

Firearm Safety

Implications for Pediatric Nurses

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Abstract: Firearm-related injuries to children are reported as one of the top 10 causes of death for all age groups of children. Over 250 children are shot unintentionally each year, with 150 deaths per annum. Accidental shootings occur when a child has access to a family member's weapon and ammunition in the home. This article summarizes the literature on accidental shootings in the home, not including intentional homicides, suicides, or mass shootings. The pediatric surgical nurse can attempt to decrease this tragedy by providing prevention education at every pediatric visit.

KEY WORDS: firearm, firearm injuries, firearm safety, nursing, pediatric

INTRODUCTION

Firearm-related injuries are the leading cause of death in children and adolescents in the United States (Faulkenberry & Schaechter, 2015). In 2012, firearm-related deaths ranked as the second leading cause of death in children ages 15–19 years, third in children 10–14 years old, fifth in children ages 5–9 years, and seventh in children ages 1–4 years (Faulkenberry & Schaechter, 2015). The American Academy of Pediatrics reported that about 1,300 children die and 5,790 are treated for gunshot wounds annually (Fowler et al., 2017). Flaherty and Klig (2020) recorded that over 20,000 emergency department (ED) visits annually involve children with firearm-related injuries. In addition, these children are at a higher risk for admission to an intensive care unit and may die (Flaherty & Klig, 2020). In 2019 alone, about 241

unintended shootings, causing more than 100 deaths and nearly 150 injuries, occurred in the United States (Healthychildren.org, 2020). Although several children are injured intentionally, unintentional injuries occur when the child plays with a gun at home, unless gun owners take precautions and responsibility for safekeeping the firearms. Pediatric surgical nurses are pivotal in caring for these children and their families. This article will examine the role of pediatric nurses in ensuring firearm safety.

Literature Review

Databases such as the Cumulative Index to Nursing and Allied Health Literature Plus with Full Text, Science Citation Index, Education Resources Information Center, Science Direct, Medline, and Journal Storage Journals were examined to identify publications on this topic of interest. The terms used for the search strategy included “gun injuries,” “pediatric,” “firearm safety,” “firearm injuries,” and “unintentional firearm injury.” To uncover additional resources, the next search employed combining search terms such as gun injuries AND pediatric, firearm-related injuries, gun injuries AND hospitalization, firearm safety AND unintentional firearm injury, preventing gun injuries AND children, firearm injury AND emergency room nurse perspectives, and firearm injury AND ethnicity AND pediatric. The limits were set for the past 5 years, and publications in English were examined. Fourteen publications were identified. In addition, the AAP journals, Google Scholar, government Web sites, and pediatric hospital Web sites were explored to get further information. Publications on firearm-related death and research are scanty.

Demographics

Most, two thirds, of pediatric firearm-related injuries that presented to the ED or ambulatory care centers between 2001 and 2010 were accidental or unintentional (Parikh et al., 2017). Guns are reportedly present in approximately 18%–64% of U.S. households. In addition, about 40% of parents assume that their children are not aware of the location in which the household

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firearms are stored. Moreover, approximately 22% of parents inaccurately believe that their children have never handled household firearms (Parikh et al., 2017). In a study by Choi et al. (2016), between 2008 and 2013, many accidental firearm injuries occurred in the home, approximately 74%, with about 38% being self-inflicted and around 40% occurring by a person who was known by the victim. Unintentional injuries are common in younger children and commonly occur when the shooter plays with a family gun (Faulkenberry & Schaechter, 2015; Fowler et al., 2017; Herrin et al., 2018). Most (89%) of unintentional shooting deaths in children occur in the home, mostly while playing with a loaded gun in their parent's absence (Children's Hospital of Philadelphia, 2018). Data from the Nationwide Inpatient Sample of 83,129,094 pediatric hospitalizations illustrated that most firearm-related injuries were unintentional (Kalesan et al., 2016). According to the AAP, boys, older children, and minorities are affected more (Fowler et al., 2017), and the incidence is presented more in urban settings (Herrin et al., 2018).

