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Nugget 6.9

Mailshot triggers reduced drinking among concerned problem drinkers

Findings A mailed pamphlet encouraging recipients to compare their alcohol intake with that of the general population led to reduced drinking among problem drinkers who felt at least some concern about the risks they faced. This is the [first study](#) to suggest that challenging 'normative beliefs' about alcohol consumption using inexpensive mass communication methods can reduce drinking in the general population.

The pamphlet asked readers to record their alcohol intake for a week and then to compare this with national (in this case, Canadian) averages. It also indicated the chances of adverse effects at different consumption levels and suggested ways to reduce risk. Copies were mailed to all households in a randomly selected two-thirds of the postal areas in a district of Toronto, the remaining third acting as controls. Over the next month an attempt was made to interview by phone one adult drinker (ie, over 19, drank at least once in the past month) from a random sample of the households. About half were interviewed and 697 entered the study.

About 1 in 10 of the sample were assessed (using AUDIT) as having experienced an alcohol problem in the past 12 months and thought they ran at least some risk from their alcohol use. Among this group, receiving the pamphlet seems to have led to a statistically significant reduction in weekly alcohol consumption. Another 8% of the sample were also problem drinkers but were *not* concerned about personal alcohol risks; paradoxically, they tended to *increase* their drinking after receiving the pamphlet. No significant impacts were observed among non-problem drinkers, the majority of the sample.

In context The most important and surprising finding in this study is that such a minimal intervention sent unsolicited to unselected households had any significant impact at all.

Approaches based on correcting normative beliefs have been found effective in previous research, but with selected targets and incorporated in a less minimal intervention. Correcting these beliefs has been shown to be an effective and important component of drug prevention programmes in schools^{1 2 3 4 5 6} with sometimes greater impact than teaching children how to refuse drug offers.^{7 8 9} The importance of social norms is also apparent in several recent studies which found that common and accepted patterns of drug use are resistant to prevention programmes, perhaps because their impact is 'swamped' by social and peer group norms, but that less accepted (and usually more serious) patterns of use can be affected.^{10 11 12 13 14}

More relevant to the current study are media campaigns mounted by US colleges to tackle excessive drinking among students. Some based on correcting norms about how much most students drink have reported positive results, though studies were compromised by non-random selection procedures or non-response^{15 16} and not all interventions have led to positive outcomes, even when the study has confirmed a link between normative beliefs and drinking.¹⁷ Despite sometimes successfully changing beliefs about how much students drink, educational classes based on the same approach have reported mixed results.^{18 19} College students have also responded well to norm-based brief personal counselling²⁰ or mailed feedback^{21 22 23} aimed at individual heavy drinkers. In one such study a reduced estimate of how much the typical student drank accounted for the reductions in drinking following brief motivational counselling.²⁴ Approaches incorporating personalised feedback comparing the individual's drinking to national norms have been found effective with heavy drinkers identified by screening in GPs' surgeries.^{25 26}

Like the current study, such findings are consistent with the theory that people tend to conform to what they believe is the norm amongst their reference group.²⁷ In turn what they believe is the norm can be a self-serving exaggeration, especially among people who hold negative attitudes to alcohol or who are aware that their heavy drinking contravenes anti-alcohol social values. Believing that even though one drinks too much, other people drink even more, is a comforting delusion which helps square the circle of continuing to do something personally or socially disapproved of.²⁸ It is also a delusion more likely to be found among drinkers whose drinking is not so extreme that it would be untenable to believe most people drink more.²⁹ All these conditions probably apply to the neighbourhood chosen for the current study, making it a particularly fertile area in which to test normative approaches. The targeted district was a middle class area, three-quarters of the respondents were university educated and over half were women, a combination which cannot be expected to tap the most severe alcohol-related problems. In the surrounding province over 40% of adults are effectively non-drinkers.³⁰ Consistent with this theory, correcting normative beliefs reduced drinking only among problem drinkers who thought their drinking could cause them harm and in a context where social norms (especially applying to women) would probably have been seen as condemning heavy drinking. Robbed of the opportunity to square the circle by exaggerating the drinking of others, heavy drinkers perhaps took the alternative route of cutting down on their drinking.

