Opioid Use in Pregnancy: An Evidence-Based Approach

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Workshop Learning Objectives

- Discuss the scope of opioid use among women and risks during pregnancy, including NAS.
- Utilize a case example to illustrate potential treatment conflicts for practitioners when using MAT with pregnant clients.
- Describe evidence-based points of intervention at both the individual and community practice levels.
Opioid Use in Pregnancy

Neonatal Abstinence Syndrome
Overview of Opioids

- Opioids are a class of drugs historically used as painkillers.
- They have great potential for misuse. Repeated use of opioids greatly increases the risk of developing an opioid use disorder.
- Prescription Opioids: doctors prescribe for pain relief, but they are frequently diverted for improper use.
- In the 2013 & 2014 National Survey on Drug Use and Health (NSDUH), 50.5% of people who misused prescription painkillers got them from a friend or relative for free, and 22.1% got them from a doctor.
- Consistent use of opioids results in increased tolerance (needing more for the same result) & the person may not be able to maintain the source for the drugs. This can cause them to turn to the black market for these drugs & even switch from prescription drugs to cheaper & more risky substitutes like heroin. ("Opioids," 2016)
The Scope of the Epidemic

According to the National Survey on Drug Use and Health (NSDUH) in 2014:

- 4.3 million Americans engaged in non-medical use of prescription painkillers in the last month.
- Approximately 1.9 million Americans met criteria for prescription painkillers use disorder based on their use in the past year.
- 1.4 million people used prescription painkillers non-medically for the first time in the past year.
- The average age for prescription painkiller first-time use was 21.2 in the past year.
- Admissions to treatment for primary pain reliever use increased in 2012 to 972K from low-mid-700s in previous years.

Though non-medical use in young people (18-25) has declined 2002-2013, it is still the second most prevalent illicit use category and significantly more than other categories of prescription abuse.

(Center for Behavioral Health Statistics and Quality, 2015)
What changed?

  - Possible causes: increased marketing, change in prescribing habit from use for acute pain to use for chronic pain, cultural change to focus on pain as the 5th vital sign
- Primary care providers now account for about half of the pain prescriptions in the US
- Prescribing variability region to region ("Injury Prevention," 2016)
Opioid Use & Women

• A rising problem for women of reproductive age with 7 out of 10 drug related overdose deaths including some form of prescription painkiller (CDC, 2013).

• Females are more likely to receive opioid prescriptions for issues like chronic pain and they tend to develop drug dependency faster than their male counterparts (Salter, Ridley, & Cumings, 2015).

• Prescribing disparities exist among women living in poverty. 39% of women on Medicaid filled an opioid prescription at a pharmacy compared to 28% of women with private insurance (CDC, 2015).

• TEDS Report 2014 shows data from admissions. More women were admitted to treatment for prescription painkiller use than men (19% v. 12%)

• Overdose deaths among women due to the use of prescription opioids has increased since 2007, and has surpassed deaths from motor vehicle-related accidents; with a “5-fold increase between 1999 and 2010, totaling 47,935 during that period” (CDC, 2013, SAMHSA, 2016).
Women of reproductive age who filled an opioid prescription

2008-2012

- Privately Insured: 28%
- Medicaid Enrolled: 39%

(Patrick, 2016) and (CDC, 2015)
Opioid Use & Pregnancy

- Includes the use of heroin and/or the misuse of prescription opioid medications (ACOG, 2012).

- Untreated heroin use can cause pre-term labor and even fetal death. The concern is neonatal withdrawal and the “addicted baby” however this term is misleading and stigmatizing. Addiction is described as a set of compulsive behaviors that continue despite adverse consequences while the withdrawal symptoms in newborns are associated with evidence of only physiological dependence (Newman, 2013).

- On average, between 50-60 percent of opioid-exposed infants will experience NAS and require some form of pharmacological intervention (Salter et al., 2015 & ASTHO, 2014).

- Because of the dangers of detox during pregnancy, the current standard of care includes the use of medication-assisted therapy (ACOG, 2012).

- Practitioners disagree with treatment options and such ideological disagreement creates conflicts among providers and community resources, leading to improper/incomplete care for mothers and babies, including pregnant women being treated with non-therapeutic levels of medication to limit exposure to the fetus (Jones, et al, 2008).
The Rationale for Opioid-assisted Therapy During Pregnancy

- 2005 – 2010, NIH and NIDA sponsored a multi-site national study concerning opioid use among pregnant women. The following were suggested:
  
  1. Prevent Opioid withdrawal or symptoms
  2. Provide MAT for stabilization
  3. Mitigate euphoria and desire/craving to use illicit opiates and other drugs, while stabilizing the environment for the fetus and limiting exposure to illicit drugs (Jones, et al., 2008).

- “Prevent complications of illicit opioid use and narcotic withdrawal, encourage prenatal care and drug treatment, reduce criminal activity, and avoid risks to the patient of associating with a drug culture... Neonatal abstinence syndrome is an expected and treatable condition that follows prenatal exposure to opioid agonists and requires collaboration with the pediatric care team” (ACOG, 2014).