Factors That Contribute to Unintentional Injuries

Unintentional child firearm injuries largely involve family guns, young children, and boys, and most could be prevented through minimizing child access by secure storage of firearms (Faulkenberry & Schaechter, 2015). Firearm violence prevention strategies outlined in "Reducing Gun Violence: Facts Are Stubborn Things" (2013) include the level of gun owners' knowledge and skill; firearm violence prevention, including educational programs and environmental modification; the impact of gun safety technology, such as locking devices; and the influence of the media on gun violence ("Reducing Gun Violence," 2013).

Several factors influence the incidence of unintentional injuries from firearms. The primary factor is unsafe storage practices by adults who own the guns and lack of ongoing supervision of children. There are several options to safely store firearms, and choosing the right storage device depends on a multitude of factors including the number of firearms to store, budget, and transportation requirements (National Shooting Sports Foundation, 2020; Figure 1). Recommended safety storage includes the use of cable locks for firearms, gun cases, lockboxes, electronic lockboxes, and full-sized and biometric gun safes for home storage. In addition, the use of console storage devices and cargo area storage devices for firearm safe storage within vehicles is also advised. Finally, the implementation of electronic holsters with a programmable finger or thumbprint scanners and wireless gun safe monitors that alert owners of

any unauthorized access to firearm storage devices is suggested (National Shooting Sports Foundation, 2018).

The most important step that parents can take is to secure their firearms. The National Shooting Sports Foundation (2020) recommends the following steps to prevent unauthorized access to firearms:

1. Store firearms unloaded.
2. Store ammunition separately and in a locked storage device when not in use.
3. Consider disassembling guns before storage.
4. Be knowledgeable about the safe disassembly and storage of all owned firearms.
5. Verify that all firearms are unloaded when transporting guns to and from storage.
6. Implement multiple safeguards (see Figure 2).

Impact on Families

Families who are affected by an injured child also suffer emotionally and physically (Children's Hospital of Philadelphia, 2010). If the accident happened while playing with a gun, the parents or grandparents who owned the gun may be devastated, and the guilt will linger longer. They will find it hard to forgive themselves for their "neglect" of safekeeping of the firearm (Wolf et al., 2019). If the child is injured in a friend's house, it can lead to discord between friends and families, leading to sustained bitterness and feelings of revenge. The child's care and hospitalization can be physically, emotionally, and financially exhausting to families (Faulkenberry & Schaechter, 2015). The legal implications after this event also may be challenging to families. There may be a cascade of events that impact the schooling of the child and siblings, absenteeism from work of parents, and feelings of social humiliation. This can result in poor health and quality of life for parents and siblings (Faulkenberry & Schaechter, 2015).

Research indicates that the parents of critically injured children are at a greater risk for developing mental health conditions including anxiety, acute stress disorder, depression, and posttraumatic stress disorder (Foster et al., 2020). According to research by the Children's Hospital of Philadelphia (2010), 37% of parents experience an acute stress disorder and considerable traumatic stress symptoms such as reliving the experience, avoiding reminders of the experience, anxiety, and nervousness after their child endures an unintentional firearm injury. The severity of traumatic stress symptoms in parents was linked to their experience of the injury. The gravity and persistence of the symptoms were associated with parents who had been present during the time of the injury, as well as those who perceived the pain that their child had suffered and believed that there was an imminent danger

to their child's life. Moreover, posttraumatic stress disorder was more prominent in parents with children in poor physical or mental health 6 months postinjury (Children's Hospital of Philadelphia, 2010). The study by Foster et al. (2020) illustrates that parents whose children have slower physical healing after an injury need greater supportive emotional services for both child and parent recovery. The implementation of long-term trauma-related family support such as social work or family case managers was deemed necessary to maintain continuity of care, support, and early intervention to prevent adverse outcomes long-term (Foster et al., 2020).

Caring for family members of the child is another role that nurses must consider when caring for a child

with a firearm injury. According to Roscigno (2016), nurses build a healthy relationship with parents to create a partnership, which is supportive of the emotional, mental, and physical needs of the family unit. Nurses are situated to build trust in the health care team, allowing parents to communicate needs and desires clearly.

