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## The Third Rail of Pediatric Communication: Discussing Firearm Risk and Safety in Well-Child Exams

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### ABSTRACT

This research endeavors to understand how pediatricians and parents discuss – or do not discuss – firearm risks for children during well-child visits. Through individual semi-structured interviews with 16 pediatric providers and 20 parents, the research explores discursive barriers to open conversation, perspectives on anticipatory guidance, and new ideas for culturally competent messaging. The research focuses particularly on how parents' and providers' perspectives on firearm risk communication are tied to cultural norms and expectations. One salient theme that emerged is that the American Academy of Pediatrics recommendation that pediatricians ask parents about ownership status is deemed undesirable by pediatricians and parents because of the delicate intercultural setting. Born out of pediatric and parent experiences, and mindful of culturally salient barriers, this study offers alternative strategies for discussing firearm risk in well-child exams.

### Introduction

In the United States, children and adolescents who live in and visit homes with firearms are at an increased risk of fatal and nonfatal firearm-related injuries, suicide, and homicide (Anglemyer, Horvath, & Rutherford, 2014; Dahlberg, Ikeda, & Kresnow, 2004; Ruback, Shaffer, & Clark, 2011). A recent study found that up to 32% of youth suicides and accidental deaths could be prevented by adults safely storing firearms in homes where children reside (Monuteaux, Azrael, & Miller, 2019). For American youth (ages 1–17), the second leading cause of injury-related death is due to firearm homicide (Fowler, Dahlberg, Haileyesus, Gutierrez, & Bacon, 2017). One in three homes contain a firearm, with at least 25 percent stored loaded (Garbutt, Bobenhouse, Dodd, Sterkel, & Strunk, 2016). Approximately 30 percent of firearm owners with children at home report keeping an unlocked, loaded gun easily accessible in the home (Parker, Horowitz, Rohal, & Johnson, 2017). The American Academy of Pediatrics (AAP) has worked to reduce firearm risks for children (Dowd et al., 2012). To that end, the AAP suggests that pediatricians undertake steps to protect children from guns, including asking if a firearm is in the home, counseling parents about gun-related dangers, and promoting safe firearm storage (Parmet, Smith, & Miller, 2017). Despite these recommendations, only 13 percent of parents reported discussing firearm risk with their pediatric providers (Garbutt et al., 2016).

This study endeavors to understand how pediatricians and parents communicate – or not – about firearm risk for children. While several studies investigate the communication

issues between doctors and patients (Brashers, Goldsmith, & Hsieh, 2002; Robinson & Stivers, 2001), this is the first study to explore parent and pediatrician perspectives on well-child exams with regard to the topic of firearm risk and safety. In addition, this study expands upon the appeal from Betz and Wintemute (2015) for physicians to use culturally competent communication about firearm safety when working with different subpopulations of gun owners who have varying reasons for firearm-ownership. Betz and Wintemute call for “a new kind of cultural competence” in that “firearm ownership can be seen as linked to membership in a particular culture” (p. 1–2). In this study, a framework of cultural competence is used to understand how parents and providers reference cultural norms and expectations when they talk about exam-room communication. Through interviews with pediatricians and parents, this research poses questions about perspectives on anticipatory guidance, the discursive barriers to open conversation, and strategies for culturally competent messaging.

### *Extant anticipatory guidance and pediatric communication*

Advice communicated to parents by healthcare providers about future developmental issues or potential risks is referred to as anticipatory guidance, and it is a valuable part of well-child care (Schuster, Duan, Regalado, & Klein, 2000). Anticipatory guidance from the AAP provides recommendations on firearm risk prevention. Similarly, the American College of Preventive Medicine (Strong, Ballard, & Braund,

2016) supports gun safety laws<sup>1</sup> that regulate child access, safety, and design. Earlier surveys found that a majority (98%) of pediatricians believed that firearm prevention counseling should be provided to all firearm-owning families (Becher & Christakis, 1999). However, more recent data suggest that less than half of providers discuss firearms in the home (Butkus & Weissman, 2014). Furthermore, physicians were viewed by gun owners as among the least effective at communicating about safe gun storage (Crifasi, Doucette, McGinty, Webster, & Barry, 2018). With the present study, we aim to understand why some providers are reluctant to discuss firearm safety and why some firearm-owning parents find the safety information problematic.

Pediatricians are more likely to talk to patients about firearm safety if they believe it will prevent an injury, if they feel confident providing the information, and if they feel it is their responsibility (Yanger, Remick, & Wilkinson, 2018). However, selective counseling toward patients perceived to own firearms may lead pediatricians to choose not to counsel certain patients' families because of uninformed judgments that these families are unlikely to own guns (Becher & Christakis, 1999). Obstacles to providing anticipatory guidance include political concerns, not having adequate information available, and worrying about the legality of discussing firearms in the exam room. Time limitations are also a concern for both parents and providers (Barkin, Ryan, & Gelberg, 1999).

Previous studies have suggested the need for school and professional groups to give doctors information and techniques to discuss firearm safety with patients (Yanger et al., 2018). Differences among pediatric clinician characteristics, such as ownership status, rural/urban location, gender, and experience with gun injuries, have been found to influence anticipatory guidance (Olson, Christoffel, & O'Connor, 2007). Providers also indicated that recommending safe storage of firearms is more agreeable than recommending removal from the home. Most providers believe they could discuss firearm safety, but they needed more time, and one-third said they could use more training (Olson et al., 2007). Three-fourths of the American College of Physicians internists believed there was "somewhat/to a great extent" of need for an education program focused on increasing the knowledge and skills of physicians in how to counsel patients in the prevention of firearm injury (Butkus & Weissman, 2014).