- Women are able to shift focus to healing, relationships, preparing to parent, however a crucial component of psychosocial interventions and support are needed in addition to the pharmacological interventions for sustained success (Jones, et al., 2008).
Medication-Assisted Therapy (MAT)

- Ceasing opioid use during pregnancy may result in pre-term labor, risks to fetus, and loss of pregnancy. Pregnant women who stop using opioids and relapse have increased risk of overdose (SAMHSA, 2016).

- MAT or Medication Assisted Therapy is considered best practice (ACOG, 2012), but includes both medication and behavioral therapies (SAMSHA, 2014).

- Opioid agonist or agonist-antagonist combination medication is introduced to create a steady-state, avoiding the intoxication-withdrawal cycle (methadone, buprenorphine, or buprenorphine-naloxone combinations).

- Methadone has been used for decades to treat opioid dependency and multiple studies prove it to be a safe option during pregnancy, however one risk includes NAS (SAMHSA, 2008).

- Another treatment option for women is buprenorphine, which acts on the same receptors as morphine and heroin. Buprenorphine is prescribed by approved and specially trained physicians in an office setting which leads to increased patient compliance and reduced stigma. However, this drug has not been studied as extensively in pregnant women long-term and, as such, may require additional informed consent (ACOG, 2012 & SAMSHA 2008).

- Unfortunate stigma associated with MAT (enabling drug use, substituting, not true recovery)
MAT is consistent with a Strengths Approach

- **Choice**: Clients’ readiness for change; worker uses clients’ capacities and provides options and encourages self-efficacy.

- **Empowerment**: Increase one’s capacity to take control of her situation by “meeting the client where the client is”

- **Dialogue and Collaboration**: Based on empathy and inclusion- relationship is central to trust and the vehicle for change.

- **Redefine Successful Outcomes**: Measuring and affirming positive outcomes as – *any reduction in risky behaviors or use, and not by total abstinence*. Emphasizes incremental change and “in a hierarchy with the more feasible options at one end (e.g., measures to keep people healthy) and less feasible but desirable options at the other end.”

- **Dignity and Worth**: Harm Reduction avoids the stigma associated with drug use, approaches clients with compassion and without judgment
**Methadone**

- Reduces fluctuations in maternal serum opioid levels, so it protects a fetus from repeated withdrawal episodes (TIP, 43, 2015).

- Induction monitoring, if prior stabilization (remain, Withdrawal overlaps with pregnancy, split dosing later in pregnancy, continued during labor and delivery, require 70% more meds post delivery, discuss stress and dose reduction if overmedicated (Jones, et al., 2008).

- Methadone maintenance includes prenatal care, reduces the risk of obstetrical and fetal complications.

- There is “no compelling evidence” that maternal dose predicts symptoms of NAS, thus higher doses are recommended because they are related to illicit substance use, compliance with prenatal care, prolonged gestation, and improved growth of the infant (TIP, 43, 2015).

**Buprenorphine**

- May provide less drug interactions, fewer overdose risks, less severe NAS, and more flexibility in dosing and treatment schedules (ACOG, 2012).

- Infants exposed are likely have shorter treatment stays and less medication to treat the symptoms of NAS compared to infants exposed to methadone (Jones, et al., 2010).

- Subutex (buprenorphine) or Suboxone (buprenorphine + naloxone) to avoid prenatal exposure to naloxone; More complex induction; less sedation; Less acute withdrawal possible to hold dose during labor, require less additional opioids post delivery (Jones, et al., 2008).

- Recent research indicates that buprenorphine produces outcomes similar to methadone and a less severe NAS. No significant adverse maternal or neonatal outcomes related to the use of buprenorphine + naloxone have been reported (Debelak, Morrone, O’ Grady, & Jones, 2013 & ACOG 2014).
NAS in Tennessee

MATERNAL SOURCE OF EXPOSURE:
TENNESSEE, 2015

- **Prescribed Substances**: 74.4%
- **Mix of Prescribed & Non-Prescribed**: 25.6%
- **Illicit Substances**: 0.00%
- **Unknown**: 0.00%
In 2012, among hospital related stays for substance use, 60% were related to NAS with one-fourth involving opioids (Finger et al., 2015, & SAMHSA, 2016).

NAS is a result of fetal exposure to certain drugs, primarily opioids, and manifests as clinical symptoms in newborns with withdrawal. Symptoms may include uncoordinated sucking reflexes leading to poor feeding, neurological excitability, gastrointestinal dysfunction, and a high-pitched cry (Association of State and Territorial Health Officials, 2014).

While NAS is not ideal, it may pose less harm to a pregnant mother and her baby than detoxification or the behaviors associated with high-risk drug use such as frequent physical withdrawal, exposure to infectious disease, tainted street drugs, criminal activity, or violence.

