


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.

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▶ [Differential impact of a Dutch alcohol prevention program targeting adolescents and parents separately and simultaneously: low self-control and lenient parenting at baseline predict effectiveness.](#)

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Koning I.M., Verdumen J. E., Engels R. C. et al
Prevention Science: 2012, 13(3), p. 289–297.

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An alcohol prevention intervention that combined adolescent and parent components was found to be effective at delaying the onset of regular drinking only among children with low self-control or whose parents were lenient.

SUMMARY The featured report derives from [an evaluation](#) conducted in the Netherlands of an intervention aimed at reducing drinking in adolescents by educating pupils and helping their parents set rules. This further report sought to discover whether the intervention's impact varied among children with differing levels of self-control or parents with more or less strict attitudes to and rules about drinking.

As the [Findings analysis](#) of the earlier report discusses in detail, the intervention combined a parental rule-setting intervention based on the Örebro programme (first developed [and tested](#) in Sweden), with a classroom-based education programme providing the children with information and training around alcohol. When, and only when, these two interventions were combined, was there a restraining influence on the adolescents' future regular drinking and regular heavy drinking that *Findings* judged to be "several times greater and more consistent than those typical of alcohol prevention programmes applied universally to the entire youth population ... even in respect of programmes recognised as effective and usually far more costly and difficult to implement".

Reasoning behind the featured analysis was that knowing how the impact of the intervention varied in children and parents with different characteristics might provide evidence for focusing on these characteristics in the first place, and allow interventions to be targeted at people most likely to benefit. Previous research had suggested the two chosen characteristics (adolescent self-control and parental rule-setting) were important. Low self-control appears a good predictor of onset of alcohol use in adolescents, and is a frequent and sometimes effective target of alcohol interventions, whilst the children of parents who have stricter rules and attitudes about drinking have been found less likely to drink heavily. Researchers hypothesised that, in general, interventions are more likely to be effective among high-risk groups. Extrapolating to the featured study, this would imply that adolescents with low self-control and whose parents were more lenient should have benefited most from the intervention.

The original study had randomly assigned participating schools to receive either just the parent intervention, just the adolescent intervention, both interventions, or to act as **control** schools which simply carried on with the normal alcohol education content of the Dutch curriculum. Further details in our analysis of [the original study](#).

Two main outcomes were assessed 34 months after the baseline assessments: how many children started (ie, had not been doing so before the intervention but started to do so after) drinking at least weekly; and how many children started drinking heavily each weekend – defined as usually consuming at least five glasses for boys and four for girls. To measure adolescent self-control and parental rule-setting, adolescents were given a series of statements like, "I have trouble saying no", or "I am allowed to have one glass of alcohol when my parents are at home", and asked to rate how much they thought these applied to them. Parental attitudes were measured by asking the parents questions about how acceptable they found adolescent drinking.

From an original total of almost 3500 students, some were excluded because they were already drinking weekly or because their answers to the questions were inconsistent, leaving just over 2900 students and just under 2400 parents in the analysis. Children were typically 12 or 13 years old, half were boys and half girls, and more than half had no religion. The parents were mostly women aged

between 35 and 49.

Main findings

As expected, in respect of preventing weekly drinking, the combined adolescent and parent intervention was effective among the half of the children with the lowest self-control, but not the half with higher self-control. Also as expected, on the same measure the combined intervention restrained the onset of weekly drinking among the half of the children whose parents were most lenient about alcohol, but not the half with stricter parents. These characteristics did not, however, affect impacts on *heavy* weekly drinking. Though given separately the adolescent and parent interventions were also most effective in the same sets of children, these results did not achieve statistical significance. As opposed to their strictness about drinking as perceived by their children, the parents' self-reported attitudes to adolescent drinking did not significantly affect the impact of the interventions.

The authors' conclusions

That the intervention delayed the onset of weekly drinking in adolescents with low self-control or lenient parents, but not those with high self-control or strict parents, underlines the importance and appropriateness of targeting these characteristics and is consistent with the hypothesis that young people at greater risk of starting to drink early stand to benefit more from interventions designed to delay this development.

Parental attitudes did not affect intervention impact, but parental rule-setting did, perhaps because as states of mind rather than actions, attitudes do not have the same concrete link to changing behaviour. Also, setting rules may also require more parental effort [Editor's note: so presumably act as a marker of parents prepared to exert some effort to prevent their children drinking].

The fact that the separate parent and adolescent interventions did not significantly affect drinking even among the half of adolescents at highest risk, emphasises the importance of using the combined intervention.

In contrast to weekly drinking, neither child nor parental characteristics affected intervention impact on heavy weekly drinking. This may have been because parents and children were more uniform in their attitudes and actions to this more severe form of youth drinking, leaving little variation between them to influence the effects of the interventions.

Note that this study was based only on self-reported drinking assessed at a single follow-up point. The Netherlands is considered to have a lenient culture around drinking, and the findings may not translate to countries with different drinking cultures.

FINDINGS COMMENTARY For a full discussion of the intervention and its relevance to the UK context, see the [previous Finding commentary](#), which concluded that the parental intervention could be "a worthwhile addition to alcohol use prevention lessons as long as parents can effectively be reached and persuaded to be stricter about their children's drinking". This further analysis tells us more about who would be most likely to experience benefits from the intervention, and in what ways, enabling the intervention to be more sharply targeted. However, targeting may have limited ability to augment potential public health gains and impacts on disorder related to 'binge' drinking, since intervention impact on *heavy* weekly drinking did not differ between children and parent with differing characteristics.

The influences that were found are consistent with the researchers' understanding of how and [why](#) the combined intervention worked – by encouraging parents to be stricter and by increasing self-control in the students. If this theory is correct, it makes sense that students already relatively self-controlled and with relatively strict parents would have less to gain. A plausible narrative explaining the mechanisms at play, that was expected in advance, and with which findings were consistent, suggests these are not simply chance findings.

Whether this actually means that the intervention should be performed any differently is less clear. The researchers' hope that their new-found knowledge about for whom the intervention works would enable better targeting may not prove practical or desirable in real school settings. Given that both the student and parent components were delivered to many people at once (in school lessons and in parents' meetings respectively), it is not clear that significant savings could be made by reducing the number of people offered the intervention. It would also be necessary to weigh such targeting against any possible negative effects from singling out the adolescents perceived as being low in self-control and with lenient parents, even before they have actually begun to drink regularly or harmfully.

A [later report](#) from the same study showed that reductions in heavy weekend drinking from the combined programme persisted to age 16, the legal drinking age in the Netherlands. The reduction in the proportions of pupils engaging in heavy weekend drinking seemed due a delayed onset of drinking, greater self-control, and the perception of stricter parental rules about drinking. The first two factors

were also related to a reduction in the amounts drunk at weekends. The main question mark over the findings is that relatively few children could be followed up at age 16, over four years after the start of the trial – of those randomly allocated to the combined programme, just 193 out of 812.

For more research and analysis on alcohol prevention interventions among young people, run this Findings [search](#), and see in particular this summary of the findings of [three authoritative reviews](#) of alcohol prevention programmes. The National Institute for Health and Care Excellence has published [guidelines](#) for schools-based interventions on alcohol, which recommend adopting an inclusive approach that involves parents as well as pupils.

Thanks for their comments on this entry in draft to research author Ina Koning of Universiteit Utrecht. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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