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► **Brief intervention for drug-abusing adolescents in a school setting: outcomes and mediating factors.**

**Winters K.C., Fahnhorst T., Botzet A. et al.**  
**Journal of Substance Abuse Treatment: 2012, 42, p. 279–288.**



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*Aged 16 and smoking cannabis or drinking coming up to one day in three, US youngsters identified as substance users by their schools substantially cut back in response to just two motivational counselling sessions, and even more when a third session addressed the parents at home.*

**Summary** In the USA only about 10% of adolescents who need treatment for problematic drug use receive it. Identifying these adolescents in settings such as paediatric clinics, juvenile detention systems, and school assistance programmes may help raise this proportion. Once identified, a promising treatment option is brief intervention – usually between one and four face-to-face counselling/advice sessions.

To test this strategy, over a 26-month period the study recruited pupils aged 13 to 18 who had been assessed as possibly using drugs by counsellors or student assistant staff in public schools in the north west of the USA. Assessments were usually conducted if the student had been caught using or possessing drugs at school or been referred by a teacher who suspected drug use. Unless there were serious mental health or child protection concerns, parents were asked if their child could be referred to the researchers to determine if they qualified for the study. Among other criteria, to qualify they had score as having at least a mild problem on a drug abuse screening questionnaire.

Along with their parents, 315 children agreed to join the study (26 refused). Averaging 16 years of age, after entering the study 283 were found to meet diagnostic criteria for an alcohol and/or cannabis use disorder, including over half dependent on cannabis. At first the children were randomly assigned to one of two brief interventions, either with or without a home visit to see the parents. Once 259 had been assigned, the next 56 were asked to join an assessment-only control group against which to benchmark the impact of the interventions. Though not chosen at random, the control group did not significantly differ from pupils in the other two groups on the substance use and other variables recorded by the study.

Both the brief interventions evaluated by the study included two one-hour sessions over a fortnight during which a therapist saw the child individually. They conducted assessments and counselling according to motivational interviewing principles and used associated techniques, such as assessing willingness to change and leading the child to assess the pros and cons of their substance use. Pupils were also helped to identify high risk 'trigger' situations for drug use and to develop strategies to deal with social pressures to use. Pupils could negotiate goals, though drug abstinence was encouraged.

The parental version of the brief intervention concluded with a third session a week later. Typically conducted in the home, talking this time to the parent or equivalent figure, the same therapist addressed their child's substance use problem, parental monitoring and supervision to promote progress towards the child's goals, and the parent's own drug use behaviours and attitudes.

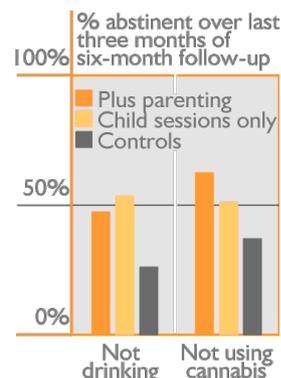
Expert supervision and audiotapes of sessions helped ensure the two therapists delivered the brief interventions as intended. Nearly all the components were covered and nearly all the children (and where included, their parents) attended all scheduled sessions.

**Main findings**

All but one of 13 measures of substance use or problems assessed by researchers six months later favoured one or both of the brief interventions over the assessment-only control group, and the remaining measure narrowly missed the study's criterion for statistical significance. Generally the parental version of the intervention outperformed the version where only the child was counselled.

At both the pre-intervention baseline research assessment and six months later the children had been asked about their substance use over the past three months and symptoms of abuse and dependence over the past six months. The first set of analyses assessed trends between the two time points in the number of days on which the children had drunk or used cannabis and the number of symptoms of problem use (abuse or dependence) they had experienced. On every measure the reductions had been significantly if modestly greater in the children assigned to the parental version of the brief intervention than those not offered any counselling. Except for symptoms of cannabis use problems, the child-only intervention had also significantly outperformed the control group. Though significant only in respect of cannabis use, the reductions were greater when the parents had been included in the programme than when they had not. For example, from using cannabis on 24 days out of 90, children offered the full intervention cut to on average eight days and the after the child-only intervention to 12 days. Finally, though bettered by the interventions, even without the study's counselling the control group generally too improved, for example from using cannabis 26 days out of 90 to using on 15 days.

