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► Does school ethos explain the relationship between value-added education and teenage substance use? A cohort study.

Markham W.A., Young R., Sweeting H. et al.
Social Science and Medicine: 2012, 75, p. 69–76.

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Intriguing findings from Glasgow on what it is about a school which helps protect pupils from less socially accepted substance use: in this case, engaging schools with good teacher-pupil relationships but, unlike in England, not those which (given their pupils and areas) excel academically and in eliminating truancy. Connection is it seems the key.

SUMMARY Pupil substance use varies between schools partly it is thought due to differences in school ethos or culture rather than (or as well as) health education lessons and interventions targeted at substance use. To investigate this, the featured analysis drew data from a [Scottish study](#) which sampled over 2000 pupils at 43 randomly selected secondary schools in the Glasgow area, and followed them up from 1994 when they were ending primary school (age 11) to their last year of compulsory schooling (age 15). For the featured study, two school performance indicators were calculated for each school: the proportion of pupils who achieved five good grades in exams at the end of compulsory schooling; and the truancy rate. Researchers calculated the degree to which on each measure schools exceeded or fell below the rate expected for schools with a similar pupil mix – indices of 'added value'. These two indices closely co-varied, so could be combined in to a single added-value index.

As found in the West Midlands of England, it was expected that the more a school 'added value', the fewer of its pupils would currently smoke or [regularly](#) drink, or have ever used illegal drugs. The thinking was that schools which support learning and exert behaviour controls in line with pupils' cultural expectations should achieve relatively good exam results and lower truancy rates. Pupils at these schools were also expected to have better impressions of the school's ethos (a mix of their perceptions of the school environment, how involved and engaged they are with the school, and how they see teacher-pupil relationships) and as a result to have more fully absorbed the school's anti-substance use values, reflected in lower than expected levels of substance use.

The hypothesised causal chain ran from supportive schools (reflected in added value) > better pupils perceptions of school ethos > anti-substance use values > less substance use. If this was indeed the mechanism, added value should be related to less substance use, but no longer related once the school's impact on ethos perceptions had been taken in to account. To test this, substance use assessments at ages 13 and 15 were related to added value (calculated from official records) and to perceptions of school ethos as seen by pupils at ages 13 and 15. A battery of pupil, family and social background [measures](#) were taken in to account to try to exclude other influences.

Main findings

Generally the expected relationships were not confirmed. The reverse of what was anticipated, schools which added value in the form of better than expected exam and truancy records actually had higher proportions of pupils who smoked and (non-significantly) also more pupils who had tried illegal drugs and were drinking at age 13. The only 'right' way round relationship was between added value and non-significantly fewer drinkers at age 15.

On most measures schools which added value and were presumed more supportive did not have pupils who felt significantly and/or substantially more engaged and positive about their schools. Neither did these perceptions account for such relationships as there were between added value and substance use.

As expected, it was the case that the better a school's ethos as seen by its pupils, the fewer were smokers at ages 13 and 15; drinking and experience of illegal drug use were also non-significantly less common in these schools. However, these relationships became non-significant (and in the case of drinking, reversed) when the analysis took account of how far each individual pupil's perceptions were related to their substance use. The implication was that even in a school seen as engaging by pupils generally, individuals who did not share this perception were prone to use substances. Similarly, pupils in less engaging schools but who nevertheless felt engaged seemed protected from substance use.

The authors' conclusions

Unlike the featured study, previous [UK](#) and [US](#) studies have found that pupils at high value-added schools were less likely to use substances. With alternative explanations lacking, this consistency led to the conclusion that the relationship was probably causal, a conclusion cast in doubt by the findings of the featured study.

Instead, in the Glasgow area schools which attained unexpectedly good truancy and exam results did not tend also to excel in engaging pupils. In this context, possible explanations are that a minority of pupils may rebel against or feel alienated from schools which effectively support and control the pupil population as a whole. The result may be increased substance use among this minority, even though the bulk of pupils are relatively protected against substance use. Possibly too, schools in the Scottish context which achieve relatively good academic results do so by focusing on this to the detriment of caring for pupils and ensuring all pupils feel included in the life of the school.

In contrast to added value, the degree to which an individual pupil felt disengaged from school or reported poorer teacher-pupil relationships remained significant risk factors for substance use, even after all other influences had been taken in to account. These relationships were relatively strong in comparison to other substance use risk factors recorded by research. Some schools more universally engaged their pupils, and it was this which accounted for the relationship between overall school engagement and substance use.

FINDINGS COMMENTARY The variance between findings in Scotland and elsewhere in the UK highlights the [importance of context](#) in prevention research. Varying contexts (even it seems within the United Kingdom) can mean what has a preventive impact in one area, does not in another. In the case of the Glasgow area, it seemed that typically schools did not achieve good exam and truancy results by ensuring their pupils felt exceptionally well cared for and engaged with the school, breaking the expected causal chain from added value to substance use. Schools in other areas with different methods and priorities may embody this causal chain, resulting in

the findings [elsewhere in the UK](#) where added value was related to less substance use.

Though statistically non-significant, schools with a good overall ethos were as a whole much less likely to have pupils who engaged in the most deviant (to judge by the proportions of pupils engaging in these behaviours) forms of substance use – early (age 13) smoking and illicit drug use. This was the case even after each pupil's individual engagement scores had been taken in to account. In other words, it seems possible that in this sample, schools which were good at including pupils also helped prevent even relatively alienated pupils departing from local substance use norms.

The featured study turns the focus from added value in the form of academic results and truancy prevention to the school's culture as perceived by its pupils. Because these are all-pervasive, improvements in the social climate of schools might justify themselves on a multiplicity of grounds, including academic achievement and crime prevention as well as substance use prevention, especially given the [patchy](#) track record of preventive drug education. The [evidence is strong](#) that schools which develop supportive, engaging and inclusive cultures, and which offer opportunities to participate in school decision-making and extracurricular activities, create better outcomes across many domains, including non-normative substance use. As well as facilitating bonding with the school, such schools are likely to make it easier for pupils to seek and receive the support they need.

The lessons seem to be to attend to the basics through school management, training, pastoral and administrative procedures which foster and demonstrate a caring, cooperative and participative ethos and concern for pupils as individuals, then perhaps to seek to optimise these virtues through targeted interventions.

Studies have generally documented the impacts of normal school development processes rather than randomly allocating schools to develop better cultures. The observed relationships between culture and substance use could be artefacts rather than a result of good ethos exerting a restraining influence. For example, perhaps good schools attract families whose children are less at risk of deviant substance use, or both culture and substance use reflect some other factor, such as unmeasured quirks of the neighbourhood. Even if we accept the plausible explanation that engaging schools also prevent pupils disengaging from social norms in their substance use, doubts remain over whether an add-on intervention can 'artificially' turn unpromising schools in to engaging schools and thereby reduce substance use problems.

The featured study and its predecessors exemplify a [trend](#) to see the most promising ways to prevent substance use (or more accurately, substance use problem) as generic and usually early processes and interventions which affect the development of the child as a whole, rather than later interventions specific to substance use.

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