Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

Participation of Children and Adolescents in Live Crisis Drills and Exercises

David J. Schonfeld, MD, FAAP,* Marlene Melzer-Lange, MD, FAAP,† Andrew N. Hashikawa, MD, MS, FAAP,* Peter A. Gorski, MD, MPA, FAAP,*#

COUNCIL ON CHILDREN AND DISASTERS, COUNCIL ON INJURY, VIOLENCE, AND POISON PREVENTION, COUNCIL ON SCHOOL HEALTH

abstract

Children and adolescents should be included in exercises and drills to the extent that their involvement advances readiness to meet their unique needs in the event of a crisis and/or furthers their own preparedness or resiliency. However, there is also a need to be cautious about the potential psychological risks and other unintended consequences of directly involving children in live exercises and drills. These risks and consequences are especially a concern when children are deceived and led to believe there is an actual attack and not a drill and/or for high-intensity active shooter drills. High-intensity active shooter drills may involve the use of real weapons, gunfire or blanks, theatrical makeup to give a realistic image of blood or gunshot wounds, predatory and aggressive acting by the individual posing to be the shooter, or other means to simulate an actual attack, even when participants are aware that it is a drill. This policy statement outlines some of the considerations regarding the prevalent practice of live active shooter drills in schools, including the recommendations to eliminate children’s involvement in high-intensity drills and exercises (with the possible exception of adolescent volunteers), prohibit deception in drills and exercises, and ensure appropriate accommodations during drills and exercises based on children’s unique vulnerabilities.

BACKGROUND

Historically, children of all ages have generally not been included in crisis preparedness efforts in the United States, including participation in live drills and exercises, and certainly not to the extent that children are represented in the general population. This lack of planning and practice for the needs of children represents a significant oversight that increases the vulnerability of children in the event of a crisis. However, increasing concerns about the risk of mass casualty events in schools throughout the United States have given rise to crisis preparedness efforts that now include...
children in high-intensity live crisis exercises such as active shooter drills, which are increasingly held in schools and involving children of all ages, including early elementary school- and preschool-aged children as well as college students. For the purpose of this policy statement, "children" will be used to refer to children and youth of all ages (ie, 0–21 years of age), unless stated otherwise. The American Academy of Pediatrics (AAP) recommends that children be included in exercises and drills only to the extent that their involvement advances adult readiness to meet the unique needs of children in the event of a crisis and/or furthers their own preparedness or resiliency. However, there is also a need to be cautious about the potential psychological risks of directly involving children in live exercises and drills. These risks are especially a concern when children are deceived so that they believe there is an actual attack and not a drill and/or for high-intensity active shooter drills.

A lockdown is an emergency procedure to minimize risk of harm to students and staff when a significant threat of violence within (or near) the school is present. A lockdown generally involves the immediate movement of students and staff into rooms in which doors are locked and students remain quiet. Other security measures are often followed, including darkened lights, shades on exterior windows, and covered doors, and children moving to an area that is not visible from hallways. Lockdown drills are when lockdown procedures are practiced in the absence of a threat, including as a form of preparation for a possible armed assailant (in which case, some people may refer to this as an active shooter drill). High-intensity active shooter drills may involve the use of real weapons, gunfire or blanks, theatrical makeup to give a realistic image of blood or gunshot wounds, predatory and aggressive acting by the individual posing to be the shooter, or other means to simulate an actual attack, even when participants are aware that it is a drill.2

**STATEMENT OF PROBLEM**

The majority of school districts currently require active shooter drills, among other emergency drills and exercises within schools and other community settings.3 If planned and conducted thoughtfully with sufficient attention to the potential emotional impact of participation and conducted in a manner that is developmentally appropriate, exercises such as lockdown drills may be completed without a major negative impact to most children.4 However, in practice, active shooter drills are often planned and conducted without guidance from those familiar with the unique needs and vulnerabilities of individual or groups of children, which is critical to inform best practices. The unique needs of young children (eg, those in early care and education settings), children who suffered traumatic events in the past, and those with physical, intellectual, and neurodevelopmental disabilities are rarely considered and addressed in live exercise planning. Preparedness initiatives and approaches need to be evaluated to ensure that they are effective, and research is needed to demonstrate that these initiatives do not cause untoward distress or other unintended consequences for individual or groups of children and school staff or other adult participants.

**EVIDENCE BASE**

Although there is general agreement that the direct involvement of children should be based on the value of including them in crisis drills and exercises, their age and developmental capabilities, and their personal vulnerabilities, there is a limited evidence base on how to make these assessments. Mass shootings in schools, although highly visible in the media and social consciousness, are rare events. These events, therefore, provide limited opportunities to test the efficacy of interventions in real-life situations. School safety, especially related to school shootings, has generated opportunities for products and services that together represent major financial investments, without much or any evidence of efficacy.5 Products promoted for purchase by schools now include bulletproof barriers or shelters intended to accommodate the full class and teacher that can be used as panic rooms in the event of a school shooting.6 These types of training and interventions proposed have rarely been evaluated, despite an escalating demand for both.