The study also assessed how many of the children six months after the interventions had not used cannabis or alcohol in the past three months, or been free of symptoms of problem use over the entire six months. On these 'yes or no' indicators, the advantages gained by the interventions were substantial and either statistically significant or nearly so ► [chart](#). For example, just over a third (37%) of the control group had altogether avoided using cannabis compared to nearly two thirds (63%) of the children offered the full intervention. Again, this with its parental component [generally outperformed](#) the child-only version.



Finally the analysts tested whether some of the ways the interventions were theorised to work (the 'mechanisms') really had led to the substance/use problem reductions noted above. All the relevant variables were assessed at the six-month follow-up based on the child's questionnaire responses. The quality of parental monitoring, discipline, and positive parenting was greater when the parent had been involved in the intervention than among the other children, as was the child's use of additional support, mainly local community mental health and school counselling services. However, only the latter seemed partially to account for the extra reduction in days of alcohol or cannabis use. Similarly, combined and compared to no intervention, the two brief interventions led to greater motivation to change substance use and improved [problem-solving](#), but only the latter seemed partially (and weakly) to underpin the extra reduction in days of alcohol or cannabis use.

The impacts of the interventions did not significantly vary with the sex of the child or the severity of their substance use at the start of the study.

**The authors' conclusions**

Consistent with other evaluations, this study suggests brief interventions are an appropriate solution for adolescents exhibiting mild to moderate drug use/problems. Compared with the assessment-only control group, both variants of the intervention led to greater remission in

cannabis and alcohol use and abuse/dependence symptoms and more children free of use or symptoms, but (again as per other evaluations) the version incorporating parenting was most consistently positive in its impacts and generally led to the greatest gains. Within this generally moderate range, impacts were just as great among the children with the greatest substance use problems as among those with less serious problems .

Impacts were partly due to the child's enhanced problem-solving skills and (if the parents had been involved) their greater use of other counselling/health services. The former suggests that benefits can be gained when just part of a single session (the second of the two child sessions) addresses problem-solving. The latter suggests that the parent version of the intervention (which may include discussing the need for and sources of further help) works partly because parents are then more likely to ensure their child receives extra help.

It should be remembered that the participants in this study were mainly white, middle class, and suburban, and that the more effective of the two interventions differed not only in having a parental component, but also in occupying three instead of two sessions. It was also the case that though similar to the other groups, the control group was not randomly selected and was recruited later than the two intervention groups.

**FINDINGS** The results of this careful study are in line with the general results of brief motivational interventions among young people, and the interventions conformed to what seems the most effective pattern – several one-to-one sessions and if possible involving the parents as well as the child.

An indication of the general impacts of similar interventions among young people can be gained from a [meta-analytic synthesis of research](#) on motivational interviewing among people aged 21 or less. As in the featured study, the subjects generally were using cannabis and/or alcohol, outcomes were assessed by their later use of those substances, and usually brief interventions were conducted after children had been identified as using these substances, rather than after they or their parents had sought treatment. Pooled across all 21 studies and as assessed at least six months later, motivational interventions led to a statistically significant reduction in substance use amounting to a small [effect size](#) of about 0.13 including impacts on tobacco use, and probably somewhat less if tobacco were excluded.

