

Believability and Effectiveness of Young Adult Safe-Drinking Messages

Natalie Breen, Jennifer Thornton and Sandra C. Jones
University of Wollongong

Track: Political, Social and Not-for-Profit Marketing

Abstract

This study investigates eight safe-drinking messages, using appeals to the 'self' versus appeals about 'others', in combination with either a low or high physical threat, or a low or high social threat. The participants were 18-25 year old second-year university marketing students. An experimental design was used for data collection, which involved 196 participants, with the groups comprised of participants with homogenous demographic characteristics and drinking behaviour. Analysis of variance (ANOVA) was used to test the believability and effectiveness of the messages. It was determined that messages about 'others' were perceived as more believable and effective than the corresponding appeals used to the 'self'. In addition, physical threats were more believable and effective than social threats, and low level threats were more believable than high level threats.

Introduction

Alcohol abuse is a significant health problem for young adults (ABS 2001). AIHW (2002) states that "alcohol dependence and harmful use is one of the two leading specific causes of disease and injury among Australians aged 15-24 years". In 1995, for people aged 18 years and over who consumed alcohol, 13.9% of males and 10.5% of females had either a moderate or high health risk based upon their level of consumption (ABS 2002). Health risks of alcohol abuse can be minor in the short-term, such as impaired vision, impaired sexual function, slower circulation, malnutrition, water retention and decreased immunity, all of which can decrease an individual's quality of life. The longer-term, and more life threatening, effects of excessive alcohol consumption include alcoholism, brain damage, cancer, heart disease, weakened bones and muscles and cirrhosis of the liver ([wysiwyg://4/http://cpmnet.columbia.edu/texts/guide/hmg06_0003.html](http://cpmnet.columbia.edu/texts/guide/hmg06_0003.html)).

Social marketing campaigns, such as the anti-binge drinking campaigns titled "Drinking Choices", attempt to deter young adults from drinking to excess, however these campaigns have produced only minimal behavioural changes (Carroll, Lum, Taylor and Travia 2000). For example, the latest evaluation from the National Alcohol Campaign resulted in increased awareness among young adults but did not lead to significant changes in young adults drinking behaviour (Carroll et al. 2000). Anti-binge drinking messages need further study to determine which messages are more believable and effective for young adult drinkers.

Literature Review and Research Hypotheses

This study focuses on three major issues in regard to the selection of the 'type' of safe-drinking message that would be most believable and effective for young adult drinkers: 'self' versus 'other' appeals; social versus physical threats; and low versus high threat appeals.

Message Appeals to the ‘Self’ versus ‘Other’

The first issue to be discussed is whether the safe-drinking advertiser should appeal to the individual, in a direct way by appealing to the ‘self’, or to use an indirect appeal, by referring to the individual’s referent groups, that is, an appeal about ‘others’.

Young adults tend to believe that they are invincible and that negative consequences will not happen to them (McKenna 1993). Reppucchi (1991) and Clarke (2000) examined the concept of unrealistic optimism when it came to adolescent smokers and their perception of the health effects of smoking. In both studies, it was found that adolescents had ‘unrealistic optimism’ when it came to the effects that smoking had on their health. McKenna (1993) also analysed unrealistic optimism, as well as the concept of illusion of control, which presented evidence in favour of the illusion of control but lacked evidence for unrealistic optimism.

Similarly, in the context of alcohol consumption it is likely that young adults will find messages about the harmful effects to be of greater relevance to others than to themselves (Bennett 1996) given the existence of unrealistic optimism among this younger age group. Hence, it is hypothesised that:

- H1: Appeals about ‘Others’ will be more *believable* than appeals to ‘Self’
- H2: Appeals about ‘Others’ will be more *effective* than appeals to ‘Self’

Physical versus Social Threats

The second issue examines which type of threat appeal, physical or social, is more believable and effective for young alcohol drinkers.

Schoenbachler and Whittler (1996) analysed the effects of physical and social threat appeals on adolescents drug use, and found that social threats were more persuasive than physical threats. However, Shore and Gray’s (1999) study found that social threats were no more effective than physical threats in the context of drink-driving communications to young adults.

Given the high prevalence of alcohol use amongst young people’s friends and family, which they may have seen does not result in social exclusion, we propose that physical threats (particularly low-level physical threats which relate to harms they may have seen) will be more believable, and hence effective. Additionally, there are many competing advertisements and images in the media, which show the consumption of alcohol as an attractive social activity, which is further encouraged and perpetuated by peer group influence. Hence, it is hypothesised that:

- H3: Physical threats will be more *believable* than social threats
- H4: Physical threats will be more *effective* than social threats

Low versus High Threat Appeals

High versus low threat appeals have also been tested for their effectiveness in the context of social marketing messages. Some studies have found low threat appeals to be most effective (Hovland, Janis, and Kelley 1953; Janis and Terwillinger 1962), while other researchers support the use of high threat appeals (LaTour and Pitts 1989). King and Reid (1990) examined youth anti-drink driving public service announcements and found that high threat aroused more fear than low threats, however this fear arousal did not carry over to cognitive,

evaluative and behavioural responses. Another major concern with using high threat appeals versus low threat appeals, in the context of safe-drinking advertising to young adults, is that this younger audience may disbelieve the ad (Bennett 1996). The incidence of extreme harmful consequences, for both physical and social threats, would be low among the cohort of young drinkers and therefore they would most likely find high threat messages to be less believable than low threat messages. Therefore, it is proposed that a lower level threat will be more believable and effective than a higher level threat (for both physical and social threats). Hence, it is hypothesised that:

H5: A low level of threat will be more *believable* than a high level of threat

H6: A low level of threat will be more *effective* than a high level of threat

Methodology

An experiment was undertaken to test the believability and effectiveness of the safe-drinking messages. The messages were constructed by the researchers, based on current health knowledge and by analysing appeals used in previous Australian safe-drinking ad campaigns. The appeals were not designed to be identical to any previous campaign to minimise any potential bias of prior exposure to the message.

The three research issues in this study were combined to test eight *types* of message appeals, which are detailed in the Table 1 (along with examples of the questionnaire items used in the study).

Table 1 – Message Types and Example of Questionnaire Items

Message Type	Level	Questionnaire Item
Self/ physical Threat	Low	When you drink to excess you could fall over and cause serious injury to yourself.
	High	When you drink you could end up having unprotected sex with someone and get a Sexually Transmitted Disease (STD).
Self/ social threat	Low	When you drink to excess you could embarrass yourself and look like an idiot in front of your friends.
	High	When you drink you have no control over the way you treat your friends, you could end up destroying a great relationship.
Other/physical threat	Low	When your friend drinks to excess they could fall over and cause serious injury to themselves.
	High	When your friend drinks too much they could have unprotected sex and get a Sexually Transmitted Disease (STD).
Other/social threat	Low	When your friend drinks they could end up embarrassing themselves and look like an idiot.
	High	When your friend drinks they could do something stupid and destroy a long lasting relationship with a close friend.

The study was conducted in tutorial groups in a second year university marketing class. Participants were not informed as to the purpose of the study, they were simply asked to fill out the questionnaire independently of one another. Separate message types (for example, low social threat to ‘self’ and high social threat to ‘self’) were administered to each tutorial group to avoid confusion of participants if they viewed other questionnaires during the process. Additionally the sequence of messages was rotated to detect any ordering effects (for example, Group 1 were given a Low-High sequence, whereas group 2 received a High-Low sequence of the same messages).

The data used for the following analysis were taken from 196 participants’ responses, with approximately equal numbers of participants being exposed to each message type. Analysis of variance (ANOVA) and chi-square analysis were undertaken, which determined that each of the four experimental groups (n=approx. 50) were not significantly different in terms of their average age, gender and drinking behaviour. The average age of participants was 20.6, and 69% of the sample were female. The average reported number of drinks consumed on a Friday or Saturday night was 5.3, and the average reported ‘maximum drinks consumed on a given night in the last 6 months’ was 10 drinks.

Results

Table 2 details the mean scores of perceived believability and effectiveness for each message type. Believability and effectiveness were measured by asking the participant to provide an indication of their level of agreement (1 = strongly disagree; 2= disagree; 3 = mildly disagree; 4 = mildly agree 5= agree; and 6 = strongly agree) with the separate statements ‘*This message is believable*’ and ‘*This message is effective*’.

Table 2 – Believability and Effectiveness Ratings for ‘Self’ versus ‘Other’ and ‘Physical’ versus ‘Social’ Appeals

	Believability		Effectiveness	
	Self	Other	Self	Other
Physical Threat				
High	3.98	4.53	3.52	4.10
Low	4.42	4.65	3.40	3.76
Social Threat				
High	3.00	4.14	3.02	3.86
Low	4.44	4.63	3.63	4.13

Messages about ‘others’ were perceived as more *believable* than the corresponding appeals used to the ‘self’ (H1 confirmed). In particular, high threat messages (for both social and physical threats) were rated as significantly more believable when in reference to ‘others’ than in reference to the ‘self’ (F=13.336, Sig=.000). Similarly, messages about ‘others’, were perceived as more *effective* than the corresponding appeals used to the ‘self’ (H2 confirmed).

A comparison of physical and social threat appeals revealed that high threat physical appeals were perceived as more *believable* than high threat social appeals, however the difference was only significantly for regard to appeals to the ‘self’ (F=13.336, Sig=.000), and directionally consistent (but not significant) for ‘others’ appeals. There was no difference for low threat

physical or social appeals in regard to believability (H3 only partially support). In regard to the *effectiveness* of physical versus social threats, it was found that physical threats were more effective than social threats in a high level threat and self appeal context ($F=8.030$, $Sig=.000$) (H4 confirmed).

Paired samples t-tests were undertaken to determine differences between low and high threat appeals. Low threat appeals were seen as more *believable* than high threat appeals ($t=5.221$, $Sig =.000$) (H5 confirmed), but there was no difference in *effectiveness* of the levels of appeals (H6 not supported).