Recently, researchers have begun to question the efficacy of some popular training approaches. For example, Dorn7 conducted more than 8000 one-on-one controlled video and audio simulations and, in the study, found that school personnel who completed active shooter training designed to train people to make decisions among various crisis response options (eg, whether to run, hide, or physically attack a shooter) were almost twice as likely to misjudge many critical action steps in simulations compared with untrained school staff who relied on common-sense actions. For example, adults who completed the training were more likely to attack a child who was holding a gun and threatening suicide or run from a classroom when staying within the room was the safer alternative.

It is possible, and even likely, that other well-intentioned preparedness efforts may inadvertently cause children and adults to place themselves in additional danger in a crisis situation. Children (and adults) might be taught to fight a heavily armed intruder; when fleeing or hiding would be a more appropriate response. Children taught to provide first aid to a bleeding peer or remain near an injured person to comfort them may remain in harm’s way in an
active shooter event and place themselves at increased risk of becoming a casualty.

Some students and school personnel may feel empowered by being able to actively participate in live exercises because they may feel that it better prepares them for possible events. These individuals may, however, underestimate how others with different personalities, coping styles, personal histories, and individual vulnerabilities may respond. Children and adults who receive training to respond to a crisis may feel comforted because it provides them an illusion of control. However, such efforts could result in increased guilt if the individual is not able to respond in the idealized fashion in a real event. For example, children taught to fight back against an armed intruder or adult staff who are armed with a weapon to shoot a potential attacker may feel substantial guilt if they end up fleeing (appropriately) or are unable to save the life of a child or peer in an actual attack. These and other unintended consequences need to be carefully considered, and programs need to be evaluated more strategically for efficacy before being widely implemented. Even initiatives with good intentions may cause serious harm.

Unfortunately, there is not much evidence to guide best practices. Survivors or family members of individuals who died in crisis events may be powerful advocates for preparedness efforts and feel passionately about the need to take active steps to protect students and staff from school crisis events. Parents and other community members may simply be unwilling to wait until preparedness approaches are adequately evaluated. Pediatricians and other pediatric health care providers can provide important insights into the developmental needs and vulnerabilities of children of all ages that can help inform best practices.

Law enforcement personnel who place their own lives in jeopardy have the unenviable responsibility of protecting children from such acts of violence and may understandably suggest taking virtually any action that may save a child’s life, thereby leading them to recommend involving children in high-intensity drills. Their passion may need to be balanced with concerns of unintended mental and physical consequences and/or the lack of evidence about the efficacy of certain approaches.

Law enforcement personnel benefit from regular and realistic opportunities to practice critical skills, much as physicians do. It, therefore, stands to reason that these professionals would seek opportunities to identify and then practice how best to respond to active shooter scenarios in schools and other settings. The question is whether and in which situations children and adolescents should be actively engaged in such live exercises and how the exercises should be conducted to minimize the negative impacts on students. Guidelines developed by the National Association of School Psychologists and National Association of School Resource Officers recommend that schools follow a hierarchy of preparedness strategies, beginning with simple discussion-based exercises, before even considering complex (in-person or live) operations-based drills. These organizations also recommend the inclusion of school mental health professionals in both the planning and implementation of drills so that careful consideration can be given to the appropriate involvement of children and potential means to minimize distress for all participants.\textsuperscript{8,9}

In contrast, some schools have conducted active shooter exercises without advance notice and misled students and/or staff members that it was an actual shooting event, complete with a police response and, in at least one situation, armed weapons pointed at school-aged children. This is based on the belief that simulations that evoke the same level of distress as real events better prepare participants to act appropriately at a time of true crisis.\textsuperscript{2} During one recent live exercise in which high school students were deceived to believe it was a real event, children sobbed hysterically, vomited, or fainted, and some children sent farewell notes to parents. Children risked physical harm when a stampede ensued, and students jumped over fences to escape.\textsuperscript{10} In one situation, staff were intentionally shot at close range with pellets as part of the training.\textsuperscript{11}

High-intensity crisis preparedness efforts may contribute to a distorted sense of risk in children and perspective that adults and peers need to be viewed as potential killers. More broadly, these activities can increase children’s anxiety and fear that the world is a threatening place.\textsuperscript{12} This atmosphere of a continuous threat of violent death is likely to increase anxiety further among children when frequent threats directed at the school or present in the community lead to lockdown procedures. It should not be a surprise that there are reports of young children writing frantic notes while in lockdown, including one 7-year-old who wrote “Love mom and dad” with marker on her arm and later explained to her mother that it was “In case the bad guy got to us and I got killed, you and daddy would know that I love you” after her body was discovered.\textsuperscript{10,13} Even infants and toddlers in early child care settings, who will have little understanding of the implications of gun violence, may nonetheless react negatively with increased anxiety, stress, and helplessness to the stressful context, loud noises, and disruptive environment of active shooter drills, especially when the adults are themselves distressed. Stakeholders can instead be focused on equipping children with the skills
needed and expectations of peaceful coexistence rather than an expectation for and preparation to recover from mass violence. Resources directed to prevention efforts are more cost-effective and have wider benefits to potential victims, survivors, and society.

