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Identifying Information That Promotes Belt-Positioning Booster Seat Use

Background

Motor vehicle crashes remain a leading cause of injury among children in the United States. Use of appropriate restraints in motor vehicles is an effective strategy for reducing the risk of injury and death to child passengers. Although child restraint use in the United States for children under age 8 has increased since 1998, children ages 4 to 8 continue to be at highest risk for sub-optimal restraint use.

In order to guide future efforts to increase belt-positioning booster seat (BPB) use, this study focused on identifying reasons for BPB nonuse for children of parents with a high school education or less. The study concentrated on ages 3 (when children are nearing the suggested transition point to booster seats) to 6 (after which they likely have used seat belts for several years). The Theory of Planned Behavior formed the theoretical foundation for the study. It asserts that behavior is preceded by a positive intention to perform the behavior, which in turn is influenced by perceived benefits, barriers, and threats to performing that behavior. According to this theory, to promote BPB use it is necessary to encourage positive intentions toward BPB use. This can be done by overcoming parents' perceived barriers to BPB use, highlighting parents' perceived benefits to BPB use, and reducing parents' perceived threats (i.e., things they worry about when driving their children). This research aimed to: (1) identify factors that influence parents' current child restraint use behaviors and their intentions for future use, and (2) test interventions that address these factors as a means to promote appropriate restraint use, particularly use of BPBs.

Method

This multi-site study used focus groups to identify contributing factors to booster seat nonuse, which guided later intervention testing. A first phase of information collection composed of 12 focus groups identified parents' perceived barriers, benefits, and threats relating to BPBs. The second phase of the study identified interventions for testing that addressed the benefits, barriers, and threats that emerged in Phase 1. A literature review augmented by a review of interventions described on the Internet led to selection of four pre-existing interventions that met search criteria: "The Buckleteers" (Injury Free Coalition for Kids of Austin), a Cinderella public safety announcement (NHTSA, The Walt Disney Company, and the Ad Council), "Riding With The Big Green Snake" (Weiner and Seaman Productions), and "Abrocha Tu Vida" (Harborview Injury Prevention and Research Center). However, not all relevant benefits, barriers, and threats were addressed by pre-existing interventions. As a result, the contractor created interventions to fill in the gaps. They were message strategies that emphasized the importance of booster seat laws, provided education about injuries that are prevented by BPBs, and presented BPBs as part of good parenting. Phase 3 of the study involved a final wave of focus groups that obtained reactions to the interventions and explored whether the interventions motivated any changes in intentions to use a BPB.

Key Findings

In the Phase 1 focus groups, parents identified the possibility of a crash as a threat that concerned them. Many trusted their own driving abilities, but were fearful of other drivers on the road. The parents described a variety of behaviors they performed to avoid the possibility of a crash or serious injury, including driving slowly, not driving in rainy weather, leaving early so as not to be in a rush, and establishing and enforcing rules for their children (e.g., no loud talking; no distracting the driver; not leaving until everyone is strapped in properly). Another perceived threat was being stopped and ticketed by law enforcement. This was often cited as a motivating factor to restrain children properly in the back seat, as the fear of fines was discussed frequently. A number of the parents reported getting tickets or warnings for not complying with existing law. The parents also repeatedly reported misinformation concerning the provisions of the child safety seat laws in their States. A third threat reported by parents in all groups was the potential for children to misbehave. Parents repeatedly discussed the behaviors of children in the car, including shouting, fighting, throwing things, getting out of one's seat, hanging out the window, and climbing into the front seat.

Regarding perceived barriers, parents in the Phase 1 focus groups noted factors that they and their children disliked about using child restraint systems (CRSs). Factors that parents disliked tended to pertain to the use of the seats (e.g.,

they were hard to use, too large, and difficult to move from car to car). It wasn't clear if they were referring to child safety seats or BPBs. Many said they were unsure whether BPBs were safe, often in reference to low-back BPBs. Another barrier was a perception that BPBs were expensive. The parents also identified barriers relating to how they felt their children would react to BPBs, including the child complaining, the child thinking he or she is being punished, the child being made fun of, the child feeling confined, and the child being uncomfortable.

Parents in Phase 1 saw safety as the primary benefit of BPBs, but several of the groups were unsure of any safety advantage over restraint by a seat belt alone. Features of the BPB the parents liked included size (smaller and easier to use than a car seat), and comfort (more comfortable for the child than a seat belt alone). The parents also posited benefits that they thought their children would find from using a BPB, including that the BPB was their "personal seat" or a "big kid seat," and that the child could see outside the window when in a BPB.

In the Phase 3 focus groups, parents spent the first part of the sessions engaged in exercises to rank the top threats, benefits, and barriers as they perceived them. As in Phase 1, the risk of injury and the possibility of being stopped and ticketed were top threats parents worried about when driving their children. The top benefit if they used a booster seat was the improved safety for their children. The most frequently cited barrier to using a BPB was child resistance. Another barrier was lack of room in the car.

Most of the interventions presented in Phase 3 drew mixed or skeptical reactions. The parents asserted that they were the ones who made the decisions about restraint use. Therefore, they had concerns about the effectiveness of interventions geared toward children (Cinderella; Buckleteers). They also considered some of the interventions as being designed for girls (Cinderella) or younger children (Cinderella; Big Green Snake). Radio commercials about the law sparked argument that the child's safety should be enough of a motivation without the added consequence of a ticket. White and African American participants were not as receptive to these commercials as were Hispanic participants exposed to Spanish versions. The latter group felt there was a lack of commercials promoting child safety and liked the amount of detailed information addressing age-appropriate restraint use. Parents found the contractor-developed parent tips video to be dry. They appreciated that the spokesperson was a mother, and many stated that "pulling over" to control their children would be effective and intended on trying it. However, they emphasized that although they might have agreed with some of the messages, this intervention did not provide them with the motivation they needed to purchase and use a BPB.

The contractor-developed video on crash injury received the strongest reaction from the parents. This involved a father describing the consequences of a crash that killed his wife and permanently injured his oldest daughter, who was using a seat belt instead of an age-appropriate BPB. In doing so, the father articulated how a BPB works to prevent injury. Parents in all groups said this intervention was particularly eye-opening because it answered all of their questions about BPBs, while also speaking to their fear of a crash. Each group spoke at length about the crash, speaking about their fears as well as stories they had heard. Parents frequently asked for copies of the video, hoping to show it to their families and friends.

Discussion

Lack of knowledge about appropriate child restraint found in this study indicates that previous intervention tactics have not adequately educated the public, particularly as to why 4- to 8-year-old children need to be using BPBs. This study found that effective interventions should include relevant knowledge packaged with messages that the target population deems strong and motivational. Social marketing research has shown that a strong motivator is avoidance of perceived threats. In this study, participants cited the potential of their children being hurt in a crash as the primary threat they perceived in driving their children. A clear educational message toward appropriate restraint use would therefore be strengthened by being paired with a message confronting the possibility of injury resulting from a child being improperly restrained in a vehicle.

How to Order

For a copy of *Identifying Information That Promotes Belt-Positioning Booster Seat Use* (Vol. 1 Summary, 52 pages, and Vol. 2 Appendices, 131 pages) prepared by The Center for Injury Research and Prevention at The Children's Hospital of Philadelphia, write to the Office of Behavioral Safety Research, NHTSA, NTI-130, 1200 New Jersey Avenue SE., Washington, DC 20590, send a fax to 202-366-7394, or download from www.nhtsa.dot.gov. Alan Block was the project manager for this study.

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