However, several critical obstacles restrict pediatricians' communication with parents about firearm risk. Proposed, enacted, or overturned state laws prohibit physicians from routinely asking patients about firearm ownership and entering information about ownership into patient records (Parmet et al., 2017). These restrictions have a direct effect on patient-physician communication, which often includes characteristics such as jargon-free questions, elaboration by the patient, and conveying empathy (Wette & Hawken, 2016). Given that effective patient-physician communication can bring positive outcomes on comprehension (Levinson, Gorawara-Bhat, & Lamb, 2000; Richard, Glaser, & Lussier, 2017; Traino & Siminoff, 2016), the exam-room restrictions about discussing firearm risk may prevent parents from getting safety information. Furthermore, the proposal of state laws controlling

physicians' speech, whether they are enacted or not, can have the effect of chilling physician speech concerning guidance about firearm risk (Wintemute, Betz, & Ranney, 2016). In response to the speech proposals, medical and legal organizations advocate for physicians to be able to communicate open-endedly with patients about firearm risk (Schroeder, 2017). Even though courts have deemed physician gag laws unconstitutional because they restrict speech, Lee and Curfman (2017) contend more challenges to medical speech will arise because this area of law remains unsettled.

### **Factors among parents**

Another possible dialogic obstacle is a wide range of intercultural differences among subpopulations of firearm owners/non-owners in the U.S. (Betz & Wintemute, 2015). Parents' perspectives toward firearm risk may vary depending on demographics, ideologies, heritage, religious beliefs, neighborhood safety, children's ages, or other factors. Although the number of parents who have considered the prospect of discussing firearm injury prevention with providers is low (17%), three-fourths said they would consider advice if given by a provider regarding firearm safety (Haught, Grossman, & Connell, 1995). The discussion of firearm access or the restriction of firearm access is often considered inappropriate in clinics because of political controversy (Celinska, 2007), cultural sensitivity (Kahan & Braman, 2003), and breaching privacy (Marino, Wolsko, Keys, & Pennavaria, 2016). Culturally specific messaging can improve voluntary restriction of access to firearms in the home (Marino, Wolsko, Keys, & Wilcox, 2017). In one study, Marino et al. (2017) developed "gun culture" messaging from focus groups and interviews and then compared four different suicide prevention messages (i.e., control, standard, gun culture, and standard+gun culture). Gun culture has been previously defined as a culture in which guns have an enormous impact on daily life and personal identity (Bellesiles, 2000; Kalesan, Villarreal, Keyes, & Galea, 2016). Thus, to appropriately communicate about firearm risk with parents in clinics, culturally specific intervention messages are necessary.

Similar to the conceptual definition of gun culture, the *gun culture* message in Marino et al.'s study emphasized protecting Second Amendment rights while keeping oneself, family, and friends safe, which was framed as a proud and responsible behavior. The *standard* message was derived from the National Suicide Prevention Lifeline. The results showed that the message combining gun culture content with standard suicide prevention content generated the greatest likelihood of restricting firearm access (Marino et al., 2017). This effect was especially strong for respondents who were more politically conservative, resided in rural areas, and strongly supported gun rights. Although Marino et al.'s (2017) study only focused on suicide prevention, the findings about the importance of cultural dimensions of firearm messages provide insight for the current study. We need to know more about how cultural differences influence physicians' communication and parents' willingness to engage in that communication because other studies (Betancourt, Green, Carrillo, & Ananeh-Firempong, 2003; Betz & Wintemute, 2015; Teal &

Street, 2009) suggest that improved cultural competency could enhance understanding and childhood safety.

### **Firearm risk and storage in the U.S. and in Missouri**

In 2017, there were 39,733 firearm-related deaths, including 14,542 deaths by homicide, and 486 deaths by accidental discharge in the U.S. (“Centers for Disease Control and Prevention,” 2019a). Available firearms in the home increase suicide risk, especially if firearms are not safely stored (Anestis & Houtsma, 2017; Hamilton & Kposowa, 2015; Miller, Barber, White, & Azrael, 2013; Miller, Warren, Hemenway, & Azrael, 2015). Specifically, the state of Missouri suffers from the 6th highest firearm death rate in the nation (CDC, 2019b). In 2017, the total number of children (ages 0–14) who died from firearm injuries increased to 531, and Missouri alone had 62 (CDC, 2019a; DSS, 2018). Despite the high risks associated with unsecured firearms, a national study indicated 4.6 million children live in a home with at least one firearm that is loaded and unlocked (Azrael, Cohen, Salhi, & Miller, 2018).

Although the safest choice to avoid injury, homicide, and suicide by firearm is to remove firearms from the home (Anglemyer et al., 2014), it is critical to consider realistic and functional storage practices in order to improve safety behavior (Lund & Aarø, 2004). The practices of storing firearms unloaded and locked, with ammunition locked in a separate location, have been shown to reduce injury and death caused by child access to a firearm (Grossman, Mueller, & Riedy et al., 2005; Violano et al., 2018). These safety precautions are also listed in the handgun instruction manuals for the top-selling gun manufacturers (i.e., Smith & Wesson, Remington, Ruger, Sig Sauer, Beretta, Taurus [as listed in Huus, 2018]). A systematic review of studies that compared firearm storage methods and injuries found that although there was a paucity of evidence about gun locks,<sup>2</sup> the use of gun locks can also reduce unintentional firearm injuries (Violano et al., 2018).

Personal and home protection is a top concern for many firearm owners, and many desire to keep a loaded firearm at the ready, trumping their desire for safer storage practices (Azrael et al., 2018). Rather than foregoing all safety precautions, special measures have been suggested, such as the use of biometric safety boxes<sup>3</sup> (Crossen, Lewis, & Hoffman, 2015; Garbutt et al., 2016; National Shooting Sports Foundation, 2013). While having a loaded firearm in a biometric box is not considered as safe as storing the firearm and ammunition separately, it does add an extra level of safety (Horman, 2012; Krishan & Mostafavi, 2018). Based on the varying types and degrees of safe storage, the ideal message from pediatric providers could be nuanced and inclusive to suit parents’ differing frameworks of risk.

### **Cultural competence**

Effective communication between pediatricians and parents is the centerpiece of reducing children’s firearm risk. Sociocultural barriers between patients and providers can prevent effective communication about health outcomes,

patient satisfaction, and patient compliance (Betancourt et al., 2003; Teal & Street, 2009). In the healthcare field, a “culturally competent” system should incorporate “the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamics that result from cultural differences, expansion of cultural knowledge, and adaptation of services to meet culturally unique needs” (Betancourt et al., 2003, p. 294). Prejudices and assumptions made by providers about culturally different patients can hinder communication efforts (Paternotte, van Dulmen, van der Lee, Scherpbier, & Scheele, 2015). In addition, assumptions, such as those based on previous experiences that have contributed to a negative or a monolithic idea about a particular group, can cause discrimination or unequal treatment (Hausmann et al., 2011; Sleath, Rubin, Campbell, Gwyther, & Clark, 2001; Wall, Chudley, Skelton, & Jones, 2007). Contextually appropriate communication skills and cross-cultural knowledge can help providers appeal to culturally different patients (Betancourt et al., 2003; Teal & Street, 2009).

