Alcohol and Drug Use by Adolescents whose Mothers Drank in Pregnancy

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Substance use by adolescents is a critical public health concern and currently a major focus of prevention and treatment. National surveys of High School students (e.g., Monitoring the Future, Johnston, O’Malley, & Bachman, 1999) indicate that the majority have used some addictive substance by graduation. Alcohol and cigarettes are by far the most commonly used, with 80% of 12th graders and 71% of 10th graders reporting “any use” of alcohol in 1999. Sixty five percent of 12th graders reported trying cigarettes, as do 58% of 10th graders. Other substance use (e.g., Marijuana, Cocaine, Heroin, and Amphetamines) is reported less often but still to a significant degree.

With this background, substance use by children of alcoholics and other drug users is particularly worrisome. If your parents were alcoholics you have a four times greater risk of becoming alcoholic yourself, and cigarette smoking and other drug use is highly correlated with alcohol abuse. It is not clear if the cause is a genetic propensity for addiction, learning to use by watching family members or both. There is an additional concern for individuals whose mothers drank or used drugs in pregnancy because many believe that such exposure “predisposes” the child to later abuse. There are many clinical reports in support of the idea that such children will become substance abusers themselves. For instance, Ann Streissguth and her colleagues (1996) found that alcohol and drug abuse problems are reported by 30 to 40% of prenatally exposed individuals with a diagnosis of Fetal Alcohol Syndrome (FAS) or Fetal Alcohol Effects (FAE), ages 12 to 20; for those ages 21 to 51, the rate is 30 to 70%. Approximately 60% of those with a diagnosis of FAS reported using alcohol at some time but not abusing it. For those diagnosed FAE, this figure was about 50%. Illicit drug use was
reported at similar levels. Despite clinical reports, scientific information about this issue is very rare. In a longitudinal research sample of middle class, primarily Caucasian youth, the Seattle group (Baer et al., 1998) found prenatal exposure to be more important than family history in accounting for adolescent alcohol use. The only other study of this issue was done in Atlanta in a low income, African-American population (Coles et al., 2000). Substance use by African-Americans in the Southeast is often lower than for other regional and ethnic groups and 15-year-olds in the Atlanta study of the effects of prenatal drug exposure had a lower rate of use than those in the Monitoring the Future National Sample, although almost 50% had used alcohol at some time, 29% had smoked cigarettes and 30% reported marijuana use. Cocaine and other drug use were rare. The rate of alcohol and drug use by youth with FAS was not higher than that of other adolescents in this sample. This study also examined the adolescent and parent characteristics that were associated with more alcohol and drug use and found that older teens whose mothers smoked marijuana during pregnancy and provided inadequate supervision during adolescence were more likely to drink alcohol. Older boys whose mothers used more alcohol and marijuana in pregnancy and did not provide adequate supervision were more likely to use marijuana and other drugs themselves.

Given the current state of knowledge in this area, it is not possible to conclude whether it is genetic or family environmental factors that are more important in determining whether exposed individuals will themselves become addicts; however, these studies suggest that to protect adolescents from using alcohol and other drugs, parents must be in control of their own substance use and be willing to take responsibility for supervision of their children.
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