

The Social Norms Analysis Project Results, insights and future priorities

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The issue of young people and alcohol has recently risen to prominence. To a certain extent, it is not a 'new' issue. However a number of trends (including earlier age of initiation, increased alcohol-related hospitalisations in some areas, and changes in gender-related consumption patterns) bring a sense of urgency to the need for effective, evidence-based strategies for minimising alcohol-related harm among young people in Australia.

Harm minimisation, upon which Australia's current alcohol and drug policy is based, involves a range of approaches including prevention, early intervention, specialist treatment, supply control, safer drug use and abstinence (Munro and Midford, 2001, p.106). Harm minimisation explicitly recognises that 'despite the best efforts of policy makers, law enforcers, educators and therapists' (Munro and Midford, 2001, p.106), and regardless of the effectiveness of health promotion strategies, a) young people will continue to use alcohol, b) some proportion of them will misuse it, and c) an appropriate aim is to lessen both the frequency and the severity of the harm suffered by individuals and communities.

This briefing paper discusses some important results and implications of the Social Norms Analysis Project (SNAP). SNAP, which was conducted by the Tasmanian Institute of Law Enforcement Studies (TILES) and the Department of Rural Health at the University of Tasmania, was the first major Australian trial of the 'social norms' approach to health promotion. SNAP was funded by the Alcohol Education and Rehabilitation Foundation, and aimed to provide a realistic picture of alcohol-related attitudes and behaviours of the high school students attending four public schools in two rural regions of Tasmania (see Hughes et al., 2008 for further detail).

Before presenting some of the detail of the project and its evaluation, the paper provides a broad overview of trends in school-based alcohol education and highlights some of the 'essential ingredients' for effective health promotion in this setting.

Alcohol Education in Schools

School-based alcohol health promotion has been a key pillar in efforts to prevent alcohol use and/or the harm associated with its use. However, it is important to note that it has changed in both style and substance in recent decades. What follows is a brief overview of these changes. The paper makes use of simplified 'Program Logic' diagrams, which help to highlight the underlying assumptions of different alcohol health promotion approaches. A logic model of a project is basically a diagrammatic representation of a theory of change, which models the ways in which project resources, processes and activities are intended to transform inputs into the desired outcomes. Some diagrammatic representations of logic models are very complex. For the purposes of this discussion, however, the following diagram captures the required elements.

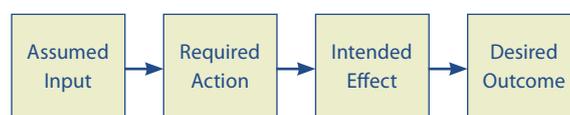


Figure 1: Simplified 'program logic' model

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Information approaches - risk education

Early prevention work within schools tended to focus on the provision of information to students, particularly concerning the pharmacological dangers of substance use and the possible risky consequences of drinking. Put simply, it was believed that 'if young people just knew how horrible drugs were and what they did to their brains and bodies, then they would not use them' (Hogan, 2002). These programs often incorporated deliberate scare-tactics and have been labelled 'health terrorist' approaches due to the assumption that it is possible to 'scare the health into people' (Perkins, 2003, p.106).

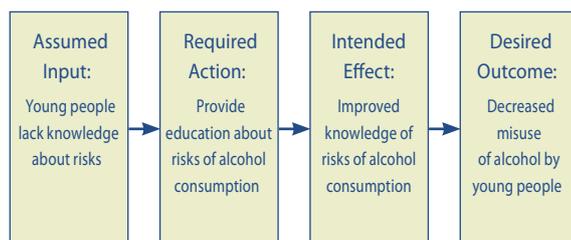


Figure 2: Logic model for information approaches

Despite some residual elements of health terrorism within contemporary programs, the information approach as a stand-alone method of tackling high-risk drinking among youth was 'an acknowledged failure by the late 1970s' (Midford et al., 2002).

Affective approaches - self-esteem and 'refusal skills'

The ensuing phase of school-based prevention took a more holistic approach – seeking to build the self-esteem of young people so that they were less vulnerable to the vagaries of substance abuse. The so-called affective model of drug education 'assumes that those who use substances have personal problems such as low self-esteem, inadequate social skills, and poor/unclear values' (Paglia and Room, 1999, p.16). Sometimes these programs included resistance training components that sought to 'innoculate' youth against overt peer-pressure to engage in risky behaviours.



Figure 3: Logic model for affective approaches

Evaluations of such programs have generally been disappointing, with few effects (and sometimes counterproductive effects) on students' substance use (Paglia and Room, 1999; p.16). Over time such 'affective' programs suffered the same fate as their predecessors

the 'information' programs – they were gradually recognised as having only limited efficacy (Cook, 2005, p.2).

Social influence approaches – beyond the individual

Since the second wave of affective programs, there has been an increase in the complexity, and sophistication of programs aiming to reduce alcohol-related harm among young people. Importantly, many of these have a psychosocial component which recognises the individual as located within a wider community and subject to a range of forces and influences. Comprehensive community programs involving schools, parents, government, industry and the mass media aim to provide 'simultaneous and consistent messages from various social sectors', and sometimes include policy/legislative aspects as well as educational components (Paglia and Room, 1999; p.17).

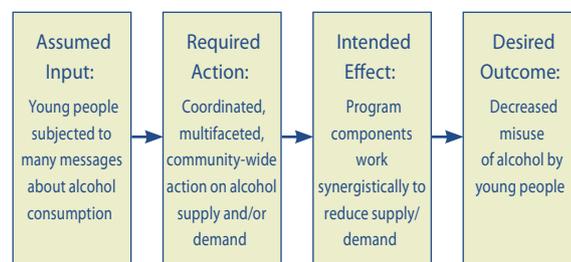


Figure 4: Logic model for social influence approaches

Examples of such programs may be found in Australia, Canada, the United States and other developed nations. Despite some evidence that they can achieve positive outcomes (such as a delay in onset of use, or reduced levels of harm), social influence programs tend not to be very common, perhaps because they are relatively time and resource-intensive and require high levels of coordination.

Alcohol Health Promotion: The Bigger Picture

With the exception of some more recent multifaceted 'social influence' programs, school-based alcohol programs for young people have not achieved great success in Australia or elsewhere (Midford et al., 2002). The following section considers some possible reasons for this apparent lack of effect.

Unfortunately, attempting to reduce alcohol consumption and/or alcohol-related harm among young people is something of an 'uphill battle'. There are many countervailing forces. Alcohol is a readily available commodity which is sold in a range of outlets, including supermarkets. Recent years have seen an enormous increase in liquor outlet density in many regions (Roche, 2008, p.15). Even when retailers do not sell directly to minors, research on 'secondary supply' indicates that

young people obtain alcohol from their parents, relatives or friends. Alcohol is also relatively affordable. Many warehouse-style outlets sell bulk quantities of alcohol at a greatly discounted price.

Another factor which works against efforts to minimise consumption is the advertising and promotion of alcohol. The nature of alcohol advertising and the self-regulatory system in Australia is a frequent source of complaint and consternation (see Templeman, 2008, p.2). Alcohol is also often consumed in a highly visible manner and its over-consumption is met with varying levels of social acceptance. Major sporting events, many of which are televised nationally or internationally, may be reliant on alcohol-industry sponsorship. Even in small community-based sporting clubs and associations, alcohol consumption may be an unquestioned 'part of life', even for young members. Furthermore, media coverage of the issue often gives the impression that 'bingeing' and 'drinking to get drunk' are 'the norm'.

