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**Centre for Youth Drug Studies**  
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# Media campaigns in health promotion

Research summaries prepared by Mr Netzach Goren, Research Officer, Centre for Youth Drug Studies, Australian Drug Foundation

In presenting the following summaries we hope to provide the reader with a snapshot of a variety of recent mass media campaign-related studies. The first two studies examined the effectiveness of "social norms" marketing programs to reduce binge drinking among students. Two drink driving-related studies are then reviewed. The next study examined the relative appeal of commercial alcohol advertising and counter alcohol advertising among young people from a variety of perspectives. Drug-related studies that address different aspects of communicating drug campaigns to the public are the focus of the next three studies. Finally, while the last two articles profiled do not specifically relate to drug and alcohol media campaigns, we thought it useful to provide the reader with an overview of some related campaigns which address issues broadly applicable to anti-drug and alcohol media campaigns.

## Targeting young people and binge drinking

**Glider P, Midyett SJ, Milles-Novoa B, Johannessen K, Collins C 2001** "Challenging the collegiate rite of passage: A campus-wide social marketing media campaign to reduce binge drinking", *Journal of Drug Education*, 31:2, pp. 207–20

**Key findings** This "social norms" marketing media campaign aimed to test strategies for preventing binge drinking on campus at the University of Arizona, in the United States. The study adopted a longitudinal approach (three-year duration), utilised a large sample, and employed multiple waves of measurement. The campaign has yielded positive preliminary results, with a 29.2 per cent reduction in overall binge drinking rates. In addition, the percentage of respondents reporting "getting in trouble" with police and other campus authorities following the use of alcohol or other drugs dropped by approximately 65 per cent. Generally, the study provides some evidence for desired behavioral change.

**Study quality was moderate to high** The longitudinal design, multiple waves of measurement and large sample were excellent. Moreover, the

promising results achieved highlighted the overall contribution of the research to the current body of knowledge. The low response rates for each wave (approximately 20 per cent) raise some concerns for possible selection bias, and whether the results can be generalised. In addition, the fact that the statistical analysis does not provide information regarding levels of binge drinking among students who were not exposed to the campaign during that period, raises the question of whether overall reduction in alcohol drinking was campaign related.

**Wechsler H, Nelson TF, Lee JE, Seibring M, Lewis C & Keeling RP 2003** "Perception and reality: a national evaluation of social norms marketing interventions to reduce college students' heavy alcohol use", *Journal of Studies on Alcohol*, 64:4, pp. 484–494

**Key findings** This study was the first national evaluation of a social norms marketing program (SNMP) to reduce college student alcohol consumption in the United States. Using multiple waves of data collection over a four-year period, the study compared behavioural outcome measures from 57 colleges that implemented SNMP, with data from 61 that did not. Researchers did not detect a decrease in alcohol consumption at schools that

employed the SNMP. Furthermore, at these colleges an increase was observed in the amount of alcohol consumed in the past month. Surprisingly, no such increase was observed in colleges not taking part in the program. These results suggest that the well-funded SNMP was ineffective in combating drinking-related issues in United States colleges.

**Study quality was high**, using a representative sample of United States colleges, consequently, the findings of this carefully designed cross-sectional study can be generalised to all educational institutions across the United States. One limitation relates to the fact that researchers were unaware of potential variations in the quality and contents of SNMP across colleges. A possible solution for this issue could have been a comparison between colleges that applied well-designed programs and those that did not implement programs at all.

### Targeting drink driving

**Tay R 2002** "Exploring the effects of a road safety advertising campaign on the perceptions and intentions of the target and non-target audiences to drink and drive", *Traffic Injury Prevention*, 3, pp. 195–200

**Key findings** The study examined the effect of a road safety advertising campaign in New Zealand on drivers' perceptions and intentions to drink and drive. Using data collected through a survey on a small sample of university students, the study assessed changes in perception of both target (young male drivers who consumed alcohol) and non-target audiences. Findings indicated that the campaign was effective in increasing perceived risk associated with drunk driving. Interestingly, the campaign did not elicit a stronger impact on the sampled target group compared to the non-target group. This may be associated with the fear-based messages delivered during the campaign.

**Study quality was low** While most of the research in New Zealand has focused on changes in offence; that is, crash rates post-campaigns, this cross-sectional study focused on changes in drivers' perceptions and intentions associated with drink driving. However, the study suffers from two basic

limitations. Firstly, the sample comprised young educated students and thus reflects just part of the general target group. Secondly, due to the small number of participants (N = 59 for target group) these results cannot be generalised.

