

DRUG & ALCOHOL FINDINGS *Research analysis*

This entry is our analysis of a study considered particularly relevant to improving outcomes from drug or alcohol interventions in the UK. The original study was not published by Findings; click [Title](#) to order a copy. Free reprints may be available from the authors – click [prepared e-mail](#). [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.

Send email for updates

[About updates](#)

▶ [Title and link for copying](#) ▶ [Comment/query to editor](#) ▶ [Tweet](#)

▶ [Personality-targeted interventions delay uptake of drinking and decrease risk of alcohol-related problems when delivered by teachers.](#)

O'Leary-Barrett M., Mackie C.J., Castellanos-Ryan N. et al.

Journal of the American Academy of Child & Adolescent Psychiatry: 2010, 49(9), p. 954–963.



Unable to obtain a copy by clicking title? Try asking the author for a reprint by adapting this [prepared e-mail](#) or by writing to Dr Conrod at patricia.conrod@kcl.ac.uk. You could also try this [alternative](#) source.

Addressing the substance use promoting tendencies of the personality traits of London secondary school pupils at particular risk of substance misuse led to fewer drinking and, among the drinkers, fewer drinking heavily. The study showed that school staff could effectively conduct the focus group interventions.

SUMMARY An alternative to prevention approaches applied to all children whatever their risk levels, the Adventure Trial tested an intervention targeted at youngsters who scored highly on four personality dimensions that made different kinds of early-onset substance use and other risky behaviours particularly rewarding or hard to resist. As assessed by the [Substance Use Risk Profile Scale](#) personality questionnaire, these traits were:

Hopelessness A tendency to unhappiness, depression and feeling a failure, feelings relieved by intoxication;

Anxiety-sensitivity Fear of anxiety-related bodily sensations due to beliefs that such sensations will lead to catastrophic outcomes, for which substance use can represent a form of self-medication;

Impulsivity An inability to restrain seeking gratification in the presence of immediate rewards (such as the feelings available through substance use) despite longer term negative consequences; and

Sensation-seeking Desire for intense and novel experiences, which can be expressed as a desire to 'get high' through drugtaking or heavy drinking.

The manualised intervention addressed these risk factors by drawing on psychoeducational approaches, motivational enhancement therapy, and cognitive-behavioural therapy, applied to real-life scenarios shared by high-risk young people in Britain. As implemented in the featured study, it occupied two 90-minute focus groups of on average six pupils led by two trained facilitators. Groups were formed of pupils who shared elevated scores on the same personality dimension, and the variant of the intervention applied to that group particularly targeted that dimension and the associated risks. In the first session participants were guided in a goal-setting exercise to enhance motivation to change behaviour, taught about the personality dimension and how it can predispose to problematic coping behaviours, and guided in breaking down personal experience according to the physical, cognitive, and behavioural components of an emotional response. All the exercises were specific to the personality risk factors identified in the children. The second session involved identifying and challenging personality-specific cognitive distortions which lead to problematic behaviours.

The precursor to the Adventure Trial was the [Preventure Trial](#). This found that the personality-targeted intervention could prevent the onset and escalation of drug use over the subsequent two years, but when delivered by skilled research therapists. The featured study tested whether school staff, with moderate levels of training and expertise and competing responsibilities, could be trained to effectively deliver this unfamiliar interactive, small group intervention. Another issue was whether pupils would be open with adults who may hold disciplinary positions. On the

other hand, it was possible that the teachers' familiarity with their pupils would aid participation, and provide a platform for later addressing individual problems.

The study

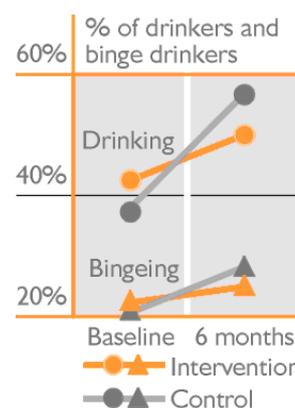
Across nine randomly selected London boroughs, 21 secondary schools were asked to join the study and randomly allocated to the intervention or to act as **control** schools which simply carried on (as all the schools had to) with the **drug education components** required by the national curriculum. Three schools could not be included in the featured analyses, leaving 18 schools and 2506 of the original 3021 year nine (ages 13–14) pupils. Of these pupils, 1159 or just under half scored as high risk on the Substance Use Risk Profile Scale; their responses were the basis for the featured report. 1008 could be followed up six months later; the probable responses of the remainder were estimated on the basis of earlier assessments and other data.

