ALCOHOL FINDINGS *Research analysis*

This entry is our analysis of a study added to the Effectiveness Bank. The original study was not published by Findings; click Title to order a copy. Links to other documents. Hover over for notes. Click to highlight passage referred to. Unfold extra text 👁 The Summary conveys the findings and views expressed in the study. Below is a commentary from Drug and Alcohol Findings.

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▶ Perceived peer drinking norms and responsible drinking in UK university settings.

Robinson E., Jones A., Christiansen P. et al.
Substance Use and Misuse, 2014(49), p. 1376–1384.

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Exposure to messages about responsible drinking norms had little effect on drinking perceptions and no positive effect on drinking intentions among students in this UK university, echoing the disappointing findings of other British trials.

SUMMARY Heavy drinking is common amongst UK university students, prompting interest in interventions that moderate drinking or encourage more responsible drinking behaviours.

The 'social norms' approach aims to correct students' overestimations about how much their peers drink, and how many approve of heavy drinking, in a bid to curb the students' own excessive drinking. A number of university campuses in the US – from where the approach hails – have adopted norms-based interventions. The evidence base in Europe is comparatively small, and it remains "unclear if a social norms approach could be successfully applied to UK university campus settings".

One UK trial tested the personalised social norm feedback on self-reported drinking via an internet intervention, but as the social norms component was paired with other information the researchers could not draw conclusions about the effectiveness of the social norms information in isolation. A large randomised control trial across 22 UK universities, found that a personalised norm feedback intervention was not effective in reducing heavy drinking (see Effectiveness Bank analysis). A feasibility study testing a campus marketing approach in four universities found that the intervention was not successful in correcting normative perceptions – students didn't perceive the messages to be credible, which the authors reported was common amongst heavy drinkers (the intended recipients of such interventions).

Key points
From summary and commentary

The 'social norms' approach aims to correct students' misperceptions about how much their peers drink, in a bid to curb their own excessive drinking.

Tested among 1020 University of Liverpool students, there proved to be little to no impact from disseminating norms about responsible drinking.

Though there was evidence of participants overestimating how much the majority of their peers drink, and a link between believing others followed the norm and students' usual drinking behaviour, norms did not appear to be driving drinking in the latter.

The study featured here applied the social norms approach to students from the University of Liverpool, testing: (1) the association between perceived norms about drinking and usual drinking behaviour among students; and (2) whether norm messages about responsible drinking corrected misperceptions and increased students' intentions to drink responsibly. The researchers predicted, in line with previous research, that there would be a positive relationship between normative perceptions of peer drinking and usual drinking; and that heavy drinkers would be more likely to increase their intentions to drink responsibly, as presumably norm messages would draw attention to the difference between their current behaviour and the norm.

Students were recruited via emails to university departments and electronic noticeboards, and told that the study would be examining "what different people think of public messages." A total of 1020 students participated online, through a study website. They were asked: "In your opinion, what percentage of [University of Liverpool] students drink 6 alcoholic drink or fewer (including pre-drinking earlier in the day) when on a night out"? (to take a measure of 'descriptive norm' perception) and "In your opinion, what percentage of [University of Liverpool]

students think that other students should drink 6 alcoholic drinks or fewer (including pre-drinking earlier in the day) when on a night out"? (to take a measure of 'injunctive norm' perception).

Participants were randomly assigned to see a poster with one of five message-types (three relating to responsible drinking social norms, and two representing control or comparison conditions). The social norms messages were tailored to the drinking habits of students at the university (based on self-reported data that the majority of students had six alcoholic drinks or fewer on drinking days):