Another [similar review](#) found nine studies (including the featured study) of teenagers around the same age on average as in the featured study, which reported not just substance use after interventions. but also other outcomes such as delinquency. As in the featured study, most interventions were brief and based on motivational interviewing, and all were targeted at children using substances but not starting treatment or diagnosed as dependent. Across this select set of studies with relatively comprehensive outcomes, impacts were still modest, but larger than recorded in the analysis cited above. Interestingly, a clear pattern in the findings favoured the delivery of interventions one-to-one and over multiple sessions, the format adopted in the featured study. The analysts noted that only this study involved the parents and that this intervention stood out as particularly effective.

Rather than in response to violations of school rules or teacher concerns, generally the young people in these reviewed studies had been identified by screening surveys or interviews in emergency departments or doctors' surgeries, or had responded to requests for substance users to join a study. But as in the featured study, at least until assessed by the study's staff, most had not been diagnosed as clinical cases and their problems had not been so troubling or noticeable that they had attracted treatment. This is not however to trivialise them. In the featured study the youngsters aged on average 16 admitted to using cannabis and/or alcohol not far from one day in every three, and given how [dependence criteria apply to young people](#), the likelihood is that even they felt this was seriously detracting from other activities important to them and to their development.

In the reviews and in the featured study, it is unclear whether the motivational nature of the interventions was an active ingredient or whether any acceptable and feasible intervention would have been as effective. One riposte to such doubts is that among people not seeking help, motivational interventions (which do not confront or insist that participants accept a clinical label or a pre-determined outcome) are among the few which *are* acceptable to the participants and feasible – feasible partly because they are acceptable, and partly because they can be quite brief.

Also we have evidence – from studies of young people among others – that what happens during motivational sessions *does* matter. In particular, from a [British study](#) of further education students and others from Switzerland, it seems important to embody the overall spirit of the approach and, in finer detail, to use the skill of reflective listening to 'play back' to the client an elaborated version of their own comments. The featured study adds a fairly convincing indication that in respect of young people still at school and living at home, if you can involve the parents, results are likely to be better, partly because they will arrange/ensure that their child receives further help.

For young people who misuse alcohol, a [review](#) conducted for Britain's National Institute for Health and Clinical Excellence (NICE) recommended offering individual cognitive-behavioural therapy for those with limited co-morbidities and good social support, and multi-component programmes engaging families and the wider social circle for those with significant multiple problems and/or limited social support. The featured study suggests that for non-clinical samples of young people, fostering coping skills of the kind addressed in cognitive-behavioural programmes is indeed an active ingredient, and that even a mini-family/parenting component can elevate impacts.

Released in 2012, [national guidance](#) on school drug policies from Britain's chief police officers and the Department for Education makes no mention of the school providing counselling to pupils caught with drugs on school premises, instead advising schools to maintain links with external sources of support for pupils. The featured study offers a manageable and direct caring response option to schools, but one which even with the parental session still left over a third of the sampled pupils using cannabis.

The featured study's therapists were not school staff and it is unclear to what degree they offered confidentiality to the youngsters. Clearly in the intervention including the parental session, parents were appraised of their child's problems and substance use, but even then some disclosures might have been made and/or kept in confidence. How the interventions would have worked with school staff conducting them is an open question, particularly since they were so closely supervised and it seems so thoroughly delivered by experienced youth treatment therapists. Though the consistency of the impacts and the interrelatedness of the outcomes mitigate this concern, with 13 outcome measures arguably the criterion for statistical significance should have been stiffened to reduce the possibility of one or more outcome difference meeting it purely by chance. One outcome assessed but not reported in the featured article is usage of other illicit drugs, not uncommon among this sample. Finally, though the control group did not in statistical terms significantly differ from the other sets of children, there were some substantial differences. In particular, 48% of controls met criteria for dependence on alcohol, but just 28% of the children offered the full intervention and 34% offered the intervention without the parent session.

*Thanks for their comments on this entry in draft to research author Ken Winters of the University of Minnesota Medical School in the USA and Jamie Pennycott of the Drug and Alcohol Commissioning Team of Southend-on-Sea Borough Council in England. Commentators bear no responsibility for the text including the interpretations and any remaining errors.*

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