Problem drinkers who did *not* see themselves as at risk increased their drinking, but this finding did not reach statistical significance and was based on a comparison with

just 11 control subjects. If real, it may reflect defensive denial of the kind seen in a study of how heavy drinking college students reacted to being confronted with their own drinking in comparison to local student norms.³¹

However, a 1 in 2 response rate raises serious doubts over the generalisability of the results even to the homogenous population in the area studied, re-introducing the element of self-selection which weakened the generalisability of previous research. Conceivably those not contacted or who refused to cooperate would have responded differently to the pamphlet. Since non-drinkers were excluded from the study, how they reacted to the pamphlet (which presumably indicated that their non-drinking was abnormal) remains an open question. Nearly a third of problem drinkers in households sent the pamphlet recalled having seen it but probably only 1 in 10³² of non-problem drinkers. Evidence of reaction among the former but not the latter may have been at least partly due to the mailing catching their attention because it seemed more relevant to their lifestyles. Whether this was the case cannot be assessed from the results given in the paper.

Respondents were asked whether they felt themselves at risk of becoming sick or getting hurt due to their drinking, a physical health focus which leaves out what many may have considered much more likely adverse effects related to their personal and family lives or their employment or finances.

As the authors point out, the study's design means the causal chain is impossible to disentangle. The mailing might have led some problem drinkers to become more aware of the risks they were running and as a response to cut down on their drinking. Alternatively, problem drinkers already concerned about their drinking might have paid more attention to the pamphlet and have been more willing to act on its advice. Of the two, the latter seems the most likely explanation as there is no evidence that receiving the mailing generated concern among problem drinkers.³³ The results might also have been an artefact of gender differences. For example, if in terms of their concern over risks men and women tended to react differently to the leaflet this could have contributed to the results independently of any change in drinking levels.³⁴ It is also possible that, sensitised to the atypical level of their drinking by reading the pamphlet, people bothered by their heavy drinking tended to say they drank less than they actually did.

Practice implications From a public health perspective, normative feedback interventions have the potential for a significant payoff because they can be provided at low cost and to problem drinkers who might ordinarily never access any treatment services. Their impact is likely to be greatest among people who already consider themselves at risk due to their alcohol use. This suggests a two-stage process of raising awareness of risks from heavy drinking followed by information aimed at preventing this being neutralised through the false belief that everyone else is running similar or even greater risks. If stage 1 is ineffective, the study suggests that stage 2 may even be counter-productive. Where local norms and individual social networks are supportive of heavy drinking such approaches are likely to be less effective. In these situations altering social norms will be the more important first step. Further research using the methods established in the study could relatively cheaply help answer the many questions it raises, particularly the impact on people whose drinking is atypical because it is *below* population norms, the reactions of men versus women, how perception of non-health risks affects processing of normative

information, and the reality of a possible counter-productive impact among heavy drinkers who deny they are at risk.

Featured studies Cunningham J.A., *et al.* “Impact of normative feedback on problem drinkers: a small-area population study.” *Journal of Studies on Alcohol*: 2001, 62, p. 228–233.

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Links *Nuggets* **6.8 4.14**

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- 29 Makela K. "Drinking, the majority fallacy, cognitive dissonance and social pressure." *Addiction*. 1997, 92(6), p. 729–736.
- 30 Sourced from main study.
- 31 Nye E.C., *et al.* "Enhancing alcohol problem recognition: a self-regulation model for the effects of self-focusing and normative information." *Journal of Studies on Alcohol*. 1999, 60(5), p. 685–693.
- 32 30% problem drinkers in intervention households recalled. Across the whole sample problem drinkers were 20% of the total. If this was also the case in intervention households (there were no significant differences in AUDIT scores between intervention and control households) then 10.4% non-problem drinkers recalled seeing the pamphlet.
- 33 52% of problem drinkers in recipient households expressed concern, 69% in non-recipients (derived from fig. 2).
- 34 This is because on average women drink less than men.