



INCREASING DESIGNATED DRIVING WITH A PROGRAM OF PROMPTS AND INCENTIVES

Thomas A. Brigham, Steven M. Meier, and Viki Goodner

Washington State University, University of Idaho, and Washington State University-Vancouver

Designated driving (DD) is a potentially viable but underutilized component of efforts to reduce driving while intoxicated. A reversal design was used to evaluate the effects of prompts and incentives in a bar on the frequency of DD. The results showed an approximate doubling of the number of designated drivers during the two intervention periods.

DESCRIPTORS: alcohol-impaired driving, designated driving, prompts, incentives

Considerable evidence indicates that driving while intoxicated (DWI) remains a serious social and public health problem. For example, it is estimated that 40% of all persons in the United States will be involved in an alcohol-related traffic accident ("Alcohol-Related Traffic Fatalities," 1990). Although suppression efforts using increased legal sanctions and enhanced enforcement programs have affected these problems (National Highway Traffic Safety Administration, 1990), the young adult group continues to display high rates of DWI, with drivers 21 to 24 years of age having the highest proportion of intoxicated drivers among all age groups (Washington Traffic Safety Commission, 1994).

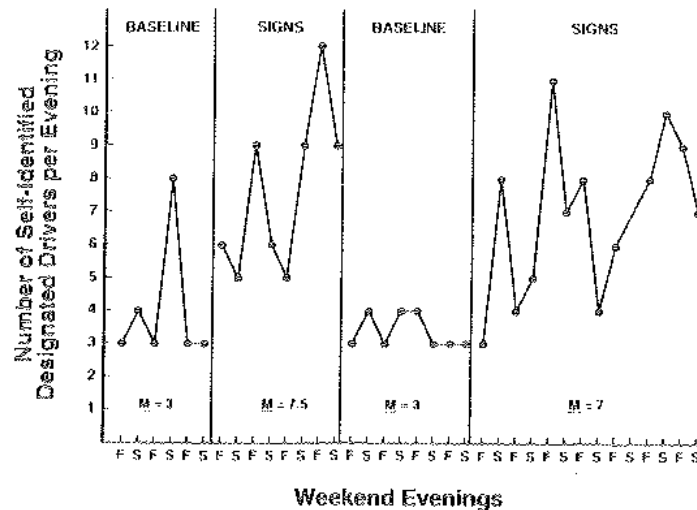
Over the past decade, a variety of federal, state, and private agencies have advocated the use of designated driver (DD) programs to reduce DWIs and alcohol-related accidents (Wagenaar, 1992). Designated drivers act as chauffeurs for groups of drinkers, and do not consume alcohol themselves on these occasions. In this manner, sober individuals are available to safely drive the possibly intoxicated group, reducing the risk to themselves and others. Despite its intuitive appeal and the considerable attention it has received, very little is known about DD, and the idea remains somewhat controversial. For instance, DeJong and Wallack (1992), in a critique of the concept of designated driving, argued that these programs have the potential to produce such negative side effects as encouraging excessive drinking by the driver's companions and distracting attention from other public health issues related to alcohol use. To date, however, there have been few studies of the actual frequency of DD or the variables that affect such behavior (Wagenaar, 1992). Because an informal survey of local drinking establishments revealed that few people were participating in existing DD programs, we designed an experiment to test the effects of prompts and incentives on the frequency of DD at a local bar.

METHOD: A local bar, patronized primarily by college students and other young adults who drive to the premises, agreed to participate in a study of DD. The establishment is divided into a "sports" bar area and a separate restaurant. After 9 p.m. on the weekends, the restaurant is closed and becomes a dance area with a video jockey, and the entire establishment functions as a single bar. This bar had a long-established program in which designated drivers were given free soft drinks or coffee. To participate, a person simply identified himself or herself to a server or the bartender. The number of people identifying themselves as designated drivers was the primary dependent variable for this experiment.

