

Teen Pregnancy and Substance Use

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Methods

A Medline search was done for French and English articles dating from 1995 to the present, using the terms “adolescent sexuality,” “pregnancy,” “substance abuse,” and “contraceptive use.” Searches were extended earlier than 1995 as needed to assure a good representation of the issue and a good methodology. Abstracts were reviewed and articles selected.

Predictors of use of tobacco, alcohol and illicit drugs in adolescents

Estimated rates of substance use among pregnant adolescents, including tobacco, alcohol, and illicit drugs, range from 11 percent to as high as 52 percent,(1) similar to the rates of use in nonpregnant female adolescents. Cigarettes and alcohol are the most common substances used.(2) Substance use is highly correlated with use by family and friends(3) and is more common in white adolescent girls than in other ethnic groups.(4) The mean age at which adolescents first try cigarettes is before their 13th birthday.(2)

In the 1998 study by Teagle and Brindis,(2) 49 percent of pregnant adolescents reported the use of at least one substance during their pregnancy, and 80 percent had experience with at least one substance in the six months prior to pregnancy. The mean age for progression of substance use follows the pattern observed in previous research,(5) beginning with cigarette smoking (mean age 12.4 years), progressing to alcohol consumption (mean age 13.8 years), to marijuana (mean age 14.3 years), and finally to other drugs (mean age 15.2 years).

Fortunately, the majority of subjects (approximately 64%) in the study by Teagle and Brindis discontinued substance use during the first trimester of pregnancy. Family and siblings were reported to be substance abusers in one-third of the group. Alcohol and tobacco use was more common in parents, whereas marijuana and other drugs were more commonly used by siblings and the father of the baby.(2)

The prevalence of smoking in adolescent girls was 20 percent,(2) comparable to most other studies.(6,7) Caucasian females have the highest prevalence of tobacco use among adolescent subgroups. Minority groups tend to use less and initiate later than white youths.(5) Adolescent girls report that they smoke to limit weight gain, to have smaller babies and an easier delivery, and to decrease their anxiety. There is a strong correlation between age at first intercourse and the level of cigarette smoking.(5) Factors associated with cigarette smoking during pregnancy were multiparity, unmarried status, alcohol use, and parental smoking.

The estimated rate of alcohol use within the teen population varies from 20 to 60 percent.(8) Most studies show a rate of approximately 20 percent during pregnancy. Alcohol use is more common within the Caucasian population.(8)

In the Teagle and Brindis study, the rate of marijuana use in the first trimester was less than the prepregnancy rate (14 and 20 percent respectively).(2) No ethnic differences were found in marijuana use. Alcohol and marijuana use was more common in unwanted pregnancies, in older adolescents, and in multiparas.(2) Unfortunately, most of this information comes from self-reported analysis and is subject to reporting bias. Pregnant adolescents worry that they will be judged by the interviewer and that their babies will be taken from them, and thus may be inaccurate in their reporting.

The Youth Risk Behavior Survey,(9) 1995 survey of American students from grades nine to twelve, demonstrated that the rates, frequency, and amounts of use of illicit substances, especially cocaine, heroin, and opiates, had fallen slightly over the preceding decade. Alcohol and marijuana use remained stable, while the use of cigarettes increased slightly.

Pregnancy as an opportunity for intervention

The prenatal care setting represents a unique opportunity for education regarding prevention of substance abuse with highest-risk adolescents, or intervention with teens already substance users, especially helping adolescents realize the consequences of substance abuse in pregnancy. Many of these pregnant teens drop out of school, thereby foregoing one of the only institutions that focuses primarily on positive intervention related to the adolescent. For these pregnant teens, the prenatal clinic may be their only opportunity to discuss behavioural change. The importance of the child the pregnant teen has chosen to carry affords a greater incentive to make positive lifetime changes during pregnancy, perhaps a greater opportunity than at any other time of her life.

Sexual abuse is a common antecedent of adolescent pregnancy, with up to 66 percent of teens reporting histories of abuse.(10) Child abuse, both physical and emotional, seems to be a risk factor for early pregnancy. This is probably related to high-risk behaviours that may lead to unplanned pregnancy, such as early onset of sexual activity, prostitution, substance abuse, and multiple partner relationships.(10) These adolescents engage in more relationships that are violent, and they have the highest rates of sexual victimization after the age of 16 years, including both sexual assault and reports of rape.(11) They may have an increased desire to conceive in order to have something positive happen to them.(11)

Gilchrist et al. (12) examined the use of drugs among adolescent mothers up to 18 months postpartum. They observed that use of all substances decreased substantially during pregnancy, but increased steadily in the 18 months after delivery. This increase in use was associated with depression, stress, and a perceived need for social support.(12) It is imperative that those who provide care for these young women are aware of both this possibility and the possible association with sexual abuse.

Screening for drug abuse and intervention strategies

Even if drug use is suspected, it is not always easy to obtain the information needed to confirm this suspicion. Horrigan et al. (13) demonstrated, in both adult and teen populations, that a psychological questionnaire on substance abuse is probably far more specific than a urine screening test. Screening tests were able to identify only 15 percent of the 57 percent who self-reported use of a substance. This may be in part because drugs are mostly detectable in urine only for a short time, approximately four days, although cannabis may be detectable for two to four weeks. Alcohol can only be detected with a blood sample. (13)

Little has been published on interventions to stop the use of substances during pregnancy. The most popular model is probably the Minnesota Model, based on the 12 steps of Alcoholics Anonymous. (14) The program relies on group support, self-help, and professional staff to help parents deal with associated drug abuse and law problems and emphasizes the importance of going back to school.

The therapeutic community is based on an adult treatment approach that views alcohol and drugs as deviant, and abuse as representative of a disorder of the whole person. (15) This approach is based on group tasks and responsibilities, including one-on-one counselling.

The third major treatment approach for teens is family therapy, where difficult family relationships are revised and families are given assistance to review the limits and responsibilities of the individuals.(16)

Finally, cognitive therapy focuses on maladaptive thoughts and behaviours.(17)

The goals of all treatment approaches are to increase stress-management behaviour, establish a drug-free environment, increase academic performance, and emphasize that drugs are not the solution to problems. To achieve these goals requires true commitment on the part of care providers. The ideal is for all teens not to use substances during pregnancy. Fortunately, most do not.

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Reproduced from: *Journal SOGC* Volume 23, number 4 April 2001, 339-341.