


DRUG ALCOHOL FINDINGS *Hot topic*

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GO Should we start prevention in the cradle?

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Adults who develop problems with drug or alcohol use have often also developed other **psychological problems** after an **unenviable childhood**. Combine that with **what we know** of human development, and it makes sense to expect that unhealthy substance use can be averted by interventions undertaken when these adults were babies and toddlers – not interventions focused on substance use, but intended to help prevent the constellation of difficulties of which problem substance use is commonly a component. Despite its face validity, solid evidence that early prevention works will be hard to find, requiring rarely-undertaken trials lasting well over a decade. This hot topic still finds good reasons to begin prevention early, especially among families most likely to need this support.

UK national drug strategies target the early years

The 2010 **English national drug strategy** saw early-years support for disadvantaged or vulnerable families as an important way avert a variety of problems including substance use. Initiatives which embody this perspective include the **Family Nurse Partnerships** set up to improve the parenting of young first-time mothers and their partners through intensive and structured support from early pregnancy until the child is two years old. This is, however, a programme parents have to opt in to. As of March 2013 it was limited to just over 11,000 places, and not universally available across the UK. A trial which randomly allocated 1618 young mothers recruited at 18 sites across England **found** that up to the time children were two years old the programme had improved early child development and may also have helped protect children from serious injury, abuse and neglect through early identification of safeguarding risks. There were also some small improvements in the mothers' social support, relationships, and self-confidence in their abilities, but none across the study's four main short-term outcomes: pre-natal smoking, birth-weight, subsequent pregnancy within 24 months, and emergency department attendances and hospital admissions in first two years of life.

Such findings suggest a potential to have downstream impacts on problem substance use, a potential explored by the US programme on which the English version was based. Researched over decades in the USA, whatever its other positive effects, evidence that it affected later substance use is thin. The **classic study** was conducted in New York state, where between 1978 and 1980 about 400 mainly young, poor or unmarried women in their first pregnancies joined the study. They were randomly allocated to different kinds and degrees of support, the most intensive of which included post-birth home visits from a nurse up to the child's second birthday. By the time the children were aged 19, a fleeting impact on substance use and problems at age 15 among some of the higher risk families had disappeared. The comparison group consisted of children screened for problems as babies and referred for help, but whose families had not been offered the programme's support. By age 19, 52% of these children had recently used illegal drugs and 32% had 'binge' drank – figures only marginally and non-significantly reduced to 49% and 28% respectively among children whose mothers had been visited by a nurse on average 31 times during pregnancy and infancy.

The 2008 **Scottish drug strategy** also focused on the development of an "early years framework" to bolster healthy parenting and healthy families. By 2011 this approach had been incorporated in government policy which **became law** in March 2014. The provisions offer targeted support for under-5s in poor and "workless" households and those who had at some time been placed in care. From birth, every child will have access to a "named person" to promote, support and safeguard their wellbeing.

Major US study gives some support to pre-school centres

A stage up are the ages when rather than addressing parenting, pre-school centres typically focus on preparing the children themselves for school. A **review** of studies of such centres assessed whether their four-year-old attendees had benefited when assessed at least a year later. This is how the review encapsulated known impacts on psychological health including substance use: "There was an indication of enhanced social competence for children who attended experimental interventions rather than usual centre-based services ... There was no effect ... on internalising behaviour [such as depression and anxiety], and possibly a small beneficial effect on externalising behaviour [such as aggression and delinquency] for high quality interventions ... These social and behavioural benefits did not lead to reduced risk of alcohol and drug use in adolescence."

In respect of substance use, this conclusion was based on results when children were aged 15 from the US **HighScope Perry** study. At this stage no significant impact was seen on ever having used cannabis or on drinking alcohol without parental permission, and there was a small *increased* risk of ever having taken other drugs – results reflective of teenage experimentation with substance use rather than subsequent problems. This exceptionally long-term US study has since reported rather more encouraging results up to age 40 (**1 2 3 4**).

The study's roots date back to the 1960s when what is now the HighScope Educational Research Foundation had recruited a small sample of poor black families (at that time nearly everyone in the Perry school neighbourhood was African-American) with 123 three- and four-year-old children assessed to be at high risk of school failure. Essentially at random, about half were assigned to an intensive pre-school programme delivered by qualified teachers with caseloads not exceeding eight children. Daily weekday pre-school classes lasting at least two and a half hours adopted a participatory approach intended to support children's self-initiated learning, and the teachers visited the families at home every week or every two weeks to forge an educationally-oriented partnership with the parents.

