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Recommended Citation
Flanagan, Theresa B., "Counseling Pregnant Women on Marijuana Use" (2017). *Family Medicine Clerkship Student Projects*. 226.
http://scholarworks.uvm.edu/fmclerk/226

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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

Provider Perspective: Patrick McFarlane, PMHNP

Center for Family Medicine at Eastern Maine Medical Center, Bangor, ME

- "[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"

Provider Perspective: Paula Codrington, LCSW

Center for Family Medicine at Eastern Maine Medical Center, Bangor, ME

- "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

- Brown QL, Sarvet AL, Shmulewitz D, Martins SS, Wall MM, Hasin DS. Trends in Marijuana Use Among Pregnant and Nonpregnant Reproductive-Aged Women, 2002-2014. *JAMA.* Published online December 19, 2016. doi:10.1001/jama.2016.17383
- Hughes, A., Lipari, R.N., and Williams, M.R. *Marijuana use and perceived risk of harm from marijuana use varies within and across states*. The CBHSQ Report: July 26, 2016. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Rockville, MD.
- Volkow ND, Compton WM, Wargo EM. The Risks of Marijuana Use During Pregnancy. *JAMA.* Published online December 19, 2016. doi:10.1001/jama.2016.18612
- American College of Obstetricians and Gynecologists (ACOG). Committee Opinion 637: marijuana use during pregnancy and lactation. ACOG website. http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Marijuana-Use-During-Pregnancy-and-Lactation. July 2015. Accessed January 2 2017.
- Jaques SC, Kingsbury A, Henshcke P, et al. : Cannabis, the pregnant woman and her child: weeding out the myths. *J Perinatol.* 2014;34(6):417–424. 10.1038/jp.2013.180
- Metz, Torri D. et al. Marijuana use in pregnancy and lactation: a review of the evidence. American Journal of Obstetrics & Gynecology , Volume 213 , Issue 6 , 761 - 778

Appendix

Information sheet created for providers at Center for Family Medicine at Eastern Maine Medical Center – Bangor, ME

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 perception 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 frequently missed

Exposure

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

Risks of use

Neonatal effects	Infant effects	Childhood effects	Epigenetic/Multigenerational effects
1.7x more likely to have low birth weight	Mild withdrawal effects, resolve by 1 month	Higher incidence of ADHD and depressive symptoms	Immune suppression
2x more likely NICU admission	No clear structural brain changes	Decreased verbal reasoning performance	Earlier initiation of marijuana use
No increase in neonatal mortality	Continued use associated with higher SIDS frequency	fMRI shows altered executive function	mRNA changes in DA, 5-HT, and cannabinoid receptor expression

Steps for Providers

- Verbally screen all pregnant patients for marijuana use
- Assess patient understanding of risk
- Identify underlying reason for use i.e. stress, hyperemesis, 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/samh/osa/
- Bangor Area Recovery Network www.bangorrecovery.org
- American Pregnancy Association www.americanpregnancy.org

References

Hughes, A., Lipari, R.N., and Williams, M.R. *Marijuana use and perceived risk of harm from marijuana use varies within and across states*. The CBHSQ Report: July 26, 2016. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Rockville, MD

Jaques SC, Kingsbury A, Henshoke P, et al. : Cannabis, the pregnant woman and her child: weeding out the myths. *J Perinatol*. 2014;34(6):417-424. 10.1038/jp.2013.180

Metz, Torri D. et al. Marijuana use in pregnancy and lactation: a review of the evidence. American Journal of Obstetrics & Gynecology , Volume 213 , Issue 6 , 761 - 778

1-19-2017