DOT HS 813 501

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Risk Communication Strategies and Existing Alcohol-Impaired and Distracted Driving Safety Messages

Background

Communication campaigns are among the most widely used efforts to promote traffic safety and can be used to promote safe driving practices and knowledge of traffic laws, and otherwise educate the public. One way campaigns could be improved is to use behavior change theory in campaign development. Behavior change theories are developed to explain and understand how to change behavior. They are comprised of psychological factors called constructs, such as self-efficacy and risk perception, that are important in campaigns to change behavior. These theories have been used extensively and successfully in several areas of public health such as in promoting exercise, smoking cessation, use of sunscreen, and safe sex, and they are found in traffic safety media campaigns. Traffic safety campaigns grounded in theories of behavior change that have been used successfully to change other risky health behaviors have a higher likelihood of being effective.

The present research focused on identifying behavior change theories observed in distracted driving and alcohol-impaired driving traffic safety media campaigns to further the understanding and implementation of theories in such campaigns.

Method

Identification of Theories for Use in Campaigns

An extensive literature review was conducted to identify health and safety communication strategies and the behavior change theories likely to be applicable to traffic safety campaigns. Twenty-nine behavior theories were identified.

Identification of Existing Campaigns

An internet search was conducted to identify active distracted and impaired driving campaigns. The search canvassed appropriate organizational and State Highway Safety Office websites and employed a Google search that combined keywords "driving," "alcohol impairment," "distraction," and "campaigns" and variations of terms such as "impaired driving," "drunk driving," "drink driving,"

"cell phone use and driving," and "texting and driving." The final sample of campaigns met the following criteria: an active website; from a national, State, or other relevant organization; a message and tagline; a specific geographic region (nationwide campaigns were allowed); a specific target audience ("all vehicle occupants" was allowed); text and audio in English; and an outreach component (e.g., radio, video, billboard) as opposed to only presenting information on a website.

Sixteen distracted driving campaigns were included. Two samples are:

- Arrive Alive: Distracted (Missouri Department of Transportation), and

- End Text Wrecks. Dance the Wookiee (Utah Department of Transportation).

Thirteen alcohol-impaired driving campaigns were included. Two samples are:

- 15 Minutes (South Dakota Office of Highway Safety), and

- Arrive Alive: Drive Sober (Arrive Alive. Ontario, Canada).

Identification of Theories in Existing Campaigns

An expert panel assessed the observed applicability of the 29 behavior change theories in the distracted and alcohol-impaired driving campaigns. The panel, consisting of experts in the fields of traffic safety, cognitive social psychology, and communications, categorized the campaigns according to the theories that were observed in them.

The panel members first independently reviewed each campaign and assessed whether each theory (and the associated constructs) was observed in that campaign. They then met and discussed their decisions and reached consensus regarding categorization of theories and constructs as used or not used. Panelists considered a theory or construct observed if it was observed in the campaign, regard-

less of whether or not they thought it was purposeful or intentional.

Based on the expert panel's judgments of the 29 theories that were used in the campaigns, the investigators developed a frequency-of-observation score for each theory and then categorized them as high (*n*=12), medium (*n*=2), or low (*n*=15) in observation frequency.

Interviews With State Highway Safety Office Representatives

Interviews were conducted with a small set of State Highway Safety Office representatives to determine how they developed and implemented specific campaigns and what information would help them develop campaigns that use behavior change theory. Nine representatives from five States took part and answered questions related to the following topics about specific campaigns that were active in the State: description, development and decision making, timing of activity, media used, target population, enforcement and other co-occurring efforts, and evaluation.

Results

The literature review revealed that no single theory was determined to be the only useful theory for campaign development.

Despite the evidence in the literature for the theories included in this study, 12 of the theories were not observed in any of the 29 campaigns examined by the expert panel.

Often, the expert panel found several theories observed in a campaign. On average, two theories were used per campaign (range=0 to 8 theories), showing that most campaigns were consistent with at least one theory. Some theories were partially observed in campaigns as were a number of constructs.

The "Faces of Drunk Driving" campaign had the most theories observed at eight (extended parallel process model, health action process approach, health belief model, implementation intentions, information-motivation-behavioral skills model, protection motivation theory, social cognitive theory, and social learning theory). "X the TXT" had the fewest observed theories with zero and one used construct (behavioral intentions).

The information-motivation-behavioral skills model was observed in the most campaigns (n=16). This theory also supplied the most frequently used construct, "information" (facts and statistics), which was used in 25 campaigns.

The behavior change theories observed most often were:

- Deterrence theory
- Extended parallel process model

- Health action process approach
- Health belief model
- Implementation intentions
- Information-motivation-behavioral skills model
- Protection motivation theory
- Social cognitive theory
- Social learning theory
- Theory of interpersonal behavior
- Theory of planned behavior
- Theory of reasoned action

Several of these theories have constructs in common with one another. See the full report by Zakrajsek et al. (2023) for theory descriptions.

The literature review and interviews revealed the following practical information on the campaign development process.

- When implementing campaigns, it is important to know the audience and to segment the audience based on this information.
- When implementing campaigns, careful thought should be given to the message source, content, and delivery.
- Personnel from States included in the interviews reported to have not intentionally used behavior/communication theory.
- For the State campaigns, there was no broad or comprehensive campaign development plan, but instead components were developed based on judgment and as opportunities arose.
- States and other jurisdictions (and their funding sources) may need to be convinced about the value of using behavior change theory in the planning, development, and evaluation of campaigns.

Conclusions

Based on the research and interviews conducted, it is practical to consider applying behavior change theory during campaign design, primarily on the development of campaign material. There exists an opportunity to intentionally apply theories in campaign design to improve existing campaigns and to develop more effective campaigns to combat behaviors that compromise driving safety, particularly distracted and alcohol-impaired driving.

National Cooperative Research and Evaluation Program

This project was conducted under the National Cooperative Research and Evaluation Program, a cooperative program between NHTSA and the Governors Highway Safety Association (GHSA). Each year, the States (through the GHSA) identify highway safety research or evaluation topics they believe are important for informing State policy, planning, and programmatic activities.

Reference

Zakrajsek, J. S., Eby, D. W., Molnar, L. J., St. Louis, R. M., Zanier, N., Stanciu, S. C., & Elliott, E. (2023, September). *Review of risk communication strategies and existing alcohol-impaired and distracted driving safety messages: Technical report* (Report No. DOT HS 813 499). National Highway Traffic Safety Administration.

How to Order

The final report, *Review of Risk Communication Strategies and Existing Alcohol-Impaired and Distracted Driving Safety Messages: Technical Report* (Report No. DOT HS 813 499), can be downloaded at https://rosap.ntl.bts.gov.

U.S. Department of Transportation
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1200 New Jersey Avenue SE
Washington, DC 20590

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