Importance of social factors

An anomaly exists 'between the highly social nature of drinking on the one hand, and the predominantly individual focus of efforts to prevent alcohol misuse on the other' (Hughes et al., 2008). More often than not, programs seek to remedy the individual's deficit in knowledge (of risks, for example) in an effort to change the individual's behaviour. There is a need to 'acknowledge the extent to which, and the many ways in which, drinking is a social as well as an individual act' (d'Abbs, 2002) and to shift away from prevention efforts that posit the individual as both the 'unit of analysis' and the 'locus of concern' (Hughes et al., 2008). That is not to say that the individual psychological factors should be ignored, but that an improved understanding of the social 'place' of alcohol in young peoples' lives will enhance prevention efforts.

Resistance to messages

Another set of factors relates to young peoples' receptiveness to alcohol education. Like adults, they are not unquestioningly accepting of health promotion messages. They may be annoyed by the perceived hypocrisy of adults who 'preach' to them about the dangers of alcohol. They may regard drinking as a rite of passage to adulthood (Midford, 2000, p.442), given that they observe adults consuming alcohol both in everyday life and in the popular media. They may regard prevention programs (particularly those which emphasise abstinence) as 'boring' and 'unrealistic' (Farrington, 2000). Warnings about catastrophic and long-term harm may be viewed with scepticism, or dismissed as irrelevant – since young people often have an air of invincibility which supports them in thinking that drinking is 'a big game' and that nothing bad will happen to them (see for example Graham et al., 2006, p.8).

Underlying assumptions

All types of school-based health promotion are based on a set of assumptions, which are usually not explicitly articulated.

Arguably, the lack of effectiveness of both the 'information' and 'affective' approaches to alcohol education is at least partially explained by the inaccuracy or inappropriateness of the assumptions that underpin them. For instance, the assumption that improved knowledge of the risk of negative outcomes will translate into behavioural change is not supported by the literature. Equally, the idea that 'drug use by young people is driven by individual deficiency and that the problem can be remediated by enhancing self-esteem or improving decision-making skills' (Midford, 2000, p. 442) is a questionable assumption.

Furthermore, approaches which seek to strengthen 'refusal skills' assume that young people actively 'pressure' one another to consume alcohol and/or marginalise non-drinkers (see for example, Graham et al., 2006). Such approaches (incorrectly) assume that overt coercion by peers leads to substance use (Paglia and Room, 1999, p.17). Furthermore, as May points out, such approaches miss the point that peer influence can 'act as a restraint on alcohol-related behaviours' as much as it serves to 'contaminate' individuals (May, 1993).

Introducing the Social Norms Approach

There is a growing body of national and international evidence about what forms of alcohol education for young people actually 'work' to reduce alcohol use and/or alcohol-related harm. Perhaps more importantly, meta-analyses of effective programs can highlight the features which appear consistently. This allows the development of new approaches which incorporate a 'distillation' of the best practice features of past interventions (Midford, 2000, p.442). The Social Norms (SN) model, which was developed in the United States on the basis of social-psychological research, is one such approach.

What is different about social norms?

The SN approach is more closely aligned to the social influence approach outlined above than it is to the information or affective approaches. It does not seek to increase knowledge of risk, nor does it attempt to increase young peoples' capacity to resist peer group pressure. Instead, the focus of SN interventions is the extent to which young peoples' *perceptions* of their peers' behaviour and attitudes influences their own drinking behaviours.

SN interventions are underpinned by work in the social sciences that demonstrates the powerful nature of the perceptions of what others think and do (which might or might not accord with what others actually think and do). Social environments in which large proportions of people assume that everyone is drinking heavily tend to be more supportive of heavy drinking (Perkins et al., 2005). Therefore SN interventions seek to identify and correct any misperceptions that exist among the target group, so that the social environment can become more supportive of safe (and non-) consumption of alcohol (Cook, 2005). A logic model for the SN approach appears below.

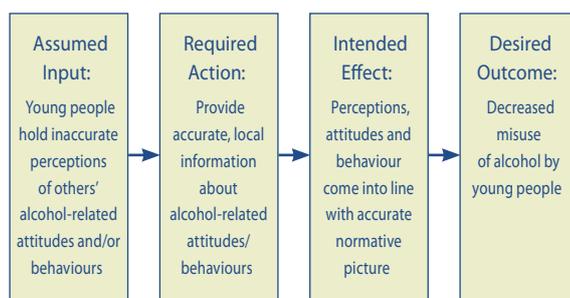


Figure 5: Logic model for social norms approach

Essentially, SN interventions encourage us to view youth drinking through a different lens. In contrast to some other approaches, they recognise the *positive* impact of peer groups, and the fact that healthy and protective behaviours are *already present* in most youthful populations. SN interventions are based on the research evidence that many young people a) have an inaccurate idea of how frequently and heavily their peers consume alcohol, b) base their decisions/actions on what *they believe* most of their peers are doing, and c) will be less likely to conform to a 'false norm' if repeatedly exposed to the 'true norm'.

Social norms: the evidence base

Alcohol-focused SN interventions are rapidly gaining in popularity worldwide. In a 1999 survey of United States colleges, 20% of the colleges surveyed reported having conducted SN marketing campaigns, and by 2001 this figure had risen to nearly 50% (Weschler, 2004). Despite the fact that several SN interventions have 'failed' (Clapp et al., 2003; Werch et al., 2000) and some critics regard the approach as ineffective at best and harmful at worst (Weschler, 2003), the evidence base in support of the approach is both sizeable and robust.

There is a growing body of evidence of SN interventions resulting in significant reductions in high-risk drinking among target populations, in various educational and other settings and within both metropolitan and non-metropolitan contexts. For instance, the University of Arizona reported a 29% reduction in 'heavy episodic drinking' over a three-year period (Glider et al., 2001). Equivalent figures for other institutions include a 21% reduction over two years at the University of Missouri-Columbia, and a 44% reduction over 10 years at Northern Illinois University (Haines, 1996). Although the majority of SN interventions have been conducted at colleges and universities, the approach has also yielded promising results at high-schools (Johannessen et al., 1999; Linkenbach, 1999).

Conducting and evaluating social norms interventions

The SN approach is a data-based and data-driven approach. Conducting a SN intervention typically involves completing the following four key phases in turn:

- 1) collection of data about alcohol use and attitudes using an anonymous questionnaire;
- 2) analysis of the collected data on a per-school basis to yield positive, data-based 'key messages';
- 3) dissemination of the 'key messages' to the target groups using a media campaign; and
- 4) evaluating the impact of the campaign, in terms of recognition and understanding of the message, changes to norm perceptions and/or behaviour.

As indicated by the phases listed above, evaluation is an integral part of conducting a SN intervention rather than an additional or optional project component.

SNAP – Background Information

The main SNAP target groups were students in grades 7-10 at four Tasmanian rural public high schools: Huonville High (HH) School and Geeveston District High (GDH) School in the Huon Valley Municipality (south-eastern region), and Mountain Heights (MH) School and Rosebery District High (RDH) School in the West Coast Municipality (western region). The two rural municipalities participating in the trial were selected for having a 'sense of community' and a focus on youth and/or problematic alcohol consumption, an active local Council, no more than two public high-schools servicing the community, and a history of successful partnerships with the University, law enforcement agencies and all three tiers of government (see also Hughes, 2006).

