

Children's Mercy Kansas City

SHARE @ Children's Mercy

Manuscripts, Articles, Book Chapters and Other Papers

12-1-2016

Firearm Injury Prevention in Clinical Practice: Staying on Message.

M Denise Dowd

Children's Mercy Hospital

Follow this and additional works at: <https://scholarlyexchange.childrensmercy.org/papers>



Part of the [Emergency Medicine Commons](#), [Pediatrics Commons](#), and the [Public Health Education and Promotion Commons](#)

Recommended Citation

Dowd MD. Firearm Injury Prevention in Clinical Practice: Staying on Message. *J Pediatr.* 2016;179:15-17. doi:10.1016/j.jpeds.2016.09.039

This Editorial is brought to you for free and open access by SHARE @ Children's Mercy. It has been accepted for inclusion in Manuscripts, Articles, Book Chapters and Other Papers by an authorized administrator of SHARE @ Children's Mercy. For more information, please contact hlsteel@cmh.edu.

9. Pearson RM, Evans J, Kounali D, Lewis G, Heron J, Ramchandani PG, et al. Maternal depression during pregnancy and the postnatal period: risks and possible mechanisms for offspring depression at age 18 years. *JAMA Psychiatry* 2013;70:1312-9.
10. Milgrom J, Gemmill AW. Screening for perinatal depression. *Best Pract Res Clin Obstet Gynaecol* 2014;28:13-23.
11. Rhodes AM, Segre LS. Perinatal depression: a review of US legislation and law. *Arch Womens Ment Health* 2013;16:259-70.
12. Siu AL, the USPSTF. Screening for depression in adults: US preventive services task force recommendation statement. *JAMA* 2016;315:380-7.
13. Thombs BD, Arthurs E, Coronado-Montoya S, Roseman M, Delisle VC, Leavens A, et al. Depression screening and patient outcomes in pregnancy or postpartum: a systematic review. *J Psychosom Res* 2014;76:433-46.
14. Committee on Obstetric Practice. The American College of Obstetricians and Gynecologists Committee Opinion no. 630. Screening for perinatal depression. *Obstet Gynecol* 2015;125:1268-71.
15. Hawes K, McGowan E, O'Donnell M, Tucker R, Vohr B. Social emotional factors increase risk of postpartum depression in mothers of preterm infants. *J Pediatr* 2016;179:61-7.
16. Wisner KL, Sit DK, McShea MC, Rizzo DM, Zoretich RA, Hughes CL, et al. Onset timing, thoughts of self-harm, and diagnoses in postpartum women with screen-positive depression findings. *JAMA Psychiatry* 2013;70:490-8.
17. Kessler RC. The effects of stressful life events on depression. *Annu Rev Psychol* 1997;48:191-214.
18. Horesh N, Klomek AB, Apter A. Stressful life events and major depressive disorders. *Psychiatry Res* 2008;160:192-9.
19. Mitchell PB, Parker GB, Gladstone GL, Wilhelm K, Austin MP. Severity of stressful life events in first and subsequent episodes of depression: the relevance of depressive subtype. *J Affect Disord* 2003;73:245-52.
20. Robertson E, Grace S, Wallington T, Stewart DE. Antenatal risk factors for postpartum depression: a synthesis of recent literature. *Gen Hosp Psychiatry* 2004; 26:289-95.
21. Mackley AB, Locke RG, Spear ML, Joseph R. Forgotten parent: NICU paternal emotional response. *Adv Neonatal Care* 2010;10:200-3.
22. Carter JD, Mulder RT, Darlow BA. Parental stress in the NICU: the influence of personality, psychological, pregnancy and family factors. *Personal Ment Health* 2007;1:40-50.
23. Bronte-Tinkew J, Moore KA, Matthews G, Carrano J. Symptoms of major depression in a sample of fathers of infants: sociodemographic correlates and links to father involvement. *J Fam Issues* 2007;28:61-99.
24. Fisher SD. Paternal mental health: why is it relevant? *Am J Lifestyle Med* 2016. doi: 10.1177/1559827616629895.
25. Paulson JF, Dauber S, Leiferman JA. Individual and combined effects of postpartum depression in mothers and fathers on parenting behavior. *Pediatrics* 2006;118:659-68.
26. Doering LV, Dracup K, Moser D. Comparison of psychosocial adjustment of mothers and fathers of high-risk infants in the neonatal intensive care unit. *J Perinatol* 1999;19:132-7.
27. Kaarens PI, Rønning JA, Ulvund SE, Dahl LB. A randomized, controlled trial of the effectiveness of an early-intervention program in reducing parenting stress after preterm birth. *Pediatrics* 2006;118:e9-19.
28. Browne JV, Talmi A. Family-based intervention to enhance infant-parent relationships in the neonatal intensive care unit. *J Pediatr Psychol* 2005;30:667-77.
29. Melnyk BM, Feinstein NF. Reducing hospital expenditures with the COPE (Creating Opportunities for Parent Empowerment) program for parents and premature infants: an analysis of direct healthcare neonatal intensive care unit costs and savings. *Nurs Adm Q* 2009;33:32-7.
30. Katon W, Gonzales J. A review of randomized trials of psychiatric consultation-liaison studies in primary care. *Psychosomatics* 1994;35:268-78.
31. Penny KA, Friedman SH, Halstead GM. Psychiatric support for mothers in the neonatal intensive care unit. *J Perinatol* 2015;35:451-7.
32. Hatters Friedman S, Kessler A, Nagle Yang S, Parsons S, Friedman H, Martin RJ. Delivering perinatal psychiatric services in the neonatal intensive care unit. *Acta Paediatr* 2013;102:e392-7.
33. Hatters Friedman S, Kessler A, Martin R. Psychiatric help for caregivers of infants in Neonatal Intensive Care. *Psych Serv* 2009;60:554.
34. Schultz D, Reynolds K, Sontag-Padilla L, Lovejoy SL, Firth R, Pincus HA. Transforming systems for parental depression and early childhood developmental delays: findings and lessons learned from the helping families raise healthy children initiative. Santa Monica (CA): RAND Corporation; 2013.

