

## Traumatic Brain Injury Awareness: An Educational Model

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#### Introduction

Head injury has been cited as the leading cause of death in bicycle related injuries. Bicycle helmets have continuously demonstrated reductions in skull fracture, head injuries, and deaths, including those involving motor vehicle accidents. Legislation, combined with community education and helmet promotion campaigns remains the most cost-effective approach for increasing helmet use and has been shown to effectively reduce injury.

#### Methods

**Medical Student Education:** The Peter W. Carmel Neurosurgical Society of New Jersey Medical School, a neurosurgical student interest group, hosted two lectures discussing traumatic brain injury and concussion management as well as a journal club discussion on relevant literature regarding TBI.

**Community Education:** A survey of kindergarten through 2nd graders at a local elementary school was conducted to determine utilization of bicycle helmets. Medical students hosted a one hour educational presentation to 150 students ages 5-8 discussing head injury and bicycle safety. Faculty members at the school were provided with information on concussions in children and educational materials for helmet safety. Medical students conducted a health literacy session at a local shelter for women and children educating women on head injuries in children as well as bicycle safety. Elementary School Helmet Safety Presentation and Helmet Fitting



Medical student Victor Sabourin fits grades kindergarten through 2nd with proper helmets.



Medical students Victor Sabourin, Christina Sarris, and Ravi Shah explain the importance of wearing helmets.



Interactive helmet safety presentation for elementary students.

> Percentage of Students Wearing Helmets when Bicycling

Kindergarten	First Grade	Second Grade
18		
0		
2		
4		
6		
8	1	
i0		

Pre-presentation survey of helmet utilization by grade.

### Results

Medical student lectures were wellattended drawing 21 medical students. Survey results on bicycle helmet use among elementary school students demonstrated helmet use in only 52% of Kindergarten students, 56% of first grade students, and 60% of second grade students. Both the school and community shelter have asked for repeated programming on other safety issues.

## Conclusions

Education among medical professionals and within the community is a proven method of increasing awareness of traumatic brain injury and compliance with bicycle helmet use. Our multitiered program provides a model for medical student education in these topics and involvement in community safety outreach. Expansion of this program to include physicians, nurses and other medical personnel would likely increase the impact of this model.

#### **Learning Objectives**

1. Identify components of an educational and community outreach program for traumatic brain injury.

2. Identify resources for patientspecific information on traumatic brain injury.

#### References

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