Discussion

Safe-drinking messages to young adults containing threats about another person, in this instance the participant's friend, are more believable and effective in relation to both physical and social threats (under high threat conditions). These findings support both Reppucchi (1991) and McKenna's (1993) studies regarding unrealistic optimism, which is related to the commonly-held perception of young adults that 'it won't happen to me'. If safe-drinking advertisers used appeals to 'others', then eventually if everyone took greater care of their friends when drinking alcohol, it could work to reduce excess drinking levels among the entire referent group.

A safe-drinking message containing a high threat appeal to the 'self' will be more believable and effective if physical threats rather than social threats are used. However, results are also directionally consistent for 'others' and no difference for low threat appeals. The findings of this study disagree with Shore and Gray (1999) who found no difference between physical and social threats. The results of this study also conflict with that of Schoenbachler and Whittler (1996) who found social threats were more persuasive than physical threats. However, our current study and Schoenbachler and Whittler's (1996) study examined two different social marketing problems: alcohol consumption and drug use, respectively. This highlights the importance of testing theories in each area of social marketing to determine the applicability of findings across different contexts.

High and low threat appeals can also have an effect on the believability and effectiveness of physical, social, 'self' and 'other' messages. Low physical threats were seen as more believable than high physical threats, but high physical threats as more effective. This could be due to the fact that the individual has seen or actually experienced the consequence proposed in the low threat appeal (embarrassment and/or falling over), but this is not effective enough to reduce drinking as the individual does not view it as detrimental to their physical well-being.

Limitations, Future Research and Conclusion

A replication of this study consisting of a more representative sample of young adults would test the generalisability of the results. University students often engage in binge drinking and therefore may not be representative of the entire population of young adults. Additionally their message processing capabilities may be affected by their higher level of education. For future studies, researchers may choose to expose each experimental group to only one type of message appeal, versus using both low and high threats on the same experimental group. The inclusion of a moderate threat appeal in addition to the low and high threats could also be

examined, as it may be just enough threat to encourage the desired behavioural change, yet not too threatening to be deemed by the target audience as lacking believability. The severity and susceptibility of the high and low threats for both physical and social messages was not measured. These variables, along with perceived self-efficacy, could be included in further research on this topic (Witte and Allen 2000).

This experiment investigated the relationship between 'self' versus 'other' appeals and physical versus social threats (at both a low and high level of threat). It can be concluded that for social marketing issues that the target audience has direct and regular experience with, such as the consumption of alcohol, social marketers need to be cautious in portraying relevant and believable appeals. In general, the believability and effectiveness of safe-drinking messages increase when physical and social threats are made about others, rather than to the self.

References

AIHW (2002), Australia's Health 2002, Canberra: Australian Institute of Health and Welfare

Australian Bureau of Statistics (ABS) 2001, *Australian social trends/ Health risk factors/Alcohol use*, www.abs.gov.au

Australian Bureau of Statistics (ABS) 2002, *Health risk factors/Alcohol/Harmful use of alcohol*, www.abs.gov.au

Bennett, R. (1996), "Effects of Horrific Fear Appeals On Public Attitudes Towards Aids", *International Journal of Advertising*, 15, pp.183-202.

Carroll, T., Lum, M., Taylor, J. and Travia, J. (2000) Evaluation of the launch phase of the National Alcohol Campaign, Research Summary.

Clarke, V. A., Lovegrove, H, Williams A., and Macpherson, M. (2000). "Unrealistic optimism and the health belief model", *Journal of Behavioral Medicine*, 23(4), 367-376.

Hovland, C., Janis, I., & Kelley, H. (1953). *Communication and persuasion: psychological studies of obvious change*, New Haven, CT: Yale University Press.

Janis, I. & Robert F. Terwillinger (1962). An experimental study and psychological resistances to fear arousing communications, *Journal of Abnormal and Social Psychology*, 65 (6), 403-410.

King, Karen Whitehill and Leonard N. Reid, (1990) "Fear Arousing Anti-Drinking and Driving PSAs: Do Physical Injury Threats Influence Young Adults?," *Journal of Current Issues and Research in Advertising*, 12, 155-175.

La Tour, M., & Pitts. R (1989). Using fear appeals in advertising for aids prevention in the college-age population. *Journal of Health Care Marketing*, 9 (3), 5-14.

McKenna, F (1993), "It won't happen to me: unrealistic optimism or illusion of control", *British Journal of Psychology*, 84 (1), 39-51.

Reppucci, J. D., T. A. Revenson, et al. (1991). "Unrealistic optimism among adolescent smokers and nonsmokers", *Journal of Primary Prevention*, 11(3), 227-236.

Schoenbachler, D and Whittler, T (1996) Adolescent processing of social and physical threat communications, *Journal of Advertising*, vol. 25, pg. 37

Shore, N & Gray, B (1999) Teen reactions to anti-drink driving fear appeals, *ANZMAC99*, UNSW, Australia

Witte and Allen (2000), "A Meta-Analysis of Fear Appeals: Implications for Effective Public Health Campaigns", *Health Education and Behavior*, Vol.27 (5), pp591-615.

wysiwyg://4/http://cpmcnet.columbia.edu/texts/guide/hmg06_0003.html [accessed 3rd June 2003]