Gun culture is different from the usual understanding of culture in “cultural competence,” which typically refers to cultural differences among people of different races, ethnicities, or socio-economic status. Similar to these categorizations, Betz and Wintemute (2015) state that gun ownership can be considered a link to particular cultural groups that have shared values and attitudes, and they entreat physicians to adopt culturally competent messaging. Therefore, in the current study, we apply the framework of cultural competence to gun culture. The existence of gun culture is not new in the U.S., given the lawful possession of firearms by a large segment of the population (Hofstadter, 1970), and it is rooted in the values of individualism, whether involvement is for defensive or recreational purposes (Celinska, 2007). A review from Yamane (2017) summarized that gun culture was found to be associated with political orientation, racial composition, and population density (Thompson & Stidham, 2010). Ideas of risk are also informed by culture. Individuals tend to form risk perceptions, which “reflect and reinforce one or another idealized ‘way of life’” (Costanza & Kilburn, 2004; Kahan, Jenkins-Smith, & Braman, 2011, p. 148). Each way of life “has its own typical risk portfolio,” which “shuts out perception of some dangers and highlights others” through social and cultural bias (Douglas & Wildavsky, 1982, pp. 8, 87). Thus, to enhance cultural competence in firearm communication, it is necessary to understand and acknowledge different attitudes about firearm risk and cultural norms in order to foster strategies responsive to cultural differences.

### **Research questions**

In this study, we posit that it is necessary to understand how pediatricians and parents perceive firearm risk communication as it takes place in the exam room in order to ultimately improve risk prevention, such as safe gun storage practices. Communication research has established that one-way models of communication, which are meant to result in uniform attitude and behavior changes, are ineffective because they expect passivity and ignore values and context (Dixon-Woods, 2001). Research examining patient compliance,

which refers to the following of unilaterally delivered medical directives, has also found one-way models to be a flawed expectation (Barton et al., 2016; Spencer, 2018). Instead of aiming for compliance, some have advocated for an “updated model that captures the lived, socially practiced, context-dependent aspects of healthcare and health decision making” (Spencer, 2018, p. 173). In line with this idea, the present study examines how the lived experiences and cultural contexts of pediatricians and parents contribute to a communication block about firearm safety. To that end, the study first explores the perceived barriers to communication and how those are discursively driven by cultural assessments of risk and potential intercultural incompetence. This information is then used to inform the study goal of revealing new ideas for improved intercultural communication with ideas born from parent and pediatrician expertise and experience. To accomplish these goals, we pose the following questions:

RQ1a: What issues do providers and parents perceive as barriers in communicating about firearm risk?

RQ1b: How are these barriers discursively constructed in relation to culture?

RQ2: What kinds of messages and communication strategies do providers and parents think would work for the subject of firearm risk and why?

## Data and methods

To answer the research questions, semi-structured interviews were used to understand experience, knowledge, and worldview (Lindlof & Taylor, 2011) about firearm risk communication among providers and parents. Interviews were sought until repetition, and thematic saturation occurred (Rakow, 2011); 16 providers and 20 parents shared their well-child visit experiences.

## Study participants

Pediatric providers and parents were recruited from urban, suburban, and rural parts of Missouri and were recruited through a practice-based research network and through snowball sampling at community hospitals and clinics. Providers could include pediatricians, nurse practitioners, physicians’ assistants, and family care physicians, but providers were required to conduct well-child examinations regularly. Similarly, parents were required to have attended a well-child exam within the last three years to be eligible. Parents of children from infancy through adolescence were recruited both in-person in waiting rooms of practices in the research consortium and through Craigslist posts in cities and towns across Missouri.

The sample shows some diversity in race and geographic location (rural, suburban, and predominantly female respondents). Almost half ( $n=9$ ) of parents reported having firearms in or around their home, and 4 providers did. The sample is

representative of firearm ownership and well-child attendance.<sup>4</sup> Detailed information about participants’ demographic data and ownership status is in [Appendix A](#).

## Procedure

Parents filled out a screener survey that captured demographic information and firearm ownership status before being enrolled in order to increase sample diversity (location in terms of rural/suburban/urban; ownership status; age of child) (see [Appendix A](#)). Interviews were conducted over the phone and in-person between July and October 2017, with each interview lasting less than 40 minutes. Interviews were digitally recorded and transcribed verbatim by a professional transcription agency. Questions for providers explored the “how” and “why” of barriers to conversing about firearm safety (see [Appendix B](#)). For parents, questions were about well-child visits from their perspective (see [Appendix B](#)).

Transcribed interviews were coded independently by three researchers using the constant comparison method of analysis (Glaser & Strauss, 1967), using coding software NVivo, version 11. Each transcript was coded by at least two of three researchers to support interpretive triangulation. The codebook was developed after the initial period of open coding, and a code tree was designed to resonate with the data and the variables of interest. A second focused round of coding occurred using the code tree, structured according to descriptive, explanatory, and analytic codes (Miles & Huberman, 1994). Passages from the transcripts could be sorted into more than one code. The three coders added subcodes to the code tree (visible to all coders) and wrote analytic memos to track iterative changes in the coding and observations to inform later analysis. Consistency across interviews and coding was supported by the use of the same interview script, the same NVivo code tree and codebook, and one researcher interpreting the coding for use in the findings (Jankowski & Jensen, 2002).