The school-based interventions at the trial schools were based on repeated administration of the approved survey tool. The student survey contained 51 items relating to students' own alcohol-related behaviours and attitudes, experience of alcohol-related harm, parental 'rules', perception of others' (friends and classmates, for example) alcohol-related behaviours and attitudes, and a range of questions relating to the last occasion on which the respondent consumed alcohol. Student data was collected at the four trial schools using a self-administered anonymous survey in mid-2006 (baseline, T1) and twice in 2007 (T2 in first term and T3 in third term). Survey items were constructed to allow a number of potential analytic approaches including both descriptive and inferential. For the most part, survey items employed metric measures (eg, semantic differential and Likert scales) to enable multivariate analysis of the data.

Application of the SN model involved generating school-specific data following the T1 and T2 rounds of student data collection, and using these as the basis for 'key messages' which were positive and affirming (with no 'scare tactics' or negativity). The key messages were then disseminated intensively to each of the target groups via multiple media channels and promotional items.

First media campaign

The key messages for the first campaign promoted norms of non-consumption, and the media campaign involved posters, badges and flyers and also incorporated student activities such as 'free dress' days and flyers for parents. The aim was to promote the positive, data-based messages in ways that were highly visible, appealing and credible to the students.

The first media campaign in the south-eastern region promoted the following positive messages:

- 70% (7 out of 10) of HH students rarely or never drink alcohol. Most (83%) GDH students choose non-alcoholic drinks when hanging out with friends.

For the western region, the messages were:

- Most (83%) MH students choose non-alcoholic drinks when hanging out with friends. 75% of RDH students rarely or never drink alcohol.

Second media campaign

The key messages for the second campaign focused on harm-minimisation and attitudinal norms. Two sets of key messages were disseminated at each school, due to the later-than-planned timing of the campaign.

The second media campaign in the south-eastern region focused on the following messages:

- Of those HH students who drink, 67% did not get drunk the last time they drank.
- 73.3% of HH students think it's not okay for high school students to get drunk.
- 65.8% of GDH students think it's not okay for high school students to get drunk.
- Most GDH students who drink try to stay safe – Most (60%) set limits on how much they drink and most (65%) eat while drinking.

The positive messages promoted in the second campaign in the western region included:

- 64.3% of MH students think it's not okay for high school students to get drunk.
- Of those MH students who drink, 67% did not get drunk the last time they drank.
- 63.8% of RDH students rarely or never go to parties where students are drinking.
- 76.7% of RDH students think it's not okay for high school students to get drunk.

As was expected, some students were initially quite suspicious of the messages and doubted their accuracy. However, the inclusion of the source and nature of the data on the posters, and the preparedness of the project officers to discuss the results increased students' confidence in the accuracy of the results. One important aspect of the campaigns was the 'space'

that it opened up for students, parents, and teachers to discuss alcohol and other drug use in the local context.

SNAP evaluation and results

The evaluation of SNAP pertains to the perceptual, attitudinal and behavioural effects of the intervention, but is not able to assess long-term impacts such as decreased misuse of alcohol.

The evaluation was conducted as an integral part of the project, and has been guided by a number of questions, including:

- 1) Do students misperceive the frequency and/or intensity of others' drinking?
- 2) Is there a relationship between self-reported frequency of *drinking* and the perceived frequency of drinking and/or drunkenness of peers?
- 3) Is there a relationship between self-reported frequency of *drunkenness* and the perceived frequency of drinking and/or drunkenness of peers?
- 4) Did the trial schools exhibit changes during the course of the intervention, with respect to the following:
 - a. perceptions of the frequency of others' drinking?
 - b. perceptions of the frequency of others' drunkenness?
 - c. self-reported frequency of drinking and drunkenness?
 - d. use of harm-minimisation strategies
- 5) Did the control school exhibit the same changes as the trial schools?

As explained above, SNAP adopted a pre- and post-testing design, with the same survey instrument being administered to students at three time points – once prior to the 'intervention', once during the intervention, and finally at the end of the project. The research design was quasi-experimental, and involved trial groups (which were involved in the data collection and received the intervention) and a control group (which was involved in the data collection but did not receive the intervention).

Perceived and self-reported drinking

A key area of interest is the extent to which students correctly or incorrectly perceive the frequency and intensity of others' (friends, same-grade students and same-school students) drinking. The student survey results demonstrate the existence of considerable misperception (ie, both overestimation and underestimation) among the target group across a range of areas. For instance, as Figure 6 indicates, while perceptions of what might be called moderate drinking (1-2 times a month and 3-4 times a month) were relatively accurate (ie, there was only a small 'gap' between perceived consumption and actual consumption), there is less accuracy at either end of the continuum. Thus students *underestimated* the proportion of those who drink once a month or less, while they *overestimated* the proportion drinking once or twice a week or more.

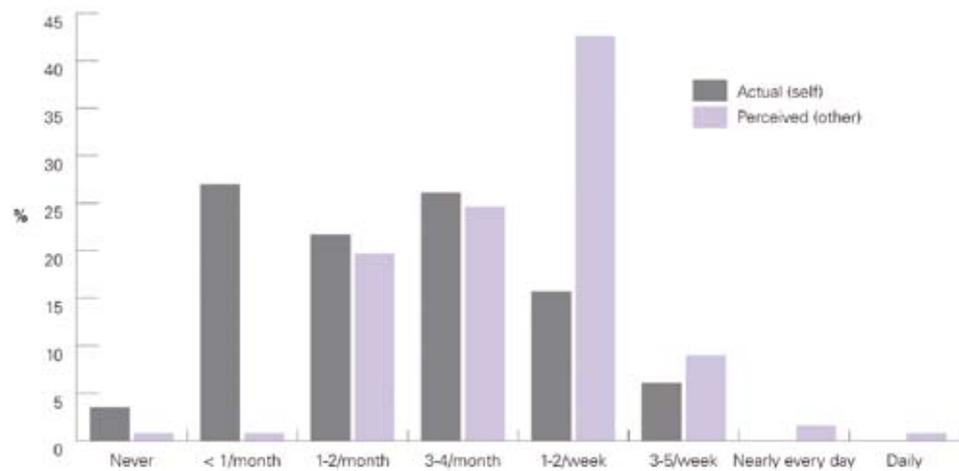


Figure 6: Frequency of drinking (self vs other)

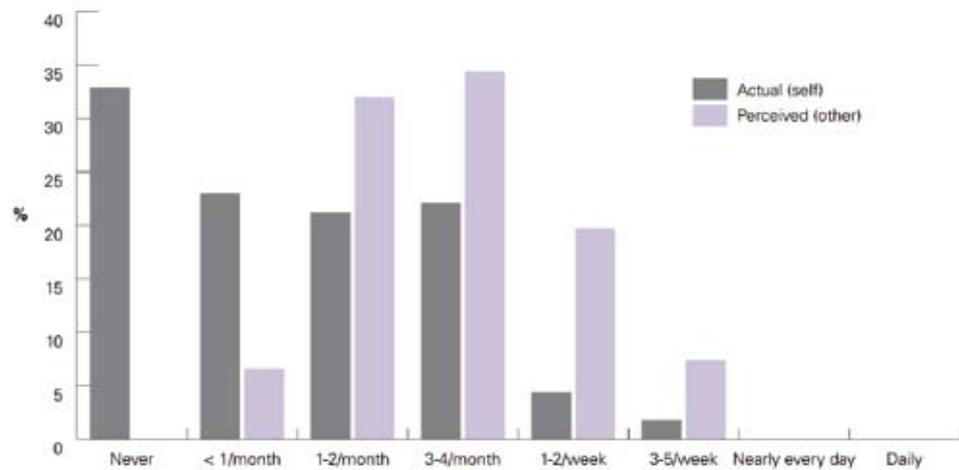


Figure 7: Frequency of drunkenness (self vs other)

Perceived and self-reported drunkenness

Similar misperceptions were observed in relation to drunkenness (see Figure 7 above). There is a relationship between perceptions of friends' frequency of drunkenness and one's own frequency of drunkenness.