### Commercial advertising versus counter-alcohol advertising

**Austin EW, Pinkleton B & Fujioka Y 1999**

"Assessing prosocial message effectiveness: effects of message quality, production quality, and persuasiveness", *Journal of Health Communication*, 4, pp. 195–210

**Key findings** Using a sample of 246 college students, Austin *et al.*'s (1999) cross-sectional study examined the relative appeal of commercial alcohol advertising and counter alcohol advertising among youth, as well as the relationship of perceived message quality, production quality, and perceived persuasiveness to drinking behaviour. Participants were exposed to commercial advertising and pro-social advertising (video clips) and then asked to fill in a set of questions to measure their beliefs. Overall, results indicated that alcohol users favoured the commercial advertising and reported lower levels of perceived effectiveness of pro-social advertising. In addition, it was found that viewers' judgments were being driven more by emotional thinking than logical reasoning.

**Study quality was low to moderate** The study provides valuable insights concerning individuals' beliefs and perceptions about two types of advertising. As such, the research contributes to the body of knowledge in the field. In addition, it explored some of the weaknesses of health promotion media campaigns that need to be taken in to account by campaign designers. However, there are some limitations and concerns regarding the obtained results. Firstly, one group of participants observed the two types of video clip. Thus, contents of mixed messages in a short period of time might have influenced participants' perceptions. A randomised control study with three groups (control group watching an irrelevant film, alcohol advertising group, and pro-social group) would have produced more

rigorous results. Finally, as a cross-sectional study, the data cannot be interpreted as causative.

## Effectiveness of drug campaigns

**Elder RW, Shults RA, Sleet DA, Nichols JL, Thompson RS, Rajab, MS 2004** "Effectiveness of mass media campaigns for reducing drinking and driving and alcohol- involved crashes—A systematic review", *American Journal of Preventive Medicine*, 27:1, pp. 57–65

**Key findings** Examining the results of eight studies that met inclusion criteria for this review, the authors identified that the median decrease in alcohol-related crashes (ALC) post campaigns was 13 per cent. Economic analyses of two of the campaigns included in the review revealed that the estimated societal benefits resulting from the mass media campaigns were significantly greater than the costs of developing and conducting campaigns. In summary, it appeared that well-designed media campaigns can contribute to reduction in alcohol-related crashes and are cost saving.

**Study quality was moderate** This study provides a critical review of the literature pertaining to mass media campaigns and drink driving-related issues. A strength of the review is the distinction between different types of drink driving-related issues, and the definition of outcome variables. One of the limitations of the study is that the authors did not define, or at least report, search strategies and literature databases. From this aspect, it is unclear how comprehensive this systematic review actually is. Support for this argument derives from the fact that, although the study was published in 2004, the most recent study reviewed was actually from 1998.

**Yzer MC, Cappella JN, Fishbien M, Hornik R & Ahern RK 2003** "The effectiveness of gateway communications in anti-marijuana campaigns", *Journal of Health Communication*, 8, pp. 129–43

**Key findings** The study examined the effectiveness of anti-marijuana ads that targeted the belief that this drug is a gateway to "hard" drugs such as cocaine and heroin. A sample of 418 middle and high school students was randomly assigned to a control

group, or one of three intervention groups in which students were exposed to three different types of message—a condition which delivered the "gateway" concept in an explicit way, an implicit way, or a hard drug condition which did not provide a specific message regarding the gateway concept. This study found that neither the gateway conditions nor the hard drugs condition had any effects on participants' attitudes, beliefs or intentions regarding marijuana use. This indicates that gateway messages have no desirable effect on the public. Thus, campaign planners should not endeavor to use them.

**Quality of the study was high** This study used a strong, experimental randomised control design with a representative sample size of middle and high school students in the United States. The influence of selection biases was consequently minimised and provides the highest level of evidence for the causative effect of the applied interventions. The results can also be generalised to the general target population. Two possible limitations of this study were observed. It was unclear whether the quality of specific combinations of ads in each group affected the effectiveness of the total set, and (2) it may be that such experimental research is too far removed from the natural phenomena to generalise readily to the real world.

**Block LG, Morwitz VG, Putsis WP J, Sen SK 2002** "Assessing the impact of antidrug advertising on adolescent drug consumption: results from a behavioral economic model", *American Journal of Public Health*, 92:8, pp. 1346–1351

**Key findings** Using four waves of data collection, this cohort theory based study examined the relationship between young people's recall of anti-drug advertising, their probabilities of using marijuana and other "hard" drugs (such as cocaine and crack), and the amount of drug use among users. Data were collected in a total of three waves: pre-, during and post national anti-drug campaign in the United States. Findings suggested that recall of anti-drug advertising was linked to decrease in the probabilities of marijuana use. However, recall of campaign messages did not lead to changes in the volume of drug use among users. Overall, after

3 years of campaign implementation, there was a reduction of approximately 9 per cent in drug use.