1. **Descriptive norm (about the behaviour of other people):** "You may not know, but most of your fellow students at the University of Liverpool do not binge drink. When on a night out, the majority of University of Liverpool students drink 6 alcoholic drinks or less (including pre-drinking earlier in the day)."
2. **Injunctive norm (about the beliefs or attitudes of other people):** "You may not know, but most of your fellow students at the University of Liverpool disagree with binge drinking. The majority of University of Liverpool students think that other University of Liverpool students should drink 6 alcoholic drinks or less when on a night out (including pre-drinking earlier in the day)."
3. **Descriptive and injunctive norm:** "You may not know, but most of your fellow students at the University of Liverpool disagree with and do not binge drink. When on a night out, the majority of University of Liverpool students drink 6 alcoholic drinks or less (including pre-drinking earlier in the day). They also think that other University of Liverpool students should behave in this way."
4. **Health message:** This warned students of the health dangers of heavy drinking. The message read "When on a night out, you should drink 6 alcoholic drinks or less (including pre-drinking earlier in the day)."
5. **Non-intervention message:** This poster contained the same images as the norm messages, but the information outlined that most students do not commit plagiarism.

After viewing the poster, participants completed a rating exercise, indicating on a scale from strongly disagree to strongly agree whether they understood the poster message, and if they thought the images were clear, as well as whether they believed, trusted, and thought the message related to them (ie, whether it was credible). They were also asked about other students' drinking behaviour and attitudes about drinking, their own drinking intentions and drinking habits.

Main findings

The majority of participants were female (66%) and undergraduates (90%); the average age was 22. Most (73%) reported drinking six alcoholic drinks or less. Just over half (58%) were classified as 'norm believers' (they correctly believed most students drank and approved of drinking less than six drinks), and just under half (42%) 'norm misperceivers' (they mistakenly believed that half or fewer students drank and approved of drinking less than six drinks). On average, participants believed that 43% of their fellow students had six drinks or less when consuming alcohol.

The key findings were as follows:
• A modest association between perceptions of peer drinking and usual drinking behaviour
• Norm messages changed perceptions, but not in the target population of participants who underestimated responsible drinking in their peers
• Norm messages did not increase intentions to drink responsibly
• Norm messages were not seen as credible

In line with their hypotheses, the researchers found that participants' perceptions of how much their peers drank were associated with how much they drank themselves – participants who believed at the outset that many students drank six drinks or less tended to drink less themselves.

To examine whether the message-type changed (1) normative perceptions and (2) drinking intentions to a statistically significant degree, the researchers performed an analysis able to simultaneously assess the overall impacts of viewing the different messages and whether their impacts varied depending on students' pre-viewing drinking habits and normative perceptions.

Norm messages had an effect on drinking perceptions, but tended only to reinforce the normative beliefs of the participants who accurately perceived the social norm. In contrast, amongst participants that over-estimated the norm, norms messages were ineffective in changing their beliefs about how much their peers drank. Compared to the non-intervention condition, change to normative perception scores among norm believers were significantly

greater in the norms message groups – estimates of the percentage of students adhering to the six drinks or less norm increased. Amongst norm believers that were heavy drinkers, there was also a significant effect – participants in the injunctive norm condition tended to increase their estimates of the percentage of students drinking six drinks or less, in comparison to the non-intervention condition, health message condition, descriptive norm condition, and the descriptive and injunctive norm condition.

The researchers did not find any evidence that norm messages increased participants' intentions to drink more responsibly, in fact there was a suggestion of a counter-productive effect, with the descriptive norm message reducing responsible drinking intentions amongst participants who misperceived peer drinking norms prior to the poster intervention.

The findings did not support the hypothesis that heavy drinkers and 'misperceivers' would intend to drink more responsibly after exposure to norm messages. That being said, amongst heavy drinkers who perceived the norm accurately, social norm messages *did* change norm perceptions, but *did not* translate to an increase in responsible drinking intentions. As these participants already had an accurate perception of the drinking norm, modestly reinforcing this belief would not be expected to translate to changes in drinking intentions.

Although participants reported understanding the norm messages, their ratings of message credibility (a composite measure of believing and trusting in the message, and thinking the message related to them) were low. The degree to which participants believed the message was associated with whether they changed their perception of the drinking norm after having seen a norm message. Participants who perceived messages as credible were more likely to increase their estimate of the percentage of students that adhered to the norm, and participants who thought that few students adhered to the six-drink norm were more likely to increase their estimates of the number of students that adhere to the norm.