Teams of four undergraduates, supervised by a graduate student, observed in the bar from 8:30 p.m. until 1:00 a.m. on Friday and Saturday nights. They were stationed near the bar so that when the bartender received a designated driver drink order, he signaled the observers. Two observers then followed the server and noted who received the drink. The observers had to agree on the identification for the person to be counted as a designated driver. This person was periodically observed during the evening and was followed when the group left the bar in order to determine if the individual was in fact a designated driver. In addition, once every half hour the observers made a rough count of patrons to insure that variations in the number of designated drivers did not simply reflect how busy the bar happened to be.

An ABAB reversal design was used to evaluate the effects of a new DD program. First, a stable baseline was established for the number of designated drivers observed with the bar's standard program of free soft drinks and coffee. The subsequent intervention consisted of two components. Three framed posters (50 cm by 70 cm) were mounted strategically around the bar and 10 placards (12 cm by 16 cm) were placed on tables. The announcements were multicolored and presented the following text: "Designated drivers, tell your server who you are, your drinks are on us! Free O'Doul's, Cutter, Sharp's or other non-alcoholic beers & wines, mixed drinks & coffees." We hypothesized that the combination of prominent announcements and instructions and the availability of more desirable alternative beverages would increase the number of people volunteering to be designated drivers. All other procedures remained the same. These conditions were in effect until the frequency of designated drivers stabilized. Next, the signs and observers were withdrawn, and the standard designated driver program was reinstated for 6 weeks. This period corresponded to the university's semester break and the first 3 weeks of the new term. The observers then returned to the bar, and a second baseline was established, followed by the reintroduction of the signs and alternative beverages. Because the research began early in the spring term, it was possible to run the second intervention considerably longer than the first.

RESULTS AND DISCUSSION: The observers were able to locate 194 (93%) of the 209 designated drivers identified to the bartender and to follow 175 of those individuals into the parking lot. All of the identified designated drivers except two actually drove their group from the establishment. Of the 194 designated drivers, 101 were white males, 6 were African American males, and 87 were white females. This pattern generally reflects the distribution of patrons frequenting the bar. Attendance per night was also very consistent over the course of the study (respective means were on Fridays: Baseline 1 = 157, Intervention 1 = 160, Baseline 2 = 158, Intervention 2 = 152; on Saturdays: Baseline 1 = 74, Intervention 1 = 74, Baseline 2 = 73, Intervention 2 = 71); thus, the data should represent a reliable picture of DD.



The main results of the experiment are presented in the figure, which shows that the prompts, incentives, and rewards had a clear and substantial effect on the numbers of self-identified designated drivers at this bar. The median number of designated drivers per night in each baseline condition was 3; the median increased to 7.5 for the first intervention period and was 7 during the replication. In contrast to earlier failures of programs based in Greek houses or residence halls to increase DD (e.g., Shore, Gregory, & Tatlock, 1991), the present results are encouraging and suggest that it is possible to increase DD in a college bar with a relatively simple intervention. Because of this simplicity, the bar has maintained the program and continues to be pleased with it. The generality and social significance of the results remain open to question. It is beyond the scope of this paper to discuss all of the variables that affect alcohol-related accidents and how increased DD might interact with them. Nevertheless, the issue of whether having a designated driver sanctions increased or abusive drinking by the rest of the group needs to be addressed. In the present study, it was not possible to determine with confidence whether or not increased drinking occurred, but over the course of the study no group with a designated driver ever became disruptive. Moreover, a recently completed survey of 400 individuals who reported being a designated driver in the past found that less than 5% of respondents reported that DD was used as a procedure for everybody else to get excessively intoxicated (Meier, Brigham, Sanford, Warren, & Richmond, 1994).

Thus, it appears the potential dangers of designated driving have been overstated, but it also seems unlikely that increasing DD will be the single solution to the problems of alcohol-impaired driving. Rather, DD can play an important role as a model of positive social behavior for young adults while contributing to efforts to reduce alcohol-related accidents.

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This investigation was supported by funds provided for medical and biological research by the State of Washington Initiative Measure 171. We are grateful for the cooperation and support of the owners of Pere's Bar and Grill, M. Bryne and F. Maryott and their staff. Requests for reprints should be sent to T. A. Brigham, Department of Psychology, Washington State University, Pullman, Washington 99164-4820. Received February 2, 1994; final acceptance June 21, 1994; Action Editor, Richard Winett.