

This entry is our account of a study collected by Drug and Alcohol Findings. Citation here does not imply that the document is particularly relevant to Britain and of particular merit, though it may well be both. Unless indicated otherwise, permission is given to distribute this entry or incorporate passages in other documents as long as the source is acknowledged including the web address <http://findings.org.uk>. The original study was not published by Findings; click on the [Title](#) to obtain copies. Free reprints may also be available from the authors – click [Request reprint](#) to send or adapt the pre-prepared e-mail message. Links to source documents are in [blue](#). Hover mouse over [orange](#) text for explanatory notes. The Summary is intended to convey the findings and views expressed in the study. Below are some comments from Drug and Alcohol Findings.

Click [HERE](#) and enter e-mail address to be alerted to new studies and reviews

► [Does successful school-based prevention of bullying influence substance use among 13- to 16-year-olds?](#)



Amundsen E.J., Ravndal E.

Drugs: Education, Prevention and Policy: 2010, 17(1), p. 42–54.

[Request reprint](#) using your default e-mail program or write to Dr Amundsen at eja@sirus.no

Intriguing suggestion from a Norwegian study that taking measures to effectively reduce bullying in schools (including improving the social climate and setting clear and consistently enforced boundaries) also curbs the development of forms of substance use most associated with disturbed child development.

Summary The possibility that effectively tackling bullying among young people might reduce substance use is suggested by the fact that both are linked to conduct disorders or antisocial behaviour. Norwegian pupils aged 10–16 who score high on psychological tests of antisocial attitudes have also been found to be significantly more likely to smoke and drink, suggesting a common root in the rejection or breaking of social norms.

One [proven](#) way of preventing bullying is the Olweus Bullying Prevention Programme. Implemented in schools when pupils are aged 9–12 or older, it engages all the pupils, but specially targets those who bully and get bullied. It aims to work by fostering a school and possibly also a home environment characterised by positive interest and engagement from adults, combined with firm boundaries between acceptable and unacceptable behaviour signalled by the consistent application of non-physical, non-hostile sanctions when rules are broken. The programme is multi-faceted and multi-level (bully, victim, parents, class, school) and long-term – two full school years with follow-up.

The opportunity to assess impacts on substance use arose because in year 2001 Oslo primary/junior schools embarked on the Olweus programme and some also engaged in a study of pupils' substances use. The latter study surveyed pupils from age 12–13 in grade 7 up to age 15–16 in grade 10. Except for transfers between schools, over four years pupils in the lowest grade were re-assessed each year until grade 10. Pupils in higher grades at the start of the study were also followed up to grade 10 but over fewer

years or, in the case of those in grade 10 at the start of the study, assessed only once.

From these schools were selected four which had implemented the Olweus programme and two **control** schools which had not, chosen from areas with similar levels of drinking among young people. Altogether in each grade from 1378 to 443 pupils were assessed, representing nearly 90% of all pupils in those grades. Because the surveys were anonymous, it was not possible to track the responses of the same pupil over succeeding years.

Main findings

There were large variations in the proportions of pupils who had used substances between schools, and in the steepness of the increases in substance use from grade 7 to grade 10. Where there were differences in trends in substance use between Olweus and non-Olweus schools, mainly these emerged between grades 9 and 10 when pupils were aged 14 to 16.

Two sets of analyses tested the statistical significance of these trend differences in terms of the likelihood that each individual pupil would use substances in the ways assessed by the study. Of the 18 tests, six met the conventional criterion of being expected by chance less than 1 in 20 times, suggesting that there were real differences between the schools which in turn caused substance use trends to differ – the presumption being that the key difference was the Olweus programme. Significant trend differences took the form of less steep age-related increases in Olweus schools in the proportions of pupils who said they had frequently got drunk or used cannabis over the past year.

The evidence was particularly compelling in relation to frequent drunkenness; the gap between the two sets of schools was virtually zero in relation to trends in having been drunk in the past year, substantial in terms of having been drunk at least six times, and greater still in terms of having been drunk at least 11 times. In other words, the more worrying the drinking pattern, the more the Olweus programme appeared to have retarded its development. For example, by grade 10 just over 30% of non-Olweus pupils had got drunk at least six times in the past year compared to just over 20% in Olweus schools.

In contrast, **smoking** was not significantly affected (though especially in respect of daily smoking, the differences were nearly significant) and nor was **drinking** as such as opposed to having got drunk. In respect of drunkenness, the experience of having been drunk became more common among older pupils in both sets of schools; only trends in frequent drunkenness differed significantly.

Another two sets of analyses compared the schools in terms of trends in the proportions of pupils in each grade who had engaged in the substance use behaviours assessed by the study. When grades of pupils had been tracked across years, these analyses could treat each succeeding yearly survey as repeatedly re-assessing the same pupils. On this basis, none of the 18 tests for trend differences between Olweus and non-Olweus schools were statistically significant. Nevertheless, some of the trend differences were substantial, resulting in gaps by grade 10 of 6–9%.

