

Binge drinking in pregnancy can affect child's mental health and school results

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Binge drinking during pregnancy can increase the risk of mental health problems (particularly hyperactivity and inattention) in children aged 11 and can have a negative effect on their school examination results, according to new research on more than 4,000 participants in the Children of the 90s study at the University of Bristol by a team of researchers from the universities of Nottingham, Bristol, Leicester, Oxford, Queensland (Australia) and Sheffield. The research is published today in the journal *European Child & Adolescent Psychiatry*.

This was the case even after a number of other lifestyle and social factors were taken into account, including the mother's own mental health, whether she smoked tobacco, used cannabis or other drugs during the [pregnancy](#), her age, her education, and how many other children she had.

This builds on earlier research on the same children that found a link between binge drinking in pregnancy and their mental health when aged four and seven, suggesting that problems can persist as a child gets older. Other effects, such as on academic performance, may only become apparent later in a child's life.

In this research, binge drinking was defined as drinking four or more units of alcohol in a day on at least one occasion during the pregnancy. The women were asked about their drinking pattern at both 18 and 32 weeks of pregnancy and again when their child was aged five.

At age 11, parents and teachers completed questionnaires (on more than 4,000 participants) about the children's mental health. Information about academic performance (on almost 7,000 participants) was based on the results of the Key Stage 2 examinations taken in the final year at primary school. These exams assess a child's ability in English, mathematics and science.

One in four mothers reported a pattern of binge drinking at least once during pregnancy and more than half of these said they had done so once or twice in the month prior to being asked. The majority who reported [binge drinking](#) when asked at 18 weeks, also reported this when asked again at 32 weeks, suggesting that the pattern might have persisted during the second and third trimesters of pregnancy although this cannot be known for sure.

To assess the impact of episodic binge pattern drinking in women who did not drink regularly during pregnancy, the analysis separated out binge pattern and regular daily drinking. After disentangling binge pattern and daily drinking in this way, episodic binge pattern drinking was associated with slightly higher levels of [hyperactivity](#) and [inattention](#) according to the teacher and with lower academic scores. On average, scores were about 1 point lower in the Key Stage 2 examinations, even after other key factors including both parents' education had been taken into account.

According to the parent questionnaires, binge pattern drinking was also associated with slightly higher levels of hyperactivity and inattention. This effect was more pronounced in girls than boys, possibly reflecting the choice of questionnaire used for the study with any possible effects being more readily demonstrable in girls as hyperactivity and inattention behaviours tend to be more common in boys.

Binge pattern drinking when the child was aged five was not associated

with negative effects on [mental health](#) and school results at age 11, suggesting that the risks of alcohol exposure are intra-uterine (they occur while the child is in the womb).

Speaking about the findings, Professor Kapil Sayal from the University of Nottingham, the report's main author, said:

'Women who are pregnant or who are planning to become pregnant should be aware of the possible risks associated with episodes of heavier drinking during pregnancy, even if this only occurs on an occasional basis.'

'The consumption of four or more drinks in a day may increase the risk for hyperactivity and inattention problems and lower academic attainment even if daily average levels of alcohol consumption during pregnancy are low.'

'The study's findings highlight the need for clear policy messages about patterns of alcohol consumption during pregnancy, whereby women who choose to drink occasionally should avoid having several drinks in a day.'

He added:

'The information was collected in 1991-1992 when attitudes towards drinking in pregnancy may have been different in the UK. As this was over 20 years ago, this may not necessarily reflect the current picture.'

More information: 'Prenatal exposure to binge pattern of alcohol consumption: mental health and learning outcomes at age 11' by Kapil Sayal, Jon Heron, Elizabeth Draper, Rosa Alati, Sarah J. Lewis, Robert Fraser, Margaret Barrow, Jean Golding, Alan Emond, George Davey Smith and Ron Gray , *European Child & Adolescent Psychiatry*, [DOI: 10.1007/s00787-014-0599-7](https://doi.org/10.1007/s00787-014-0599-7) . Thursday 11 September 2014

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