EDITORIAL

Television sets and traumatic brain injury

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IN this modern society, it is hard to believe that car seats, seat belts, and airbags were once nonexistent. However, other safety initiatives such as motorcycle helmets have still not become law across all states. (Currently in our home state of Tennessee, there is a bill approaching the legislative table that would make them optional.) As with many safety devices and public health initiatives, injuries have led to litigation, which then led to legislation. Not every time, but often enough. Those of us involved in managing child brain and spine injuries have no doubt seen a rise in TV-toppling injuries. It has spurred many of us to wonder if there was some way to effect change, through better base design, material engineering, and/or education. In their accompanying article, Cusimano and Parker are to be commended for bringing these publications together for the common good and using public health methodology to suggest a path forward.¹

The number of TVs in US households is continually increasing, with an estimated 115.6 million TV-containing households, representing 96.7% of all US households.² Likewise, the US Consumer Product Safety Commission reports that TV-toppling injuries have been increasing in frequency since 2006. Serious TV-toppling injuries are most commonly seen in preschool-age children, and an estimated 44% of these injuries are related to the head. Given the vulnerability of this population as well as the potential for serious harm, TV-toppling injuries represent a growing public health concern in the area of preventable injuries.

In their article on head injuries related to TV sets, Cusimano and Parker report findings from a systematic review of the existing literature on TV-toppling injuries.¹ Their findings demonstrate that injuries related to TVs occur frequently and that toddlers represent the population segment most at risk for serious injury. In addition, they report that the vast majority of these injuries occur dur-

ing an unwitnessed event within the home and are due to improper placement of the TV, climbing, or collisions with the TV. As part of their report, the authors analyze their findings using Haddon's Matrix to identify strategies that can modify host and environmental factors to decrease the rate of TV-toppling injuries.

Many of the strategies identified by the authors aim to increase public awareness regarding dangers related to falling TVs. The frequency and severity of TV-toppling injuries is underrecognized by the general populace. Therefore, public education campaigns, increased visibility of warnings and warning labels, and improved instructions regarding the safe mounting/installation of TVs should be used to bring the issue of TV-toppling injuries into the public consciousness. Increasing awareness of the frequency and severity of TV-toppling injuries is an integral first step in preventing these types of injuries.

Because end-user education has limited utility in behavior modification, the authors also suggest several strategies aimed at altering the design of TVs and their mounting systems. These engineering modifications focus on improving the weight distribution and stability of TV sets as well as improving the solidity of TV stands and mounting systems. Currently, postmanufacturing testing is performed according to government standards, but improved standards and safety regulations may be needed to decrease TV-toppling injuries. To encourage industry attention to these engineering changes, mandates from consumer regulatory agencies will be required.

As health care providers, it is incumbent on us to advocate on behalf of those without a voice. TV-toppling incidents are common enough and can result in life-threatening injuries. These injuries are easily preventable and represent an area in which advocacy on the part of individual health care providers as well as national medical organizations can impact the lives of hundreds of children

annually. Leaders in our field and elected officials are encouraged to use a publication such as the one that Cusimano and Parker have provided us to motivate change for the common good. Perhaps after that, our attention could be turned to other issues that are holdouts from our past, like motorcycle helmets.

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References

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Disclosure

The authors report no conflict of interest.

Response

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We thank Drs. Le and Wellons for their insightful comments. For decades “accidents” have been the leading cause of injury in the pediatric population.^{1,2} The number of home injuries involving consumer products has been steadily increasing.² Although called “accidents” by many, we have shown that these events are predictable and can be prevented with concerted efforts by all involved. TV toppling has played a significant role in childhood injuries without receiving a lot of public attention. Our review shows that the risk of childhood head injury from TV toppling is increasing, and should not be taken lightly. These events clearly lead to injuries that can range from lacerations and contusions to skull fractures and intracranial bleeding. We are pleased to see that Le and Wellons support our views on the importance of dealing with this issue. Our review article explains the problem of TV

toppling, and we devised a potential framework for prevention.

Neurosurgeons and other health professionals can play a central role in addressing the problem of injuries associated with TV toppling. Neurosurgeons are clearly respected experts in head trauma, the culmination of these events. Neurosurgeons are at the center of the care of these patients and their families, and thus speak from a position of expertise. Professionals like neurosurgeons must go far beyond their traditional roles as surgeons if we collectively as a society are to have an impact on this problem. Neurosurgeons can influence every phase of the framework for prevention that we have described. To do so, they must become active in the broader community. They must advocate and become public spokespersons for the issue. Joining and becoming active in groups like ThinkFirst (<http://www.thinkfirst.org/>) is an excellent way to do this. Becoming active in the community is crucial and is a part of our social responsibility as citizens who care about those who are our patients and those who will hopefully never become our patients. Neurosurgeons must become active change agents and “walk the talk.” By doing so, they can become active in improvements in education, legislation and enforcement, engineering, economics, and systems. We must all strive to enact change.

Our first step must be to improve awareness of these issues. This review aims to crystallize our knowledge on the topic and provide a framework for action. Behavioral change requires a state of awareness at many levels. Not only do we need to convince parents that TV toppling and other causes of head trauma are important issues worthy of prevention, but we need to convince a much broader society. Legislators, teachers, coaches, and many others will hear our voices if they are consistent, based in evidence, and come from a position of caring for our patients. We can no longer sit idle while so many scores of patients will unnecessarily suffer head and brain trauma that could so eminently be prevented. Internationally, neurosurgeons and other health professionals can have an impact. History should show that we cared.

References

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