Children whose mothers smoke during pregnancy seem to have a greater risk of developing behaviour problems such as attention deficit later in their childhood. These negative effects also appear to continue into adolescence. Until recently, researchers had not really looked at whether smoking during pregnancy is related to other childhood and adolescent problems, including depression, generalized anxiety and substance abuse.

David M. Fergusson and his team wanted to know whether their mother's cigarette-smoking before they were born made children more susceptible to psychiatric problems in late adolescence. They also hoped to rule out the possibility that problems were, in fact, caused by mothers' social background, behavioural characteristics and childrearing practices, rather than the actual smoking during pregnancy.

During an 18-year longitudinal study, Fergusson and his team collected data on more than 1,000 children born in New Zealand. Looking at whether mothers smoked while they were pregnant, they assessed their children's psychiatric problems between the ages of 16 and 18. The problems they looked at included major depression, anxiety and substance use. They also checked to see whether social and family factors, such as socioeconomic status, might play a role in the development of psychiatric problems.

The researchers found that children whose mothers smoked at least a pack of cigarettes a day during pregnancy were twice as likely to have behaviour problems in late adolescence as those whose mothers didn't smoke during pregnancy. The effect was more pronounced for male than for female teenagers. This study suggests that mothers who smoke during pregnancy are increasing their child's risk of acting out during late adolescence, between the ages of 16 and 18. However, prenatal smoking does not appear to cause other problems, such as depression, generalized anxiety or substance abuse.


PRENATAL SMOKING AND PSYCHIATRIC PROBLEMS

Mothers' smoking during pregnancy has been linked to their children acting out later on, and even participating in criminal behaviour. Acting out behaviour means impulsiveness, truancy and difficulty with level of attention. This can be the case even when other possible factors, such as the child's sex, race, age, birth weight, mother's level of education, family income and parents' childrearing practices, have been eliminated.

The one study that looked at the relationship between prenatal smoking and the child committing a crime later on failed to distinguish between long-term criminal behaviour and offences that only occur during adolescence.

Patricia Brennan and her team wanted to look at the criminal behaviour of children whose mothers smoked during pregnancy. They examined more than 4,000 34-year-old Danish males whose mothers reported during their third trimester of pregnancy how many cigarettes they had smoked. They also collected other information, such as the mother's socioeconomic status, her age and complications during pregnancy and delivery.

They checked the Danish National Criminal Register to see whether the men in their study were listed, whether their criminal behaviour was ongoing or limited to adolescence, the types of offences they had committed and whether those crimes were considered violent or non-violent offences.

They found that mothers who smoked during pregnancy were more likely to end up with children who were persistent offenders rather than only being delinquent during their teenage years. When a mother smoked while pregnant and then had complications during delivery, her child seemed to be more prone to criminal violence later on. The results stayed the same even when Brennan and her team looked at whether other factors, such as socioeconomic status, might be the cause of the offending behaviour.