The authors' conclusions

The Olweus Bullying Prevention Program did not reduce alcohol use as such, but may

have reduced frequent drunkenness, cannabis use, and possibly current/daily smoking. If we assume that the programme had its intended effects (not actually assessed by the study), it suggests that development of forms of substance use associated with poor social development may be held back by persisting measures to create a school environment characterised by positive interest and engagement on the part of adults, firm boundaries between acceptable and unacceptable behaviour, and consequent application of non-physical, non-hostile sanctions.

The findings may not be due to lower levels of bullying only but to a better social climate in general. This speculation is in line with findings in Norway that young people who experience supportive peer relationships are more likely to drink than those who do not; in the study, drinking as such was unaffected, only frequently getting drunk.

These findings are however tentative. Apart from not assessing whether the social climate actually was better in Olweus schools, with so few schools it was not feasible to randomly allocate them to the Olweus programme, leaving the possibility that the schools and/or their pupils differed in other ways which affected the development of substance use.

FINDINGS

It will be a welcome finding that in (as they are legally required to do) taking measures to prevent and deal with bullying, British schools may also be preventing the most worrying forms of substance use. For the reasons given by the authors – and also because of 36 tests for differences in substance use between the schools, just six were statistically significant – these findings are suggestive only and require confirmation in a more appropriately designed study. But as the authors point out, they 'make sense' in that such differences as there were largely concerned the type of substance use – frequently getting drunk – which at these ages seems likely to be indicative of disturbed social and psychological development. Forms of substance use like drinking as such which (in the Norwegian context) carry no such connotation were unaffected. Adding to the credibility of the finding is an association found in a [US study](#) between substance use among secondary school pupils and being either a bully or (more strongly) a victim of bullying.

Assuming that the findings reflected real differences attributable to the Olweus programme, they add to a [body of work](#) which has found substantial preventive impacts from school and parenting initiatives which are not about substance use at all, but about creating environments at home and in school which foster psychologically and socially healthy child development. This approach is consistent with [the observation](#) that typically children develop a constellation of mutually aggravating problems, related the further back one looks to a shared set of factors affecting children's mental and physical well-being. Among these is a positive school environment. Findings analyses of such studies can be accessed by running [this search](#).

At the same time [drug education](#) in schools has generally failed to live up to hopes that it can substantially and reliably prevent substance use problems. Recent disappointments include two programmes which embodied the latest thinking on drug education – the seven-nation [EU-Dap](#) European drug education trial and the English [Blueprint](#) trial. The former's results were patchy, the latter's, if anything, in the wrong direction.

Non-drug focused programmes attract, not just because they may offer a substance use

prevention effect not realised by drug-focused programmes, but also because they promise wide-ranging benefits in areas other than substance use such as the prevention of crime and violence and of mental health problems. Beyond specific programmes is the [finding](#) that substance use and problems are lower in schools distinguished by the high degree to which they productively engage pupils in their education and/or create a sense of being part of a valued school community – a sense promoted by warm and supportive schools with a caring, inclusive ethos, which emphasise prosocial values, encourage cooperation, show concern for pupils as individuals, allow pupils to participate in decision-making, and offer extracurricular activities.

These too are the type of schools where bullying is prevented and effectively dealt with when it happens. British schools have a legal duty to put in place measures to encourage good behaviour and prevent bullying among pupils. [Guidance](#) to schools from the Department for Education points out that schools "which excel at tackling bullying have created an ethos of good behaviour where pupils treat one another and the school staff with respect because they know that this is the right way to behave. Values of respect for staff and other pupils, an understanding of the value of education, and a clear understanding of how our actions affect others permeate the whole school environment and are reinforced by staff and older pupils who set a good example to the rest."

Last revised 18 February 2012

[▶ Comment on this entry](#) • [▶ Give us your feedback on the site \(one-minute survey\)](#)

Top 10 most closely related documents on this site. For more try a [subject or free text search](#)

[Effects of a school-based prevention program on European adolescents' patterns of alcohol use](#) STUDY 2011

[Substances, adolescence \(meta-analysis\)](#) STUDY 2003

[Drug prevention best done by school's own teachers not outside specialists](#) STUDY 2005

[Substance-focused initiatives not only way schools help prevent risky substance use](#) STUDY 2008

[Growth in youth drinking curbed by correcting 'normative' beliefs](#) STUDY 2002

[Education's uncertain saviour](#) STUDY 2000

[The effectiveness of a school-based substance abuse prevention program: 18-month follow-up of the EU-Dap cluster randomized controlled trial](#) STUDY 2010

[Substance use outcomes 5½ years past baseline for partnership-based, family-school preventive interventions](#) STUDY 2008

[The effects of Project ALERT one year past curriculum completion](#) STUDY 2010

[It's magic: prevent substance use problems without mentioning drugs](#) HOT TOPIC 2011