Pediatric Surgical Nurses Can Learn From Emergency Room Nurses' Perceptions

ED nurses treat about 46 cases of pediatric firearm-related injuries daily, with roughly a 3% mortality rate. Of this group, the highest mortality rate occurs in children less than 2 years old (Burnham & Lee, 2019).



FIGURE 1. Firearm safety device affordability. This chart depicts firearm safety devices and pricing. Adapted with permission from National Shooting Sports Foundation (2018). https://projectchildsafe.org/wp-content/uploads/2020/05/PCS_SafeStorage_19.pdf.

This illustrates the impact that pediatric firearm-related injuries have on ED nurses regularly. ED nurses are in a unique position to explore and understand the complex factors that lead to firearm injury and violence including the physical, social, economic, and cultural factors, as they can screen patients for risk and evaluate those affected by firearm-related injuries (Richmond & Foman, 2019). According to Wolf et al. (2019), ED nurses do not screen and educate about firearm access within the home because of unclear action paths and fear of violent reactions from patients. Approximately 22%–44% of participants, in the study by Wolf et al., reported that they question their patients' access to in-home firearms based on the patients' presentation to the ED. A factor that contributed to completing firearm access screening included the availability of staff to further the risk assessment, assist, and support safety counseling. Another challenge faced by ED nurses included appropriate timing for screening that did not appear confrontational (Wolf et al., 2019). In another study by Juang et al. (2019), it was reported that the discussion with patients regarding firearms can be

problematic as only 15% of study participants believed that patients' parents would be comfortable with talking about guns and gun storage within the home. This research illustrates the anxiety of nurses and residents regarding the screening process as well as the impact of nursing shortages on the successful completion of these screening tools. Offered in Table 1 are instructions on how to discuss this with families during a pediatric visit or discharge.

Potential Strategies for Prevention of Firearm Injuries

The role of pediatric surgical nurses in screening patients for access to firearms is critical to the effective implementation of prevention strategies for firearm-related injuries in children, including counseling. Counseling is important as it has been proven effective in reducing unintentional firearm injury (Faulkenberry & Schaechter, 2015). Patient education regarding gun safety to include storing guns unloaded, in a locked storage space with ammunition stored separately, decreased unintentional gun injuries (Crossen et al., 2015). In addition to the






METHOD	DESCRIPTION	PROS	CONS
 <p>Cable Lock</p>	A cable lock can be used on most firearms, allows for quick access in an emergency and offers security from theft. The cable runs through the barrel or action of a firearm to prevent it from being accidentally fired, requiring either a key or combination to unlock it.	<p>Widely available</p> <p>Inexpensive</p> <p>Can be used on most firearms</p> <p>Can also be used to lock a firearm to another object</p> <p>Allows for quick access</p> <p>Renders the firearm inoperable</p>	<p>Cable can be cut</p> <p>Need to keep keys/combination secure</p> <p>Single firearm use, whereas some other safe storage devices have room to secure multiple firearms</p>
 <p>Gun Case</p>	For those looking to conceal, protect or legally transport a firearm, a gun case is an affordable solution available in a variety of materials including plastic, fabric or metal. Be sure to lock it with an external device like a cable-style gun lock for added security.	<p>Widely available</p> <p>Inexpensive</p> <p>Portable and allows for simple, safe transport of a firearm</p> <p>Protects the firearm from damage</p> <p>Can secure multiple firearms</p>	<p>Most secure when paired with an additional device, like a cable-style gun lock</p>
 <p>Lock Box</p>	With integrated locks, storage boxes provide reliable protection for firearms, and allow gun owners to legally transport them outside of their home.	<p>Ensures safety even if gun is already loaded</p> <p>Portable</p> <p>Protects the firearm from damage</p> <p>Can secure multiple firearms</p>	<p>Can be more expensive than other firearm storage options</p>
 <p>Electronic Lock Box</p>	Electronic lock boxes are an effective way to store or legally transport firearms, and they also prevent theft, since only the person with the code can access the contents. Some electronic lock boxes are specially designed for quick access to stored firearms.	<p>Portable</p> <p>Only firearm owner knows the code for the electronic lock (dual purpose as a theft deterrent)</p> <p>Can secure multiple firearms</p>	<p>Can be more expensive than other firearm storage options</p>
 <p>Full Size and/or Biometric Gun Safe</p>	A gun safe protects its contents from the elements and allows owners to safely store multiple firearms in one place. Gun safes of all sizes are now available with biometric options to ensure only certain people have access.	<p>Biometric aspect only allows the firearm owner to access the safe through a digital identification of a person's unique human characteristic, like a finger or hand print</p> <p>Prevents against thefts</p> <p>Can secure multiple firearms</p>	<p>Most expensive option</p>