As the perceived frequency of others getting drunk increases, so too does the frequency of self getting drunk. Once again, the misperceptions were most pronounced at each end of the continuum (ie, never getting drunk, at one end of the scale, versus getting drunk 3-5 times a week or more, at the other end). There was a substantial disparity between 'the perception' and 'the reality' - with infrequent drunkenness among others being significantly underestimated, and frequent drunkenness being substantially overestimated.

Changes in perceived rates of drinking

South-Eastern Region

Figure 8 shows the results for Times 1 through 3 for perceptions of others' drinking, for students in the south-eastern region. It is apparent that same-grade peers are

perceived to drink more frequently than friends, and that same-school peers are perceived to drink more frequently than same grade peers. This general trend was apparent for this region across the course of the intervention.

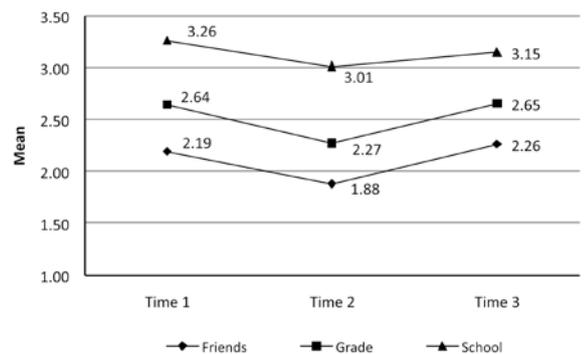


Figure 8: Perceptions of others' drinking (T1-T3) – South-Eastern Region

With respect to changes over the course of the intervention, the mean perceived drinking rates for friends, same-grade peers and same-school peers' was lower at T2 than it was at T1, but had in most cases returned to T1 rates by T3. The exception to this trend

was for same-school peers, although difference between the baseline and post-intervention rates was non-significant (therefore no difference). Closer examination of the results relating to friends reveals that the mean perceived rate of friends' consumption was 2.19 at T1, 1.88 at T2 and 2.26 at T3, with the T2 rate being significantly lower than both the T1 and T3 rates. A similar pattern is apparent with respect to same-grade peers, with a drop at T2 relative to T1 and T3. However the trend does not hold for same-school peers – with no significant differences emerging over the period of review.

Western Region

As Figure 9 indicates, similar trends are evident in the western region. As was the case for the south-eastern region, students in the western region perceive that their grade-mates drink more frequently than their friends, and that their school-mates drink more frequently than their grade-mates.

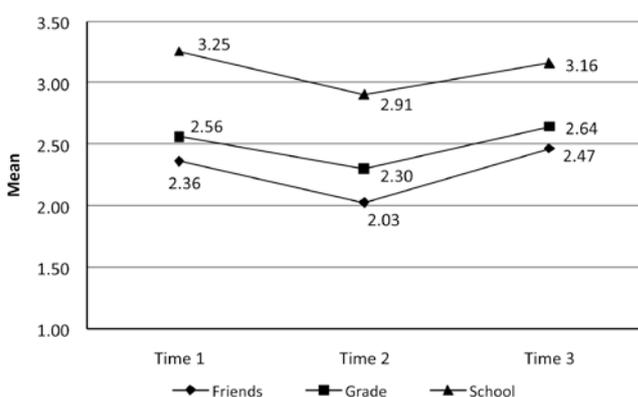


Figure 9: Perceptions of others' drinking (T1-T3) – Western Region

As was the case in the south-eastern region, there was a definite downward trend at T2 for perceptions relating to all peers. The mean perceived rate of drinking for friends was 2.36 at T1, 2.03 at T2 and 2.47 at T3. Equivalent results for same-grade peers are 2.56 at T1, 2.30 at T2 and 2.64 at T3, and for same-school peers are 3.25 at T1, 2.91 at T2 and 3.16 at T3. The T2 result was significantly lower than the T1 for all three peer categories.

Control

The control school results differ from the trial results in several interesting ways. Although the control school exhibited the same pattern of students perceiving grade-mates to drink more frequently than friends, and school-mates to drink more frequently than grade-mates, the changes over time did not approximate those apparent in the trial schools (see Figure 10).

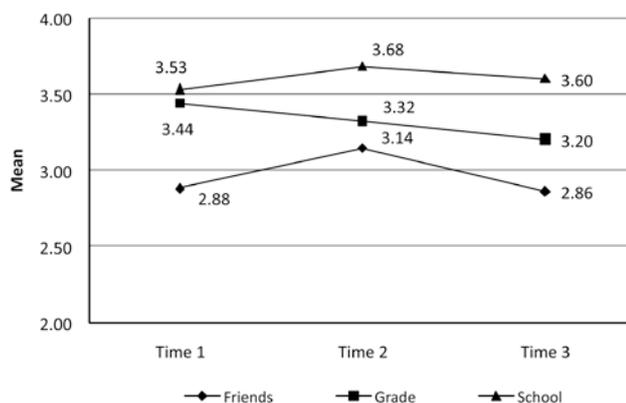


Figure 10: Perceptions of others' drinking (T1-T3) – Control

The mean perceived rate of drinking rates for friends was similar to the control school at baseline (2.88, compared to 2.36 in the west and 2.19 in the south-east). However, in the control school, the T2 rate was higher than the T1 rate - unlike the trial schools in which the T2 rates were lower than the T1 rates. Overall, no significant differences in friends' perceived drinking rates emerged across the period of the intervention. There was an apparent (though non-significant) downward trend over time with respect to same-grade peers. The results for same-school peers stayed relatively constant across time.

Regional overview – changes in perceived drinking rates

We can now make some general observations about ways in which students' perceptions of their peers' drinking might have changed over time, and note any differences between the trial schools and the control school.

