

## **The Saliency of Vomiting in Teenagers' Binge Drinking Intentions**

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### **Abstract**

Binge drinking among Australian teenagers has been identified as a serious health issue. Unfortunately, efforts to date to address this problem have been largely ineffective. It has been suggested that using images of teenagers vomiting in social marketing campaigns isn't effective because vomiting is viewed as a positive outcome due its ability to signify a 'big night'. The present study accessed online information posted by Australian teenagers to explore alcohol-related beliefs and behaviours that are reported online. A thematic analysis of the blogs suggests that for many Australian teenagers vomiting is still a deterrent to heavy drinking, and that they may be turning to illicit drugs to achieve an altered mental state with a lower risk of vomiting.

**Key words:** alcohol, behaviour change, drugs, health promotion

## **The Salience of Vomiting in Teenagers' Binge Drinking Intentions**

### **Introduction**

Dr Noel Turnbull, the Director of DrinkWise Australia, was recently reported as stating that depicting young people vomiting in anti binge-drinking social marketing campaigns is futile because such behaviour is indicative to this group of having a good time (Kerr, 2009). His argument is that such scenes are regularly posted online by young people to demonstrate their participation in fun social activities, and therefore that they are ineffective when used in anti binge-drinking messages as has been done in Australia in recent years.

This issue relates to the use of fear appeals in social marketing campaigns and ensuring any specific fear selected for use in communications is legitimate in terms of its salience to the target audience. The difficulties associated with choosing an effective fear appeal have led some to suggest that the use of fear appeals may be generally inappropriate in social marketing (Hastings et al., 2004). At the same time, however, recent work in the social marketing literature on the emotion of disgust has indicated that its use in communications can be more effective in changing attitudes and behaviour compared to messages using other approaches/appeals. For example, Curtis et al. (2007) and Prozig-Drummond et al. (2009) were able to demonstrate improved hand hygiene among recipients of a disgust-based hand-washing message, Donovan et al. (2006) showed higher intentions to not smoke among people exposed to a disgust-based anti-smoking message, and Woolf (2007) was able to stimulate higher levels of physical activity and information seeking about physical activity among those receiving disgust-invoking messages. Studies of the effects of disgust appeals have indicated that they bypass cognitive processing and operate on an emotional level (e.g., Woolf, 2007). However, it may be the case that the use of disgust results in a stronger negative attitude to the advertisement than to the 'product' being promoted (Dens et al., 2008).

The use of vomiting scenes in anti binge-drinking ads has sought to dissuade youth from excessive alcohol consumption by invoking disgust. The aim of the present study was to investigate the salience of vomiting to Australian teenagers to assess whether the fear of vomiting is relevant to their binge drinking intentions and behaviours. This was achieved through a thematic analysis of weblogs. The findings have implications for future anti binge-drinking campaigns and for the application of the concept of disgust in social marketing.

### **Background**

Binge drinking is defined as excessive or hazardous levels of alcohol consumption on a single occasion (Burns and Thompson, 1998). This form of drinking among Australian teenagers has been identified as a health issue of particular concern (Bonomo et al., 2001). Consumption data show that teenagers are the age category of drinkers most likely to engage in binge drinking behaviours (AIHW, 2000), and as a result they experience relatively high levels of alcohol-related harm as measured by the incidence of hospitalisation, unwanted sexual activity, and drink driving (Foxcroft et al., 2003; McBride et al., 2000). These outcomes, along with the association between childhood alcohol consumption and problem drinking in adulthood (Guo et al., 2000; Hawkins et al., 1997; Skrondal, 1998), have made teenagers a priority in public policy initiatives relating to excessive drinking (Commonwealth of Australia, 2006).

The decision to engage in excessive alcohol consumption is influenced by numerous factors, including those relating to culture, family, peers, situational context, and price (Cameron and Williams, 2001; Hajema et al., 1997; Marsden et al., 2005; Pettigrew, 2001). The ways in which these factors interact is not well understood, especially among younger drinkers, resulting in disappointing results of interventions targeting this group (Foxcroft et al., 2003). The development of effective alcohol interventions is dependent on better explication of the various forces impacting on young people and their alcohol consumption decisions.

Over the last year or so there has been substantial social and media interest in government attempts to introduce new policies relating to beverages heavily consumed by young people (Kerr, 2008a, 2008b, 2009; Ryan, 2008). Debate continues regarding the potential benefits and unintended consequences of such policies. Further research is required to inform future interventions to increase the likelihood that policies will have a dampening effect on young people's alcohol consumption rather than inadvertently stimulating consumption as suggested in Turnbull's comments noted above. The present study contributes to efforts to meet this research need.