FIGURE 2. Firearm safety storage devices. This chart depicts firearm safety devices, descriptions, pros, and cons. Adapted with permission from National Shooting Sports Foundation (2020). *A guide for parents: Understanding youth mental health and preventing unauthorized access to firearms.* https://projectchildsafe.org/wp-content/uploads/2020/10/NSSF_PCS_AFSP-Parents-Guide_V6.pdf

Table 1: Teaching Points for the Pediatric Surgical Nurse to Discuss With the Family

An example of patient/family teaching may include (after the relevant postoperative teaching based on the surgical intervention):

"Mrs. Smith: What questions do you have about the postoperative care for Alex's care at home?"

"I would like to add some common child safety issues at home which will prevent some dangerous situations. One topic is education specific to gun safety, because the violence in the community is on the rise. May I ask if you own any guns? Even if you do not own a gun sometimes children go to their friend's house to play. Please check with their friend's parents if they own a gun and if they keep it safe under lock and key. Here are the important points as a list. I am going to share a brochure from the American Academy of Pediatrics regarding this."

These brochures are provided by the American Academy of Pediatrics (2021), in English and Spanish, at <https://services.aap.org/en/news-room/campaigns-and-toolkits/gun-safety/>.

Sample teaching points as it appears in the AAP Web site include the following:

1. If you have guns in your home, they should be locked and unloaded.
2. Ammunition must be locked away separately.
3. Make sure children and teens do not have access to the keys or combinations to lock boxes or gun safes.
4. Do not to keep loaded, unlocked guns in the car.
5. When using a gun for hunting or target practice, keep the safety catch in place until you are ready to fire.
6. Always make sure before setting the gun down, to unload it.
7. Inquire about guns in other homes where your child plays: "Is there an unlocked gun in your house?"
8. Remind your kids that, if they ever come across a gun, they must stay away from it and tell you or an adult immediately.
9. Tell the children that the gun violence they watch on TV, in movies, and in video games they play at home or at friends' homes is not real.
10. Reinforce to children that playing with gun is dangerous and can cost someone's life accidentally.

Note. This table depicts a case study with teaching points. Adapted from Schaechter (2020).

recommendations by the National Shooting Sports Foundation (Figures 1 & 2) nurses can also access parent education pamphlets, both in English and Spanish, provided by the American Academy of Pediatrics (2021) available at <https://services.aap.org/en/news-room/campaigns-and-toolkits/gun-safety/>. Additionally, community-based resources can also be recommended by nurses during the patient education process. Nurses and physicians should employ motivational interviewing methods when screening patients. Furthermore, offering and educating about physical tools that allow for the safe storage of firearms decreases children's access to these firearms (Crossen et al., 2015). Anticipatory guidance for gun safety to reduce gun-related injuries is important; Juang et al. (2019) recommend that parents ask about firearm safety and storage in locations where their children congregate and play. This includes inquiring about safe firearm storage, gun safety, and safety practices with their relatives, friends, and the parents of their children's friends. The utilization of a multifactorial toolkit that utilizes counseling, education, primary prevention efforts (Ngo et al., 2019), and community resources for firearm safety and anticipatory guidance is recommended (Juang et al., 2019).

The AAP in their policy statement recommends (AAP, 2021; Dowd & Sege, 2012) prevention strategies.

1. Raise awareness
 - a. Teach firearm safety to parents including access and storage of firearms.
 - b. Use resiliency-based violence prevention strategies in improving interpersonal skills in children
 - c. Verify if there is a gun in the house before sending children to play at a friend's home.
 - d. Limit the exposure to media that displays gun violence and educate on the dangers of guns.
 - e. Know your children's mood changes and get the appropriate help.
2. Equip health care professionals.
 - a. Counsel parents, and screen families about the presence and safe storage of guns.
 - b. Educate parents.

