 000 have been estimated at 2.0 for children up to age 4, 2.2 for children 5 to 9, 15.4 for children 10 to 14, and 106.5 for children 15 to 19.

Unfortunately, high levels of parental safety-consciousness in other areas, such as child passenger safety, does not translate into higher rates of safe gun storage practices, indicating that parents do not view gun storage in the same way as other home childproofing and child safety issues. One possible explanation for the frequency of unsafe gun storage in homes with children is parents’ general confidence that their kids would not be tempted to handle or play with guns.

In stark contrast to parental expectations, investigations staged by experimenters as varied as child psychologists and television journalists have demonstrated that most children will readily handle a firearm, given the opportunity, regardless of how much previous gun safety education they have received. Given the gap between what parents believe and what children are inclined to do, we wanted to know how parents reasoned about their children’s actions—not just what parents believed their children would do in the presence of a gun, but why they believed it. Identifying common parental assumptions and how they may relate to parents’ decisions to own a gun, store a gun in a certain way, or talk to their children about guns, has immediate implications for injury prevention initiatives.

METHODS

Analysis was based on a subset of responses to an institutional review board-approved telephone survey of 400 urban and 400 rural households in Northeast Ohio that addressed a broad range of gun safety topics. Sample size was based on population size for the polled communities and a desired confidence level of 95%. The urban group consisted of residents of Cleveland and East Cleveland, and the rural group comprised residents of Concord and Madison Townships, which lie to the east of the Greater Cleveland metropolitan area and beyond the outer ring of suburbs. Demographic information for the 2 survey groups and their parent populations is listed in Table 1. The 2 groups are representative of urban/rural population dynamics in this area: the urban survey drew from a parent population that was predominantly African American, with a significant white minority, whereas the rural survey drew from a parent population that was almost exclusively white. Because no other ethnic group comprised >3% of either sample, only African American and white race were considered when analyzing the relationship of ethnicity to other variables.

A list of 4000 telephone numbers in each of the identified areas (rural, urban) of homes likely to have children <16 years of age was obtained by an independent market research firm. Within this survey frame, calls were randomized by dialing numbers from the list on a 10th name basis until 400 responses had been obtained for each group. Respondents had to be 16 years of age or older to participate and have at least 1 child under the age of 16 living in the home or spending time in the household on a regular basis (at

From the *Department of Pediatrics, Rainbow Pediatric Trauma Center, Rainbow Babies and Children’s Hospital, Cleveland, Ohio; and ‡Department of Pediatrics, Case Western Reserve University, Cleveland, Ohio. Received for publication Dec 17, 2001; accepted Sep 30, 2002. Reprint requests to (S.M.C.) Rainbow Pediatric Trauma Center, Rainbow Babies and Children’s Hospital, 11100 Euclid Ave, WRN 843, Cleveland, OH 44106-6039. E-mail: susan.connor@uhhs.com. PEDIATRICS (ISSN 0031-4005). Copyright © 2003 by the American Academy of Pediatrics.
least once per week). Respondents were asked about children who spent time in their households only if they indicated that no children were living in the home. Potential respondents were told that they did not have to have a gun to participate and assured that any information they provided would remain anonymous. No interventions were offered. Meeting the required sample sizes required 316 urban calls (240 ineligible, 342 refusals) and 2417 rural calls (88 ineligible, 266 refusals).

The main survey consisted of 19 core questions asked of all respondents and 14 conditional questions asked of some respondents, based on whether there were guns in their homes. The subset of questions considered for this study is listed in Fig 1; the 2 questions of primary concern here were asked of all respondents. When asked “What do you think your children would do if they found a gun in your home or someone else’s?”, respondents were given a multiple choice list of potential responses (leave it alone, tell an adult, look at it, play with it) and then asked whether they had any additional predictions or comments. The second question—“What makes you think they would react that way?”—was open-ended.

