

Active Living Research

Using Evidence to Prevent Childhood Obesity
and Create Active Communities

RESEARCH BRIEF

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Impact of the Walking School Bus Program on Children's Pedestrian Safety Behaviors

Introduction

Walking to school is recommended by many health authorities, because it gives children the opportunity to be active and may lower their risk of obesity. However, walking to school also could increase children's risk of injury, especially when crossing a street. Parents listed their children's safety as one of the top concerns regarding walking to school, and improving safety may lead more parents to allow their children to walk to school. Walk-to-school programs have not been studied for their impact on children's safety. We tested a way to evaluate children's safety at the school level as part of a pilot Walking School Bus program for fourth graders.

Key Findings

Children at the schools participating in the Walking School Bus program were five times more likely to cross the street in a safe location—at the corner or crosswalk— than they were before their schools started the program. However, children at participating schools also were five times less likely to fully stop at the curb before crossing.

Methodology

We rated the safety behaviors of all children while crossing the street before the Walking School Bus program, and again four to five weeks later. Only 4th grade children participated in the Walking School Bus program.

We recruited 1,252 4th grade children from eight public schools in Houston, Tex. that mainly enrolled low-income, Latino and/or African-American children. Parents completed a survey rating their neighborhood's safety. Schools were randomly assigned to have either the Walking School Bus program or no program. Trained staff members led Walking School Bus participants from their homes on the walk to and from school. During the walk, staff showed the 4th graders how to cross the street safely. Children were allowed to co-lead the group and help decide when to cross the street. Researchers used a checklist of five behaviors to observe and rate how safely children crossed the street at school intersections during the week

SOURCE

Mendoza, J.A., Watson, K., Chen, T., Baranowski, T., Nicklas, T.A., Uscanga, D.K., Hanfling, M.J. (2012). Impact of a pilot walking school bus intervention on children's pedestrian safety behaviors: A pilot study. *Health & Place*, 18(1), 24-30.

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before the program began, and again during weeks four and five of the program. The evaluation staff rated students of any grade level crossing the street to school, not just 4th grade students. Evaluation staff also noted the number of traffic lanes present.

Other Findings

While there were changes to two individual street crossing behaviors noted above, there was no change to the sum of the five behaviors due to the Walking School Bus program (crossed at a corner or crosswalk, crossed with an adult or safety patrol, stopped at the curb, looked left-right-left, and walked across the street). At schools where more traffic lanes were observed, fewer children fully stopped at the curb. At schools where parents rated the neighborhood to be less safe, slightly more children crossed the street at a corner or crosswalk and with an adult or crossing guard. Children's safety behaviors were more strongly related to whether their school participated in the Walking School Bus than to the number of traffic lanes or parents' perceptions of neighborhood safety.

Implications

Children at schools with the Walking School Bus program crossed the street in a safer part of the street. Our finding that children at participating schools were less likely to fully stop at the curb may seem concerning, but children who cross the street with an adult or crossing guard may have less need to fully stop at the curb.

Our results suggest that other determinants of street crossing safety (traffic lanes and perceived neighborhood safety) may have less of an effect on children's behavior than the influence of peers, adults or crossing guards. Because walking to school may increase children's risk of pedestrian injury, walk-to-school programs, such as the Walking School Bus, should be designed to make this activity as safe as possible.