Firearm Injury Prevention in Clinical Practice: Staying on Message

Each year approximately 33 000 Americans die by firearm, among them over 2500 children and teens younger than 20 years of age, about 7 per day. Two to 3 times as many are hospitalized for a nonfatal gunshot injury. Over one-half of deaths are homicide, over one-third are suicides, and less than 200 are considered unintentional.¹ When compared with other developed nations, US children under 15 years of age are 12 times more likely to be killed by a gun, including 10 times more likely to die of a gun suicide and 9 times more likely to die of an unintentional gun injury.² Guns are ubiquitous in the US; there is nearly 1 firearm for each person in our country.³ Approximately one-half of all homes contain at least 1 gun, including those homes with children.⁴ It is realistic, therefore, to expect that most US children have a high probability of being in an environment with a gun at some point.

Like home medicines, cleaning products, swimming pools, and unsecured furniture in the home, guns, if not properly secured, represent a clear danger to children. Unlike most other injury risks in the home, firearms have a much higher case fa-

tal. If a teenager, in a suicide attempt turns to pills, less than 5% of the time he/she will end their life; if a gun is chosen for the suicide attempt, that probability is greater than 80%.⁵ Solid evidence indicates safe storage (gun locked and unloaded with ammunition locked separately) significantly reduces the risk of suicide and unintentional injury for children and teens.⁶ Although training children not to handle firearms is important, we know that gun avoidance programs (teaching kids “don’t touch,” “tell an adult”) are not effective in preventing children from handling guns.⁷⁻⁹ We know that nearly 1 in 10 families with guns admit to keeping at least 1 gun loaded and unlocked, and nearly one-half keep at least 1 gun unlocked.⁴ Thus, promotion of safe firearm storage is a vital part of injury prevention

See related article, p 166

The author declares no conflicts of interest.

0022-3476/\$ - see front matter. © 2016 Elsevier Inc. All rights reserved.
<http://dx.doi.org/10.1016/j.jpeds.2016.09.039>

routinely covered during anticipatory guidance in well child care in addition to other relevant clinical scenarios, such as behavior and mental health visits.

Unfortunately, the topic of firearms is politicized, polarizing, and highly emotional. Despite wide public support, including by gun owners, our elected officials have repeatedly failed to move the needle on any federal policy related to regulation of firearms. Several governmental actions have had direct and negative consequences for medical research and clinical practice. Since 1996, Federal funding for firearm injury research has been effectively prohibited,¹⁰ creating a void of understanding of firearm injury cause and prevention. “Gag” law legislation, which prohibits physicians from asking about guns in the home, has been introduced in several states, starting in Florida where the legal challenges are ongoing.¹¹ Child access prevention legislation and laws, which create legal consequences for injuries sustained as the result of an unsecured weapon, have failed in several states but have been enacted in some.¹² It is within this societal context that we, as pediatricians, must attempt to effectively prevent our patients from being killed or injured by firearms.