In analyzing parents’ expectations of their children, we limited analysis to the 317 urban and 311 rural respondents who had children between the ages of 5 and 15 in their homes and who made predictions about how their children would react to finding guns (the responses of 2 urban and 10 rural respondents who had children in these age groups were excluded from analysis because they did not make any predictions). When respondents had >1 child in the home, interviewers prompted them to specify any predicted differences in behavior between children. When respondents had both older and younger children, responses relevant only to children ≥5 were considered in analysis. For purposes of analysis, child age was categorized as 5 to 9 years, 10 to 14 years, or 15 years.

The open-ended nature of the “what makes you think so” question allowed us greater freedom to explore respondents’ thought processes, but establishing a basis for comparison required categorizing responses. A pair of coders working independently analyzed responses, grouped them into categories, and coded accordingly. The 2 coders compared categories to ensure consensus, then independently reviewed their coding of individual responses to assure they met the agreed-on criteria for each category. Next, the analysts compared their coding of a randomly selected 157 cases (25%), talking out variations until agreement was reached and recoding as required. One coder then merged the 2 coded data sets, recoding where necessary, and a final review of a randomly drawn subset of 63 cases (10%) by both coders was conducted to ensure consistency. Data were then entered into SPSS (SPSS Inc, Chicago, IL) 10.0 for analysis. Because of the nominal nature of the data, descriptive statistics and Pearson’s χ2 were the primary methods of analysis. Significance was defined as P < .05.

RESULTS

The 628 respondents had a total of 1115 children ages 5 to 15 living or regularly spending time in their homes (509 rural, 606 urban). The average number of children per household was 2 for both rural and urban respondents. Most respondents were female (79% urban, 68% rural). The majority of respondents in both groups were aged 35 to 44 years and had no more than a high school education. Despite the educational similarities, income levels were generally higher for the rural group (mode $45 000–$54 999) than for the urban group (mode $25 000–$34 999). Respondents were African American (64% urban, 1% rural), white (25.5% urban, 94% rural), Hispanic (3% urban, 1% rural), Asian (1% urban, 0.3% rural), multi-racial (1% of each group), and Native American (0.5% urban, 0.3% rural). Five percent of urban respondents and 2% of rural respondents declined to provide race.

National surveys estimate gun ownership in US homes with children at 30% to 35%.2,3,5 As a whole, 19% of respondents reported having guns in their homes: 11% (35) of the 317 urban respondents, as opposed to 28% (87) of the 311 rural respondents. Rural respondents were significantly more likely than urban respondents (χ2, P < .005) to have guns in their homes, despite the ages of their children (P < .005 for those with children 5–9 years of age, P < .005 for those with children 10–14 years of age, P = .0103 for those with 15-year-olds). Likewise, white respondents (25%) were more likely to have guns in their homes than were African American (11%) respondents (χ2, P = .001). Having younger children (5–9 years old) in the home was not associated with lower
rates of gun ownership for respondents of either race ($\chi^2$, $P = .954$ for African Americans, $P = .559$ for Caucasians).

Child age groups were not mutually exclusive categories: 51% of respondents (317/628) had >1 child, and 62% of those (197/317) had children in >1 age group. Only 4% ($4/8$) of these 197 respondents made different predictions for children of different age groups, even when prompted to do so. As a result, comments from a single respondent could be counted in >1 category simultaneously when data were analyzed by child age group.

The 506 respondents who did not report having guns in their homes gave similar responses when asked why they did not have firearms, regardless of respondent race or geographic region. Forty-three percent of nonowners said guns were dangerous, 42% said there was no reason to have one, 4% said percent of nonowners said guns were dangerous, and 2% had no specific reason. Only 5% (27) of non-gun-owning respondents specifically cited having children in the home as a primary motivation.