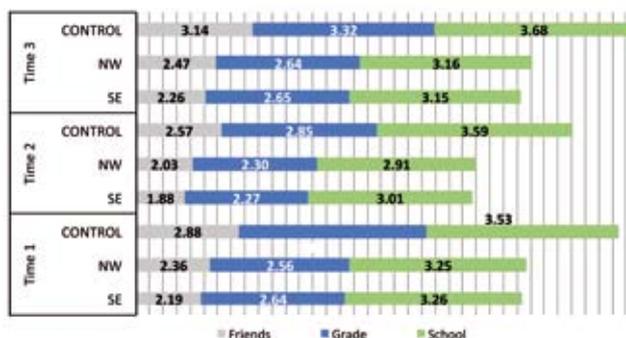


Figure 11: Perceptions of others' drinking (T1-T3) – Trial and Control

As the preceding discussion suggests and Figure 11 indicates, the trial schools in both regions exhibited significant decreases in perceived drinking rates at T2. This trend was not apparent at the control school. However, this is not necessarily indicative of the intervention having had an impact. It should be noted that the control school scored higher than the trial schools at both baseline and throughout the period of the intervention. The fact that T3 levels at the trial schools revert to T1 levels may be suggestive of seasonal variation, a 'temporary' impact of the intervention, or the influence of some other unidentified factor. Nevertheless, the decreases in the mean perceived drinking by peers by the trial schools at T2 were significant, and although T3 rates were higher than T2 rates, they were still lower than the baseline T1 rates.

Changes in perceived rates of drunkenness

South-Eastern Region

As is the situation with perceptions of drinking, perceptions of drunkenness in the south-eastern region follow a pattern whereby students perceived their same-grade peers to be drunk more frequently than their friends, and they perceive their same-school peers to be drunk more frequently than their same-grade peers.

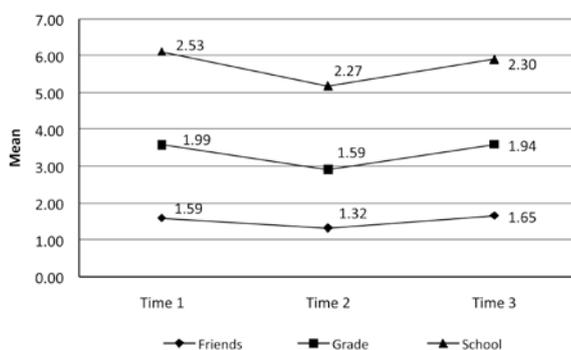


Figure 12: Perceptions of others' drunkenness (T1-T3) – South-Eastern Region

As indicated by Figure 12, there was some variation over time in students' perceptions of drunkenness among their peers. The perceived rate of drunkenness among friends was 1.59 at T1. It fell to 1.32 at T2 and then increased to 1.65 at T3. Perceptions of drunkenness among same-grade peers followed a similar pattern, with the T2 rate being significantly lower than both the T1 and T3 rates. The drop at T2 was most pronounced in relation to same-school peers, with a decrease from 2.53 at T1 to 2.27 at T2, followed by a small increase to 2.30 at T3. The T3 rate was significantly higher than the T2 rate, but not as high as the baseline T1 rate.

Western Region

Once again, the situation in the western region is similar to the south-eastern region, with respect to perceptions of drunkenness. The rates for friends remained relatively constant over time, whilst the rates for both same-grade peers and same-school peers dropped at T2 but then returned to baseline levels at T3.

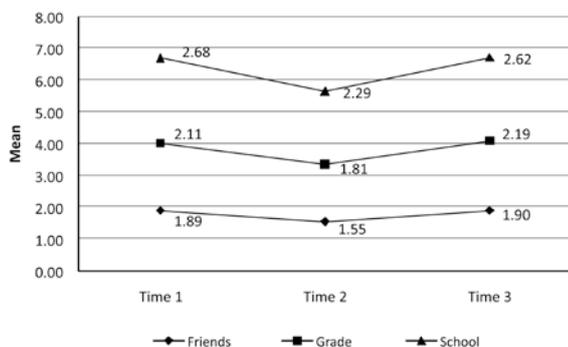


Figure 13: Perceptions of others' drunkenness (T1-T3) – Western Region

The mean perceived rate of friends' drunkenness was 1.89 at T1, decreasing to 1.55 at T2 and increasing to 1.90 at T3, with the T2 rate being significantly lower than the rates for T1 and T3. Equivalent figures for grade mates are 2.11 at T1, 1.81 at T2, and 2.19 at T3, with the T2 rate being significantly lower than the T1 and T3 rates of perceived drunkenness. Perceptions of drunkenness among school-mates follow a similar pattern, although the T3 rate is lower than the baseline rate.

Control

In contrast to the situation for perceptions of drinking, the control school results follow similar patterns to the trial school results with respect to perceptions of drunkenness among peers. However, the changes over time were not statistically significant.

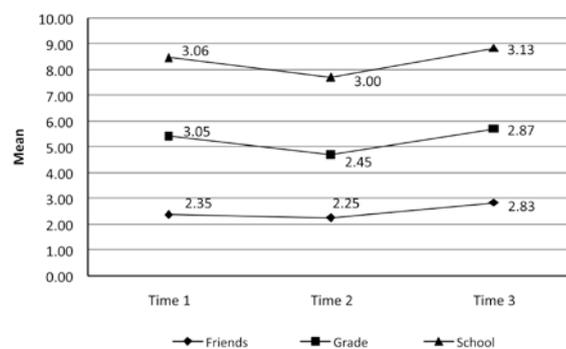


Figure 14: Perceptions of others' drunkenness (T1-T3) – Control

The mean perceived rate of drunkenness among friends at the control school was 2.35 at T1, 2.25 at T2 and 2.83 at T3. There was no significant difference in perceptions of friends' drunkenness between each of the three time periods. Equivalent figures for same-grade peers are 2.45 at T1, decreasing to 2.45 at T2, then increasing at T3 to 2.87, with no significant difference being observed between time periods. Finally, the mean perceived rate of drunkenness among same-school peers at the control school was 3.06 at T1, 3.0 at T2 and to 3.13 at T3. As was the case for same-grade peers, the changes across time in the same-school peers were not significant.

Regional overview – perceived drunkenness rates

Figure 15 summarises comparable data from the trial schools and the control school, with respect to perceived rates of drunkenness among students' friends, same-grade peers and same-school peers.

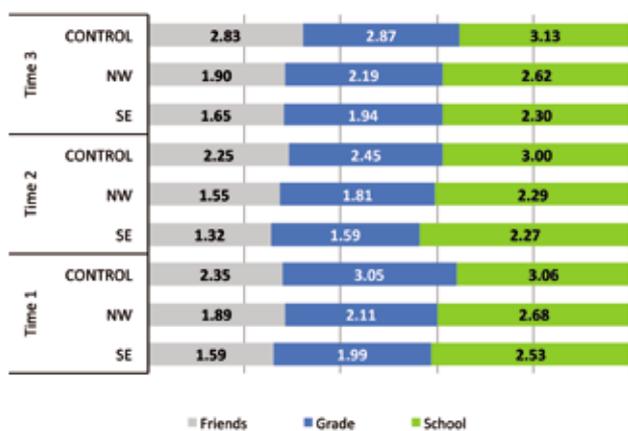


Figure 15: Perceptions of others' drunkenness (T1-T3) – Trial and Control

As was the case with perceived rates of drinking, the trial schools in both regions exhibited significant decreases in perceived rates of peer drunkenness between baseline and T2. Similar decreases were not experienced at the control school. At T2, the rates for both the south-eastern and western regions were significantly lower than the rate for the control school. This was also the case at T3. The control school exhibited higher rates of perceived peer drunkenness than did the trial schools at all three time-periods, which may be indicative of a more entrenched heavy drinking culture at this school.