**Study quality was high** The main strengths of this study was its success in accounting for other factors, rather than exposure to the campaign, that may influence drug use reduction (such as exposure to other sources of information). In addition, the use of four waves of data collection, including a pre-campaign wave, increased the reliability of the result. One possible limitation of the results obtained relates to the *central location sampling* used, which may reduce the ability for further generalisation. However, the fact that it was a cohort study with four waves of data collection reduced this possibility. Overall, these results contribute to the cumulative evidence regarding the effectiveness of mass media campaigns.

### Focusing on personality traits

**Morgan SE, Palmgreen P, Stephenson MT, Hoyle RH & Lorch EP 2003** "Associations between message features and subjective evaluations of the sensation value of anti-drug public service announcements", *Journal of Communication*, 53:3, pp. 512-526

**Key findings** Employing a sample of 418 undergraduate students, the researchers focused on the personality trait of sensation seeking. They identified the content and structural features that are most likely to enhance the effectiveness of the media-based messages when targeting high sensation seekers. These are: intense images, sound saturation, unusual format and ending, and acting out the consequences of drug use. In addition, the authors established an objective measurement of the sensation value of a message in order to measure the degree to which the content and format of a message provoked sensory, affective and arousal responses. This measure was found to be correlated with a more subjective measure of message sensation value.

**Study quality was moderate to high** Probably the most valuable contribution of this study was the insight into which structural and content features of anti-drug media messages are likely to draw the attention of high-risk groups. Another merit of

this study was the high range of stimulus material (109 thirty-second, anti-drug television messages) examined. This provided the researchers with a wide range of different types of media message with different levels of sensation value. The study has one particular limitation in that it was conducted on a very specific, non-randomised sample of first-year undergraduate psychology and communication students. Thus, the findings should not be used to generalise to the broader population of high sensation seekers.

**Mowen JC, Harris EG & Bone SA 2004** "Personality traits and fear response to print advertisements: Theory and an empirical study", *Psychology & Marketing*, 21:11, pp. 927-943

**Key findings** The goal of this study was to explore whether relationships between different personality traits and individuals' fear responses to advertising, appeal to two types of driver safety behaviours. These were the inattentive and aggressive driving types. Overall, key findings suggest that the personality trait of *need for body resources* and *introversion* predicted fear for both inattentive and aggressive appeal ads. In contrast, the personality trait of *emotional instability* predicted fear only for the inattentive appeal ads. Finally, the use of photographs, as part of the ads, describing the feared consequences, produced significantly higher fear in the aggressive driving ads. The results of this study might have future implications for specific target groups and for the design of future campaign materials.

**Study quality was moderate** By examining associations between personality traits and responses to fear appeal messages, this study further enriches the cumulative knowledge in the field and opens new research avenues. While the main strength of this quasi-experimental study is the fact that 186 students were randomly assigned to four experimental conditions (four types of ads), the lack of control group cannot rule out the effect of other confounding factors on the findings. Moreover, the use of a convenience sample of students enrolled in the same course means the findings should not be used to generalise to the broader population.

## Addressing cultural orientation in social marketing

**Murray-Johnson L, Witte M, Liu WY, Hubbell AP**

**2001** "Addressing cultural orientations in fear appeals: promoting AIDS-protective behaviors among Mexican immigrant and African American adolescents and American and Taiwanese college students," *Journal of Health Communication*, 6, pp. 335–358

**Key findings** The aim of this research (two studies) was to determine whether cultural orientation influences the persuasiveness of fear appeal. A comparison was conducted between members of an individualistic culture (places individual needs above group needs) and members of collectivist cultures (places more emphasis on group needs) regarding safe-sex protective behaviour. Overall, key findings suggest that fear appeals-related messages should address cultural orientation. More specifically, it was

found that threat to the family causes greater fear to members of collectivist cultures and allocentric individuals. These results emphasise the importance of taking into account cultural variations while designing health-related campaigns.

**Study quality was moderate to high** This study integrated two theoretical lines of research derived from social psychology and health promotion. This synthesis has increased the body of knowledge in the field of social marketing. Particular strengths of this research were the use of two groups of participants from different cultures/countries (United States, Taiwan and Mexican immigrants) and the fact that the second study addressed the limitations identified in the first study. The main limitation of this study was the use of a convenience sample of undergraduate students, thus, limiting the potential to generalise the results to the larger population.

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