There is a serious lack of research in the last 20 years on best ways to approach firearm injury prevention in clinical practice. Given the increase in media attention following a number of mass shootings, the increase in gun sales following these events, the ongoing public debate on gun regulation, the increase in liberalization of conceal carry regulations, and protection as the leading reason for gun ownership, it is imperative to understand the attitudes, beliefs, and feelings of the families we serve on this issue. Finding out “where people are” is a key first step to planning and implementing effective counseling and education.¹³ The study by Garbutt et al¹⁴ in this volume of *The Journal* does just that. They report the findings of their survey, which asked whether parents are receptive to discussing firearm safety with their pediatricians and examined whether there were differences based on gun ownership. They also inquired whether respondents had been asked by their child’s pediatrician about guns in the home and their storage. Their findings included: (1) a minority of parents reported that their pediatricians asked about guns in the home; (2) the majority of parents were receptive to screening for guns in the home during their child’s health care visit; and (3) gun owners were less likely than nonowners to be receptive to screening for guns in the home, but the majority of both owners and nonowners thought pediatricians should advise on the safest way to store firearms in the home.

This study, similar to a previous studies, supports routine firearm injury prevention activity by primary care providers but does raise the question of how best to do this, given differences between gun owners and nonowners in direct screening for guns in the home. The studies suggest that universal provision of safety information rather than direct screening be considered. However, providing information universally (and only information) has not been demonstrated to be an effective intervention for other childhood injuries. Doing so as a means to not offend gun owners is questionable, not only because of potential lack of effectiveness, but also because it avoids the important work of changing parental risk percep-

tion for child exposure to guns. On the other hand, asking about a gun in the child’s home does not address the dangers surrounding guns in homes children and teens visit and work. What should be done? Future research comparing universal information provision with a more focused approach may help settle these questions. Like other sensitive topics (eg, adolescent sexual health and intimate partner violence), much can be learned about how to effectively address risk by better understanding the feelings, thoughts, and opinions of the target group with qualitative studies and survey work.

Pediatrics is unique in many ways but 2 aspects of pediatrics that apply directly to approaching firearm injury prevention in the clinical practice setting are integration of developmental stage into care and relationship with the parent/caregiver as proxy for the child. These values, in addition to basing care on existing valid evidence, are paramount to our effectiveness as clinicians.

Approaches by clinicians in the broad area of behavior change are best planned on a solid foundation of understanding the attitudes, knowledge, and beliefs of the target audience (our patients and their families).¹³ The principles of motivation interviewing are important to consider in addressing health behaviors, which may involve sensitive topics (teen sexual activity, gun ownership).

Most importantly, the authors make the suggestion that pediatricians consider approaching firearm injury prevention as experts in child development rather than experts in firearms safety. By framing the discussion with a focus on the developmental stage of the child and underscoring the fact that training children about dangers must align with their developmental capabilities helps the child healthcare provider speak credibly and authentically. Although the difference between “gun safety” and “child safety” may seem subtle, such a shift allows a consistent approach to home injury prevention across mechanisms of injury with the focus on the child, not the gun. It is in the realm of child health and development that pediatricians have the strongest voice, the most knowledge, and the most credibility. Little children are curious and big children (teens) are impulsive, so exposure to unsecured guns can lead to tragic outcomes that cannot be prevented by child education. Who better to deliver this message than pediatricians? ■

M. Denise Dowd, MD, MPH

Division of Emergency Medicine
Children’s Mercy Hospital
Kansas City, Missouri

Reprint requests: M. Denise Dowd, MD, MPH, Division of Emergency Medicine, Children’s Mercy Hospital, 2408 Gillham Rd, Kansas City, MO 64108. E-mail: ddowd@cmh.edu

References

1. Centers for Disease Control. Fata injury data. <http://www.cdc.gov/injury/wisqars/fatal.html>. Accessed September 3, 2016.
2. Centers for Disease Control. Rates of homicide, suicide, and firearm-related death among children- 26 industrialized countries. *MMWR*. 1997;46:101-5.

