Weeding Through the Issues of Marijuana Legalization

Keri Hanson, MSW, LSW
OBJECTIVES

• Explain the background of marijuana; cultural, legal and pharmacological
• Identify perinatal issues created by the recreational legalization of marijuana at the state level
• Identify potential ethical issues related to screening and testing practices.
• Explore role of health care professional/institution
PLEASE!

• Suspend own narrative, biases....
• Approach this time not as a conversation regarding opinions, but a professional dialogue about our patients
• Bring your curiosity and open mindedness
MARIJUANA

MARIJUANA

• Crude drug derived from Cannabis plants
• Most widely cultivated & consumed drug in the world
• Cultivated indoors and outdoors with varying potency and concentrations
• Psychoactive chemical: delta 9 tetrahydrocannabinol (THC)
• Upward trend in mean THC content

Source: University of Mississippi, National Center for Natural Products Research, Potency Monitoring Project Quarterly Report 115 (December 2011)
THC

- THC similar to endogenous cannabinoids, acts through cannabinoid receptors
  - Neurotransmitters
  - Stimulates dopamine release
  - Influences pleasure, memory, thinking, concentration, movement, coordination, sensory and time perception

Milin, R, 2014
HISTORY

• Earliest recorded use 3rd millennium BC
• Cannabis regulation began as early as 1619
• Prohibition began in 1920’s, mid-1930’s regulated in every state
HISTORY

- 1936 - Antimarijuana propaganda film
- 1937 - Marijuana Tax Act of 1937
- 1970 - Controlled Substances Act
- 1970s → current day

States’ efforts to decriminalize:
States’ efforts to legalize:
  - Medical use
  - Recreational use
MEDICAL MARIJUANA

• First state to legalize: California, 1996
• Currently legal in 23 states and DC
• Legalized in CO in 2010 – Amendment 20
  – Providers cannot prescribe, but instead ‘recommend’ their patient to the state for a medical marijuana card (Red card)
  – Red cards don’t protect from civil prosecution
RECREATIONAL MARIJUANA

• Legal in CO, OR, WA, AK, and DC
• Who will legalize next? MA, NV, CA, NY, VT, MN, CT, MD, RI, ME, DE
• Legalized in CO in 2014: Amendment 64
  – Licensing of agencies
  – Colorado residents over 21
  – Non-residents over 21
CA Proposition 64

Arguments in support:
- Generate tax revenue, decrease in law enforcement costs.
- Revenue to fund after school programs, drug prevention, police training, environmental clean up, community reinvestment fund, medical MJ research
- Favors small scale producers
- Legalizes Hemp industry

Arguments Against:
- Concern re: voting on legalization and business model at the same time  *Did not pass in OH
- Cultural concerns re: promotion of MJ and impact on youth (?television advertising)
COLORADO
EDIBLES
DRUG SCHEDULING

• Controlled Substances Act (Nixon, 1970) prescribes US drug policy
• Allowed for creation of 5 drug classifications or schedules
• Allowed for the DEA and the FDA to determine drugs to be added and removed
• Congress has previously scheduled other drugs via legislation
### DRUG SCHEDULING

<table>
<thead>
<tr>
<th>DEA SCHEDULE</th>
<th>ABUSE POTENTIAL</th>
<th>EXAMPLES OF DRUGS COVERED</th>
<th>SOME OF THE EFFECTS</th>
<th>MEDICAL USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Highest</td>
<td>Heroin, Marijuana, LSD, designer drugs</td>
<td>Unpredictable, severe psych/physical dependence or death</td>
<td>No accepted use, some legal for limited research</td>
</tr>
<tr>
<td>II</td>
<td>High</td>
<td>Morphine, Cocaine, Demerol Methadone</td>
<td>May lead to severe psych/physical dependence</td>
<td>Accepted use w/ restrictions</td>
</tr>
<tr>
<td>III</td>
<td>Medium</td>
<td>Anabolic steroids, some Amphetamines</td>
<td>May lead to moderate-low physical, high psych dependence</td>
<td>Accepted use</td>
</tr>
<tr>
<td>IV</td>
<td>Low</td>
<td>Darvon, Phenobarbital, Diazepam, Ambien</td>
<td>May lead to limited physical and psych dependence</td>
<td>Accepted use</td>
</tr>
<tr>
<td>V</td>
<td>Lowest</td>
<td>OTC or prescription, compounds with Codeine, Robitussin, Lomotil</td>
<td>Lead to limited physical or psychological dependence</td>
<td>Accepted use <a href="http://www.druglibrary.org">www.druglibrary.org</a></td>
</tr>
</tbody>
</table>
LEGAL RATIONALE

• Marijuana **MAY BE** legal in states if grown, sold, used and taxed within the state **WITHOUT** using federal resources or means of commerce

• Federal Department of Justice, 2014
  - Marijuana is a dangerous drug that remains illegal under federal law
  - Federal government has ‘bigger fish to fry’ – will not pursue legal challenges against jurisdictions that authorize marijuana
  - State and local governments should maintain strict regulatory and enforcement controls

Sturm College of Law, Denver University Marijuana Summit, 4/20/16
WHAT DOES IT ALL MEAN?

