

The Midfield High School safety belt incentive program

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Abstract:

An incentive program was implemented by Midfield High School of suburban Birmingham, AL, to encourage the use of safety belts among teenage drivers. This was undertaken to minimize mortality due to vehicular accidents. The school community, city council and law enforcement agencies planned and implemented the program and funding was provided by local and national sponsors. The program offered cash incentives to teenage drivers who used their seatbelts and this resulted to increased use of the safety device while driving.

Article:

Motor vehicle accidents constitute the leading cause of death among young Americans ages 15-24.[1] If all drivers of automobiles in this age group wore safety belts, traffic fatalities for this population could decline an estimated 55.7%. [2] Consequently, in the Year 2000 Health Objectives for the Nation, this population was targeted for a 12% reduction in deaths associated with motor vehicle accidents through increasing safety belt use to at least 85% for all motor vehicle occupants.[3] To meet this goal, the population should be targeted for comprehensive seat belt promotion interventions.

Traditionally, many programs to increase seat belt use have been conducted in worksite and community settings and have demonstrated significant effectiveness. These programs employed several strategies, such as incentive/reward only,[4] awareness only,[5] or a combination approach including incentives/rewards, pledge cards, and educational interventions.[6-8]

To a lesser degree, seat belt promotion programs have been conducted in schools and focused predominately on seat belt use by students and parents of children at the elementary level.[9-11] To date, only one study focused on promotion of seat belt use in high school populations. Campbell and colleagues[12] conducted a seat belt promotion program at a North Carolina high school in which all students were exposed to an educational program prior to beginning an incentive-based intervention. During a one-month period, students could receive \$5 cash coupons if they were observed properly restrained in their vehicles. In addition, coupon winners entered a final drawing worth \$300 in gift certificates. Seat belt use increased from a baseline of 20% to 34% during the education phase and 53% for the incentive phase. Follow-up use levels decreased to 36%, still considerably higher than baseline.

Recognizing the need for seat belt promotion programs targeted at high school populations, a school-community incentive seat belt promotion program was conducted at Midfield High School, a suburban high school in Birmingham, Alabama. This article outlines the seven steps used to design, implement, and evaluate the program.

THE SEVEN-STEP PROCESS

1. Form a School-Community Steering Committee. The first step in the school-community based safety belt incentive program involved creating a steering committee of community gatekeepers. The Midfield steering committee was comprised of representatives from the school, city council, and local law enforcement. The

committee framed the proposed program and provided technical assistance on program design and implementation. The Midfield committee influenced the ultimate success of the program in several ways. Support from the city council and law enforcement opened lines of communication with community leaders, merchants, and parents. City council and law enforcement support provided credibility for the program. Therefore, seeking donations of time, money, and incentives was easier than anticipated. Law enforcement officers assisted with observation and incentive award aspects of the program. After framing a general design for the program, the steering committee presented the concept to the school superintendent and building principal to gain their support.

2. Establish a Program Planning Committee. After gaining support from local school district administrators, the next step established a program planning committee. For this program, the planning committee consisted of health education students, the health educator, building principal, and a university consultant. Using support and guidance from the steering committee, the planning committee was charged with (1) obtaining community support for the program, (2) contacting and enlisting active participation from varied groups such as students, faculty, staff, parents, merchants, and law enforcement, (3) obtaining funding for various components of the program, (4) determining strategies to work with local media, and (5) developing an effective evaluation plan. The program committee collected baseline data and background information vital to program development. At Midfield High School, the faculty and administration were informed of the program intent and asked to provide input on program design to capitalize on their expertise. Baseline data on student knowledge, attitudes, and behavior regarding safety belt use were obtained during homeroom periods. In addition, insight from students on effective methods to disseminate information about the program was collected. The planning committee used this information to design tentative intervention program goals and objectives. This information helped the planning committee avoid potential obstacles and problems.

3. Design Program Goals and Objectives. Program goals and objectives were based on the framework outlined by the steering committee and data collected by the planning committee. A target utilization rate of 70% was established for the Midfield campaign because the National Highway Traffic Safety Administration sponsors a "70% plus" awards program. Conducted in conjunction with the Governors' Highway Safety Representatives, the awards program encourages safety belt use and rewards target populations who achieve a 70% plus seat belt utilization rate. At Midfield, the 70% rate served as a motivational tool. Utilization rates were displayed predominantly throughout the building to provide students, faculty, and parents with a constant reminder of the program goal. In addition, an intensive information-sharing campaign was designed to influence student knowledge and attitudes toward safety belt use.