Of the 122 respondents with guns in their homes, handguns were more common in the urban group ($\chi^2$, $P = .009$), whereas long guns were more common in the rural group ($\chi^2$, $P = .0001$): 63% of urban and 37% of rural gun owners reported having at least 1 handgun, whereas 49% urban and 83% rural reported having at least 1 long gun. Despite the difference in gun types, a majority of both groups described hunting or recreation (43% urban, 75% rural) as the reason for gun ownership, rather than self defense (31% urban, 20% rural). Statistically, however, rural owners were more likely to report having guns for hunting or recreation that were urban owners ($\chi^2$, $P = .001$). A subgroup of owners also reported being gun collectors, having guns for work-related reasons, or having inherited guns.

In 52% of cases, respondents attributed gun ownership to spouses or other family members. Although most respondents were female, most firearm owners (87%) were reported to be men in the household. For the sake of simplicity, the term “owners” is used here to describe gun-owning households, rather than to imply that the respondent claimed personal ownership of the firearm in his or her home.

Safe storage was defined as storing a gun unloaded and locked, either with a device or in a compartment. Rural (11%) and urban (14%) owners had similar rates of safe gun storage ($\chi^2$, $P = .3960$). Very few variables were associated with increased rates of safe storage:

- having children 5 to 9 years old ($\chi^2$, $P = .0458$): 30% of respondents with children in this age group stored guns safely, compared with 12% of those without
- having at least a 4-year college education ($\chi^2$, $P = .0298$): 28% of these respondents stored guns safely, compared with 8% of those with a high school diploma or less, and 10% of those with more than a high school diploma but less than a 4-year degree
- having an income of $65 000 a year or more ($\chi^2$, $P = .0191$): 24% of these respondents stored guns safely, compared with 11% of those with incomes < $25 000, none of those with incomes in the $25 000-$44 999 range, and 9% of those with incomes in the $45 000-$64 999 range.

Likelihood of safe storage was not significantly associated with respondents’ geographic residence, having children 10 to 14 years of age, having a 15-year-old child, type of gun owned, reason for having a gun, believing children were likely to touch guns they found, rationale for believing children would or would not touch firearms, or respondent race, gender, or age group.

When asked what their children would do if they found guns in their own homes or someone else’s, the vast majority of parents (87%) predicted that their children could be trusted to act responsibly (ie, leave the area, tell an adult, or leave it alone). Only 13% (80) of respondents predicted their children would touch guns (bring it to an adult, get rid of it, look at it, or play with it). Table 2 provides an overview of predictions, stratified by respondent residence and firearm ownership. Gun ownership ($\chi^2$, $P = .284$), geographic area ($\chi^2$, $P = .531$), race ($\chi^2$, $P = .323$), education level ($\chi^2$, $P = .81$), income level ($\chi^2$, $P = .239$), and respondent gender ($\chi^2$, $P = .505$) were all unassociated with predictions of child action. Respondent predictions were, however, related to child age group. Respondents with children 5 to 9 years old were more likely than those with older children to predict that their children would touch guns ($\chi^2$, $P = .024$). Eighty-five percent of respondents with children 5 to 9 years old predicted their children would act responsibly, compared with 89% of those with children 10 to 14 years old and 93% of those with 15-year-olds.

Respondents’ rationales for their predictions were a principle concern of this study. Table 3 lists the most common rationales offered by respondents who believed that their children would not touch guns, with representative samples of the kinds of responses that fell into each category. Of the 548 respondents who made “would not touch” predictions, 53% reasoned that their children were “too smart” to touch guns. Forty percent of respondents based their predictions on specific instructions they had given their children (for example, “that’s what I’ve told them to do”). Another 4% reported that they “just hoped” children would not touch guns, and 2% based predictions on past experience, and 1% could not offer a specific reason for making that particular prediction.

Respondents were just as likely to base predictions of responsible child action on a belief in some innate sense of responsibility in their children (“too smart”) as on specific instructions they had given ($\chi^2$, $P = .254$). Respondent race was not significantly associated with the rationale given for a “wouldn’t touch” prediction ($\chi^2$, $P > .25$). The “too smart” rationale was just as common ($\chi^2$, $P = .3955$) for younger children (5–9 years old) as for older children (10–15 years old) even when tests were stratified by urban/
rural residence ($\chi^2, P = .9127$) or respondent education level ($\chi^2, P = .5606$).