- Marijuana: Schedule 1, illegal under federal law
- Federal law trumps state law
- Despite federal law, states have legislated to decriminalize & legalize medical & recreational
- Contradiction between federal & state law has raised legal and ethical questions for many professions: Banking, legal, health care, behavioral health & human services....
CHILD PROTECTION

• Mandatory reporting
  – 2003: Keeping Children and Families Safe Act
    • Substance AFFECTED newborns
  – 2010: Act was re-authorized and expanded
    • Substance EXPOSED newborns
    • Newborns who test + for Schedule I or non-prescribed substances of abuse

• Women are criminally protected by state, but no protection from child abuse/dependency and neglect prosecution in civil court

Colorado State Methamphetamine Task Force, 2012
USE DURING PREGNANCY AND BREASTFEEDING

• Most commonly used drug during pregnancy
  – Self reported use: 2-5%
  – Use increases to 15-28% among young, urban, socioeconomically disadvantaged
  – 48-60% of marijuana users will continue use during pregnancy

• No known studies regarding rate of use in breastfeeding women

ACOG, 2015
CANNIBUS EXPOSURE IN PREGNANCY

• Endocannabinoid system plays role in fetal brain maturation
  – Higher number of receptors
  – Role of endocannabinoid system in several developmental events

• Cannabis may disrupt developing fetal neurotransmitter systems
MATERNAL TRANSFER TO INFANT

- Readily crosses the placenta
- Fat soluble
- Stored in brain and organs
- Transferred to milk in moderate amounts
- One Study (milk/plasma ratios):

<table>
<thead>
<tr>
<th></th>
<th>Mom A</th>
<th>Mom B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Use</td>
<td>Smoked 1x/day</td>
<td>Smoked 7x/day</td>
</tr>
<tr>
<td>Effect on Breast Milk</td>
<td>THC barely detectable</td>
<td>THC level 8x that of MOC’s blood level</td>
</tr>
<tr>
<td>Infant’s Drug Test</td>
<td>NEG Urine test</td>
<td>+ stool sample</td>
</tr>
</tbody>
</table>
## THE EVIDENCE

<table>
<thead>
<tr>
<th>Substantial Evidence</th>
<th>Moderate Evidence</th>
<th>Limited Evidence</th>
<th>Insufficient Evidence</th>
<th>Mixed Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decreased Growth</td>
<td>Stillbirth</td>
<td>s/s of Psychosis in Adolescence</td>
<td>Preterm Delivery</td>
<td></td>
</tr>
<tr>
<td>Decreased IQ Scores in Young Children</td>
<td>SIDS (evidence of no association)</td>
<td>Initiation of Adolescent Use</td>
<td>Low Birth Weight, SGA, Decreased Birth Weight</td>
<td></td>
</tr>
<tr>
<td>Decreased Cognitive Function</td>
<td>Increase s/s of Depression</td>
<td></td>
<td>Newborn Behavior Issues</td>
<td></td>
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<tr>
<td>Attentional Problems</td>
<td>Delinquent Behavior</td>
<td></td>
<td>Birth Defects (NTD/gastroschisis)</td>
<td></td>
</tr>
<tr>
<td>Isolated Simple Ventricular Septal Defects</td>
<td></td>
<td></td>
<td>Frequency of Use - Adolescence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breastfeeding and SIDS</td>
<td></td>
<td>Breastfeeding and Motor Development</td>
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</tr>
</tbody>
</table>
BREASTFEEDING CONCERNS

• Sedation
• Poor growth
• Reduced muscle tone
• Poor sucking
• Delayed motor and neuro-development

Liston J, 1998
What Does Dr. Hale Say?

Dr. Hale & Dr. Baker have designed study to be carried out in Denver: Anonymous, will obtain “kit” from dispensary w/ specific type of Marijuana, in specific amounts, to be smoked on a schedule, blood and milk samples will be analyzed (www.infantrisk.com)

What did Dr. Hale say while in Denver:
• Stated many times does NOT like Marijuana
• Doubts will be in milk in large amounts, will “fill in” a person’s fat stores first (volume distribution)
• When smoked, peaks in blood at 30-60 mins, little left after 3-4 hours.
• Old study from 1982 is “JUNK”

Dr. Hale’s Suggestions:
• If + THC test @ birth, strongly advise against further use while b. feeding
• Advise that use MIGHT lower infant’s IQ
• Advise will probably lower her milk supply
• **BUT absolutely allow breastfeeding
• Advised against breast feeding if multiple drugs are being used
• Recommended that infant’s be tested at 1 month for cannabis
PUBLIC HEALTH STATEMENTS