4. Design Evaluation Protocol. Prior to implementing the program, guidelines to evaluate the program were established. These guidelines considered the formative, process, and outcome program evaluation measures. During the formative and process evaluation phases, levels of student knowledge, attitudes, and use of safety belts were established through surveys and unobtrusive observations of safety belt use. The outcome component of program evaluation measured changes in student knowledge, attitudes, and behavior toward safety belt use across time. With these data, it was possible to note changes in safety belt use across time including rate of recidivism after incentives were withdrawn.

5. Identify Corporate Sponsors and Identify Program Incentives. Identifying incentives of value to the target population was a vital component of the program. Program staff asked many national corporations, local merchants, and the Alabama State Dept. of Health to support the program. These sponsors provided money and incentives used to defray program costs. For example, Wendy's donated 500 free hamburger coupons for rewards when students were observed using safety belts. Figure 1 lists national and local corporations and businesses that supported the program, and Figure 2 indicates the incentives and prizes donated. The Alabama Dept. of Public Health provided numerous incentives, contacted assembly program speakers, and provided the "Vince and Larry" crash dummy costumes for use at data collections, incentive distributions, and safety belt assemblies.

6. Program Implementation. Program implementation depends on prior planning and coordination. The Midfield program required three months for implementation. The implementation timetable was an important consideration at Midfield. Students, faculty, and staff are most enthusiastic at the beginning of a school year, so the program was implemented in the fall to capitalize on this enthusiasm. In addition, early program implementation was desirable because statistics showed most traffic accidents in Alabama involving teen-agers occur from September to December.[14]

The Midfield program targeted students, faculty, support staff, and parents. Targeted populations received information on the program and benefits of seat belt use during health education classes, homeroom periods, sporting events, and lunch periods. A "Safety Belt Awareness Week" was organized and a safety belt slogan/logo contest provided communications focus activity. Health education students researched automobile safety and worked on the poster contest. Two "Support Safety Belt Use" assemblies were conducted. The most difficult target population to reach was parents. They were informed about the program through letters, newspaper articles, and student participation. Incentives were distributed to parents entering the campus parking lot and around the community by local law enforcement.

A vital component of program implementation was observation and recording of safety belt use and the accompanying distribution of incentives. When observing seat belt use, the traffic flow and parking locations were considered. In some cases, it was necessary to have several teams of observers in locations throughout the school campus. In addition, type of observation was considered when choosing locations for observation posts. An unobtrusive observation required recorders to be concealed, while allowing an unobstructed view of front-seat safety belt use. Obtrusive observations required vehicles to stop so incentive prizes could be awarded. All related observations were conducted at the same site and same time of the school day throughout the program. In the Midfield program, data collection teams who recorded safety belt use rates consisted of two students, a recorder and a spotter, who used a simple recording form to promote accuracy. As a vehicle passed, the spotter checked the driver and front seat passenger to see if safety belts were being used, then vocally relayed this information to the recorder. After the observation, a safety belt use percentage rate was calculated. The observation site was housed in an information center booth located at the beginning of the only access road to campus. This site easily allowed for obtrusive and unobtrusive observation.

Incentive distribution during the program was both immediate and delayed. In some cases, when front-seat occupants were observed wearing seat belts, they were stopped and immediately rewarded with an incentive such as a food coupon. Delayed incentives took the form of lotteries and raffles. Cars with front-seat occupants observed using safety belts had their license plate numbers entered into these contests. Figure 3 contains information regarding the timetable used to schedule data collection observation and dissemination of incentives.

7. Program Evaluation. Program effectiveness was examined by implementing previously identified evaluation guidelines. The effect of informational and educational programs was assessed by collecting pre- and post-test measures using a 25-item questionnaire. Matched pre- and post-assessment scores obtained on 645 students indicated a slight increase in knowledge of seat belt benefits. A 12-percentage point increase was noted between the pre- and post-test.

Evaluation of safety belt behavior, using obtrusive and unobtrusive observations, provided data before, during, and after the program (Figure 3). A baseline safety belt use rate was established at 26%. Throughout the incentive program, a continuous and steady increase in students using safety belts was observed. This increase was not significantly greater for obtrusive observations when students knew incentives were scheduled to be given to safety belt users. The program produced a 12 percentage point increase in safety belt use, from a baseline rate of 26% to a 38% rate during the final observation. This rate of increase is consistent with other incentive-based programs conducted in corporations[7,15] and a previous safety belt program conducted in a high school.

CONCLUSION

The enthusiasm, active participation, and behavior changes generated by this project indicate a well-conceived, action-oriented health promotion program targeted toward high school youth can increase safety belt use and subsequently reduce the risk of injury and death resulting from motor vehicle accidents. The program's success was associated with effectively planning and identifying specific tasks. The approval and support of the city council, school administrators, and local law enforcement ensured program success. Individuals who use this process to implement a safety belt program in their school and community should use the steps to develop procedures specific to their school site. Numerous approaches can implement a safety belt program for school-age children. The program conducted at Midfield provides one example.

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