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Counseling Pregnant Women on Marijuana Use

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COUNSELING PREGNANT WOMEN ON MARIJUANA USE

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Center for Family Medicine at Eastern Maine Medical Center – Bangor, ME
December 2016 – January 2017
Preceptors: Dr. Eric Brown, MD & Dr. Sarah Irving, MD, FAAFP
Marijuana Use in Pregnant Women

- Marijuana is the most commonly used recreational substance in the United States, despite retaining classification as a Schedule I drug. On average, 7.73 percent of people aged 12 or older reported using marijuana in the past month on the National Survey on Drug Use and Health.

- In the Penquis district of Maine, which includes Penobscot and Piscataquis Counties, the average was significantly higher with an estimated 13.25 percent of people aged 12 or older using in the past month.

- Among pregnant women nationwide, 3.9 percent had used marijuana in the past month, and more than 10 percent of pregnant women had used marijuana in the past 12 months.
Effects of Marijuana Use During Pregnancy

- Current research shows variable effects of marijuana on the developing fetus, including:
  - increased rates of NICU admissions
  - low birth weight
  - preterm labor
- In the postnatal period neonates display irritability, increased hand to mouth behavior, and disrupted sleep patterns – most of which resolve by 1 month of age.
- Long term studies have indicated links to:
  - Inattention
  - Hyperactivity
  - Impulsivity
  - Self declared depression and anxiety
  - Early onset of marijuana use
Counseling of Pregnant Women on Marijuana

Current American College of Obstetricians and Gynecologists (ACOG) recommendations include:

- screening for marijuana use in pregnant women
- counseling of women on the potential adverse health consequences
- encouragement to discontinue use during pregnancy
- discouragement of use during lactation and breastfeeding.

Studies focused on provider counseling indicates that marijuana use is deprioritized or overlooked compared to other drug use.

When counseling occurs, it is largely limited to issues of legality.

In spite of its Class I Drug categorization, there is a common perception that marijuana is relatively benign. However, qualitative studies have shown that pregnant women want more information about marijuana use and its effects during pregnancy.
Public Health Cost and Community Considerations

- Marijuana use in Penobscot and Piscataquis Counties is well over the national average, with lower perceived risk associated with marijuana use.
- Marijuana has been legalized in Maine, which will go into effect at the end of January 2017. This may further impact both use and risk perception.
- Associated risk of preterm labor, restricted intrauterine growth and increased NICU utilization leads to higher healthcare costs.
- Long term behavioral and developmental effects can lead to increased costs associated with specialized education, behavioral therapy, and other additional support services.
Intervention and Methodology

- Survey of EMMC providers about their beliefs and practices surrounding marijuana use in pregnant women
  - *Survey was created based on analysis of current research and relevant issues*
  - *Conducted confidentially using SurveyMonkey and distributed by email to providers*
    - 29 Resident Physicians
    - 12 Faculty Physicians
    - 3 Nurse Practitioners
    - 2 Behavioral Health
    - 4 Osteopathic Fellows
  - *Responses aggregated and analyzed for trends*

- Created information sheet for providers regarding marijuana use during pregnancy based on current research, survey responses and concerns elicited during interviews
Survey Results

- Response rate was 44%
- 64% indicated that “Many” or “Almost All” their pregnant patients use marijuana
- 75% of respondents reported “Usually” or “Always” counseling pregnant patients on marijuana use, compared to 95% regarding drug use and 100% regarding smoking cessation
- 24% indicated that they had been trained to counsel pregnant patients regarding marijuana use, compared to 81% regarding tobacco use
- 63% of providers ranked marijuana counseling as of lowest priority between alcohol, cocaine, heroin/opioids, marijuana and tobacco, with the remaining 37% ranking it second to last.
- The greatest barriers identified to discussing marijuana use with pregnant patients were patient perception of marijuana and lack of time
- 75% of providers perceived moderate or great risk associated with regular marijuana use during pregnancy
- 70% felt that the legalization of recreational marijuana in Maine will increase the percentage of pregnant patients who use marijuana
“[Marijuana use] is very common in our pregnant patient population, as substance use in general is high”

“There is a perception of zero consequence associated with marijuana use – [patients] figure that it would be legal if there were risks”

“Effective counseling requires good rapport and development of trust”

