What Are Parents Willing to Discuss with Their Pediatrician About Firearm Safety? A Parental Survey

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Objective To determine if parents are receptive to discussing firearm safety with their pediatrician.

Study design Parents completed a self-administered paper survey during a pediatric office visit. Responses of those who confirmed and denied household firearms were compared using Fisher exact test.

Results Between March 23 and May 21, 2015, 1246 of 1363 eligible parents (91.4%) completed the survey (22.6% African American, 79.5% at least some college education); 36% of respondents reported household firearms (owners). An additional 14.3% reported that their child was often in homes that contained firearms. Of the 447 owners, 25.1% reported ≥1 firearm was stored loaded, and 17.9% carried a firearm when leaving the house. Seventy-five percent of parents thought the pediatrician should advise about safe storage of firearms (owners 71.1%, others 77.5%), 16.9% disagreed (owners 21.9%, others 13.4%), and 8.2% were uncertain. Sixty-six percent thought pediatricians should ask about the presence of household firearms (owners 58.4%, others 70.9%), 23.2% disagreed (owners 31.5%, others 17.8%), and 10.5% were uncertain. Differences in parental opinions between owners and other parents were statistically significant. Twenty-two percent of owners would ignore advice to not have household firearms for safety reasons, and 13.9% would be offended by such advice. Only 12.8% of all parents reported a discussion about firearms with the pediatrician.

Conclusions Avoiding direct questioning about firearm ownership and extending the discussion about why and how to ensure safe storage of firearms to all parents may be an effective strategy to decrease firearm-related injuries and fatalities in children. *(J Pediatr 2016;179:166-71).*

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Children and adolescents in the US who live in or visit homes with firearms are at an increased risk of fatal and nonfatal firearm-related injuries, suicide, and homicide.[1] In 2013, 2465 children and adolescents under 20 years old died from firearm-related incidents, 15 091 visited emergency rooms, and 6213 were hospitalized.[2] The American Academy of Pediatrics recommends that pediatricians screen patients for the presence of household firearms. For gun owners, the American Academy of Pediatrics advises emphasizing that a home without guns is the safest option and counseling firearm removal for parents of adolescents. Advising safe storage is also encouraged.[3] They endorse the Connected Kids: Safe, Strong, Secure violence prevention program[4] that has been operationalized in the Bright Futures Guidelines for health supervision visits.[5] However, prior surveys of physicians and parents suggest that few physicians counsel families about firearm safety.[6-12]

Physicians reported barriers to effective firearm safety counseling include lack of training and time, low expectancy that counseling is effective, and uncertainty of what to say as well as a desire not to offend parents.[6,10,11,13,14] More recently, there have been unsuccessful legislative efforts to prevent physicians from discussing firearm safety with parents in over 10 states, with a continuing protracted legal battle in Florida.[15,16] These events have likely increased physicians' uncertainty about what they can say and their concern that discussing the topic may be received negatively. In addition, public attitudes toward firearms have changed. Now, over 60% of Americans believe that a "gun in the house makes it a safer place to be," compared with 42% in 2004,[17] and more Americans own firearms for protection than any other reason.[18]

The influence of changing public attitudes toward personal safety and firearms on parents' receptivity to firearm safety counseling by the pediatrician is unknown. The objective of this study was to assess if parents were open to receiving household firearm safety advice from their pediatrician and to identify what information parents would find useful.

Methods

Between March 23, 2015, and May 21, 2015, we conducted a cross-sectional study of parents attending their pediatric primary care office. The study was approved

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by the Washington University Human Research Protection Office, requiring verbal consent from 1 parent. Participants were parents or legal guardians (all subsequently referred to as parents) with a child accompanying them for an office visit. Parents who were not proficient in English or had already completed the survey were excluded.

Pediatrician members of the Washington University Pediatric and Adolescent Ambulatory Research Consortium were asked if they would permit a research assistant to recruit study participants in their practice waiting room. The Washington University Pediatric and Adolescent Ambulatory Research Consortium is a practice-based research network of 33 community-based pediatric practices in St. Louis, Missouri that is affiliated with Washington University School of Medicine. At each participating site, the research assistant was present ~8 hours/day on weekdays and recruitment occurred over 1-2 weeks. The research assistant invited parents to participate in the study, explained the nature of the study and participation requirements, and answered questions.