The December 2018 report of the Federal Commission on School Safety\textsuperscript{14} included the following statement: "While there is some disagreement over whether it is appropriate to subject students to active shooter training, as school shootings become more prevalent, more schools are opting to drill their students on how to respond to an active shooter situation. According to a 2016 US Government Accountability Office report, an estimated 67% of school districts conduct active shooter drills involving their students. Whether to conduct active shooter drills with the student population is something each community must determine for itself. For those that do elect to conduct active shooter drills with students, they should ensure that the training is age-appropriate and designed in a manner not to unduly traumatize any of the participants."

The determination of what is generally age-appropriate and/or likely to be traumatizing to children when conducting a live crisis exercise or drill is something that can be determined at a national level. There is a general lack of national recommendations on whether to include children in active shooter exercises and other crisis drills. This policy statement aims to provide those recommendations.

**CONCLUSIONS**

The AAP supports advocacy efforts at the national and state levels to ensure that the unique needs of children are fully considered in crisis preparedness efforts, including, when appropriate, the involvement of children in live exercises and drills.

However, the AAP also recognizes the importance of ensuring that preparedness efforts are effective but do not cause children untoward psychological distress or lead to other unintended consequences.

**RECOMMENDATIONS**

1. Eliminate children’s routine involvement in high-intensity drills and exercises. Children should generally only be involved in crisis exercises when their involvement is of direct benefit to them and/or other children, rather than only of benefit to adult professionals. If the goal of a high-intensity drill or exercise is for adult responders to practice their roles (eg, to train law enforcement and/or medical personnel), then alternatives such as manikins or adults playing the roles of children should be sufficient, or the activity can occur outside of the hours when students are present in schools or preschools. First responders may need to practice being in a high-stress situation involving active shooters, but the same is not true for school-aged children. Therefore, only adolescents who have a personal desire to participate (eg, volunteers from a drama club or teenagers who plan a career in law enforcement or as an emergency medical technician) should have the option to be included in high-intensity drills and exercises until evidence is gathered that such drills or exercises are of sufficient benefit to warrant the likely distress of other participants.

2. Obtain active consent/assent of adolescent volunteer participants. If adolescents volunteer to be involved in high-intensity live exercises, they should be carefully briefed on what will be involved and the feelings that the experience may engender (including for those with undisclosed personal vulnerabilities, such as anxiety or past traumatic experiences) and told that they are under no pressure to volunteer. For this reason, active consent (for those youth able to provide consent) or active consent from a legal guardian and assent from the adolescent should generally be required for live high-intensity exercises, rather than the use of passive consent procedures. Children who are of an age and developmental ability to provide consent/assent for procedures that may cause modest physical discomfort or modest emotional distress to an average child (eg, donating blood in a blood drive for example) may be permitted to provide consent/assent to participate in such exercises; younger children should not be allowed to participate. Even adolescents who have been appropriately briefed and are capable of providing consent/assent may still not disclose personal vulnerabilities and/or may underestimate the distress that participation may ultimately cause.

3. School personnel or other adults present during drills should remain vigilant for psychological distress. It is critical to minimize the distress children may experience throughout any exercise. Simulations involving real weapons, gunfire or blanks, theatrical makeup to give a realistic image of blood or gunshot wounds, predatory and aggressive acting by the individual posing to be the shooter, or other means to accurately simulate an actual attack are likely to still be traumatic to some and should require careful justification. Even if children have agreed to participate in an exercise, they ought to be instructed to discontinue participation if it is causing any physical or emotional
distress and explicitly given permission to take a break from the exercise for any reason. Adult monitors should be observing children's reactions and checking on them periodically throughout the exercise. Even when exercises or drills do not include any elements that may be felt likely to engender distress, some children and adults may nevertheless experience distress. For this reason, adults should carefully monitor the reactions of children and adults to any exercises and drills, with oversight by an experienced member of the team planning the exercise or drill, and provide supportive services as indicated.