School staff running the intervention were trained in a three-day workshop followed by at least four hours of supervised practice and feedback on their performance while practising the full intervention with year 10 pupils from their schools. Though broader and longer-term outcomes are being assessed, the featured report focused on drinking six months post-intervention.

Main findings

Over 8 in 10 of the school staff members in the study completed training and supervision and qualified to facilitate the intervention. Each conducted on average six intervention sessions. Researchers observed at least one session by each facilitator. They judged that two thirds of the sessions had covered most of the core components of the intervention, and that two thirds also had been delivered in ways which embodied the required counselling skills of listening, enabling, involving the entire group, and being inquisitive and empathic. Facilitators themselves were all rated as at least satisfactory as cognitive therapists.

As expected, at the start of the study more of the high risk than the lower risk pupils (41% v. 32%) had drunk alcohol in the past six months and more too had drunk heavily during that period (22% v. 12%), defined as at least five drinks at one sitting for boys and four for girls. Six months later and compared to control schools, in schools allocated to the intervention the increase in the proportion of high risk pupils who were drinking was significantly less steep (rising from 43% to just 50% v. from 38% to 57%) ▶ *chart*. Narrowly missing statistical significance was a similar disparity in trends in the proportion drinking heavily across the entire population of high risk pupils; in intervention schools this rose from 22% to 25%, in control schools, from 21% to 28%.



A second set of analyses focused on the four in ten high risk pupils drinking at the start of the study. Among these drinkers, the proportion later drinking heavily actually fell in intervention schools (from 52% to 48%) but rose in control schools (from 54% to 63%), another statistically significant difference. They were also consuming less alcohol overall, and were less likely to report drink-related problems.

These effects were comparable to those noted in previous trials of the intervention with specialist interventionists.

The authors' conclusions

This was the first evaluation of a school-based personality-targeted intervention for substance misuse delivered by trained educational professionals. Compared with controls, the intervention was associated with significantly decreased drinking and drink-related problems six months later, and with fewer 'binge' drinkers among participants drinking at the start of the study – a particularly high risk group for future substance misuse. The potential health benefits of this delayed uptake of drinking are substantial: a one-year delay can decrease the risk for future alcohol-related problems by 10%.

These results replicate findings from personality-targeted intervention trials in the UK and Canada, but within an implementation model that has a higher likelihood of being adopted in the real world. The demonstration that trained and supervised school staff can achieve results comparable to specialist therapists means the intervention has the potential to become a sustainable school-based early prevention strategy with youth most at risk for developing future alcohol-related problems. However, it remains unclear whether ongoing expert supervision and/or performance and outcome feedback is required to maintain standards.

Among baseline drinkers, this trial and others have found that just from four to six young people need to be allocated to the intervention in order to later prevent one from drinking heavily – a ratio much more favourable than typically found for 'universal' prevention programmes which target all the young people in a population rather than just those at high risk, and which are typically of much longer duration.

The possibility that it was simply a group intervention which was effective rather than the particular content of that intervention is contradicted by studies which have compared the intervention to alternative group sessions, and by general findings that few interventions decrease substance misuse. From a [similar UK trial](#) which found reduced use of illicit drugs, it also seems unlikely that intervention pupils in the featured study substituted these for alcohol.

In sum, the evidence appears to strongly support the use of this programme in schools, whether delivered by trained clinicians external to the school or trained school staff. However, implementations should include the expert training and supervision components unless and until it is shown that schools are able to deliver the interventions autonomously and effectively.

FINDINGS COMMENTARY Relative to basic education without much if any intended prevention content, this and other studies ([▶ below](#)) have demonstrated substantial effects in delaying the onset of and retarding the growth of substance use. However, as the authors comment, an impediment to widespread implementation may be the availability of expert trainers and supervisors. Another may be the willingness of schools to release four staff for three days training each followed by hours of supervision, and to let them spend many more hours addressing non-academic issues with a subset of high risk pupils. What may help convince them will be further results from the study if these demonstrate impacts not just on drinking but on mental health, other substance use, conduct, and academic achievement.

Among the findings is however the narrow failure to find a statistically significant impact on regular heavy or 'binge' drinking across all high risk pupils rather than just among those already drinking at the start of the study – a finding which seems to reflect the dilution of the results due to the inclusion of pupils unlikely to go on to drink heavily. This finding almost certainly also means no significant impact on regular heavy drinking across all the pupils in the school. Drinking as such at these ages is a concern, but in the British context, even more so is teenage binge drinking. That the intervention could not register even a short-term impact on this priority concern will lessen its appeal.

