Infant birth outcomes among substance using women: Why quitting smoking is just as important as quitting harder drugs

Beth A. Bailey, PhD, Judy G. McCook, PhD, RN, Alexis L. Hodge, BSN, Andrea D. Clements, PhD, Lana U. McGrady, MA

Background: Poor birth outcomes are associated with illicit drug use during pregnancy. While prenatal cigarette exposure has similar effects, cessation of illicit drug use during pregnancy is often prioritized over cessation of smoking.

Objective: The study goal was to examine the impact of pregnancy tobacco use, relative to use of illicit drugs, on birth outcomes.

Methods: Women were recruited at entry to prenatal care, with background and substance use information collected during pregnancy. Urine drug screens were performed during pregnancy, and the final sample (n=265) was restricted to infants who also had biologic drug testing at delivery.

Results: Participants were classified by pregnancy drug use: no drugs/no cigarettes, no drugs/cigarette use, illicit drugs/no cigarettes, and illicit drugs/cigarette use. Groups differed significantly on infant birthweight, but not gestational age at delivery after control for confounders including background and medical factors. Among women who smoked, the adjusted mean birthweight gain was 163g for those not using hard illicit drugs, while marijuana use had no effect on birth weight beyond the effect of smoking cigarettes. Among women who used hard illicit drugs and did not smoke had an adjusted mean birthweight gain of 317g over smokers. Finally, women who refrained from hard illicit drugs and smoking had a birthweight gain of 352g.

Conclusions: Among substance using pregnant women, smoking cessation may have a greater impact on birthweight than eliminating illicit drug use.

Clinical/Community Implications: Intervention efforts should stress that smoking cessation is at least as important to improving pregnancy outcomes as abstaining from illicit drug use.

Oral presentation at Primary Care Research Day 2011