

Substance Use During Pregnancy in Central New York

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Learning Objectives

- Describe the screening guidelines for substance use disorders in pregnancy
- Identify the prenatal care disparities among pregnant substance users in Central New York
- Recognize the unique relationship of substance use and depression in pregnancy
- Identify the barriers in counseling during pregnancy

Introduction

According to the American College of Obstetrics and Gynecology (ACOG) - all patients should be routinely asked about their use of alcohol, nicotine, and other medications for non-medical reasons. Adverse effects associated with smoking in pregnancy include intrauterine growth restriction, placenta previa, decreased maternal thyroid function, preterm prelabor rupture of membranes, low birthweight, and perinatal mortality. Alcohol use can affect a fetus at any stage of pregnancy, and the cognitive and behavioral problems that result from prenatal alcohol exposure are lifelong. Marijuana is used by an estimated 2-5% of women. Marijuana may have harmful effects on reproduction and the effect of smoking marijuana during pregnancy may be as harmful as tobacco. During pregnancy, chronic untreated addiction to heroin is associated with lack of prenatal care, increased risk of fetal growth restriction, abruptio placentae, fetal death, preterm labor, and intrauterine passage of meconium. Infants born to women who used opioids may experience neonatal abstinence syndrome, a drug withdrawal syndrome that occurs shortly after birth and may require NICU admission. There are guidelines and screening tools, and public health efforts to decrease substance use in pregnancy, however many women in Central NY still report substance use.

Opioid use in Central NY has escalated dramatically in recent years, along with opioid use in pregnancy, paralleling the epidemic observed in the general population. This poster aims to identify the disparities in prenatal care for substance users in Central NY and recognize that the unique needs of this patient population may require modifying some elements of prenatal care.

Methods

We used the Statewide Perinatal Data System as the source for our data. This is a population-based system that is built around the Electronic Birth Certificate and collects data for quality improvement purposes. The data was de-identified and analyzed using Microsoft SPSS software. We report on women who delivered a live birth during the calendar year 2018. Illegal drug use, alcohol use, and tobacco use are used as separate fields. Substance use is either self-reported or taken from the medical record. The "No Drug Use" variable includes any woman that has a negative answer for either illegal drug use, alcohol use or tobacco use. The difference in substance use screening between health care providers in New York State varies and may be a limitation to the data. The assessment of substance use did not include quantity/frequency or problem severity, which limits generalizability.

Results

• Prenatal Care

Women who used substances in pregnancy had a greater proportion of respondents that reported they did not receive any prenatal care (6% vs 0.3% in non-substance users). Women who reported illegal drug use in pregnancy were more likely to be seen in a clinic for their prenatal care (32% vs. 16.2%). Women who report substance use in pregnancy are more likely to have Medicaid/Family Health Plus for insurance coverage compared to non-drug users (83% vs. 36%).

Women who used in pregnancy started prenatal care on average 14.5 days later than those who did not use substances (Day 92 vs. Day 78).

• Depression

Women who used drugs in pregnancy were more likely to report that they were "very depressed" or "very depressed and needed to get help" during pregnancy.

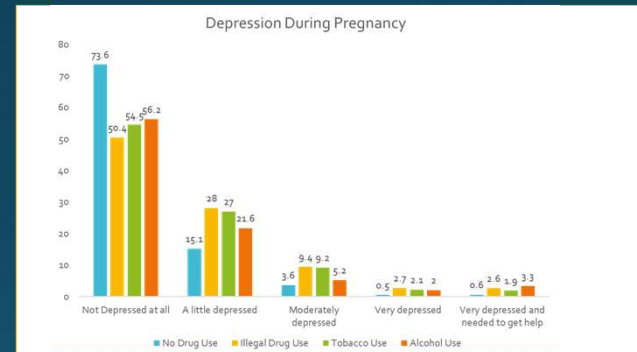


Fig 1: Depression in pregnancy by reported substance use.

• Counseling and Screening In Pregnancy

Women who used alcohol during pregnancy were more likely to report that they had not been counseled about drug and alcohol use (16%) vs. those who used illegal drugs (5%) or tobacco (7%). Women who reported substance use were more likely to be counseled about birth control (76%) than those who did not use drugs (70%).

• Maternal Medical Risk Factors and Neonatal Outcomes

57% of women who used alcohol had a medical risk factor in a previous pregnancy, vs. 43% in non-substance users. The babies of women who used drugs were more likely to require a NICU admission (15%) vs. non-substance users (8%). 39% of women who used substances had an infection in pregnancy (vs. 15% in non-drug users). More than 20% of women who used illegal drugs were diagnosed with bacterial vaginosis (BV) during their pregnancy (vs. 8% in non-drug users).

Discussion

Pregnant women who use drugs face multiple barriers to prenatal care, often drug use alone is not the reason itself. Pregnant women who use drugs are over-represented among women who receive late or no prenatal care. Reducing the number of pregnant women who use drugs and alcohol who enter later into prenatal care requires acknowledging the complexity of women's decision-making about prenatal care, and a focus on changing systems, rather than solely getting women to stop drug use.

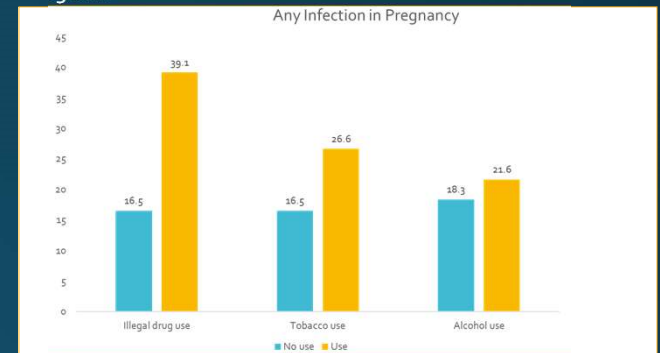


Fig 2: Infection rate in pregnancy by reported substance use

Perinatal depression is one of the most common complications of pregnancy and affects one in every seven women. Suicide is one of the leading causes of perinatal mortality. Depression and substance use are interrelated. Screening for depression in the prenatal period may vary by provider in CNY. A unified system must be in place to ensure consistent screening with appropriate assessment tools and interventions. Our findings represent that not all women in CNY, even those who report no drug use, are being counseled about high risk behaviors in pregnancy.

Our data shows that rates of STIs and BV are higher in those who use drugs and alcohol in pregnancy. STIs and BV infection during pregnancy are associated with preterm birth and preterm labor due to chorioamnionitis. Screening and treatment for asymptomatic BV remains controversial. There is limited research on infections in pregnancy and drug use, and our data suggests this could be an area for additional investigation.

References

- Prepregnancy counseling. Committee Opinion No. 762. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2019; 133:e78-89.
- Tobacco use and women's health. Committee Opinion No. 711. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2011; 118:746-50.
- Carson G, Cox LV, Crane J, Crouteau P, Graves L, Kluka S, et al. Alcohol use and pregnancy consensus clinical guidelines. *Society of Obstetricians and Gynaecologists of Canada. J Obstet Gynaecol Can* 2010; 32:51-53.
- Marijuana use during pregnancy and lactation. Committee Opinion No. 722. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2017; 130:e205-9.