Of the 80 respondents who predicted that their children would touch guns, 86% reasoned “that’s what kids do” (see Table 4 for examples), 8% thought their children would think it was a toy, 1% reported that they had taught their children to bring guns to adults, and 5% were not sure. Reasoning that children were naturally curious and unpredictable was the primary rationale for predicting that children would touch found guns, despite geographic region ($\chi^2, P = .2130$) or gun ownership ($\chi^2, P = .5545$).

Although respondents with 15-year-olds were least likely to predict their children would touch found guns, respondents with children in the 5- to 9-year and 10- to 14-year age groups were equally likely to make such a prediction ($\chi^2, P = .1183$). When considering children under the age of 15, parents of younger children did not make significantly more “would touch” predictions than parents of older children.

Of the 317 respondents that had >1 child between the ages of 5 and 15, only 3% (11) made different predictions for different children. Dissimilar predictions were age-related for only 6 of these, however; in all 6 cases, respondents predicted that younger children would be more apt to touch guns, while older children would be more responsible. Three of the 11 based their disparate predictions on gender differences, reasoning in effect that girls were naturally responsible, whereas “boys will be boys.” The 2 remaining respondents based their different predictions on facets of their children’s personalities that they did not associate with age or gender—for example, 1 respondent reported “I have two normal, reasonable-thinking children, but the third has to test and prove everything.”

**DISCUSSION**

Several study limitations should be noted. Although the majority of gun owners are male, the majority of respondents in this survey were female, a situation that has 2 primary implications for interpreting results. First, some female respondents may not have been aware of the presence of guns in their homes, leading to a possibility that the study underestimates gun ownership in either or both groups (rural and urban). Secondly, an individual who knows there is a gun in the home but is not the true owner or user of the firearm may not always be aware of how the gun is stored. However, only 1 of the 122 respondents who reported having guns in their homes was unable to describe how the gun was stored.

In addition, because 97% of respondents with >1 child did not make different predictions for different children, a parent’s single response could be counted more than once when analyzing responses by age group. Despite the problematic nature of stratifying by age, we believed it was important to consider whether child age factored into respondents’ predictions, their rationales for making those predictions, and their gun ownership and storage practices. We attempted to reduce redundancy by dichotomizing
The majority of respondents who did not think their children would pick up or play with guns they found offered reasoning that fell under the category of “they’re too smart for that.” These responses were based on faith in children’s good judgment or abilities to appraise risk, rather than specific (or even nonspecific) instructions. Considerations such as child age or having a gun in the home were not related to respondents’ likelihood of making such predictions. Respondents with children 5 to 9 were just as likely as those with 15-year-olds to offer predictions that were unconnected to practical experience or instruction, but were instead based on general feelings that children would “know what to do” or would “do the right thing.” Parents who gave the “they’re too smart for that” response revealed unrealistic expectations of children’s ability to predict consequences, weigh costs and benefits, resist peer pressure, and make rational, informed choices. By assuming that children could be trusted not to pick up or play with guns because they had been told not