The authors' conclusions

Although perceived social norms about peer drinking were associated with individual differences in drinking habits, exposure to social norms messages about responsible drinking did not affect students' intentions to drink more responsibly.

The lack of a follow-up with participants about their drinking behaviour meant that the researchers could not comment on later behaviour change, but it seems unlikely anyway given that social norm messages did not lead to robust adjustments in perceptions about responsible drinking.

A notable flaw of the study was that the norms messages were not rated as credible by students – this despite a substantial proportion believing that the majority of their fellow students drank more than six alcoholic drinks when drinking. Tests revealed that level of credibility predicted whether participants changed their perceptions, so this was an important factor. Other researchers in the UK, and the US (1 2) have similarly reported the perceived lack of credibility of norms messages.

Given that only a limited number of studies have tested the social norms approach in UK settings, and the featured study did not extend beyond one university, further research is required to determine the feasibility and effectiveness of the social norms approach in UK university settings.

FINDINGS **COMMENTARY** Norm-based approaches have been a hot topic on the Effectiveness Bank – our appraisal concluding that "what [once] seemed the great hope for school- and college-based prevention now seems a tactic of limited application and inconsistent impact."

The social norms approach has not turned out to be the preventive 'silver bullet', but more complicated and more limited than at first it seemed.

One possible explanation for the underwhelming findings is that the assumed overestimation of drinking (underpinning the entire approach) is not as common as believed. One freely available critique judged the phenomenon probably real, but its prevalence and magnitude (and therefore its influence) much less than some research findings imply. Among the factors supporting this were:
• the tendency of young people to say they drink or use drugs less than they do, creating the false impression that they believe other youngsters use more;
• methodological limitations meaning the survey results against which normative beliefs are compared may themselves underestimate substance use, and young people may be right in believing their peers use more than the surveys suggest;
• that youngsters who tend to be seen as 'friends' by other youngsters may really drink and use

drugs more than youngsters less commonly seen as friends;
• that many youngsters have (unless this is demanded of them by a question set by researchers) no idea how much a typical student drinks or uses drugs, and when asked, the meaning they ascribe to 'typical' may not match the researcher's intention;
• that being asked about their own substance use primes youngsters to exaggerate the use of their peers in order not to appear out of line.

These conclusions were strongly contested, but the critic stuck to her guns, and made the further point that few high quality studies have supported normative approaches, perhaps because to the extent that young people *do* overestimate the substance use of their peers, they do so in respect of groups socially distant from them and least likely to influence their behaviour.

Despite their being "accurate" and based on observations of levels of consumption in the university, participants in the featured study did not see the norms messages as credible. The authors said that for some participants the credibility of the messages may have been questioned because the six alcohol drinks or less 'norm' was an excessive amount, but they also acknowledged something to the contrary, that producing credible responsible drinking messages may be a 'tall order' among the student population, for whom heavy drinking is sometimes seen as a rite of passage.

In their study, the norms messages and assessments of normative perceptions were based on number of *drinks* rather than number of *units*:

> Participants were told "an alcoholic drink refers to a standard drink (a large glass of wine, pint of beer, shot of spirits)."

Number of drinks was presumably the easiest and most familiar way for students to estimate the consumption of their peers, boosting accuracy in that respect. The main drawback was that it necessarily lacked sensitivity to the varying strengths of alcoholic drinks. Among the student population, number of drinks could be a deceptive barometer of alcohol consumption. In the climate of heavy drinking referred to above, some students may aim to get as drunk as possible on as little money as possible, intentionally seeking out higher alcohol content beverages, and drinking fewer of them.

See the Effectiveness Bank for other examples of British trials that have failed to find evidence in support of the social norms approach – one testing personalised feedback and social norms information via emails, and the other via a website.

For anyone not acquainted with the social norms approach, and the theory behind it, this presentation from John McAlaney of the University of Bradford gives a good overview.

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