Implementation of an Education Session to Reduce the Incidence of High Risk Driving Behaviors Among Teen Drivers

Beverly Shirk, RN BSN and Jodi Yocum, RN BSN
Penn State Hershey Children’s Hospital, Pediatric Surgery/Trauma and Emergency Departments

Introduction
Trauma is the leading cause of injury, disability and mortality among teenagers (ages 16-19). According to the National Highway Traffic Safety Administration (NHTSA), motor vehicle-related crashes are the leading cause of death in this age group. Lack of driving experience and negligence of risk-taking behaviors contribute to the increased risk of injury or death. Over the past 5 years, many high schools in PA have altered or eliminated formal driver education classes, so teens primarily receive driver education from their guardians. Our trauma center mission is “Saving Lives, Preventing Injuries”. For the 5 year period 2002-2006, 667 patients, ages 16-20, were treated at our trauma center following vehicular crash. Of these, 101 patients (15%) had sustained a traffic violation and 136 were unrestrained drivers or ejected from the vehicle. We hypothesized that exposure to an educational session provided by healthcare providers in a trauma center would influence this high risk age group to reduce their risk factors.

Methods
A 4 hour class curriculum was established. We partnered with district magistrates (DMJ) and police officers in our region to establish referral partnerships. Teens (ages 16-19) who had committed a traffic offense were referred to the program from the DMJ. Driver Education Class. Ages ranged from 16-20, with the mean age of 17. 153 (67%) were male, and 70 (33%) were female. Pre-class surveys revealed the incidence of risk factors for this group. 38 (18%) reported driving with 5 or more passengers in the vehicle. 36% reported that they are usually out as late as 12MN or 1AM. While most reported using seat belts for every ride (74%), 6 (3%) reported never using a seat belt, and 29 (14%) never ask passengers to buckle-up. Only 16% reported never using a cell phone while driving, and 4% reported using a cell phone ‘every time’ while driving. 72% of participants speed through yellow lights ‘sometimes’, and 9% reported performing this action ‘every time’. Most participants (78%) reported speeding ‘sometimes’, while 9% reported speeding ‘every time’ while driving. 14% of participants admitted to drinking after consuming alcohol/drugs, and 32% admitted to being a passenger with a driver who has consumed (see Chart Series 3). Post-class surveys revealed that most (82%) planned to change their driving behaviors as a result of attending this class. 3 participants stated plan to not change any behaviors. Most commonly, participants reported plan to increase seat belt usage, decrease speeding, and decrease phone usage while driving as a result of attending the class (see Chart 1). They also noted that the class increased their overall awareness of how driving behaviors influence the incidence of injury-related crashes.

Results
Between 2007-2011, 265 teens completed the Penn State Teen Driver Education Class. Ages ranged from 16-20, with the mean age of 17. 153 (67%) were male, and 70 (33%) were female. Pre-class surveys revealed the incidence of risk factors for this group. 38 (18%) reported driving with 5 or more passengers in the vehicle. 36% reported that they are usually out as late as 12MN or 1AM. While most reported using seat belts for every ride (74%), 6 (3%) reported never using a seat belt, and 29 (14%) never ask passengers to buckle-up. Only 16% reported never using a cell phone while driving, and 4% reported using a cell phone ‘every time’ while driving. 72% of participants speed through yellow lights ‘sometimes’, and 9% reported performing this action ‘every time’. Most participants (78%) reported speeding ‘sometimes’, while 9% reported speeding ‘every time’ while driving. 14% of participants admitted to drinking after consuming alcohol/drugs, and 32% admitted to being a passenger with a driver who has consumed (see Chart Series 3).

Conclusions
Immediately following 1 four-hour educational session, participants accurately report risky driving behaviors and alternative choices to avoid crashes/injury. While most participants report that they will change their driving behaviors, only a small group list a specific implementation plan to reduce their risks. Meeting someone who has experienced trauma first-hand was cited as having the biggest impact on future decisions. The duration of lasting effect is unknown. We are currently exploring alternative methods to measure duration of impact. For this group of high-risk teenagers, providing a focused educational session after they have experienced a traffic violation appears to be an effective method for impacting driving behaviors.

References