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<th>Category</th>
<th>Sample Responses</th>
<th>Child Age (Years)</th>
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<tbody>
<tr>
<td>Told them not to</td>
<td>Because that’s what we’ve told him to do.</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>They are constantly reminded that guns are dangerous and not to play with them.</td>
<td>8, 13</td>
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<tr>
<td></td>
<td>We’ve instructed them and shown them what a gun can do.</td>
<td>8, 9, 10</td>
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<td></td>
<td>They were taught to tell an adult.</td>
<td>5, 6, 7</td>
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<td></td>
<td>I have talked to them about guns and told them they are only for grown-ups.</td>
<td>6, 9, 11</td>
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<td></td>
<td>I have told him to tell an adult in that situation.</td>
<td>8</td>
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<td></td>
<td>I’ve taught them that you would be more likely to go to jail because of your race,</td>
<td>8, 15</td>
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<td></td>
<td>so you must avoid guns at all costs and be careful to avoid explosive situations.</td>
<td></td>
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<td></td>
<td>I’ve told them to leave the house where the gun is.</td>
<td>5, 7</td>
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<td></td>
<td>I told them what to do and have quizzed them on it.</td>
<td>7, 15</td>
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<tr>
<td>Too smart</td>
<td>It’s common sense.</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Because they know better.</td>
<td>5, 7, 9</td>
</tr>
<tr>
<td></td>
<td>They know it [a gun] doesn’t belong in my house.</td>
<td>11, 12, 13</td>
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<td></td>
<td>She knows guns are dangerous and can hurt someone.</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Because he watches tv and he knows how dangerous guns are.</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>I think they know that would be the right thing to do.</td>
<td>7, 8, 9</td>
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<td></td>
<td>They know what’s right.</td>
<td>6, 9</td>
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<tr>
<td></td>
<td>He knows what is expected of him.</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>They are pretty responsible for their age.</td>
<td>5, 7, 9</td>
</tr>
<tr>
<td></td>
<td>She knows better than to fool around with a gun.</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>She’s a sensible girl.</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>He knows the consequences.</td>
<td>15</td>
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<td></td>
<td>She has common sense and is logical.</td>
<td>10</td>
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<td></td>
<td>Told them not to</td>
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to or were “too smart” to do so, parents inadvertently place the burden on children to be responsible for their own safety, rather than the adults in their lives.

Respondents who offered the “I’ve told them not to” rationale when asked why they believed their children would not touch guns based their reasoning on information they had given their children. As Table 3 illustrates, however, the extent of instruction was often unclear, and only about half of parents reported providing specific instructions for handling such a situation (ie, “I’ve told them to leave the house where the gun is”). Many respondents appeared to believe that generalized comments about the danger of guns—“I’ve talked to them about guns”—would suffice. Parents’ confidence in the effectiveness of their instruction (whether or not it involved clear and specific directions) could lead to a dangerous sense of complacency, given researchers’ findings that children who “know better” are no less likely to pick up guns they find.10–12

The 14% of urban and 13% of rural respondents who predicted their children were likely to look at or play with guns they found offered reasoning that could be interpreted as revealing a more realistic outlook in assessing children’s responses and accepting that—regardless of what they are told to do—children are curious and unpredictable. Unfortunately, this pragmatic outlook was not matched by a practical storage response: parents who thought their children would not look at or play with guns they found were no more likely to store guns unloaded and locked than respondents who predicted their children would not be inclined to touch guns.

All parents want to keep their children safe, but gun safety initiatives that focus on generic prescriptions to keep guns secured or general admonitions to talk to children about gun safety may fail to address a key issue: if the majority of parents believe their children are already safe, they may not interpret outreach efforts or interventions as applying to them or their children. Although the results of this study are far from definitive in establishing cause/effect relationships between parental beliefs and storage or ownership patterns, they do indicate that physicians and public health professionals who address gun safety topics would be wise to think about the issue not only in terms of what parents believe about guns, but also in terms of what they believe about children.

In presenting early findings from this survey to a panel of law enforcement officers, we witnessed myriad demonstrations of this “selective blindness” phenomenon, in which adults who agree in principle that guns should be stored in ways that are inaccessible to children do not see the need for caution with their own children. Gun safety is thus framed as a matter of protecting other people’s children, rather than one’s own. While police officers were quick to embrace the idea of teaching others of the need to properly secure their firearms, both male and female officers who had children in their homes were open in admitting that they did not—and would not, even after the presentation—secure their firearms with locks or lock boxes. The number one rationale we heard from this audience? “My kids know better.”

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