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Harnessing peer interaction in school-based prevention can backfire

Small group work based on friendship networks and pupil-selected peer leaders is likely to foster highly interactive learning which harnesses influential peers and embeds social norms in networks active outside the classroom. Overall a US study found this augmented the preventive impact of a substance misuse curriculum, but the reverse was the case when a pupil's closest class friends used substances relatively frequently.

This finding emerged from a [trial](#)¹ of the 12-session version of the Project TND (Towards No Drug Abuse) curriculum in 'continuation' secondary schools in California. Continuation schools take pupils who are falling behind in mainstream schools. By age 16–18 most smoke, drink and use cannabis at least monthly and a substantial minority use cocaine or other drugs.²

As documented in [Findings](#), a predecessor curriculum had retarded growth in substance use in the same kind of schools.³ [Later results](#) showed long-term impacts.⁴ [Another study](#) suggested this would only be the case if the curriculum was delivered by a trained health educator in the highly interactive manner (based on the Socratic method of asking questions) intended by the developers rather than in a self-instruction format.⁵

The [featured study](#) took interactivity further by dividing classes of on average 16-year-old pupils in to activity/discussion groups consisting of the three to five who most wanted to work together, led by pupils they nominated as the best leaders – a format based on the pupils' in-class social networks. Health educators trained in the curriculum delivered the lessons. In other classes they delivered the same curriculum but in a whole class format. Another set of classes underwent education as normal. 75 classes in 14 schools were randomly assigned to these three conditions.

In this study the whole-class format did not improve on education as usual but the network format did. Over the following year it curbed growth in the frequency of cannabis and cocaine use and smoking and drinking. Impacts on the two illegal drugs and on a composite all-substances measure were statistically significant.

While harnessing peer networks curbed substance use overall, this was not the case for pupils whose class friends used substances most frequently (also the pupils who themselves used most often). Here the network option actually *increased* use relative to the other options. Among these pupils, the diminished effectiveness of the network

lessons was consistent across the two illegal drugs (cannabis and cocaine) and the composite measure. In contrast, among these high risk pupils the non-network options were at least as effective as among more typical pupils.

The network format's counterproductive impacts were apparent among youngsters who on average were using daily or more often. They were significantly less likely to quit if they had been grouped with like-minded friends, but the same grouping strategy led to higher quit rates among less frequent users.

As the authors comment, the network format appears to have reinforced peer influences, resulting in negative impacts when the friends shared elevated substance use patterns, while lessons which randomly mixed pupils seemed to counter the influence of high-use friendship groups.

'Deviancy training' is a [recognised risk](#)⁶ of grouping high-risk youngsters together, one which can overwhelm even the most well-constructed and well implemented curricula. It may work partly by reversing the intended impact of pupils' being made aware of how much their peers actually do use. Normally, education about typical use levels corrects misperceptions that 'everyone's doing it' and diminishes social pressure to use, but when the youngster's closest social circle (the group they are most likely to reference themselves against and who matter most to them) actually are relatively heavy users, the result may not be as intended.

While the negative impact on a subset of pupils is the headline finding, it should not be forgotten that overall (and among pupils likely to be more representative of mainstream school populations) the network format was more effective at curbing substance use than the same lessons delivered in a whole class format. Studies in mainstream schools analysed in [Findings](#) have suggested that the network method curbs smoking [at least as well](#) as the same curriculum taught conventionally,⁷ with some combinations of pupils and curricula, [much more effectively](#).⁸

The potential for peer influence to reinforce substance use was apparent in the featured study's finding that popular pupils increased substance use most, while those who felt well supported by schoolmates increased their drinking most. These findings add to a body of literature indicating that in some situations, socially advanced (socially competent, confident and popular) teenagers are also likely to be advanced in their experimentation with substances.

Thanks for their comments on this entry in draft to Thomas Valente of the University of Southern California. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

1 **FEATURED STUDY** Valente T.W. et al. [Peer acceleration: effects of a social network tailored substance abuse prevention program among high-risk adolescents](#). *Addiction*: 2007, 102, p. 1804–1815.

2 Sussman S. et al. [Project Towards No Drug Abuse: a review of the findings and future directions](#). *American Journal of Health Behavior*: 2002, 26(5), p. 354–365.

3 Limitations on access to pupils and the ability to recontact them for follow-up raise questions over whether the results would apply to the entire school population, and significant use reductions were not observed across all the targeted substances. This also applies to the featured study whose pupils were mainly of Hispanic or Latino descent.

4 Sun W. et al. [Project Towards No Drug Abuse: long-term substance use outcomes evaluation](#). Preventive Medicine: 2003, 2006, 42(3), p. 188–192.

5 Sussman S. et al. [Project Towards No Drug Abuse: two-year outcomes of a trial that compares health educator delivery to self-instruction](#). Preventive Medicine: 2003, 37, p. 155–162.

6 Werch C.E. et al. [Iatrogenic effects of alcohol and drug prevention programs](#). Journal of Studies on Alcohol: 2002, 63, p. 581–590.

7 Wiist W.H. et al. [Peer education in friendship cliques: prevention of adolescent smoking](#). Health Education Research: 1991, 6(1), p. 101–108.

8 Valente T.W. et al. [The interaction of curriculum type and implementation method on 1-year smoking outcomes in a school-based prevention program](#). Health Education Research: 2006, 21(3), p. 315–324.

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