NAS is treatable and anticipated in pregnant women using opioids, including those being treated on methadone (Terplan, Kennedy-Hendricks, & Chisolm, 2015). NAS develops in “55-94% of drug-exposed infants (University of Iowa Children’s Hospital, 2013)."
Finnegan Score: Determines baby’s treatment

Symptoms are influenced by a variety of factors, including the type of opioid, when the mother uses during pregnancy and when she engages in the treatment system, genetic factors, and exposure to other substances (smoking) (SAMHSA, 2016).

The Finnegan Score is a measure of 21 symptoms that are most frequently observed in opiate-exposed infants in three categories:

CENITAL NERVOUS SYSTEM
- high pitched cry (continuous)
- sleep after feeding
- hyperactive reflexes
- tremors
- muscle tone/jerks/convulsions

METABOLIC
- sweating
- fever
- yawning
- mottling
- nasal stuffiness

GASTROINTESTINAL
- sucking
- feeding
- regurgitation
- loose stools

The score indicates the degree of severity and monitors changes over frequent re-evaluations.

Initial scoring is 2 hours post delivery and typically done every 4 with a total of 3 scorings of 24 or greater prompts intervention. (The Indiana NAS Task Force uses a standard of “2 or 3 Finnegan scores of 24 or greater” to define NAS)

NAS Treatment

Non Pharmacological treatment is standard and includes relieving infant symptoms and supporting maternal bonding and may include the following:

- Swaddling, rocking, reduced stimuli in environment (light & noise), breast feeding (may reduce need for intervention) bottle feed or pacifier in between to assist with sucking reflex, and rooming together (SAMHSA, 2016 & University of Iowa Children’s Hospital, 2013).

“Pharmacological treatment is primarily intended to relieve NAS symptoms and its associated complications, such as fever, weight loss, and seizures” (SAMHSA, 2016).

- This may be morphine as first line of treatment or methadone followed by tapering off schedule based on symptoms (University of Iowa Children’s Hospital, 2013).

- In a 2010 study, infants with NAS required less therapy and shorter hospital stays when roomed with their mother on a postnatal unit than when admitted to a traditional neonatal care unit (Saiki, Lee, Hannam, & Greenough, 2010).
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Case Study: Ann

What suggestions do you have to improve the system of care for pregnant women on medication assisted therapy?

What organizational and community-based policies are barriers in your community?

Barriers and Treatment Issues

- Access to treatment in general
- Access to Long-Acting Reversible Contraception
- Stability of insurance markets, govt’ funding of treatment programs
- Availability of family-centered, residential treatment for pregnant women
- Housing resources often have policies prohibiting admission of clients on MAT & pregnant clients
- 30-day Transition off insurance is inadequate for tapered detox or completing primary treatment
- Affordability of MAT without insurance coverage
- Access to MAT provider
- Transportation to frequent appointments, distant clinics, etc.
- Fear of arrest, incarceration, or DCS referral
Evidence-Based Points of Intervention
Promote comprehensive medication-assisted therapy (MAT) which includes: prenatal care, individual & group therapy, resource allocation, psychosocial support, parent-skills training, & family education. Expand access to MAT by advocating for Medicaid coverage & increasing provider capacity.

Expand access to family-centered, residential substance abuse treatment. This is part of the SAMHSA Pregnant & Postpartum Women Initiative (PPW).

Expand training on screening (SBIRT) for substance use & addiction in pregnancy, as well as reproductive justice among social service providers, medical students, OBGYNs, & pediatric nurses & physicians

Assist & encourage smoking reduction for pregnant patients. Cigarette smoking increases the incidence of NAS (Patrick, et al., 2015)

Standardized scoring & interventions for NAS in hospitals. This reduces length of treatment & length of stay (Patrick, 2014)
Policy Interventions

- Educate elected officials & policy makers on treatment options & advocate for fair policies that preserve the relationship between mothers & babies by promoting bonding & attachment & discouraging separation.

- Continue Medicaid coverage for at least one year post delivery to ensure completion of treatment plan & continuity of care.

- Increase access to long-acting reversible contraception (LARC) (see TN county health departments Primary Prevention Initiative in which Sevier County recorded a 92% reduction in NAS nine months after implementing PPI for more information).

- Continue vigorous opposition to fetal assault laws & advocacy for clients at the macro level.

- Reduce stigma through education about MAT & NAS.

- Additional research into detoxing during pregnancy and development of evidence-based detoxification programs (see Bell, et al, 2016).
Presentation References


• Substance Abuse and Mental Health Services Administration Center for Substance Abuse Treatment. (2008), Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs. Treatment Improvement Protocol (TIP) Series 43. HHS Publication No. (SMA) 12-4214

• Substance Abuse and Mental Health Services Administration, Advancing the Care of Pregnant and Parenting Women With Opioid Use Disorder and Their Infants: A Foundation for Clinical Guidance, Rockville, MD: Substance Abuse and Mental Health Services Administration, 2016.
