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Marijuana Use Counseling During Pregnancy

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Marijuana Use Counseling During Pregnancy

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Problem Identification

- Approximately 7.5% of women age 18-25 use marijuana during pregnancy
  - 4% overall, currently increasing (Brown, 2016)
- Marijuana use during pregnancy liked with adverse outcomes in neonatal, childhood and young adult periods (Volkow, 2016).
- Currently major focus on opiate, tobacco, and alcohol counseling
  - Relatively little attention paid to marijuana by comparison (Holland, 2016)
- Patients want information, are overall unsatisfied with marijuana counseling
  - Turn to friends, family, internet, and social media for information (Jarlenski, 2015)

Public Health Cost in Host Community

- Marijuana use during pregnancy leads to increased chance of NICU admission (Gunn, 2016)
- Total cost of treating ADHD due to marijuana use during pregnancy (including medication, therapy, and education costs) not well studied or quantified
- Penobscott county, and the surrounding Penquis region, has among the highest rates of marijuana use in the nation and Maine has among the lowest rates of viewing marijuana as harmful (Hughes, 2016)
- In 2016 Maine voted to legalize recreational use of marijuana

Community Perspective

- The general public frequently views marijuana as benign
  - *"It has just been made legal, which many see as a mark of safety, and people don't draw the parallel with alcohol being legal and also harmful during pregnancy."*[1]
- The providers do not feel comfortable with the extent of and their familiarity with the research
  - *"A glass of wine versus smoking a joint during pregnancy? I really don't know how to compare them, I don't think anyone does."*[2]
- General belief that most patients who are using marijuana during pregnancy are resistant to stopping, even if informed of the risks of use
  - *"What resonates the most with people is the neurodevelopmental impact, but even then few people quit"*[1]

1. Nurse Practitioner at CFM EMMC
2. Faculty Physician at CFM EMMC

Methodology and Intervention

- Survey sent out to EMMC CFM providers via SurveyMonkey
  - 29 resident physicians
  - 12 faculty physicians
  - 3 nurse practitioners
  - 2 behavioral health specialists
  - 4 osteopathic fellows
- Assessed knowledge base, counseling practices, and overall views of marijuana use during pregnancy
- Based on the data in the survey and a review of the literature, created an information sheet for use by the EMMC CFM providers as a guide for marijuana use counseling[3]
  - Existing information sheet for patients not specific enough for use by clinicians

3. See appendix

Data and Results

- 22 of 50 responses to survey
- 24% were trained to counsel pregnant patients on marijuana use versus 81% on tobacco cessation
  - Lower rates of marijuana counseling than tobacco or other drug use
- 64% indicated that “Many” or “Almost All” of their pregnant patients use marijuana
- 2/3 of providers ranked the priority of marijuana counseling lower than alcohol, cocaine, opioid, and tobacco counseling
  - The remaining 1/3 ranked it second to last
- Patient perception of marijuana listed as largest barrier to counseling
  - 58% also stated marijuana as a lower priority than other medical issues

Effectiveness Measures and Limitations

Effectiveness

- Immediate measure of effectiveness would be provider frequency and accuracy of counseling
- Long term measures of effectiveness
  - Public view of marijuana in Penobscot County
  - Rate of marijuana use during pregnancy
  - Rate of marijuana cessation during pregnancy

Limitations

- Provider level intervention
  - Does little to directly change public perception of safety of marijuana
  - Requires provider use of information sheet and behavior change
- Growing culture of acceptance of marijuana as evidenced by legalization
  - Research about congenital effects of marijuana still new and limited

Future Projects or Interventions

- Patient level data collection
  - Survey pregnant patients directly on marijuana use and views on marijuana
- Patient level intervention
  - Currently questions asked regarding tobacco use, depression, and domestic violence as pregnant patients are being roomed
    - Can extend questions to include marijuana use
  - Protocolized marijuana counseling as part of Subutex induction in pregnancy
- Community level program
  - Greater statewide informational resources for patients
  - General warning regarding risks for pregnant women purchasing marijuana as is posted for alcohol and tobacco

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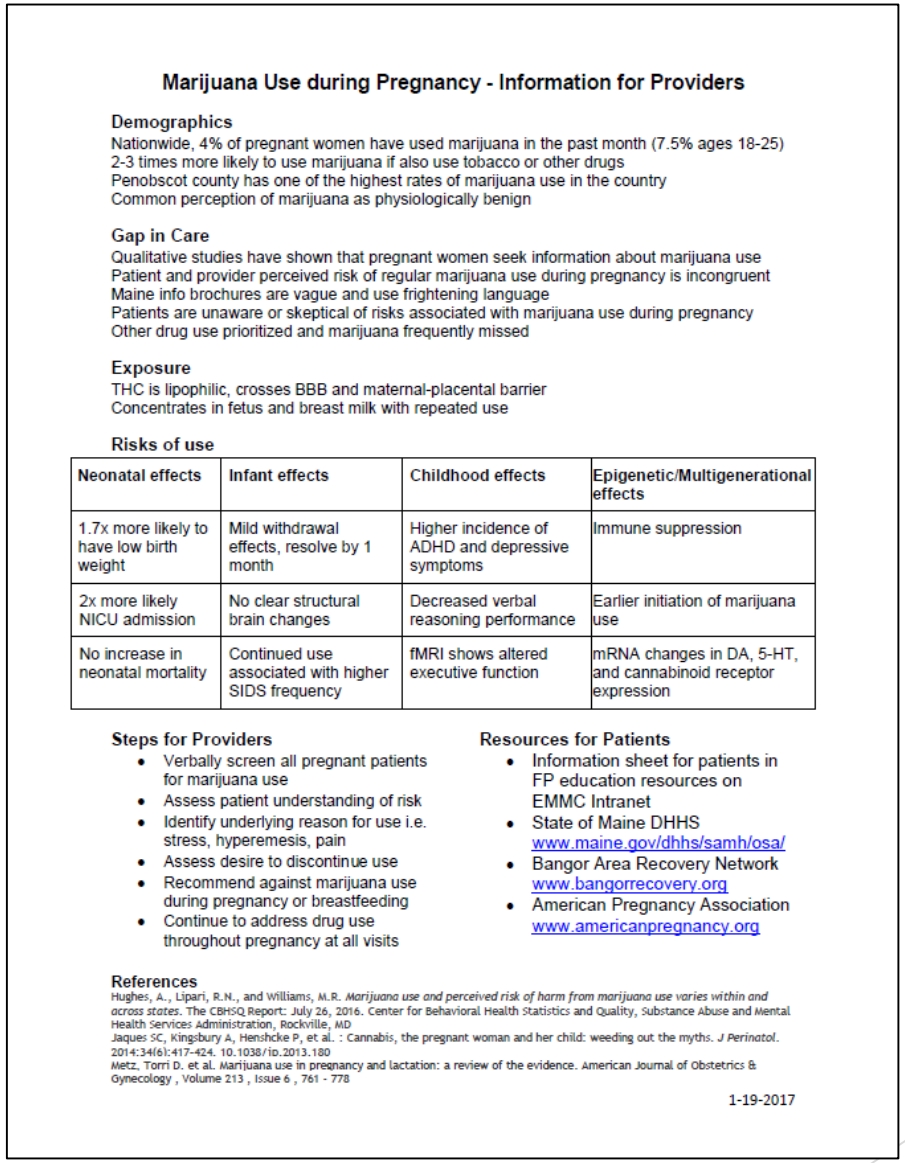
Appendix

Information Sheet For Providers at CFM EMMC



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

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