3. U.S. Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives, *Firearms commerce in the United States*. 2011, p. 15.
4. Schuster MA, Franke TM, Bastian AM, Sor S, Halfon N. Firearm storage patterns in homes with children. *Am J Public Health* 2000;90:588-94.
5. Spicer RS, Miller TR. Suicide acts in 8 states: incidence and case fatality rates by demographics and method. *Am J Public Health* 2000;90:1885.
6. Grossman DC, Mueller BA, Riedy C, et al. Gun storage practices and risk of youth suicide and unintentional firearm injuries. *JAMA* 2005;293:707-14.
7. Hardy MS. Teaching firearm safety to children: failure of a program. *J Dev Behav Pediatr*. 2002;23:71-6.
8. Himle MBM, Miltenberger RG, Gatheridge BJM, Flessner CA. An evaluation of two procedures for training skills to prevent gun play in children. *Pediatrics* 2004;113(1 Pt 1):70-7.
9. Jackman GA, Farah MM, Kellermann AL, Simon HK. Seeing is believing: what do boys do when they find a real gun? *Pediatrics* 2001;107:1247-50.
10. Frankel TC. <https://www.washingtonpost.com/news/storyline/wp/2015/01/14/why-the-cdc-still-isnt-researching-gun-violence-despite-the-ban-being-lifted-two-years-ago/>. Accessed September 1, 2016.
11. Kuehn BM. Battle over Florida legislation casts a chill over gun inquiries. *JAMA* 2015;313:1893-5.
12. <http://smartgunlaws.org/gun-laws/policy-areas/consumer-child-safety/child-access-prevention/>. Accessed September 4, 2016.
13. Miller WR, Rollnick S. *Motivational Interviewing: Preparing People To Change Addictive Behavior*. New York: Guilford Press; 1991.
14. Garbutt JM, Bobenhouse N, Dodd S, Sterkel R, Strunk RC. What are parents willing to discuss with their pediatricians about firearm safety? A parental survey. *J Pediatr* 2016;179:166-71.

Child- and Parent-Reported Health: The Rashōmon Effect of Multiple Realities



Using person- (patient-) reported health outcome measures is an important approach to evaluate people's health, their response to treatment, and the quality of life that reflects their own perspectives unfiltered by interpretations from healthcare professionals. This concept, which has been gaining acceptance, arises from well-researched evidence that only people with chronic health conditions have the ability to evaluate their own health based on their individual factors, preferences, and life situations.

Many validated person- (patient-) reported health outcome measures have been developed in an attempt to capture accurately the constructs of interest. However, self-reported measures can be applied only to people who have the capacity and capability to rate their own health. Proxy ratings, done by individuals who are considered appropriate surrogates, are often used to replace or complement the perspectives of persons who are considered less capable of rating their own health.

In pediatric healthcare, parents and other caregivers traditionally have been consulted to report on their child's health. Researchers have frequently suggested that caregivers would have sufficient objectivity to reflect the child's own perceptions. The children themselves were considered to be too immature and unreliable to report on their own health. Fortunately, over the last 2 decades, children have been invited to participate actively in the development of health measures using robust qualitative and quantitative research methodologies. These efforts have confirmed that from the cognitive age of 8 years and onward, children can independently, accurately, and reliably report about their own health, attitudes, and feelings. Today, person- (patient-) reported health outcome measures are considered the criterion standard to evaluate adults and children with impairments and disability.¹

Researchers have identified repeatedly that children's self-reports and parents' proxy reports are not always concordant. The reasons for this discrepancy stem from subjective

personal realities, perceptions, valuation, and views by the reporting person.² In the social sciences, this phenomenon of multiple sometimes conflicting realities was coined as the Rashōmon effect.

In this famous Japanese tale, set in the 12th century, a notorious bandit attacked a samurai and his wife in the woods. The wife was ravished and the samurai was later found dead. The bandit was captured and brought to trial. Attending the trial were the bandit, the samurai's wife, a woodcutter who witnessed the scene, and a priest who had sighted the samurai and his wife earlier that day. Because their accounts of the event were significantly contradictory, a medium was asked to call upon the dead samurai, who told yet another different version of events. When the tale is over, the reader realizes that even though none of the versions is a truthful objective account, all must be true at least from the character's own unique perspective.

A number of causes for discrepancy among raters have been explored. One is the depression distortion hypothesis, whereby raters with depression tend to score poorer on numerous health variables.^{3,4} Another potential cause is the concept of the disability paradox,⁵ where some persons with impairments, against all odds, are satisfied with their life and rate their health similar to typical children.⁶

In this volume of *The Journal*, Eom et al⁷ examine the behavioral profile of youth with epilepsy as assessed by the youth themselves and their parents and compared with their typically developed siblings. This study examined a community-based cohort of children with epilepsy from Connecticut who did not have any major comorbidities (so-called

See related article, p 233

The authors declare no conflicts of interest.

0022-3476/\$ - see front matter. © 2016 Elsevier Inc. All rights reserved.
<http://dx.doi.org/10.1016/j.jpeds.2016.09.047>