By age 40, among the men allocated as children to the classes, fewer reported using sedatives, sleeping pills, or tranquilisers (17% v.43%), cannabis (48% v. 71%), or heroin (0% v. 9%). Records showed that 14% of the children

allocated to the Perry programme had by age 40 been arrested for a

allocated to the Perry programme had by age 40 been arrested for a drug offence versus 34% of the comparison children, a difference due to a large reduction in arrests among Perry men when they were young adults. Analyses indicated that the benefits of the programme were due to its boosting intellectual abilities leading to better engagement with primary schooling and greater educational attainment at school-leaving, leading to better job prospects and fewer arrests. Drug use was just one of the benefits – the [general conclusion](#) was that “high-quality preschool program[me]s for young children living in poverty contribute to their intellectual and social development in childhood and their school success, economic performance, and reduced commission of crime in adulthood.”

Evidence more available from early schooling

Step up to primary school and a few more brighter spots appear, noted in this [review](#) of primary school studies. That review was unable to incorporate one of the most successful initiatives – the [Good Behaviour Game](#) classroom management strategy for the first years of schooling. Well and consistently implemented, by age 19–21 it was estimated that this would cut rates of alcohol use disorders from 20% to 13% and halve drug use disorders among boys. In the Effectiveness Bank you can read about the [study](#) and a [practitioner-friendly account](#) of the research from the researchers themselves.

The Good Behaviour Game has been combined with parenting classes, [leading to](#) reductions in the uptake and frequency of substance use over the next three years. Another similar example was an [educational booster programme](#) for the same ages which also included classroom management techniques.

Potentially a great advantage of early years programmes is that the benefits can extend to a range of problem behaviours. A [review](#) of studies of multi-problem preventive interventions targeted at young people spotlighted one of the few (the only one in the review) to have involved children in the first years of primary school. Interventions at this stage rather than later offered, the reviewers thought, a greater chance of successfully tackling underlying determinants of risk behaviour – an expectation with some support from the study’s findings.

Called the [Seattle Social Development Project](#), this US study enrolled schools in high-crime areas of the city. Most pupils in the study came from poor families and 40% from households with just one parent figure. Children in schools allocated to the intervention were taught by teachers specially trained in proactive classroom management, interactive teaching, and cooperative learning. First-grade teachers were also trained to develop skills in their pupils to help them engage in cooperative learning and other social activities rather than resorting to aggression or other undesirable behaviours. Parents too were targeted through voluntary parenting classes, which parents of 43% of the children attended. Also on offer were classes in helping your child do well at school and – when their children were aged about 10–12 – specifically on preventing substance use.

Followed up at age 18, 15% of youngsters in schools offered these extra inputs reported having drunk alcohol ten or more times in the past year compared to 25% in schools which offered routine levels of support. A similar but not statistically significant difference was noted in drink-driving. Other measures of substance use were not significantly affected, but there were trends indicative of wider benefits in school behaviour, educational attainment, teenage pregnancies, and delinquency. Some children only received the interventions aged 10–12; this late and less extended programme had smaller impacts.

Makes sense – but hard to prove it

Given the right approach at the right ages and enough of it, these results seem enough to at least partially justify the ‘Get them early’ commonsense assumption. Such programmes *can* make the desired differences to the prospects of children, but not always, and the evidence remains thin and inconsistent. Part of the reason is that early-years programmes can only be expected to show effects when without them the children would have grown into problem substance using adults – and selecting these families for extra support when their children are babies and toddlers is not always feasible nor a policy priority compared for example to crime. Studies extending into young adulthood are needed to distinguish ‘normal’ teenage experimentation from what is a precursor to a damaging addiction. That degree of commitment is uncommon in research funding and projects, and accreting enough instances of damaging substance use to generate a statistically significant result will often require a large sample. For these reasons, absence of evidence is not evidence of absence of impact, just that it has not been able to consistently demonstrated to scientific standards, and the few islands of positive results are all the more significant.

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HighScope’s participatory teaching approach in action. It helped cut substance use problems in adulthood.