Because understanding cultural differences informs culturally competent communication, it is important to establish how “culture” was identified in the interview texts. Statements that were coded as being culturally driven included references to beliefs or value systems (Sojka & Tansuhaj, 1995), and “use of proxies” which are “characteristics that reflect or resemble culture” (p. 784). Examples of this include nationality, place of birth, country of residence, class structure, interpersonal relationships, territoriality, need for privacy, family role in decision-making, family size, and tradition orientation (Lenartowicz & Roth, 1999; Samli, 1995). Based on the previous operationalizations of culture, in the current study, when interviewees talked about their individual perception toward firearm communication and related it to characteristics listed above, those were coded as referencing culture.

## Findings

### General description of firearm communication in well-child visits

Nearly all of the parents interviewed said their pediatrician has never discussed firearms in the home or places where the

child visits. Many parents said they think it would be appropriate for the pediatrician to discuss, even if the idea had not occurred to them before. A few parents reported being asked about the status of firearms in the home initially either by the nurse, doctor, or questionnaire. About half of the pediatricians interviewed said they regularly address the issue of firearm safety with all patients as part of a list of safety issues. This conversation occurs with the child in the room, often with a standard script (some noted AAP/Bright Futures). A few more said they do it at the beginning when establishing care, sporadically depending on whether they know or believe there to be firearms in the home, or if a teen is depressed. When dealing with adolescents with mental health issues, most pediatricians said they follow standard steps of discussing safe storage or firearm removal if the mental-health screening reveals depression. Four pediatricians referenced talking about safe storage in homes of friends and family members where patients spend time. To summarize, there is a range of anticipatory guidance offered, and often it is in the context of the pediatricians' perceptions about the type of family the child is in (non-owner, owner-hunter, owner-self-defense, owner-law enforcement or military).

### Barriers

There are several issues that providers and parents perceive to be barriers in communication (RQ1a), and some of them are discursively tied to culture (RQ1b). One central key barrier is the perception that reducing firearm risk is not considered to be part of health maintenance and prevention. Examples of "I probably, prior to this discussion with you, would've never thought about talking to my pediatrician about gun safety" (PA-1)<sup>5</sup>; "I don't feel that it's a matter of health safety. That's their job, to make sure my children are physically healthy. My or anyone else owning a firearm has nothing do with their physical well-being" (PA-4); "I don't feel like it's a topic that should be brought up by the pediatrician, unless it's like a gun wound or something that involved the gun accident, I don't think that's the place of the pediatrician" (PA-7); and "my first assumption would be it's not necessarily medical" (PA-3). An extension of this idea was that firearm risk is a private issue, not a health issue. Examples of statements along these lines include, "I think that's a parental responsibility, not necessarily a doctor's responsibility" (PA-12); "I'm a big proponent of the safety issue, but I don't like physicians getting into the personal lives of their clients" (PA-5); and "I don't think that what I do inside of my four walls, that's not harmful to my child, should be a topic of discussion" (PA-4). What is considered "normal" for patient-physician interactions and the attribution of responsibility to parents or physicians are informed by culture and one's own upbringing.

One parent shared a related perspective, which had to do with differences in expectations based on state of residence:

I came from Illinois, and [...] most people don't have guns in their homes [...]. Although, I guess there is a lot of people that have guns, but just the wrong type of people. Then, here in Missouri, I think guns are so accepted, and it's just the norm of it that I think everyone here that I know has some kind of firearm

in their home [...] For the pediatrician to ask us here, it would just be a silly question to ask. (PA-10)

In the case of this parent, the presence of more firearms in homes meant that there should be no need to ask, but rather pediatricians could assume it is a given. This parent also advocated for pediatricians to hand out gun locks and to have fire departments do a safety check in the same way they check car-seat safety. Similar to PA-10, who references location as informing cultural norms, another parent pointed to the rural location as being tied to a desire for privacy: "In my rural community, they place a high value on privacy issues, and I think they all think that the physician would be getting a little bit too involved in their personal lives if they ask them" (PA-5). This parent then said people would accept a reminder about locking guns. This again points to the idea that safety information is welcome, but inquiry is not.

Another barrier to communicating about firearm risk that arose in parent interviews was fear of government overreach. One parent described the government as getting too "nosey" (PA-7) and compared pediatricians asking about firearms to the welfare office asking about voting registration. Another parent whose family practices safe storage said she would react by asking: "Why do you want to know if I have ammunition in my home? Why does that need to be documented in my child's medical records? I don't know if that's just a form of Big Brother" (PA-10). On the flip side, another parent said they would have no problem with the conversation because the family practices safe storage, but "there's families out there that don't" (PA-2). Another parent made a distinction between them self, who would be amenable to a safety discussion, and members of the family and community who would be "less comfortable" (PA-9) because they think there might be a plan by the government to take guns away, in part *because* there has not been a precedent for discussing firearm safety at well-child visits. This parent also described community members' distrust of doctors, insurance, and the government. Some of these statements about documentation and government are reflective of parents' political cultures.

Another barrier that emerged from the interviews was that bringing up firearm safety at well-child visits indicates some level of pre-judgment on the part of the pediatrician. This barrier also operates with the assumption that the pediatricians pick and choose with whom to discuss firearm safety. Concerns about feeling judged, criminalized, profiled, or singled out as being a potential firearm owner, were shown in statements like "assumptions being made when we walk into the office" (PA-19), and "Having my pediatrician talk to me about it, too, would be more alarming [...] If she was clear about she's just doing it across the board and not specifically at me [...], I would be open to talking about it" (PA-20). Other barriers included that someone might feel insulted because the family believes they already store firearms safely or that the advice was not applicable and would be seen as a waste of time.

Barriers from the physicians' point of view included a lack of time, external political tension, lack of personal expertise, and different cultural norms. It is hard for pediatricians to cover everything into each well-child exam, so they would like

to discuss the most important issues with parents, as a pediatrician reported, “we prioritize and briefly mention it” (PR-12). Another pediatrician said, “Time with me is limited. They’re (parents are) willing to do it once a year, but they want to get a lot of stuff in” (PR-3), and this pediatrician also thought parents have their expectations for what should be discussed during the well-child exam, for example, “they (parents) want to speak to the pediatrician that time, because they’d rather go to the urgent care for something else” (PR-3). Avoiding statements that would “shut down” conversation was a prevalent goal from pediatrician interviews. It is not unfounded that families might be so offended as to leave. One pediatrician reported at least two families left the practice because of the firearm question, and five others said, “We’re not going to answer that” (PR-2). Another pediatrician avoided the topic completely due to “my own insecurity of not being well-versed in gun-owning and gun safety. Secondly, probably my ambivalence of how it’s teetered politically” (PR-3). This pediatrician is making direct references to their non-gun-owning culture and political culture. The idea of politics outside of the office playing a role made one pediatrician reject the AAP format and caused them to carve a new path: “I don’t want to offend a family asking the question and having them not listen to me. I try to be very careful on how [...] I introduce the subject and try to keep my focus on keeping kids safe. [...] there’s a lot of rhetoric out there. It can be challenging” (PR-11).