• There is no known safe amount of marijuana during pregnancy
• THC can pass from mother to the unborn child through the placenta
• The unborn child is exposed to THC used by the mother
• Maternal use during pregnancy is associated with negative effects in exposed children that may not appear until adolescence
• There are negative effects use during pregnancy regardless of when used during pregnancy

CDPHE, Retail Marijuana Public Health Advisory Committee, 2014
GAPS IN RESEARCH

- Reasons for use during pregnancy, breastfeeding
- Effects of edibles, vaping
- Effect on miscarriage
- Effects on developing fetus
- THC levels in breast milk
- Effects on newborn via breast milk exposure

CDPHE, Retail Marijuana Public Health Advisory Committee, 2014
This is where it gets a little messy!

Ethical and moral considerations
PERINATAL ISSUES

- Uninformed public and professionals
- No SOC for healthcare community
  - Screening
  - Prenatal testing, retesting
  - Testing of Newborn
  - Breastfeeding
  - Breast milk in NICU
  - Education
  - Reporting
- Polarization
ETHICAL CONCERNS

• FIDELITY: Provider/patient relationships (ACOG Comm. Opin, 473, 2011)
• SOCIAL JUSTICE: Discriminatory testing (Landmark study- Chasnoff, 1990)
• RESOURCE UTILIZATION: Mandatory reporting to overloaded CPS system (AZ Division of ES, Children, Youth and Families, 2008)
• ROLE TRANSITION/ATTACHMENT: Negative psychosocial impact from humiliating, punitive, or legal intervention (AZ Division of ES, Children, Youth and Families, 2008)
• BREAST MILK: Risk of THC in breast milk vs benefits of human breast milk (Kaiser Neonatology Journal Club Statement, 2014)
• CYCLE OF POVERTY ...
FINDING COMMON GROUND

• Who are the stake holders and interested parties and who is not represented?
• How is their perspective unique, and what is their experience?
• What could be agreed on concretely?
  – A moral obligation exists for a woman to protect her developing baby
  – Our ideal role is to play a part in reducing harm to mom, baby and family, focusing on education
  – Commitment to use of existing evidence
INTERESTED PARTIES

• Maternal care team: OB, RN, MFM, lactation, CNM, resident (family practice vs OB)
• Newborn care team: Peds, RN, neonatology, NICU RN
• Community services: Child protective services, early intervention services, guardian’s ad litem
• The patient: Some well informed, some very ill informed
SOLUTIONS, RESOURCES

- State
  - CDPHE
  - Literature reviews
  - Focus groups
  - Public/patient/provider education
Retail Marijuana Public Health Advisory Committee

Duties:

- Review the scientific literature currently available on health effects of marijuana use.
- Judge and openly discuss the science using expert medical opinion.
- Come to consensus on population health effects of marijuana use based on current science.
- Come to consensus on translation of the science into public health messages.
- Recommend public health related policies based on the current science and expert medical discussion.
- Recommend public health surveillance activities to address any gaps in knowledge discovered.
- Identify and prioritize gaps in science important to public health.
Marijuana and Your Baby

Marijuana Pregnancy Breastfeeding Guidance for Colorado Health Care Providers

- Screening
- Prenatal visits
- Delivery
- Talking to patients
- Reporting
- Breastfeeding
- Parenting
- Safe storage
- Second hand smoke
- Driving
SOLUTIONS, RESOURCES

• Facility/System
  – Multidisciplinary workgroups, education
    • Kaiser Neonatology Journal Club
      – Depending on family circumstances, the benefits of breastfeeding, even with continued cannabis use, may outweigh the negative side-effects, especially in infrequent users
      – Institutions should work toward a policy of ensuring best practices for their particular population of cannabis users.
  – Evidence-based guidelines
    • Breastfeeding, lactation support
    • Screening and testing

[Image of evidence-based guidelines]

Purpose:
To provide education and support that reduces the risks posed to neonates by breast milk that comes from mothers whose urine tests and/or urine, meconium or umbilical cord drug tests of their infants are positive for THC.
To encourage the provision of breast milk and promote marijuana abstinence for mothers who breastfeed

Scope:
This policy applies to specific roles/functions including Medical Providers, LIPs, Lactation Consultants, Registered Nurses, Care Managers.
This guideline does not apply when there are other substances of abuse identified.
WORK IN PROGRESS!!!

Commitment to ongoing:
- Literature review, guideline updates
- Legal, statute review
- Education
- Standardized, reasonable approach
- Patient advocacy

CONVERSATION!!! CARE THAT PROMOTES BEST OUTCOMES FOR CB FAMILIES
QUESTIONS?

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REFERENCES