Harm minimisation strategies

The survey also contained items relating to students' 'protective norms' – ie, those behaviours which can minimise the risk of harm associated with alcohol consumption (see for example, Haines et al., 2006, p.71). Although students were asked about their use of a range of harm minimisation strategies, this section of the briefing paper focuses on three specific behaviours:

- alternating alcoholic and non-alcoholic beverages;
- making a decision, in advance, not to exceed a set number of drinks; and
- eating while drinking.

The following section of the paper examines results relating to harm minimisation by students in the trial schools and the control school, over the period of the intervention.

South-Eastern Region

Students in the south-eastern region reported using these practices relatively infrequently. The least common practice was alternating non-alcoholic with alcoholic drinks. Students were more likely to eat whilst drinking or set a limit on the number of drinks they consumed. The frequency of use of the

behaviours in this region stayed relatively constant over the time of the intervention.

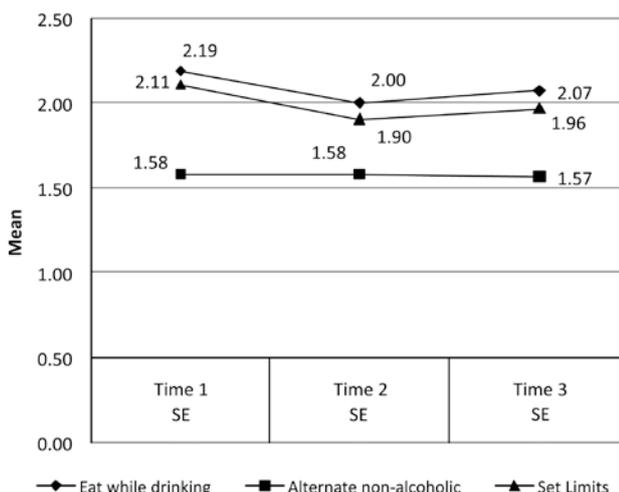


Figure 16: Students' harm minimisation (T1-T3) – South-Eastern Region

Western Region

Data relating to the western region paints a similar picture of student use of harm minimisation strategies (see Figure 17).

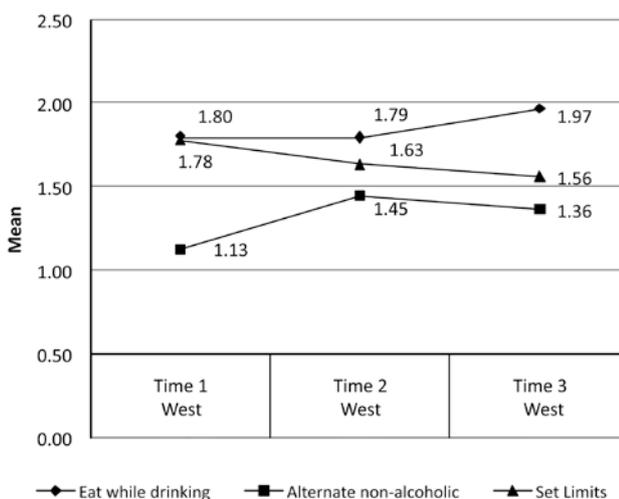


Figure 17: Students' harm minimisation (T1-T3) – Western Region

The most common of the three behaviours was eating whilst drinking, closely followed by setting limits on the number of drinks. As was the case for the south-eastern region, students' alternation of alcoholic and non-alcoholic drinks was the least commonly employed harm minimisation behaviour. Across the period of the intervention, there was a slight increase in the frequency of eating whilst drinking and alternating alcoholic and non-alcoholic drinks, and a slight decrease in the frequency of students setting limits on the number of alcoholic drinks consumed. However, none of these changes were significant.

Control

The control school results differ from both the south-eastern region and the western region. Unlike both of the trial

schools (in which eating while drinking was the most commonly employed strategy), in the control school the most common strategy of the three was setting limits. However, like the trial schools, the least commonly employed strategy was alternating alcoholic and non-alcoholic drinks (see Figure 18).

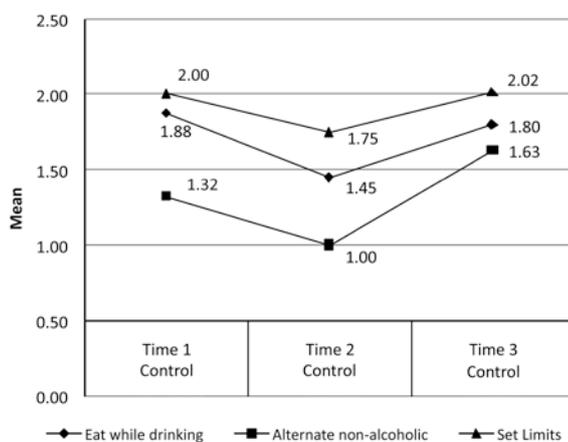


Figure 18: Students' harm minimisation (T1-T3) – Control

There was a decline in the reported frequency of all three behaviours at T2, but this drop was not statistically significant, and T3 results were similar to T1 results.

Regional overview – changes in harm minimisation behaviours

At this point we can make some general observations about whether students' reported use of harm minimisation behaviours (namely eating while drinking, alternating alcohol and non-alcoholic drinks, and setting limits on the number of drinks) changed over the course of the intervention, and note any differences between the trial schools and the control school.

As shown by Figure 19, there was little variation in students' reported use of the three harm minimisation practices over the period of the intervention. This was the case for both the trial schools and the control school. 'Alternating non-alcoholic and alcoholic drinks' appears to be an under-utilised harm minimisation strategy among the target groups, and it may therefore represent a useful focus for further prevention work.

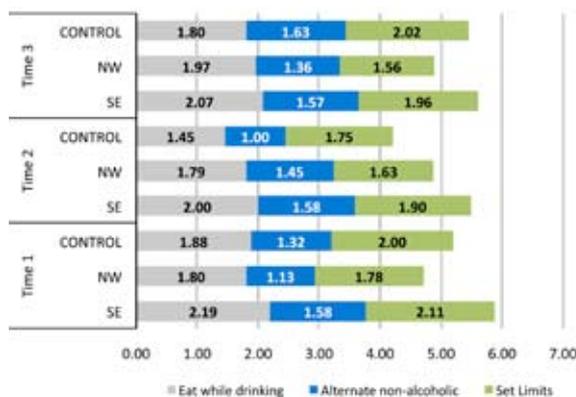


Figure 19: Students' use of harm minimisation (T1-T3) – Trial and Control

Changes in alcohol-related behaviours

According to the logic model for SN interventions, one of the anticipated effects of the intervention is for alcohol-related behaviours to shift across time, to come into alignment with the 'true norms'. The following discussion compares T1, T2 and T3 data for the trial and control schools with respect to frequency of drinking and drunkenness.