Patients respond to the idea that “any insult to [their] body is an insult to [the baby’s] brain,” want to give their baby “the best shot at doing well in life”
“Patients are not well informed around the impact [of marijuana use during pregnancy], and are skeptical of the information they receive”

“[Providers] don’t stress the impact of marijuana use enough – patients want what’s best for their babies, but they don’t get the message that using marijuana has risks”

“The resources available for patients around marijuana use often feel ‘propaganda-y,’ using scare tactics without great information”

“The best approach [for counseling] is a nonjudgmental conversation about the effects of everything on fetal growth – stress management, diet – drugs are a part of the whole picture”

“We have to keep coming back to the issue – talking about marijuana use once and dropping it doesn’t work – we have to keep reinforcing the ideas”
Evaluation of Effectiveness & Limitations

- According to survey, providers generally indicated that they were providing counseling about marijuana use during pregnancy
- Did not evaluate effectiveness of this counseling
- Identified a clear mismatch in provider and patient perception of risk associated with marijuana use during pregnancy
- Identified a lack of awareness about available resources for patient education
- Short time frame and limited EMR access made it difficult to fully assess current practices
- No direct effect on patient perception or education
Recommendations for Future Interventions

- Follow up survey post-legalization to evaluate for changes in provider practices
- Survey patient population to evaluate patient practices and understanding
- Modify EMR to facilitate screening and counseling for pregnant patients
- Screen all pregnant patients for marijuana use in accordance with ACOG recommendations
- Provide counseling about associated risks to patients
- Further research into effects of marijuana use during pregnancy is warranted
- Clear identification of pregnancy-specific risks of marijuana use, as is common with legal substances (alcohol, tobacco, foods, prescription drugs)
Interview Consent Forms

- Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview. Yes ___X___ / No _____

- If not consenting as above: please add the interviewee names here for the department of Family Medicine information only.

  - Name: __Patrick McFarlane________________________________________
  - Name: __Paula Codrington________________________________________
References


Marijuana Use during Pregnancy - Information for Providers

Demographics
Nationwide, 4% of pregnant women have used marijuana in the past month (7.5% ages 18-25). 2.3 times more likely to use marijuana if also use tobacco or other drugs.
Penobscot County has one of the highest rates of marijuana use in the country.
Common perceptions of marijuana as physiologically benign.

Gap in Care
Qualitative studies have shown that pregnant women seek information about marijuana use.
Patient and provider perceived risk of regular marijuana use during pregnancy is incongruent.
Maine info brochures are vague and use frightening language.
Patients are unaware or skeptical of risks associated with marijuana use during pregnancy.
Other drug use prioritized and marijuana frequency missed.

Exposure
THC is lipophylic, crosses BBB and maternal-placental barrier.
Concentrates in fetus and breast milk with repeated use.

Risks of use

<table>
<thead>
<tr>
<th>Neonatal effects</th>
<th>Infant effects</th>
<th>Childhood effects</th>
<th>Epigenetic/Multigenerational effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.7x more likely to have low birth weight</td>
<td>Mild withdrawal effects, resolve by 1 month</td>
<td>Higher incidence of ADHD and decreased symptoms</td>
<td>Immune suppression</td>
</tr>
<tr>
<td>2x more likely NICU admission</td>
<td>No clear structural brain changes</td>
<td>Decreased verbal reasoning performance</td>
<td>Earlier initiation of marijuana use</td>
</tr>
<tr>
<td>No increase in neonatal mortality</td>
<td>Continued use associated with higher SIDS frequency</td>
<td>MRI shows altered executive function</td>
<td>mRNA changes in DA, 5-HT, and cannabinoid receptor expression</td>
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Steps for Providers
- Veylorally screen all pregnant patients for marijuana use.
- Assess patient understanding of risk.
- Identify underlying reason for use i.e. stress, hypersomnia, pain.
- Assess desire to discontinue use.
- Recommend against marijuana use during pregnancy or breastfeeding.
- Continue to address drug use throughout pregnancy at all visits.

Resources for Patients
- Information sheet for patients in FP education resources on EMMC Intranet
- State of Maine DHHS.
  www.maine.gov/dhhs/aah/observs
- Bangor Area Recovery Network.
  www.bangorrecovry.org
  www.americanpregnancy.org

References

1-19-2017