## Method

Accessing information relating to teenagers' alcohol consumption beliefs and behaviours is problematic due to a traditional reliance on self-report data collection methods that require young drinkers to be consciously aware of their motivations and to be willing to discuss them honestly. Self-reporting is often inadequate where the subject of interest is characterised by subconscious motivations (Hoffman et al., 2005) and strong social desirability elements (Embree and Whitehead, 1993), and both are likely to be the case in youth alcohol consumption. It has been suggested that alternative approaches to data collection should be developed and implemented for issues relating to alcohol consumption (Brener et al., 2003). An additional difficulty when researching young people is that they often use colloquial language that can be hard for the mature researcher to understand. The Internet has been proposed as a data collection site that can provide access to young people and the language they use related to the subject of interest (Merchant, 2001). Neilsen (2007) have successfully used an Internet-based data collection method to explore American teenagers' attitudes to alcohol consumption, and this approach has been adopted in the present study to overcome the data quality issues noted above. In addition, accessing Internet data provides exposure to the views of young drinkers who are otherwise very difficult to access *en masse* due to the logistical problems associated with obtaining permission from government education departments, individual schools, parents, and children themselves.

Following procedures employed in the Neilsen (2007) study and those recommended by Kozinets (2002), the present study involved the following stages to obtain online information relating to teenage alcohol consumption: (1) obtaining university ethics clearance for the study; (2) using web searches to identify weblogs where Australian teenagers discuss their alcohol-related beliefs and behaviours<sup>1</sup>; (3) over a period of five months, downloading data from the identified sites (with permission from the site managers where required); (4) importing the data into NVivo7; and (5) analysing the data for content relating to

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<sup>1</sup> In accordance with the Ethics Committee requirements, no sites using password entry were accessed (e.g., MySpace and Facebook).

vomiting. This included searching for a wide range of terms (and their derivatives) including vomit, sick, puke, chunder, chuck, hurl, throw up, and heave.

The resulting dataset was comprised of 375 pages of text relating to alcohol beliefs and behaviours. The data were qualitatively analysed for themes relating to vomiting, with particular attention given to the expression of emotions. Given the exploratory nature of the study and the inability to determine the representativeness of the comments downloaded, no attempt was made to perform a statistical analysis of the data. Instead, the data were treated as interview transcripts and therefore interrogated for the meanings conveyed.

## Findings

Rather than reporting that vomiting is a desirable by-product of heavy drinking, almost all bloggers on the accessed sites exhibited negative attitudes to vomiting, citing both physical and psychological forms of discomfort that cause them to want to avoid this outcome. Most of those discussing vomiting on the accessed sites appeared to be girls, and in general they considered vomiting to be a highly unappealing aspect of drunkenness. The larger number of comments by girls may reflect a greater use of blog media by young women relative to young men (Gross, 2004; McKay et al., 2005).

Physical discomfort was often mentioned in comments relating to vomiting. Discussions about physical discomfort typically related to the actual process of regurgitating as well as the hangover symptoms suffered the next day<sup>2</sup>:

There's no point in drinking a lot of alcohol when you just end up vomiting and feeling awful the following day (girl).

Psychological discomfort was also mentioned frequently and was typically described as being more extensive and of greater concern to young drinkers than physical discomfort. Psychological discomfort had multiple aspects that included looking unattractive (during vomiting and afterwards, such as when makeup is smeared), embarrassing oneself in front of peers and adults, engaging in public and unintended sexual encounters, being grounded by parents, and being unable to recall events and behaviours while inebriated and thus being reliant on the reports of peers and any photographic evidence that may have been taken and subsequently distributed:

One night I got so drunk that I ended up having sex with a boy in my year at school. People walked in and saw us. I vomited all over him and I didn't remember many of the things that went on that night. I felt extremely embarrassed and humiliated thinking that everyone around me knew about what went on (13 year old girl)

I got so sick and to top it off my parents found out and grounded me for six months (boy).

My whole family saw me vomit all over the rug in the lounge room. I then went and threw up more in the bathroom sink (I wasn't an experienced drinker and didn't realise that the toilet was the usual place that people chuck) and my mum was the one

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<sup>2</sup> In accordance with Ethics Committee requirements, the quoted extracts have been paraphrased to prevent the text strings from being used to locate the original blog entry. General blogger identifiers are provided where available.

who ended up cleaning my vomit up– there were chunks in the sink and it wasn't pretty (girl).

