RISK FACTORS FOR SEXUALLY TRANSMITTED INFECTIONS DURING PREGNANCY: FINDINGS IN A RURAL APPALACHIAN POPULATION

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BACKGROUND

Worldwide, over one million people acquire some type of STI every day (W.H.O. 2013).

Current data from the CDC show that over the course of the lifetime, nearly 50% of people will have an STI (CDC 2012).

The most common STI’s are curable and include chlamydia, gonorrhea, syphilis and trichomoniasis.

STI’s from incurable viral infections include genital herpes, HPV, Hepatitis B and HIV.
LONG TERM HEALTH RISK

Mother-to-child transmission of infections often result in the stillbirth or congenital malformation. (W.H.O. 2013).

It is estimated that undiagnosed STI’s cause 24,000 women to become infertile each year (CDC 2013).

STI infections rank among the top 5 disease categories for which adults seek care (W.H.O. 2013).

In the Southern United States, specifically Tennessee, North and South Carolina, Georgia, Alabama, Mississippi, and Louisiana, the rates of STI are significantly higher than elsewhere in the country (CDC 2012).
RATES OF CHLAMYDIA

Rate per 100,000 people

Source: CDC

CDC 2012
RATES OF HIV

Data source: National HIV Surveillance System. Rates are not adjusted for reporting delays. Inset maps not to scale.

Overall total rate = 417.5
RISK FACTORS

Mental health problems

Unprotected sex

Substance use

Alcohol abuse/dependence

Marijuana and usage of other drugs

Marital Status

Compromises the success of risk reduction counseling.
MARIJUANA USE

Marijuana Use in the Past Year, Ages 12 and Up

Percentage of Persons
- 11.92-16.12
- 10.62-11.91
- 9.71-10.61
- 8.67-9.70
- 7.17-8.66
DEPRESSION RATES

Behavioral Risk Factor Surveillance System, United States, 2008
RISK FACTORS IN A PREGNANT POPULATION

In Utero: Stillbirth, pre-term birth, and miscarriage

For infants: blindness, deafness, and intellectual disability that can be permanent, including brain damage
**HYPOTHESIS**

Pregnant women with a history of STI would, similar to non-pregnant women, be more likely to have other risk factors and be more likely to engage in risky health behaviors, even after control for socioeconomic factors.

Examine the relative risk of each pregnancy risk factor for women with STIs in an attempt to determine which risks are most predictive of STIs.
METHODS

Pregnant women from six prenatal practices in a rural region of Southern Appalachia were recruited over a five year period for participation in a pregnancy lifestyles study.

The sample for this report contained all women (n=1063) who consented to participate.

Demographic variables available from the research interview included maternal age, years of education, number of children, and marital status (coded as married or unmarried).

Risk factors and lifestyle/social factors were also addressed.
DEMOGRAPHICS

Of these women, the mean age was 25. Less than half (446 or 41.6%) of the women were married while 713 (68%) had not planned their pregnancy.

STI’s were quite frequent amongst the population as 279 (26.2%) women reported or received treatment for an STI.

Marijuana use during or in the 12 months prior to pregnancy was reported in 323 cases (30.4%) while alcohol use was reported in 253 cases (23.8%).

A history of mental health issues was reported in 363 (34.1%) women.

The majority of women were at least high school educated (68%). Less than half the women (45.3%) received adequate prenatal care.
RESULTS

Roughly 33% of unmarried women have a history of STI compared to 16% of married women.

There is a significant relationship, indicating that marital status is a factor in STI history.

Other background variables such as education, income, number of children, and number of pregnancies were not shown to be significant at the .05 levels.
RESULTS

Roughly 33% of marijuana users have a history of STI compared to 23.5% that did not use marijuana during the time of their pregnancy.

Alcohol use during pregnancy is also significant pertaining to STI. The Chi-Square statistic (17.556) is significant at the .01 level.

There were 36.4% of women who used alcohol and have a history of STI compared to 23.1% that did not use alcohol.
ODDS RATIOS

The calculated odds ratios show that marital status is the strongest predictor of STI, followed by alcohol and marijuana usage in pregnancy and mental health diagnosis.

Those women who were unmarried were over 2.5 times as likely to have an STI and those who drank alcohol were 2.0 times as likely to have a history of STI. Marijuana usage or a diagnosis for any mental health issue put the woman at about 1.5 times the risk of having an STI.
DISCUSSION

Marital status, high risk behaviors, a history of any mental health diagnosis increases STI risk.

Since so many pregnancies are unplanned, preventing STI’s in the highest risk groups and finding a way to quickly identify STI status once a woman has become pregnant, is of vital importance.

This study was conducted amongst pregnant women of lower socioeconomic status in an Appalachian region and is not nationally representative.