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► [Cluster randomised trial of the effectiveness of motivational interviewing for universal prevention.](#)



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McCambridge J., Hunt C., Jenkins R.J. et al. [Request reprint](#)
Drug and Alcohol Dependence: 2011, 114, p. 177–184.

Compared to basic drug education, it should at least have moderated current use, but this attempt to deploy motivational interviewing as an across-the-board prevention strategy among college students in London neither did that, nor did it prevent non-users starting to use, negative findings which raise interesting questions.

Summary The evidence base for [motivational interviewing](#) in relation to substance misuse almost entirely involves people who have already started to use particular substances. Whether this counselling approach might also help people in general not to start using ('universal prevention') is unclear. This British study investigated this issue by randomly allocating whole classes of older teenage [students](#) attending 12 further education colleges in London. None of the students refused the study and 416 were recruited.

Both the motivational interviewing intervention and the comparator – intended to approximate 'drug education as usual' at such institutions – were delivered mostly by the researchers, though sometimes by trained college staff. Motivational interviewing was based on a model [found effective](#) in the short term in curbing smoking, drinking and cannabis use among further education students already using stimulants and/or regularly using cannabis. As described in the [main report](#) on that study, the interventionists aimed to promote reflection on how the student's actual or potential drug use squared with their non-drug values and goals. The intention was to create an opportunity for them to think and talk about risk in ways conducive to the identification of problems and concerns, culminating in behaviour change to address those problems and concerns. This format was adapted for non-users, for example, by encouraging students to think through and discuss hypothetical situations in which they might find it difficult to refuse an offer of drugs, exploring reasons for not using specific substances, and envisaging how starting to use might affect the fulfilment of their plans.

Other classes were randomly allocated to drug awareness lessons based on a 16-item quiz on the effects of smoking, drinking and cannabis use, followed by discussion and the provision of leaflets giving accurate information on the effects of these target drugs. The package adopted the harm reduction orientation typical at these ages in Britain, and was intended to approximate 'drug education as usual' at the colleges. Unlike the motivational interviewing alternative, there was not intended to be any opportunity to discuss or heighten awareness of risks or concerns particular to each individual.

Main findings

Three months later 89% and 12 months later 84% of the students were recontacted and their substance use reassessed. The results were analysed on the assumption that the relatively few not reassessed at any point had continued to use substances as last assessed. Essentially the proportions smoking (around a quarter to a third in the past month) and drinking (around half) had remained stable. Among the motivational interviewing classes, so too had the proportions using cannabis at around a fifth. In contrast, the proportions of drug awareness students using cannabis fell slightly from 23% at baseline to 19% at three months and 15% at 12 months, creating the only statistically significant differences between motivational interviewing and comparison students as a whole – one in the unexpected direction of more persistent cannabis use after motivational interviewing. Other cannabis use measures too suggested that the drug awareness lessons had been more effective in curbing use; though numbers were small, significantly fewer drug awareness students (four v. 14) had started to use cannabis over the year of the follow-up, and there were non-significant tendencies for students using cannabis from the start to cut down their use more if they had been allocated to drug awareness. However, the degree to which either motivational interviewing or drug awareness education made any difference was called in to question by the fact that students who did not attend either changed or persisted in their substance use in much the same way as attendees.

Suggesting that the interventionist was an influence on outcomes, the two researchers differed in their results: one did better in restraining drinking and cannabis use, the other, smoking.

The authors' conclusions

The only statistically significant outcome differences favoured an approach – brief and basic drug awareness education – unlikely on past evidence to have truly been effective in preventing substance use. The most defensible conclusion is that neither approach was effective at preventing the uptake of substance use or in curbing existing use among this specific population – appreciably older than most targeted for universal drug prevention, and for whom lack of success in conventional education may have been a marker of wider resistance to intervention.

Among other possible explanations for the non-impact of motivational interviewing is that it was not delivered as intended. There was no formal quality monitoring, but recordings and supervision discussions suggested that in this setting and format it was difficult to embody the spirit of motivational interviewing as opposed to the intended structure. In particular, students could not consistently be led to work through possible or actual substance use situations of which they had no experience. It may also be that trying to

prevent young people doing something they are not (ie, preventing uptake of substance use) interfered with motivational interviewing's proven capacity to moderate existing substance use.



Because this was an exploratory study, no **adjustments**

were made for the multiple outcomes tested in the study to reduce the possibility that some were statistically significant purely by chance. For this reason and because of the implausibility of such basic and brief drug education having an impact, the authors dismiss findings which suggested that drug awareness lessons had prevented uptake of cannabis use and may also have curbed existing use. Another possibility they advance is that motivational interviewing encouraged students to later disclose cannabis use which remained more hidden after drug awareness education, making it look as if the latter had been relatively more effective. The final possibility is that drug awareness truly did reduce cannabis use more than motivational interviewing. Certainly (but in very different circumstances) it is **not unknown** for motivational interviewing's more roundabout approach to work less well than straightforward advice.

Universal prevention among people not selected to already be using (probably excessively) substances is a very unusual way to deploy the approach. Since the featured study was written, **another study** has been published which investigated the impact of a motivational intervention on the general population of young people. Participants were Swiss army conscripts, the intervention was one-to-one, drinking was the target, and the comparator was no intervention at all. In these circumstances, again there was no impact on young people not already engaging in the targeted behaviour ('binge' drinking), but this time the intervention did have a restraining influence on those already drinking to excess.

Thanks for their comments on this entry in draft to Jim McCambridge of the Centre for Research on Drugs and Health Behaviour at the London School of Hygiene & Tropical Medicine. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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