Of concern was a trend among some bloggers to report that the risk of vomiting when drinking had caused them to move on to other drugs (especially those available in tablet form) to achieve a high that was not perceived as likely to produce this outcome:

I've given up alcohol because I dislike the taste and it makes me feel sick. I reckon alcohol has lots more negative effects than most recreational drugs without any of the good things (male).

Alcohol to me tastes poisonous and it poisons the liver and brain. It makes your judgement impaired, makes you slur your words, makes you lose you memory, leads to nausea and vomiting, makes driving dangerous, makes being in public dangerous and there are no benefits other than lowering inhibitions. I prefer drugs that amplify reality instead of those than suppress it (no gender supplied).

It thus appears that for some young people the prospect of alcohol-induced vomiting is a deterrent but it does not necessarily prevent them from engaging in risky behaviour. The range of alternative drugs on the market, their ready accessibility, their cost comparability, and their social acceptability can make alcohol a less attractive option than traditionally considered by young people in previous times.

## Discussion

The Internet blog data obtained suggest that concerns about vomiting being a motivator rather than a deterrent to teenage binge drinking may be misplaced. Those young Australians logging comments about this topic on various chat rooms on the Internet were almost unanimous in expressing disgust and disdain for alcohol-induced vomiting, to the extent that some reported taking illicit drugs in an attempt to achieve an altered mental state with less risk of vomiting. They did not discuss the dangers associated with such drugs, suggesting that they are underestimating or ignoring the potential negative side-effects of other drugs in their quest for a drug-induced high that they believe does not involve the same risk of vomiting. Ecstasy, for example, can cause depression, anxiety, insomnia, weight loss, blurred vision, numbness, teeth problems, vomiting, and even death due to dehydration (Darke et al., 2000), and is therefore not considered by health authorities to be an acceptable substitute product for alcohol.

Noel Turnbull's reported comments relating to the inappropriateness of depicting vomiting in anti binge-drinking campaigns thus appear to be correct, but perhaps for the wrong reason. Rather than vomiting constituting an aspirational state, for at least some teenagers it remains very much a deterrent. This can occur to the extent that they seek other drug-induced means of achieving an altered mental state in the belief that this will allow them the benefits of alcohol without the likelihood of vomiting. Social marketing campaigns that highlight the negative (disgusting) aspects of excessive alcohol consumption by showing scenes of youths vomiting may therefore encourage uptake of illicit drugs rather than discouraging risky behaviour in general – a very unintended consequence.

The findings of this study highlight the benefits of accessing alternative forms of data relating to sensitive consumption issues to overcome the deficiencies of traditional data

collection methods (see also Langer and Beckman, 2005). Young people may state in focus groups that vomiting is a 'badge of honour' that symbolises their ability and willingness to engage in social rituals, but such comments may be partly attributable to social desirability bias or perceptions of the expectations/ beliefs of the interviewer and other focus group members. Such comments may also merely reflect the views of the kinds of young people willing to disclose their alcohol-related beliefs and behaviours in focus groups. Internet data have the potential to provide access to an alternative perspective that is more reflective of the views of those who prefer other methods of communicating their thoughts and feelings relating to alcohol consumption. Validity issues remain in that it is not possible to determine which data sets derived by which means are more representative of young Australians' attitudes and behaviours, but both are useful for providing exploratory insights into the range of possible issues affecting young people in their alcohol consumption choices.

The findings of the present study also highlight the importance of anticipating the unintended consequences of social marketing campaigns by considering whether any depicted adverse outcomes of the behaviour being discouraged will trigger alternative behaviours that are equally or more detrimental to the target audience. Previous research has also stressed the need to avoid adverse unintended consequences (e.g., Buchanan et al., 1994), but we continue to lack guidelines on how to achieve this given the case-by-case nature of specific social marketing campaigns and the issues they address.

### **Conclusion**

Binge drinking among young Australians is a major health issue that is currently attracting significant attention. As in other western countries, the problem is proving intractable and previous interventions have produced disappointing results. In the search for effective strategies to address the problem, Internet-based data have the potential to provide additional insight into the alcohol-related beliefs and behaviours of young people. The findings of the present study demonstrate that alternative perspectives can be obtained by accessing the thoughts, feelings, and experiences teenagers share online and that these perspectives have the potential to inform future social marketing campaigns that attempt to address youth binge drinking while minimising undesirable unintended consequences. In particular, the findings show that using vomiting as a disgust appeal in communications designed to reduce binge drinking behaviours among young people may have the unintended consequence of encouraging migration to alternative drugs that have serious negative consequences of their own.

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