Barriers to Health Care Worker's Role in Firearm Safety

Health care providers (HCPs) may experience barriers such as the belief that gun ownership is a private matter, risks of potential misuse of information, and lack of expertise on this issue. HCPs may not be comfortable asking firearm-related questions to families because of lack of knowledge, skepticism about the parental response, or perception that it is unnecessary. A survey of pediatric nurse practitioners in the United States indicated that about 70% of nurse practitioners reported

asking parents about guns in the home; this was most often done with a new patient (Cho & Dowdell, 2020). They found that Advanced Practice Registered Nurses who are gun owners were comfortable asking the screening questions and most of them believe in the need for guidelines for teaching firearm safety to parents. With the rising number of accidental firearm-related injuries, it is essential that HCPs at various levels be knowledgeable about the need and provide education to parents about child safety. Everyone, including those in outpatient clinics, emergency room, trauma team, pediatric intensive care team, school health staff, and community providers, must be engaged in open dialogue to enhance safety.

Some strategies can be developed to overcome these barriers. Gun safety education can be bundled with child safety information at every encounter with an HCP, by educating the health care workers on how to raise the topic for discussion. HCPs also should teach families to identify mood swings or mental health changes in children for early identification of risk factors and subsequent prevention of mishaps.

CONCLUSION

Pediatric surgical nurses are poised to positively impact the community's health through firearm screening and injury preventive education. Nurses are known to offer culturally appropriate education to meet the mental, physical, and emotional needs of patients and families through the building of collaborative relationships. Nurses are perfectly positioned to gain the parental trust of children with firearm injuries, to educate on firearm injury prevention, and to advocate for the needs of their patients and families.