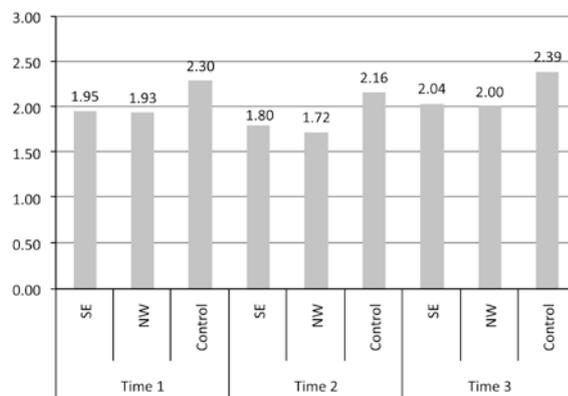


Figure 20: Students' self-reported drinking rates (T1-T3) – Trial and Control

As Figure 20 demonstrates, there was very little change in the frequency of drinking at the trial schools over the period of the intervention. The control school recorded a consistently higher rate of drinking than either of the trial regions at all time periods, although the difference was not significant.

A related issue is the intensity of consumption ie, changes in the frequency of drunkenness over time (see Figure 21).

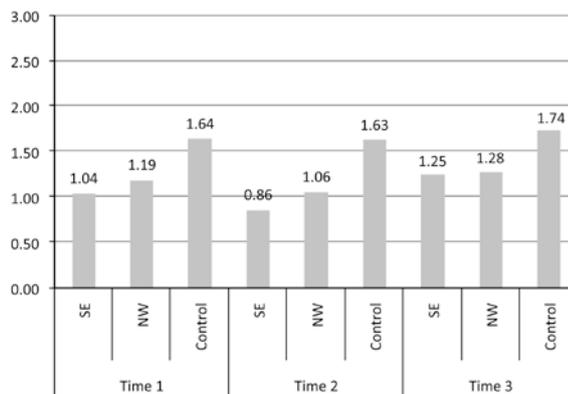


Figure 21: Students' self-reported drunkenness rates (T1-T3) – Trial and Control

There was a notable decrease in the self-reported frequency of drunkenness in the trial regions (but not the control) following the first media campaign. The decline was significant in the south-eastern region. However, in both regions, the rates returned to pre-intervention levels at T3. Both the south-eastern region and the western region reported lower rates of drunkenness than the control school, with this trend being evident at all three time points.

Perceptions of 'the norm': the importance of friends

The literature on adolescent alcohol use and misuse is replete with research evidence that friends are extraordinarily powerful influences in young peoples' lives (Bahr et al., 1995; Biddle et al., 1980; Pavis et al., 1997). Often studies focus on the way in which individuals within peer groups 'model' each others' behaviour. Like other SN researchers, we are interested in the more subtle influences of peer groups such as students' perceptions of their friends' alcohol-related attitudes and behaviours.

Perceptions of friends' drinking and own drinking

Bi-variate correlations were undertaken to ascertain if any relationship exists between perceptions of friends' rates of drinking and self-reported rates of drinking, as well as the 'strength' of any such relationship.¹ These were based on baseline (ie, T1) data only. There were no significant differences between T1, T2 and T3 data across relevant variables. The correlation coefficient was .589 at the .001 significance level, suggesting a strong relationship between perceived rates and self-reported rates of drinking. Thus, every unit increase in the perceived rate of friends' drinking is accompanied by a half-unit increase in the self-reported drinking rate (see Table 1).

| Frequency of drinking (Self-reported) | Friends' frequency of drinking (perceived) | | | | |
|---------------------------------------|--|------------|------------|------------|------------|
| | Never | Low | Medium | High | Total |
| Never | 49.1 | 9.0 | 3.3 | 0.0 | 10.7 |
| Low | 49.1 | 77.6 | 48.9 | 31.4 | 60.3 |
| Medium | 1.9 | 11.9 | 42.8 | 40.0 | 24.5 |
| High | 0.0 | 1.4 | 5.0 | 28.6 | 4.6 |
| Total | 100 | 100 | 100 | 100 | 100 |

Table 1: Own vs friends' (perceived) frequency of drinking

Chi-square testing reveals a significant relationship between perceived rates of drinking and self-reported rates, suggesting that students tend to drink at around the same rate as they perceive their friends to drink (Chi-square; 210, p.000). For example, nearly half (49.1%) of those who perceive that their friends are non-drinkers report being non-drinkers. By contrast, 9% of those who perceive their friends to drink at a low rate report being non-drinkers, and only 3.3% of those who perceive their friends to drink at a medium rate report being non-drinkers. At the other end of the scale, 28.6% of those who perceive their friends as drinking at a high rate self-report drinking at a high rate. None of those who perceive their friends to be non-drinkers report drinking at a high rate.

Perceptions of friends' drunkenness and own drunkenness

A similar picture emerges with respect to perceptions of friends' drunkenness and self-reported rates of drunkenness, with the correlation coefficient being .547 at the 0.01 level of significance. Thus for every unit increase in friends' perceived drunkenness there is around a half unit increase in self-reported rates of drunkenness. Table 2 below shows the relationship between students' perceptions of their friends' rates of drunkenness and their self-reported rates.

| Frequency of drinking (Self-reported) | Friends' frequency of drinking (perceived) | | | | |
|---------------------------------------|--|------------|------------|------------|------------|
| | Never | Low | Medium | High | Total |
| Never | 89.2 | 41.3 | 19.8 | 16.7 | 44.2 |
| Low | 10.8 | 53.3 | 42.9 | 33.3 | 41.1 |
| Medium | 0.0 | 5.3 | 34.9 | 33.3 | 13.4 |
| High | 0.0 | 0.0 | 2.4 | 16.7 | 1.3 |
| Total | 100 | 100 | 100 | 100 | 100 |

Table 2: Own vs friends' (perceived) frequency of drunkenness

Chi-square testing also indicates a relationship between friends' perceived rates of drunkenness and self-reported rates (Chi-square 204; p.000). Most (89.2%) of those who perceive their friends as never having been drunk report never having been drunk themselves. Of those who perceive medium rates of drunkenness among their friends, over one-third (34.9%) self-report medium rates of drunkenness, compared to only 2.4% self-reporting high rates of drunkenness. Furthermore, none of those who self-report medium or high rates of drunkenness perceive their friends as never having been drunk.

Discussion and Conclusions

It is appropriate at this point to re-focus attention on the evaluation questions posed earlier, and briefly re-cap the answers to those questions.

Do students misperceive the frequency and/or intensity of others' drinking?

Yes. Students overestimate frequent drinking and drunkenness, and they underestimate infrequent drinking and drunkenness as well as abstention from alcohol. In both the trial and control schools, students' self-reported rates were closer to friends' perceived rates than either same-grade or same-school peers.

Is there a relationship between self-reported frequency of drinking and the perceived frequency of drinking and/or drunkenness of peers?

Yes. Friends appear to be more potent influences on students than either same-grade or same-school peers with respect to

¹ Based on baseline data only. There were no significant differences between T1, T2 and T3 data across relevant variables.

perceptions of frequency of drinking. Every unit increase in the perceived rate of friends' drinking is accompanied by a half-unit increase in the self-reported drinking rate.

Is there a relationship between self-reported frequency of drunkenness and the perceived frequency of drinking and/or drunkenness of peers?

Yes. As is the case for perceptions of drinking, friends appear to be more potent influences on students than either same-grade or same-school peers with respect to perceptions of frequency of drunkenness. Every unit increase in friends' perceived drunkenness is accompanied by a half unit increase in self-reported rates of drunkenness.

Did the trial schools exhibit changes during the course of the intervention, with respect to the following:

Perceptions of the frequency of others' drinking?

Yes. The trial schools in both the south-eastern and western regions exhibited significant decreases in perceived peer drinking rates at T2. However in both regions, this was followed by an increase at T3.

