Prenatal Tobacco Exposure Contributes to an Array of Developmental and Behavioral Problems

By Lauren Gilmore

Numerous studies have been performed on the effects of prenatal tobacco exposure. The National Institute on Drug Abuse, or NIDA, has taken an interest in the subject matter and their researchers have contributed to the evidence that smoking during pregnancy has negative consequences on child development. A few studies have associated prenatal tobacco exposure with early smoking experimentation by preadolescents, as well as negative behavior in toddlers.

In a study carried out by Dr. Judith Brook, Dr. David Brook, and Dr. Martin Whiteman, mothers who did and mothers who did not smoke during pregnancy were interviewed about their children's behavior. The mothers who did smoke reported that their toddlers displayed more negative behaviors than the toddlers of the mothers who did not smoke. These negative behaviors included "rebelliousness," "risk-taking," and impulsiveness."

Another study performed by NIDA researchers Dr. Marie Cornelius and Dr. Nancy Day revealed that smoking during pregnancy has more of an effect on early preadolescent experimentation than when the child is raised in an environment where the mother smokes. Researchers at the University of Pittsburgh School of Medicine discovered that, aside from exposure to maternal smoking contributing to early experimentation, there is also a correlation to increased anxiety, depression, and aggressive/violent behavior.

In addition to these findings, there was a strong correlation between the mother's disciplinary style and negative behavior exhibited by the toddler. However, even when this factor was taken into consideration and controlled, prenatal exposure independently influenced the toddler's behavior. Dr. Brook believes that overall there are three major contributing factors to toddler negativity which include prenatal tobacco exposure, a physically abusive or strongly assertive...
disciplinary style, and mother-child conflict. Dr. Brook also hypothesizes that prenatal tobacco exposure disrupts the neurophysiological functioning of the fetus, which predisposes the child to later developmental difficulties. Implications have been made about future behavioral problems that could develop, such as mental illness, substance abuse, and delinquency.

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References:

(Brook, J.S.; Brook, D.W.; and Whiteman, M. The influence of maternal smoking during pregnancy on the toddler's negativity. Archives of Pediatric and adolescent medicine 154(4);381-385, 2000)