4. Eliminate deception in drills and exercises. Notice of drills should be provided to parents, students, and staff members. Students, staff, and families of students should not be led to believe that an exercise is a real event or misled about the injury to or death of others. Such a practice is harmful and unethical and is not justified by a theoretical benefit of evaluating people's response under extreme levels of stress. State AAP chapters can advocate that schools and emergency response agencies prohibit the use of deception in live drills and exercises and any related simulations (eg, mock death notifications and funerals). Instead, it should be mandatory to notify parents, students, and staff members of planned live crisis drills and exercises. Pediatricians can review the policies of local school districts, inquire about their current practices related to drills and exercises, and offer guidance as described in this policy.

5. Focus on teaching skills rather than simulating distressing crisis events. The goal of live exercises and drills is to teach skills before actively testing them in a more pressurized context that may degrade performance, thereby helping to promote and demonstrate competence rather than overwhelming people by their failures. Stakeholders planning drills and exercises should articulate that the learning objectives for adult and child participants are different and ensure that the drills and exercises highlight or teach specific behaviors that promote safety rather than simply being used to highlight potential dangers or convey the seriousness of a crisis event. Feedback from all stakeholder groups, including students and staff, should be obtained after exercises and drills to identify any remaining gaps in knowledge and skills and ascertain if participation caused any distress or other unintended consequences.

6. Make accommodations that are based on children's unique vulnerabilities. In most situations, active shooter drills should be conducted as fire drills are generally conducted (without simulation of there being an active fire) using a well-discussed, calm approach to the safe movement of students and staff in the school building. In general, adults should avoid referencing these drills with names that may engender further distress, such as calling them "active shooter drills"; instead, terms such as "lockdown," "shelter in place," or "safety drills" are preferable. Children with a high level of personal vulnerability (eg, students with an anxiety disorder, previous traumatic experience, or physical disability) may require particular accommodations, including being excused from certain drills or exercises when such participation may be overwhelming.15,16 Parents and/or guardians can be notified at the start of a school year about the likely drills that will be held and invited to bring any concerns about their child's participation to the school's attention. Pediatricians who become aware of such concerns should encourage and assist parents to communicate them directly to school authorities. In some situations, the accommodations may be part of a 504 Plan or incorporated into a student's Individualized Education Program. School personnel must be conscious of the unique needs of early childhood, child care, Head Start and Early Head Start, or preschool programs located on campus and consider ways to exclude or mitigate the impact on this vulnerable population.

7. Seek and incorporate student input. School personnel can give thought as to how to incorporate the input of students into safety discussions and planning for exercises and drills. Students can provide important insight into the risks that students may face in the event of a crisis, vulnerabilities that adults may not anticipate, and how best to prepare peers for exercises and drills and minimize their distress while participating. It is important, though, to remember that some students and staff may feel empowered by opportunities to engage actively in exercises and underestimate the distress it may cause other students with different personalities, coping styles, or preexisting vulnerabilities. Adults can talk with students after conducting drills and exercises to obtain their feedback about the experience and suggestions on how to optimize future exercises and drills.

8. Obtain multidisciplinary input into exercise and/or drill planning. To give careful consideration to the needs of all children in drills and
9. Emphasize the role of prevention. Sufficient emphasis should be placed on the prevention of violence, including the necessary financial resources and professional efforts. These efforts include, among others, efforts in social-emotional learning, positive school climate and culture, early identification and effective and readily accessible treatment of behavioral health concerns and mental illness, educator and school administration training, deployment of sufficient mental health and support personnel in schools, and interdisciplinary threat assessment. The AAP and its members can work with others nationally to balance the rights of gun ownership with the need to protect the safety of children in a way that does not allow society to view mass shootings involving children as inevitable or as a “new normal” in society.

10. Promote legislative advocacy. All legislation requiring active shooter drills in schools should be required to follow best-practice guidelines, such as those from the National Association of School Psychologists and the National Association of School Resource Officers. Among other recommendations, these guidelines recommend that schools begin with simple discussion-based exercises (ie, tabletop exercises) before considering complex live drills.

11. Conduct research on the impact of exercises and drills. Funding for research is needed to evaluate the goals, efficacy, and potential unintended consequences of crisis preparedness activities involving children. Strategies that are likely to cause significant distress or other unintended consequences, such as high-intensity live exercises, should be evaluated before they are implemented, especially in the absence of evidence of their efficacy.

LEAD AUTHORS
David J. Schoenfeld, MD, FAAP
Marlene Melzer-Lange, MD, FAAP
Andrew N. Hashikawa, MD, MS, FAAP
Peter A. Gorski, MD, MPA, FAAP

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Alexander “Sandy” Sinclair – National Highway Traffic Safety Administration

STAFF
Bonnie Kozial

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Linda Mendonca, RN, MSN, PHNA-BC, NCSN
FNANS – National Association of School Nurses

STAFF
Stephanie Domain, MS

ABBREVIATION
AAP: American Academy of Pediatrics
REFERENCES


Address correspondence to David J. Schonfeld, MD, FAAP. E-mail: schonfel@usc.edu

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