Survey Tool

The 29-item self-report questionnaire, developed by the study team, was based on the literature and previous instruments (with permission),[7,8] and was modified after review by participating physicians and pilot testing with 7 mothers. Parents were asked if they thought pediatricians should inquire about household firearms, provide safe storage advice, and selected from a list of options to indicate their reaction to advice from a pediatrician not to have firearms in the house for child safety. They indicated if they had previously discussed firearm safety with their pediatrician as well as if they had taught their children firearm avoidance (ie, what to do if they came across a firearm – not to touch it, leave the area, and tell an adult immediately). They also indicated if they usually asked about the presence of firearms in playmate's homes. Parents selected from a list of options to indicate what information about firearm safety they would find useful. Demographic information was also collected.

To assess the child's potential access to firearms, respondents indicated if firearms were kept in or around their home and if they knew of any firearms in the houses of friends or relatives where their child regularly visited. Firearm-owning parents (owners) indicated if their firearms were stored in a separate location from ammunition, if any were currently loaded and accessible to children, and if they carried firearms with them when they left the house. They also indicated how long they had been a firearm owner and selected from a list of options to indicate how they had learned about firearm safety.

Each paper survey took less than 5 minutes to complete and had a Flesch-Kincaid reading level of 6.6, indicating the survey should be understandable by an average individual with a sixth grade education or higher.

Statistical Analyses

Study data were collected and managed using Research Electronic Data Capture data tools hosted at Washington University.[19] Parents who left all but the first page blank were considered to have declined the survey. Summary statistics are reported as percentages for categorical variables, and the mean and SD or median and IQR for continuous variables. There were few missing data. In subgroup analyses of 1188 parents who confirmed (447) or denied (741) household firearms, we used Student *t* test or Fisher exact test to compare characteristics and attitudes about firearm safety between groups using a probability of $P < .05$ (2-tailed) to establish statistical significance. For these comparisons, we dichotomized health insurance as work-related or other, family income as <$60 000/year vs ≥$60 000/year, parent's race as white vs other, and place of residence as rural vs other. All statistical analyses were performed using Stata 12 (StataCorp LP, College Station, Texas).

Results

The 13 participating practices (11 group, 2 solo) were located throughout the St. Louis metropolitan area (12 Missouri, 1 Illinois; 5 suburban, 5 urban, 3 rural). Network practices that did and did not participate in the study did not differ in practice size, location, and percentage of patients with work-related and Medicaid insurance and of white and African American race. During the process of subject recruitment (median duration 4.4 days/practice, range 3-8 days), a total of 2103 individuals had an office visit when the research assistant was present. Of these, 259 (12.3%) could not be approached by the research assistant as they were immediately called to see the physician. Of the 1844 invited to participate, 481 (26.1%) were ineligible (131 nonlegal guardian, 69 minor, 40 already completed survey at a prior visit, 8 non-English speaking, 7 prenatal visit, 226 no appointment [eg, collecting a prescription]). Of the 1363 who were eligible, 8.6% declined (106 declined and 11 left most of the survey blank), and 1246 (91.4%) completed the survey (median 81 surveys/practice, range 30-185).

Most respondents were the child's parent (76.7% mother, 17.1% father), 79.5% had at least some college education, 22.6% were African American, and 23.7% had Medicaid coverage (**Table I**). The median number of children in the home was 2 (IQR 1-3), and the median age of the child with the appointment was 5.0 years (IQR 1-11).

Firearm Access

Thirty-six percent (447/1246) of parents reported that a firearm was in the child's home (owners) (59.5% none, 4.7% missing). Of these, 66.2% reported owning more than 1 firearm. An additional 14.3% who reported no household firearms, reported firearms in homes of relatives or friends where their child regularly visited. Thus, 50.2% (625/1246) children were often in homes that contained firearms (115 own home, 178 other homes they regularly visited, 332 both own and other homes). Few (12.7%) parents asked playmate's parents about household firearms (70.9% did not routinely ask, 15.0% did not routinely ask but will do so when the child is older, 1.4% missing).

Among the 447 owners, 21.6% did not keep their firearms and ammunition in separate locations, and 25.1% reported at