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

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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.

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, does not in another. In 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 lower substance use rates. 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.

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.

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.

SUMMARY

Pupil substance use varies between schools partly it is thought due to differences in school ethos or culture rather than (or as well) 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.

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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 into 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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