Its matching strategy above all distinguishes the featured intervention from other approaches. Plausibly, the developers argue that addressing each individual's particular personality vulnerability to substance use should more effectively reduce or prevent that use than a more scatter-gun or generic approach. However, this remains to be convincingly demonstrated ([▶ below](#)) in studies which have offered essentially the same intervention, but not matched to the individual's personality. It is possible that the advance made by the broad matching strategy embodied in the intervention's manuals is not sufficiently great to improve on the 'natural' and possibly more fine-tune matching which occurs as a sensitive therapist or counsellor adapts their interpersonal style and the content of the intervention to the individual. Also at issue is the persistence of the effects past the first six months.

Other studies of the featured intervention

This study is one of the latest in a series investigating the same or similar interventions co-authored by the intervention's developers. Given that [allegiance](#) to an intervention is associated with finding that it works, a fully independent demonstration by researchers with no personal investment in the intervention is desirable. Despite this, the body of work to date is methodologically sound, often convincing in its results and based on a plausible theory of how the intervention should work.

Among the British trials was [another in London](#), but this time of a highly [selected](#) set of 347 schoolchildren counselled by a professional psychologist rather than school staff. As in the featured study, the intervention was associated with drinking reductions six months later, but these effects dissipated to insignificance over the next six months and remained so over the remainder of the two-year follow-up. This was in contrast to drink-related problems, experience of which increased over the first six months in the control group and remained higher than in the intervention group over the follow-up period.

Another similar study in London found that over the following six months the intervention [delayed the expected increase in drinking](#) among high risk pupils over the first six months of the follow-up, though again, by a year there was no significant difference in the drinking behaviour of pupils who had or had not been allocated to the intervention. The same trial found [reduced uptake](#) of cocaine and other drug use and a reduced frequency of drug use overall (but not cannabis in particular) over the two-year follow-up. In [Canada too](#), the intervention was found to result in at least short-term (four months) drinking reductions in secondary school pupils.

As well as these trials among schoolchildren, earlier versions of the intervention have been trialled with adults and young adults. One trial focused on [female undergraduates](#) in Canada characterised by one of the personality traits

investigated in the featured study – anxiety-sensitivity. Over the next 10 weeks, drink-related problems were relatively lower (but not quite to a statistically significant degree) among women allocated to an intervention targeted to their personality profiles compared to those allocated to a 'placebo' group intervention, but drinking itself was unaffected. Another study involved largely [alcohol-dependent women](#) in Canada aged 30 to 50 recruited via ads asking them to get in contact if they were concerned about their drinking or prescription drug use. A variant of the featured intervention was compared to a control intervention involving a motivational film on substance use problems and a supportive discussion with a therapist, a combination which it fairly consistently outperformed in reducing substance use. However, there were no statistically significant findings (though there were [tendencies](#) in this direction) indicating that the intervention bettered another intervention similar in every other way except that the content was not matched to the individual's personality profile. These findings call in to question the matching strategy which above all distinguishes the featured intervention from other approaches.

Thanks for their comments on this entry in draft to Patricia Conrod of the Institute of Psychiatry at King's College in London. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

Last revised 01 May 2017. First uploaded 16 August 2011

- ▶ [Comment/query to editor](#)
- ▶ [Give us your feedback on the site \(one-minute survey\)](#)
- ▶ [Open Effectiveness Bank home page](#)
- ▶ [Add your name to the mailing list](#) to be alerted to new studies and other site updates

Top 10 most closely related documents on this site. For more try a [subject or free text search](#)

STUDY 2011 [Long-term effects of a personality-targeted intervention to reduce alcohol use in adolescents](#)

REVIEW 2014 [Interventions to reduce substance misuse among vulnerable young people](#)

STUDY 2012 [Brief intervention for drug-abusing adolescents in a school setting: outcomes and mediating factors](#)

STUDY 2010 [Project SUCCESS' effects on the substance use of alternative high school students](#)

REVIEW 2011 [Effectiveness of e-self-help interventions for curbing adult problem drinking: a meta-analysis](#)

STUDY 2009 [Translating effective web-based self-help for problem drinking into the real world](#)

STUDY 2011 [Internet therapy versus internet self-help versus no treatment for problematic alcohol use: a randomized controlled trial](#)

STUDY 2009 [Multidimensional Family Therapy for young adolescent substance abuse: twelve-month outcomes of a randomized controlled trial](#)

STUDY 2014 [The effectiveness of alcohol screening and brief intervention in emergency departments: a multicentre pragmatic cluster randomized controlled trial](#)

REVIEW 2011 [Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence](#)