In addition to the time limit and political tension, lack of personal expertise is also a barrier. Some pediatricians do not have guns, so they would feel inadequate to advise parents. One pediatrician said, “[...] you try and talk to a hunter or families who have grown up with guns and I have not. I feel inadequate talking to them, at times, because we were not hunters” (PR-3). The lack of personal expertise is also interwoven with the concern of different cultural norms. “Guns and the whole gun culture is not something that I relate to at all, and it makes me a bit uncomfortable because I have seen some bad outcomes from gun violence and children getting their hands on guns” (PR-6). This provider contrasts her experiences in medicine with gun culture and says it is hard to remain “nonjudgmental” “especially when the answers you get go against what you think should be the answers” (PR-6). PR-10 reported feeling undone and at a loss for words when a mother reported her husband had just bought an AK-47: “I was just shocked by the whole exchange. I’ve never known anyone that had a semiautomatic weapon [...] It was sort of beyond talking about safety” (PR-10). Here, the pediatrician references a lack of a personal social network of people who own certain kinds of firearms, which could be normal in other cultural settings (for example, the parent with the AK-47 had served in the military).

Pediatricians noted that although most parents react well to the topic when it’s brought up, parents who push back – especially with allusions to government control – have a memorable effect on them. They also noted that pushback could come in the form of parents thinking that this information does not apply to them. For example, saying “My child, they know how to handle a gun, so we don’t have to do the safe storage” (PR-11). Additionally, pediatricians report that

parents contend their current storage method works because an accident has not happened yet (PR-12 offered an example of parents keeping a loaded rifle above the door frame). Parents who are not firearm owners can also have an adverse reaction because having a gun would be unthinkable and is outside the norms of their own culture.

### **Strategies**

Over years of experience, pediatricians have developed different strategies to avoid parent pushback or emotional responses (RQ2). Approaches vary based on geographical setting, the pediatrician’s relationship with the family, and the pediatrician’s personal interactions with firearms. Including firearm safety amid a list of other anticipatory guidance topics was an idea suggested by both providers and parents. The idea of providing safety information about firearms was found to be appropriate by parents, especially without inquiring about ownership status, which was considered an invasion of privacy for some.

#### **Standard approach**

Although the AAP recommends asking parents if firearms are kept in or around the home, warning parents that children are more likely to be shot in homes with firearms, and then advising parents to remove guns or store them safely, pediatricians offered several variations on their own standard approaches. The safe storage approach that pediatricians say they offer varied from “Is everything still locked?” (PR-14) to “We strongly recommend that you lock them separately” (PR-2) to “Have you been instructed on safe use of firearms?” (PR-16) to toddler-specific: “They’re not old enough to understand the consequences, but they’re old enough, strength-wise, to pull a trigger” (PR-1). Many pediatricians referenced a handout. Some pediatricians offer specifics, such as: “I do ask if they keep the ammunition and gun stored separately in a locked place.[...] I think the safety handout goes into it a little bit more [...] and talks about specifically handguns” (PR-13). Another said, “I recommend having no firearms in the home. Then I talk about ways to store them safely, so [...] unloaded, locked, and separate from ammunition. I specifically say if they are locked, it needs to be in a way that [...] the parent is only one that has access to it” (PR-12). This pediatrician also noted that some parents have the impression that having the safety catch flipped on the gun is qualified as “locked.”

#### **Non-tailored approach**

The non-tailored approach highlights that the safety message is not individualized for gun-owners (the main difference from standard approach). This approach uses hypothetical style – “If you have a gun ...,” indicating pediatricians do not need the parents’ to disclose ownership. A possible lead-in that several pediatricians mentioned to start the conversation could be an introduction so that parents can understand that they are not being profiled for questioning but are answering questions that all families’ answer. The idea of offering generic advice to all parents was noted:

When thinking about how to change somebody's behavior, sometimes asking if there's a gun is almost an accusation. Instead, addressing it as if there is a gun is less of an accusation. It's just informational. Just like if you have a dog in the house, make sure your dog isn't rabid. You don't have to ask if there's a dog, but you make sure they don't have a rabid dog. (PR-9)

Thus, providing information on how to keep a hypothetical firearm locked securely away from children would be less threatening than asking about ownership, which allows the approach to be universal and applicable to all. As one pediatrician says they put it: "Here's a paper regarding firearm safety. I don't care if you have one or you don't have one. I do care that you have it locked up. On the back, here, it shows different types of ways you can lock up your firearm" (PR-15). This pediatrician provided the information, explained their concerns, and did so without asking questions that could provoke offense. One interaction with an offended dad made this pediatrician pivot to providing the information without asking, as they previously had done.

### *Childhood-as-shared-experience approach*

Another method pediatricians noted was to encourage parents to recall their own childhood antics and associate it with how similar their children could behave. One pediatrician used shared memories of childhood saying to parents: "Remember when you were a kid and all the stuff that your parents didn't find out that you did?" That tends to at least bring a smile to people's faces, and I say, 'Really, I would strongly encourage to still consider safe storage because it's about keeping kids safe'" (PR-15). Another pediatrician pointed out that a strategy they use is to point out the difference in comfort with firearms, by saying: "If you grew up in a hunting family, you're just used to guns being around and with a toddler, they're not used to having guns around" (PR-11). Pointing out how toy guns look realistic and how children can confuse toy guns and real guns was a related suggestion.