References

- American Academy of Pediatrics. (2021). *Gun safety and children*. <https://services.aap.org/en/news-room/campaigns-and-toolkits/gun-safety/>
- Burnham, M., & Lee, J. (2019). Guns and kids: Treatment of pediatric firearm and air gun missile injuries in the emergency department. *Pediatrics (Evanston)*, 144, 1. 10.1542/peds.144.2_MeetingAbstract.80
- Children's Hospital of Philadelphia. (2010). *After a child's injury: Parents & stress*. <https://www.chop.edu/news/after-children-injury-parents-stress>
- Children's Hospital of Philadelphia. (2018). Gun violence: Facts and statistics. <https://injury.research.chop.edu/violence-prevention-initiative/types-violence-involving-youth/gun-violence/gun-violence-facts-and#X8QDBd7lhE>
- Cho, A. N., & Dowdell, E. B. (2020). Unintentional gun violence in the home: A survey of pediatric advanced practice nurses' preventive measures. *Journal of Pediatric Health Care*, 34(1), 23–29. doi.org/10.1016/j.pedhc.2019.06.010
- Choi, P. M., Hong, C., Bansal, S., Lumba-Brown, A., Fitzpatrick, C. M., & Keller, M. S. (2016). Firearm injuries in the pediatric population: A tale of one city. *The Journal of Trauma and Acute Care Surgery*, 80(1), 64–69. 10.1097/TA.0000000000000893
- Crossen, E. J., Lewis, B., & Hoffman, B. D. (2015). Preventing gun injuries in children. *Pediatrics in Review*, 36(2), 43–51. 10.1542/pir.36-2-43
- Dowd, M. D., & Sege, R. D., Council on Injury, Violence, and Poison Prevention Executive Committee; American Academy of Pediatrics (2012). Firearm-related injuries affecting the pediatric population. *Pediatrics*, 130(5), e1416–e1423. doi.org/10.1542/peds.2012-2481
- Faulkenberry, J. G., & Schaechter, J. (2015). Reporting on pediatric unintentional firearm injury—Who's responsible. *The Journal of Trauma and Acute Care Surgery*, 79, S2–S8. 10.1097/TA.0000000000000676
- Flaherty, M. R., & Klig, J. E. (2020). Firearm-related injuries in children and adolescents: An emergency and critical care perspective. *Current Opinion in Pediatrics*, 32(3), 349–353. 10.1097/MOP.0000000000000905
- Foster, K., Van, C., McCloughen, A., Mitchell, R., Young, A., & Curtis, K. (2020). Parent perspectives and psychosocial needs 2 years following child critical injury: A qualitative inquiry. *Injury*, 51(5), 1203–1209. 10.1016/j.injury.2020.01.017
- Fowler, K. A., Dahlberg, L. L., Haileyesus, T., Gutierrez, C., & Bacon, S. (2017). Childhood firearm injuries in the United States. *Pediatrics*, 140(1), e20163486. doi.org/10.1542/peds.2016-3486
- Healthychildren.org. (2020). Guns in the home. <https://www.healthychildren.org/English/safety-prevention/at-home/Pages/Handguns-in-the-Home.aspx>
- Herrin, B. R., Gaither, J. R., Leventhal, J. M., & Dodington, J. (2018). Rural versus urban hospitalizations for firearm injuries in children and adolescents. *Pediatrics*, 142(2), e20173318. doi.org/10.1542/peds.2017-3318
- Juang, D. D., McDonald, D. L., Johnson-Young, E. A., Burrell, T. D., Silver, D. L., Wang, Y., & Lichenstein, R. (2019). Assessment of pediatric residents' attitudes toward anticipatory counseling on gun safety. *Children (Basel)*, 6(11), 122. 10.3390/children6110122
- Kalesan, B., Dabic, S., Vasan, S., Stylianos, S., & Galea, S. (2016). Racial/Ethnic specific trends in pediatric firearm-related hospitalizations in the United States, 1998–2011. *Maternal and Child Health Journal*, 20(5), 1082–1090. 10.1007/s10995-015-1894-8
- Reducing gun violence: Facts are stubborn things. (2013). *Lancet*, 381(9883), 2055. doi.org/10.1016/S0140-6736(13)61225-8
- National Shooting Sports Foundation. (2018). *Gun storage for your lifestyle*. https://projectchildsafe.org/wp-content/uploads/2020/05/PCS_SafeStorage_19.pdf
- National Shooting Sports Foundation. (2020). *A guide for parents: Understanding youth mental health and preventing unauthorized access to firearms*. https://projectchildsafe.org/wp-content/uploads/2020/10/NSSF_PCS_AFSP-Parents-Guide_V6.pdf
- Ngo, Q. M., Sigel, E., Moon, A., Stein, S. F., Massey, L. S., Rivara, F., King, C., Ilgen, M., Cunningham, R., & Walton, M. A., FACTS Consortium (2019). State of the science: A scoping review of primary prevention of firearm injuries among children and adolescents. *Journal of Behavioral Medicine*, 42(4), 811–829. <http://>

dx.doi.org.ezproxy.liberty.edu/10.1007/s10865-019-00043-2

Parikh, K., Silver, A., Patel, S. J., Iqbal, S. F., & Goyal, M. (2017). Pediatric firearm-related injuries in the United States. *Hospital Pediatrics*, 7(6), 303–312. 10.1542/hpeds.2016-0146

Richmond, T. S., & Foman, M. (2019). Firearm violence: A global priority for nursing science. *Journal of Nursing Scholarship*, 51(3), 229–240. <http://dx.doi.org.ezproxy.liberty.edu/10.1111/jnu.12421>

Roscigno, C. L. (2016). Parent perceptions of how nurse encounters can provide caring support for the family in early acute care after children's severe traumatic brain

injury. *Journal of Neuroscience Nursing*, 48(2), E2–E15. 10.1097/JNN.0000000000000192

Schaechter, J. (2020). *Guns in the home*. American Academy of Pediatrics. <https://www.healthychildren.org/English/safety-prevention/at-home/Pages/Handguns-in-the-Home.aspx>

Wolf, L. A., Delao, A. M., Perhats, C., Clark, P. R., Moon, M. D., Zavotsky, K. E., & Martinovich, Z. (2019). Emergency nurses' perceptions of risk for firearm injury and its effect on assessment practices: A mixed methods study. *Journal of Emergency Nursing*, 45(1), 54–66. e2. 10.1016/j.jen.2018.09.010

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