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Longitudinal study investigates cocaine's impact on adolescent development

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Teen years are filled with experimenting. Sometimes that means trying some risky behaviors.

Nearly 400 teens, half of which were prenatally exposed to cocaine, will be studied in their adolescent years. Researchers will look at the youths' choices when it comes to using drugs, having sex or engaging in delinquent behaviors, and see if there is an association with prenatal cocaine exposure. The study will also closely follow the cognitive development and mental health behavior of the young people.

Sonia Minnes, an assistant professor from the Mandel School of Applied Social Sciences at Case Western Reserve University and now the lead researcher in phase four of a long-term study of cocaine exposed children, has received a five-year, nearly $5 million grant from the National Institute on Drug Abuse (NIDA).

"This latest funding will help us to continue to tell the story of what happens in the development of prenatally cocaine-exposed children," says Minnes.

With the inception of this new study, "Prenatal Cocaine Exposure in Adolescence," Minnes and her co-investigators will follow the children through age 18.

The study began with 415 infant-mother (or caretaker) pairs recruited at the infant's birth. Over the years, the children's development has been

followed, as well as the mental health and substance abuse by the mother or caregiver. In three previous phases of NIDA funding, the researchers found that prenatal cocaine exposure negatively affects attention, language development, behavior and the ability to process visual information.

"Most people know that mothers should not use drugs during pregnancy," says Minnes. "This study over time will tell us what risks are associated with a specific prenatal drug exposure and how environmental influences shape developmental outcomes."

She adds that they have found important environmental factors such as elevated blood lead, maternal mental health and vocabulary level and the type of caregiver placement, are important to consider in evaluating prenatal cocaine exposure's effect on developmental outcome. "The study will help us understand what interventions are needed at different developmental stages in their lives."

The study has been underway since 1994, when Lynn Singer, deputy provost and professor of pediatrics in the school of medicine, questioned what happens to prenatally cocaine-exposed children as they grow older. Minnes, who worked as the project coordinator since its beginning, became the study's principal investigator in 2007.

Her recent appointment to the Mandel School of Applied Social Science, where she earned her doctorate in social work, comes at a pivotal point in the study's progress as the focus shifts towards social behavior issues traditionally studied in the realm of social work, says Minnes. She will draw from the expertise of colleagues at MSASS who can provide additional insight regarding the effects of neighborhood and family violence, parental substance use, and placement issues on the development of prenatally cocaine-exposed adolescents.

Findings from the study will provide important information to early intervention specialists and child policy experts who can then develop targeted therapeutic interventions.

Source: Case Western Reserve University (news : web)