Active Shooter Drills May Be Harming Children, but Doctors Offer Help

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Gun attacks in classrooms across the nation have led principals and other school leaders to implement "active shooter" drills to try to increase the safety of their students and faculty.

The drills can range from staging lockowns and sheltering in place to quasi dramas with mock shooters roaming the halls. Although the goals of these training exercises are important, equally important are the potential negative effects of drills on students' mental health, according to doctors with expertise in pediatrics and mental health.

"Dramatic simulation of an active shooter event at school would be expected to provoke the same stress response as the real thing," said Peter L. Loper Jr., MD, a pediatrician and psychiatrist, in an interview. "While ensuring their physical safety is very important, we must be intentional about making sure that we are not doing so at the expense of their psychosocial or emotional safety."

"Children may not be able to differentiate a dramatic drill from a real event," emphasized Loper, of the neuropsychiatry and behavioral science departments at the University of South Carolina, Columbia. "The parts of the brain responsible for our fight-flight-or-freeze response would interpret both simulated and real events identical and produce the same neurohormonal stress-response."

Indeed, a study published in the journal Humanities & Social Sciences Communications suggested children experienced mental health problems related to participating in active shooter drills. In the large study, a team of statisticians from the Georgia Institute of Technology found that students reported a 42% increase in stress and anxiety and a 38.7% increase in depression during the 90 days following active shooter drills, compared with the 90 days before the drills.

The authors of this study, including Mai ElSherif, PhD, drew these conclusions after analyzing 54 million social media posts before and after drills in 114 schools across 33 states. The researchers analyzed the language of the social media posts by teachers, parents, and students and found increased use of the words hope, love, home, school, kids, community, support, and help after the drills. The researchers considered posting with these terms in the aftermath of the drills to be indicative of having high anxiety.

They included examples of how high stress, anxiety, and depression manifested in specific posts from parents in their report. The following is an example of a poster expressing high anxiety and stress: "are we really gonna normalize school shooter drills?! holy sh*t there has to be a real way to avoid these tragedies. sh*t like this cannot be normalized. teachers injured after being shot with plastic pellets 'execution style' in active shooter drill."

The authors also shared this post to serve as an example of a person who seems depressed: "and now we are revisiting the trauma on our kids, forcing them to act out school drills monthly. i don't get why gen x parents buy into this concept wholeheartedly. things need to change."

The published material did not include posts from students, but the researchers' analysis of the content of posts overall showed increased concerns for health and increased concerns about death during the period after drills, compared with before drills.
The authors also conducted focus groups in communities in which drills occurred, and many teachers and parents reported anecdotal evidence of children who were nervous long after the drills were over, with some showing extreme reactions such as panic over a standard fire alarm at school. Overall, the results show that school shooter drills can negatively affect school communities over prolonged periods of time, they concluded.

According to a statement from the American Academy of Pediatrics, “there is 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,” wrote David Schonfeld, MD, the lead author of the statement on Participation of Children and Adolescents in Live Crisis Drills and Exercises, and colleagues.

**Managing the Fallout**

Physicians can help students experiencing mental health problems from these drills, according to doctors interviewed for this piece.

It’s important for providers to know that stress will show up differently in children than in adults, said Chelsea Younghans, MD, a psychiatrist and military officer in Bethesda, Md., in an interview.

“They may see children with headaches, stomach aches, or nonspecific complaints. They may also see children who have not had difficulty with sleep present with nightmares or bed wetting,” she added.

For teens and preteens, validated tools such as the Child PTSD Symptom Scale (CPSS-S) and Child and Adolescent Trauma Screen (CATS) to assess PTSD in youth, may help serve as a starting point for a conversation between providers and their older child population, she noted.

Children who exhibit avoidance or withdrawal behaviors including consistent school refusal, an increase in reassurance-seeking behaviors, or somatic symptoms like vague abdominal pain or headaches that prevent school attendance after participating in a drill, may need more robust mental health services, Loper noted.

Schonfeld, who is also director of the National Center for School Crisis and Bereavement at Children’s Hospital Los Angeles, called for health care providers to be available to help children process traumatic reactions to these exercises.

Agreeing with Schonfeld, Younghans said: “It is vital to debrief with students and staff after drills, making sure that students have a safe space and ample time to speak with trusted staff. As children will undoubtedly have questions and concerns, creating open lines of communication will help alleviate any traumatic effect these drills may have.”

**Communicating With Various Stakeholders**

Experts also gave recommendations for how clinicians communicate with leaders in their area’s school districts and other members of their communities about these training exercises.

“For primary care providers, it is important to establish meaningful relationships within your community and patient population as much as possible,” Younghans said. “Having a good relationship with the local schools and being part of the conversation can help increase school and community awareness on the impact these drills can have on students and staff,” she added.

For those pediatricians or other health care providers who serve as consultants to schools, Schonfeld advised they ask about policies related to exercises and drills, such as what are the limits to what children might be exposed to in a drill, and what requirements there might be at the local and state level in terms of frequency and what the drills will and will not involve.

He also noted that clinicians should encourage school leaders to consider the fact that kids may have personal histories of trauma that are completely unknown to the school when they design these exercises.
School staff and health care providers should explain the nature and reasons for drills, invite family members to express concerns, and make accommodations if necessary for some children to participate in drills in a more limited way, noted Schonfeld, who is also clinical professor of pediatrics at the University of Southern California, Los Angeles.

"I think health care providers should work with legislators, so that if they require a drill, it must be done in a way that is physically and emotionally safe," he added.

**Executing Better Drills for Students’ Mental Health**

Experts also advised on ways to execute these drills that will be least damaging to students.

The AAP statement on Participation of Children and Adolescents in Live Crisis Drills and Exercises, for example, advocates eliminating high-intensity drills, prohibiting deception in drills, and providing accommodations based on children’s vulnerabilities.

Schonfeld also emphasized, in an interview, that training for an attack need not be extremely realistic to be effective.

"When you are preparing for a crisis, the drills and exercises are for children to practice and develop mastery over something they don’t know how to do fully yet," said Schonfeld.

Citing a suggestion from a 2020 report conducted by Everytown for Gun Safety on keeping schools safe from gun violence, Younghans said, "Schools should be in clear communication with communities and families regarding when drills will be happening," and advised ensuring that the explanation of drills is developmentally appropriate to the age of the children participating.

The report also recommends conducting drills that do not simulate an actual incident, combining drills with trauma-informed approaches to address students' well-being during and for a sustained period after the drills, and tracking data on the efficacy and effects of drills.

Loper suggested ways that clinicians and parents can help navigate the tricky territory of school safety drills.

In his view, they should not be random or unexpected, and anticipatory guidance should be given regarding any visual or auditory stimuli, such as flashing lights or sirens, alarms, or announcements.

"A preventive approach should be utilized to ensure that any child who is experiencing extreme drill-distress be excused from any future disaster drills to prevent retraumatization," Loper said.

Physicians interviewed for this piece also provided tips on how to talk about these events with children in a way that is beneficial to their mental health.

"What we want to do is [have a] calm discussion [with kids] about what we are doing and why we are doing it" and guide them through the movements, Schonfeld said.

When teaching children how to respond to an emergency, some elements of uncertainty need to be discussed. Children need to anticipate "what you might do if you are not in the classroom if something occurs, such as being in the bathroom, or out at recess," he continued.

Younghans recommended that parents and staff schedule time to prepare children for the drill and practice in advance, and that behavioral health providers, counselors, and/or primary care providers should be involved in the planning and execution of the drill.

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