Linked to the pediatrician approach of locating commonality with childhood experiences, several pediatricians who had grown up with firearms have shared anecdotal evidence about their background with firearms. For example:

Then I always throw in a little bit of my personal experience with it, which makes it a little bit more, I think, acceptable. I say, "Oh, I grew up in Texas ... and we had tons of guns. I'm just going to ask you a question about stuff that I grew up with, as well." They seem to be responsive to that. I say, "Listen, this was something I did. I actually grabbed my grandfather's loaded weapon and pointed it at my parents when I was, I think, two or three" ... My parents were very freaked out, and I actually remember the look on their face. (PR-14)

This is an example of a pediatrician using a shared cultural background to connect with patients. PR-1 said that sharing their gun-owning upbringing and current ownership-status will cause parents to immediately relax, describing it as a "you're part of the club" reaction. PR-13 said they have brought up their background in order to "relate to people" and have been invited to go hunting by patients' families. Two of the pediatricians who are owners did not say they disclose anything about their own status.

The option to relate to parents based on a shared ownership background is not available to all pediatricians. In fact, one pediatrician noted that their lack of experience with guns made them feel inadequate to discuss firearm safety. The pediatrician (PR-3) described not sharing safety information with farming families, saying "these are third-generation children who have grown up with guns and it's part of their lifestyle." Relatedly, one pediatrician read aloud a passage from the AAP anticipatory guidance during the interview and then reflected:

I think that's probably the first time I've read that in years, actually. I don't say 'you just don't need to keep at guns at home if you have kids.' I definitely have not been confrontational like that before. I do have patients that come in with their nine-year-old dressed in their camo, and all excited because they got to go hunting with dad. It's kind of hard for me to say well, you really shouldn't have guns in your home, because these are families that it's part of what they do together. (PR-13)

This pediatrician knew that following the AAP advice would fall flat with certain families and would be in a way disrespectful or blind to cultural practices. Instead, this pediatrician relies on conveying the information through the office handouts.

In terms of the presence of children, some pediatricians use the child's presence in the room as a gateway into the conversation, asking the child if they would know what to do if they found a gun (PR-4). That can open the door to more conversation with the parents. However, if the patient is young, one pediatrician (PR-1) noted they might spell out G-U-N-S because they do not want to alert toddlers to go looking for firearms.

### *Statistics and fear-appeal approach*

Another strategy is sharing a statistic or research findings. One example of such a statement that is shared with parents was: "Well, we know that according to surveys only 39 percent of parents store their weapons. So I want to say 'well done' and keep making sure that there's no access for the kids to accidentally find them. And then remember that of course your house might be safe, but you have to think about where your kid's going as well" (PR-7). It is important to note here that this pediatrician combined two strategies in both referencing statistics and complimenting the parents, while also noting that safe storage can be an issue at houses the child visits. Another pediatrician used statistics as a way to impart that the information is standard and not specific to the family, by saying: "Listen, statistically speaking, they're going to try something. That's what we know. We know that if they see it, they're going to try to grab it. Fifty percent of kids will.' When I say that, they're like, 'Oh, yeah. You're right'" (PR-14). Another pediatrician noted the use of statistics as a way to appear non-judgmental (PR-4). On the flip side, one pediatrician says that even though they personally love statistics, they do not use them because they can appear to be "political propaganda" (PR-1), which leads to an adverse reaction.

The fear appeal strategy of bringing up firearm deaths to scare families into action emerged as an option. One pediatrician noted, "I might say, 'I don't know if you saw the news last night,' and that's a jumping-off point for a conversation



about guns and gun violence” (PR-8). Another pediatrician used the fear appeal, saying: “How many times do we hear about accidents on the news? All the time. Do you want your family to be on the news? That seems to resonate” (PR-11). Some rejected the fear appeal strategy, one saying: “It is hard to say to people that are used to having guns in their lives, ‘You know, you’re probably just going to shoot yourself with that gun’” (PR-13) and instead tries to compliment families who are safely storing firearms. Another pediatrician said that they could mention the constant tragic cycle but that it might be too intense, especially with children in the room: “You could reference those [firearm deaths/injuries], I guess, but it just is so tragic and so weighted that it seems to be a bit more jarring [...] I don’t think that’s the best universal approach” (PR-4).

### **Non-judgmental approach**

Pediatricians, similar to parents, likewise showed concern that they do not want the interaction to seem judgmental. Developing a nonjudgmental approach – whether because they know families have firearms due to self-protection in an unsafe neighborhood or because of their hunting or farming background – was crucial for many pediatricians. Some people think of this as a political issue instead of a safety issue (PR-1). One pediatrician noted that knowing where people are coming from shaped their work in a Missouri town: “In [this town], people are really proud of their Second Amendment rights. It’s reaching into that culture and knowing where their background is” (PR-1). One said they discursively set up what they are doing as not a form of judgment by saying: “My job isn’t to tell you whether what you’re doing is right or wrong. My job is to tell you whatever you’re doing, how to make it the safest way for your child” (PR-5). One doctor reported they say to parents: “These are not meant to be threatening or judgmental. [...] I ask everybody this. I’m not profiling you in asking you that” (PR-6).

### **Explaining-pediatrician-role approach**

The idea of appealing to the fact that the pediatrician and the parents are working toward the same goal was another strategy. “I say, ‘I can see you are feeling frustrated or that what I’m saying is upsetting you.[...] I just want to reassure you we are working on the same team together, we’re both trying to do our best to take care of your child, so let’s talk about how to get on the same page with this’” (PR-12). Relatedly, another pediatrician fostered trust by pointing out their status as an authority figure. After trying other strategies, PR-13 reported what works best is saying, “I’m your pediatrician, and I spent a lot of years looking at this. I feel like this is what’s going to be safest and best for your child. You have to trust me.” This doctor pointed out that parents would not be bringing children to their office if they did not trust the pediatrician at some level.

