



LYNN T. SINGER

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—MEDICINE COGNITIVE DEVELOPMENT PROBLEMS ENDURE IN COCAINE BABIES

More than one million children have been born to cocaine-using mothers since the mid-1980's. A landmark longitudinal study directed by **Lynn T. Singer, Ph.D.**, professor of pediatrics and psychiatry at the Case School of Medicine, proved that these children experience long-term cognitive deficits. While low birth weight and respiratory difficulty were readily known problems of prenatal cocaine exposure, this was the first study to document the negative effects on cognitive development in a scientifically rigorous manner.

Case researchers followed 415 cocaine-exposed infants born at MetroHealth Medical Center in Cleveland and compared their development to non-exposed infants on both cognitive and motor development until age two. The Case study is unique because it had measures of both the mothers' self report of drug use, as well as infant meconium testing which provided a physical measure of the amount of drug exposure. In addition to its large sample size (it is one of the largest in the nation) and low drop-out rate, the study also controlled environmental factors and used a newly standardized version of the Bayley Mental and Motor Scales of Infant Development—all lacking in previous studies.

According to Dr. Singer, the results allowed that maternal cocaine use affects a child's cognitive development, but not motor development, which was, however, affected by tobacco exposure. The cocaine-exposed infants had lower gestational age, birthweight, head circumference, and length than non-exposed infants—and more were pre-term. The researchers found that 14% of the exposed children had mental development index scores in the mental-retardation range at age two, double the rate of unexposed children, and five times the rate expected in the general population. Mild mental delays requiring intervention occurred in 38% of the group, almost double the rate of other high-risk, non-cocaine infants—and it is likely that these children will continue to have problems that will require special educational services. Recently, Dr. Singer and her research collaborators received funding to continue to track the children through age 12.

Rather than using the study results to punish women who use drugs, Dr. Singer notes, "We hope this will convince public policy and health providers that there needs to be a major emphasis on the provision of drug treatment, including smoking cessation, and mental health services for women who are underserved."

www.case.edu/pubaff/univcomm/2002/april/cocaine.htm