Perceptions of the frequency of others' drunkenness?

Yes. The trial schools in both the south-eastern and western regions exhibited significant decreases in perceived peer drunkenness rates at T2. However, as was the case for perceptions of drinking, there was a subsequent increase in perceptions of the frequency of others' drunkenness.

Self-reported frequency of drinking and drunkenness

Yes and no. There was a significant decline in self-reported drunkenness at the south-east region between T1 and T2. However the effect was short-lived and T3 rates were similar to baseline. The proportions reporting that they did not get drunk on the last drinking occasion remained stable over time.

Use of harm-minimisation strategies

No. Over the period of the intervention, there were no significant changes in the trial schools in the use of three key harm minimisation strategies ie, eating while drinking, alternating alcoholic and non-alcoholic drinks, and setting a limit on the number of drinks.

Did the control school exhibit the same changes as the trial schools?

Yes and no. As was the case for the trial schools, the self-reported frequency of drinking and the use of harm-minimisation strategies at the control school remained relatively constant across the period of the intervention. However, the control school did not exhibit the declines in perceived drinking rates, perceived drunkenness rates, and self-reported drunkenness rates that were exhibited by the trial schools at T2.

SNAP appears to have had a positive impact. The trial regions exhibited a number of important and significant changes during the course of the intervention (particularly between T1 and T2, ie, after the first media campaigns). The fact that these changes did not occur at the control school adds weight to the apparent impact of the intervention.

The biggest shifts related to perceptual rather than attitudinal or behavioural variables. However, changes in perception are still indicators of 'success', because perceptual changes are precursors to behavioural change (see Perkins, 1997). In a general sense, if students realise that risky drinking is not as prevalent as they thought, there will be less 'pressure' for them to conform to the image of a 'bingeing teen' (Hughes, 2008b). Those SN interventions deemed to be 'ineffective' (see for example Granfield, 2002; Werch et al., 2000) are generally those that have not reduced misperceptions among the target groups and therefore (according to SN theory) would not be expected to yield any changes in drinking behaviours.

Several behavioural changes did occur between T1 and T2, but the effect was short-lived, with many rates returning to baseline levels at T3. In some respects this is not a surprising result, since short-term impact is often associated with media campaigns. However, there is reason to believe that the first campaign was more effective than the second campaign for the following reasons.

The first campaign was 'truer to the model' than the second campaign. Due to time constraints and the impending end of the school year, a decision was made to disseminate two key messages per school in the second campaign, rather than a single message (as was the case in the first campaign). This might have resulted in students having insufficient time to properly 'digest' the messages, or they might have become less receptive to them, since multiple messages were competing for their attention.

The key messages emphasising non-use in the first campaign might have had more impact than the harm minimisation key messages in the second campaign. The harm minimisation messages might have been less suitable for the age group or they might have been simply 'less powerful' than the T1 messages and more open to misinterpretation. There were also wider contextual factors that intensified around the time of the second campaign. Changes in the education system, increased demands on teachers, and staffing changes, all presented challenges. Admittedly, the last point is beyond the control of the project. However, some of the apparent 'deficiencies' of the second campaign could readily be addressed on the basis of insights gained from conducting SNAP. In particular, we would recommend using more interactive/engaging modes of data collection and a shorter questionnaire (to help avoid the 'fatigue' experienced by students later in the project),

as well as focusing on a single message, planning ahead to achieve greater student involvement, and providing more support and training for teachers in both the 'philosophy' and the practicalities of the approach..

It may also be the case that some 'invisible' changes occurred. In other words, some shifts might not have been apparent, either because they are not readily measurable or because data enabling those shifts to be documented could not be collected. For instance, SNAP data collection methods did not permit 'tracking' of individual student responses over time, so it was not possible to examine whether individual participants' perceptions of peer drinking and their own drinking increased, decreased, or stayed the same across the period of the intervention (see for example Mattern and Neighbors, 2004, p. 489). Similarly, the anonymous nature of the data made it impossible to map friendship networks (like Abel and Plumridge, 2004) which would have shed further light on the accuracy (or otherwise) of particular perceptions, as well as other processes of peer influence.

Certainly, the project officers were aware of a range of less tangible effects of the project, such as providing 'windows of opportunity' for teachers and parents to have open, non-threatening conversations about alcohol with students. For instance, one parent wrote the following note:

'This project has given us discussion about alcohol - our son's opinions, peer opinion and perceptions outside these areas. Thank you for this opportunity to talk about alcohol the legal drug...Thanks to UTAS, TILES & AER!'

According to the Huon project officer, one notable aspect of being involved in SNAP was 'knowing that students were thinking more critically about their perceptions and increasing their understanding of how misperceptions occur'. This view was also expressed by several teachers in the trial schools.

Insights

The contributions of SNAP extend beyond the results pertaining to the evaluation questions. Importantly, the project has reinforced, on the basis of sound data, the fact that many students either do not drink alcohol at all, or do so in ways that are not harmful to themselves or others (Hughes, 2008a). The 'positivity' of the project is important and is the basis for much of its appeal to the target groups. Contrary to the dominant image of 'bingeing teens', SNAP has acknowledged that young people can, and do, make healthy choices.

It is worth reiterating several points made earlier. Firstly, unlike some other models of alcohol health promotion, SN interventions take account of social factors and embrace the notion of cultural (rather than just individual) change. The SNAP results provide further support for the argument that 'peer influence' can operate via perceptions, and should not be understood simply in terms of overt peer pressure to drink and/or 'modelling' of peer behaviours. Secondly, the problem of resistance to health promotion messages by the target group is less likely to be encountered in SN interventions, since the information being presented is relevant to, generated

by, and is essentially about the target group itself. Lastly, SN interventions are not based on a 'deficit model' of young people. Instead, the focus is on assets, strengths and positive contributions.

Future Priorities

SNAP has provided great impetus for the future uptake of SN work. Considerable interest in the project has been shown by many individuals and organisations around Australia. The SNAP team intends to provide consultancy services to assist others to undertake SN work, and hopes to investigate alternative data collection technologies such as electronic/online surveys and 'clickers' (handheld instance response units, like those used for 'voting' on some television talk shows and increasingly used in educational settings), as well as alternative dissemination technologies via podcasting, mobile telephones and/or the internet. Lastly, SNAP has highlighted the potential of the SN approach for alcohol misuse prevention work with other target groups such as parents of teenagers (see Linkenbach et al., 2003) different cultural groups (see Carey et al., 2006) and other age groups such as university students (see Berkowitz, 1997; Walker, 2000). The approach can be applied to a range of other health and social issues including smoking (Linkenbach and Perkins, 2003), sexual assault (Berkowitz, 2002), bullying (Perkins and Craig, 2006), and eating behaviours (Perkins, 2003).

The challenge ahead is to learn more about the potential of the SN approach, further embed SN principles and the 'learnings' from SNAP into relevant policies at the local and national level, and put the infrastructure in place to support integration into practice in a range of relevant fields. SN interventions support and encourage young people, by emphasising and affirming their healthy choices, rather than judging or criticising them for their unhealthy ones. The approach cannot 'solve' the problems associated with adolescent alcohol consumption, but it is a worthy addition to a multi-strategy toolkit for addressing the issue in this country.

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