## **Discussion**

This study has sought to capture the lived, context-dependent experiences of pediatricians and parents in an effort to update the model of how firearm risk is communicated in well-child

exams. One overarching and surprising theme that emerged is that the AAP recommended advice of asking parents about ownership status is deemed undesirable by pediatricians and parents who are aware of the delicate intercultural setting. Furthermore, the question about ownership status was deemed likely unnecessary for conveying safety information based on the many strategies offered by pediatricians from their own experiences and expert opinions. More specifically, the barrier elicited by asking about firearm ownership, which was likely intended by the AAP to be a conversational “prompt,” was perceived by some as a provocation or an accusation that colors the rest of the anticipatory guidance that follows. Through our study, it emerged that pediatricians want to feel empowered but not threatening to parents as they discuss the safety of their patients, and many do not want to risk having parents be so affronted as to ignore them or lose trust in them. Similarly, parents do not want to feel judged or singled out in the well-child exam, and many expressed that offering safety advice regardless of ownership status would be useful.

In addition to the barrier posed by the AAP question, several other barriers contribute to the “third rail” nature of this safety topic. In part, because discussing firearm safety in well-child exams is not common practice, the topic carries extra baggage in the form of parents not thinking firearm risk is a health issue. This relates to gun violence news coverage not being framed as a public health issue (DeFoster & Swalve, 2018). Another roadblock that surfaced in some of the parent interviews is a potentially larger misunderstanding of what the preventative purpose of the well-child exam is. Additionally, both groups are aware of external political rhetoric. Pediatricians said they cope with the politicized nature of the subject in various ways, mainly by not bringing firearms up (reinforcing Garbutt et al., 2016), which was supported by parent interviewees who said firearms had not been addressed. Several pediatricians interviewed had already formed their own non-AAP strategies for getting into a conversation about firearm safety. At the other end of the spectrum, some pediatricians who are not firearm owners noted a lack of expertise in the matter and felt such low cultural competence as never to broach the topic.

Cultural backgrounds, which inform attitudes and values toward firearms, was clearly referenced by pediatricians and parents to justify why they approach firearm safety the way they do. Participants reflected and reinforced their commitment to culture and how it shaped their “risk portfolio” (Douglas & Wildavsky, 1982) on the topic of firearm safety by discursively linking their current approaches to their upbringing, their families, and their communities. Even for pediatricians who do not personally relate to the same conceptions of risk as their patients, increasing cultural competency in communication strategies and storage solutions to encompass how others perceive risk could improve outcomes for children. Although this study spends a lot of time examining the polarities of attitude in order to encompass some of the more divergent perspectives, there is ample middle ground. There was general agreement from firearm owners and non-owners alike, regardless of cultural background, that the idea of firearm safety advice offered by pediatricians is

inoffensive. Based on these interviews, how the topic is broached, and the advice offered are the two areas where communication challenges could arise.

It is important to note that health communication research largely supports tailored health messaging (which in this case would require determining a family's ownership status) as being an advantage to health understanding and behavior. Tailored messaging, a strategy of "individualized communications," aims to facilitate behavioral changes by delivering health messages with content unique to the intended individuals (Kim, 2018; Rimer & Kreuter, 2006, p. S184). A tailored message can be perceived as more relevant and salient by the individual because it responds to the individual's unique characteristics, such as the "particular circumstance," "life experience," "cultural markers," and so on (Kreuter & Wray, 2003, p. S228) and is therefore also more persuasive than a generic message (Rimer & Kreuter, 2006). A number of studies revealed tailored messaging to be more effective than non-tailored messaging in promoting desirable health behavioral change (Hébert et al., 2018; Kim, 2018; Padela, Malik, Vu, Quinn, & Peek, 2018; Rimer et al., 2002; Valle et al., 2018). For firearm safety communication, tailored messaging includes counseling behaviors that are individualized to the patient depending on gun storage habits or risk factors (Betz & Wintemute, 2015). Because tailored messaging is considered favorable with regard to health communication, it was surprising when several parents mentioned wanting firearm safety communication to be nonspecific, impersonal, professional, just "part of their job," and more uniform so as to avoid feeling judged. What we are left with then is the need to increase cultural competence among pediatricians in communicating about firearm safety while keeping the messages generic and de-individualized so that people do not feel targeted based on their cultural backgrounds.

This nonspecific guidance needs to be noninvasive, provide useful information, and encompass various cultural reasons for firearm ownership. For example, acknowledging that people have different storage needs indicates that there are a variety of reasons that people own guns and hints at the cultural backgrounds and different risk assessments that exist. Furthermore, addressing self-defense as a possible reason for parents to want immediate access to firearms is also important because it explicitly counters the idea that the pediatricians want to "take away" all the guns. These would exhibit culturally competent messaging because they identify a range of options to accommodate variation among firearm owners. Cultural competence with regard to firearm safety "includes recognizing that there are actually multiple subpopulations of gun owners whose perspectives and preferences may vary based on their reasons for owning firearms" (Betz & Wintemute, 2015, p. 2). Our findings part with the recommendation of Betz and Wintemute (2015), however, in that they recommend tailored messaging that involves asking about firearm ownership and assessing individualized firearm safety concerns. Based on our findings, *not* asking about firearm ownership but still sharing safety information could exhibit cultural competence among pediatricians.

Because the idea of the pediatrician asking about ownership status was deemed confrontational by many, and

because firearm risk can also be experienced by children who live in gun-free homes, we offer this message, derived from the interviews: "There are some safety issues I want to get on your radar, so you can keep your home and places your child visits as safe as possible. People have different needs when it comes to firearm storage, and it really isn't one size fits all. In any home your child spends time in, guns should be inaccessible to curious kids. One of the best ways for firearm owners to do this is to lock up guns and ammunition separate from each other. For folks who keep guns for self-defense and want a loaded gun ready at a moment's notice, a biometric safe is the next safest option. These safes open with a unique wristband, ring, sticker, or fingerprint." This statement shows intercultural sensitivity by not asking questions, not recommending total removal of firearms, taking into account self-defense, while also covering the anticipatory guidance appropriate for safe gun storage.

### Limitations and future research

Limitations of this research include the brevity of the interviews, which is typical when interviewing professionals (e.g., pediatricians) and that the findings from these 36 individuals cannot be generalized to represent any population because they were not randomly sampled and the sample size is too small to be representative. That said, qualitative research does not seek to generalize about populations, as is a standard goal for quantitative methods. Rather, the "goal is simply to render plausible the terms by which groups explain themselves to the world and to clarify the role that mass communication plays in such explanations" (Pauly, 1991, p. 7). The interpretivist approach represented by qualitative interviewing is especially appropriate in areas that are under-researched, such as firearm communication. The tenability of the approaches proposed by the individuals should be evaluated in future research. Specifically, it would be beneficial to design messages based on the experiences of pediatricians and parents illuminated in this paper and then test message reception strategies via experimental design. Using an experimental design, researchers could also test which strategies work for parents of children of varying ages and other relevant demographic indicators. The outcome of this proposed study could provide pediatricians with strategies to potentially increase parents' acceptance of firearm safety communication messages, ultimately reducing firearm risk for children. It could also inform AAP-recommended anticipatory guidance.

Another specific limitation of this study was that it was difficult to recruit pediatricians for interviews. Although recruiting professionals is always difficult due to time constraints, pediatricians in this study might have been more inclined to speak with us if they were already motivated to talk about firearm safety. This issue stemming from self-selection may have contributed to the discrepancy in the experiences of the providers interviewed who say they do talk about firearm safety and the parents interviewed who say firearm safety does not come up. Another limitation is that parents could have simply forgotten whether firearm safety storage was discussed in their child's exam. Additionally, one topic that we inquired about but that did

not end up fitting within this study's parameters was communicating about adolescent suicide risk. Pediatricians noted that there is little pushback to firearm risk conversations once a teen's risk for depression and suicidality has been established. That being said, a child's history of mental health issues has been shown not to influence storage or ownership practices of parents (Scott, Azrael, & Miller, 2018). Future research on how firearm safety information can be communicated in these acute situations would be useful. Theoretically, research could also explore the connection to how parents approach individualistic versus solidaristic frameworks (Kahan & Braman, 2003), which influence perspectives on firearms (Celinska, 2007), and firearm safety as explored in this study.

## Conclusion

The current study analyzed how pediatricians and parents perceive communication about firearm risks during well-child visits. Through individual semi-structured interviews, it was found that the lived experiences and cultural contexts of pediatricians and parents contribute to communication blocks about firearm safety. Moreover, it emerged that the AAP recommendation that pediatricians ask parents about ownership status is deemed undesirable and unnecessary to sharing anticipatory guidance. Instead, our study found that the inclusion of firearm safety amid a list of other safety topics, without inquiry about ownership status, could be a communication approach that is responsive to cultural differences among pediatricians and parents.

## Notes

1. These regulations include trigger locks, lock boxes, personalized safety mechanisms, and trigger pull weights that are too high for young children.
2. Gun lock refers to an external firearm safety device that can block or prevent the firing function, such as trigger locks, cable locks, and so on, but does not include internal safety or safety catch.
3. Biometric technology uses behavioral or physiological characteristics such as fingerprint or voice recognition or an identification number (Krishan & Mostafavi, 2018). These features allow the boxes to be opened quickly by an authorized individual, which may eliminate the concern of reduced accessibility for personal and home defense (National Shooting Sports Foundation, 2013).
4. Although men are about twice as likely to own firearms than women (Parker et al., 2017), women are more likely to attend well-child visits than men (Yogman & Garfield, 2016). Broadly, 42 percent of American adults report that they live with a gun in their household (Parker et al., 2017). People who live in rural areas are 2.5 times more likely to own a gun (46%) than people who live in urban areas (19%), with people in the suburbs being in between (28%). White men are the majority owners of firearms (48%) with men of color half as likely (24%) to own them (Parker et al., 2017).
5. Parent participants are indicated by PA and provider participants are indicated by PR.

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## Appendix A. Additional Participant Information

**Table A1.** Participant demographics.

	Parent	Provider	Overall
<b>Gender</b>			
Female	18	11	29 (80.56%)
Male	2	5	7 (19.44%)
<b>Race</b>			
Black	3	2	5 (13.89%)
White	13	11	24 (66.67%)
Asian	1	1	2 (5.56%)
Other	2	2	4 (11.11%)
Native	1	-	1 (2.78%)
Hispanic/Latino	1	2	3 (8.33%)
<b>Firearms in Home</b>			
Yes	8	4	12 (33.33%)
No	11	12	23 (63.89%)
Not available	1	-	1 (2.78%)
<b>Location</b>			
Rural	8	2	10 (27.78%)
Suburban	10	12	22 (61.11%)
Urban	2	2	4 (11.11%)
<b>Additional parent information</b>			
Age (range)	38.4 (24–37)		
<b>Marital status</b>			
Single	2		
Married	16		
Divorced	2		
<b>Highest level of education</b>			
High school diploma or GED	2		
Some college, no degree	4		
Associate's degree or equivalent	1		
Bachelor's degree	8		
Graduate or professional degree	5		
<b>Household Income</b>			
~\$30,000	3		
\$30,000–\$60,000	9		
\$60,001–\$100,000	4		
\$100,001~	4		
<b>Additional provider information</b>			
Years in practice (range)		8 (1–21)	
<b>Provider position</b>			
Pediatrician		15	
Nurse practitioner		1	

Cells display counts of each category with percentages in parentheses in the overall column, except for cells referred to *age* and *years in practice* which display average years with the range in parentheses.

## Appendix B. Sampling of interview questions (follow-up questions permissible as part of semistructured interview methodology)

### Questions for pediatric providers:

- What kinds of safety/prevention issues do you discuss with parents?
- Can you tell me a story about a time when a parent reacted badly to a safety issue you were discussing?
- Have you ever talked about gun safety with parents? What's your usual patter?
- How do you ask about the presence of firearms in the home or homes the child regularly visits?
- What concerns you about addressing firearms with parents?
- If you were the parent, how would you want the pediatrician to address the topic at the well-child visit?
- For your adolescent patients with depression/anxiety, do you routinely assess access to firearms? How do parents react?

### Questions for parents:

- Can you think of any safety issues the pediatrician regularly discusses with you?
- Has the pediatrician ever talked about gun safety with you?
- Does the pediatrician ever ask about firearms in your home or other homes your child visits?
- If you were the pediatrician, how would you approach the topic?
- Can you think of any friends or family members who would react differently from you to the pediatrician talking about firearm safety?

### Questions specifically for parents of children over 12:

- Has your pediatrician ever talked about mental health issues, such as depression and suicide with you?