Substance Use Disorders + Pregnancy

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How Significant is This Problem!

Prevalence of the Problem

- NSDUH 2013 illicit drug use
- Pregnant women age 15-17 - 14.6%
- Pregnant women age 18-25 - 8.6%
- Pregnant women 26-44 - 3.2%
- Stetely, 2010
  - 759 samples or chord blood taken
  - 142 + for drugs or alcohol (19.2%)
- Over 1 million babies are born every year to mothers who abuse substances
- Over 4,000 in WV
- Treatment improves birth outcomes!
Tobacco Use

34.3% of women who smoked 3 months before pregnancy quit before the last 3 months of pregnancy.

Risks of Tobacco Use in Pregnancy

- SIDS
- Prematurity
- Asthma
- Low birth weight
- Still birth (1.8-2.8 greater risk, greater the heavier the use)
**Alcohol Use**

WV Behavioral Health Epidemiological Profile, 2013

- Nationally, in 2013 9.4% of pregnant women reported current use of alcohol and 2.3% reported binge drinking (NSDUH, 2013)
  - First trimester - 19%
  - Second trimester - 16%
  - Third trimester - 4.4%
- In WV in 2010, 3.7% of women reported drinking alcohol the last three months of pregnancy. Pregnant women aged 35 and over had the highest percentage of drinking alcohol the last 3 months of pregnancy in West Virginia. In 2010, women with the lowest and highest income (< $10,000 and > $50,000) reported the highest use of alcohol in the last three months of pregnancy (PRAMS).

**Risks of Alcohol Use in Pregnancy**

- Fetal Alcohol Syndrome
  - 2.5% of live births in US
  - Short stature
  - Abnormal facial features
  - Neurodevelopmental disability

**Cannabis Use**

- Most commonly abused drug among pregnancy women
- 11.63% of pregnant women report cannabis use in the last year pregnancy
  - 7.47% age 18-25 report use in the last month
  - 2.12% age 26-44 (Brown, 2017)
- Some doctors even support the use of cannabis in pregnancy to control symptoms of morning sickness
- In WV perception that marijuana is not harmful or addictive
Risks of Cannabis Use in Pregnancy

- Low birth weight
- Still births – 2.3x greater risk
- Smaller head circumference
- Poor cognitive functioning
- Hyperactivity
- Attentional issues

Opioid Use

- In a CDC study, 39% of women on Medicaid were prescribed opioids during their pregnancy 2008-2012, 28% or women with private insurance.

Risks of Opioid Use in pregnancy

- Preeclampsia
- Low birth weight
- Placental insufficiency and abruption
- Premature rupture of the membranes
- Preterm labor
- Fetal Demise
- Neonatal Abstinence Syndrome
- Maternal infection associated with IV use (Hep C, HIV, Endocarditis)
Neonatal Abstinence Syndrome

- postnatal withdrawal syndrome
- 5-fold U.S. increase from 2000-13
- CDC study of 28 states, 1999-2013, showed overall increase of ~300%, from 1.5 to 6.0/1,000 hospital births*
- in 2013, WV had 33.4 cases/1,000 hospital births = highest rate
- est. 80% of hospital costs for NAS covered by WV Medicaid
- What is the future for these children?

*Risks of Cocaine and Stimulant Use in Pregnancy

- 25% increase chance of preterm labor
- Placental abruption
- Small head circumference
- Low birth weight
- Withdrawal when born
- Learning difficulties, cognitive deficits

*Risks of Benzodiazepine Use in Pregnancy

- Withdrawal, seizures for mother
- Cleft palate (small increased risk), data controversial
- Unknown long term effects
Issues Unique to Pregnant Patients

Trends Among Pregnant SUD Patients

- Pregnant patients
  - Are often highly motivated to change
  - Can be less ambivalent about getting clean
  - Tend to be younger
  - Have a shorter progression of disease
  - Can be emotionally labile
  - Can be overwhelmed
  - Often have family support
  - Are hopeful about the future
  - Have high level of willingness

Treatment of Substance Use Disorders in Pregnancy

- Access can be difficult
- Important to coordinate with Obstetrical Care
- Participation in SUD treatment increases OBGYN care adherence
- Treatment in all pregnancy treatment groups can reduce stigma and shame and increase social supports
Treatment Concerns

- Higher rates of domestic violence
- High levels of shame and guilt
- Fear of CPS intervention
- Women with addiction often do not have regular menses so may not realize they are pregnant right away
- Childcare issues
- Transportation issues
- Employment issues/financial limitations
- At risk for medical complications
- Need for discussions about contraceptive care post-delivery

Post-Delivery Challenges

- Increase risk of relapse
- Increased risk of dropping out of treatment
- Post-partum depression
- Post-partum anxiety
- Negative family interactions
- Guilt and Shame

Summary of risks of untreated maternal substance use disorders neonates

- Obstetric/pediatric complications
  - Miscarriage
  - Preeclampsia
  - Preterm birth
  - Operative deliveries
  - Low birth weight
  - Birth defects
  - NICU admissions
  - Sudden infant death syndrome

- Behavioral complications
  - Poor infant self-regulation
  - Insecure attachment
  - Developmental delays
  - Attention deficit hyperactivity disorder
  - Anxiety disorders
  - Conduct disorders

Very difficult to tease out effects of in utero drug exposure and environmental exposure post-delivery
Maternal effects on disease susceptibility

Breastfeeding

- WHO encourages breast feeding for mothers on MAT as long as mother not using other substances.
- Research has shown breast feeding improves outcomes for neonates
- Skin to skin
- Bonding
- Protective benefits of breast milk
- Amount of medication babies get is minimal–Buprenorphine needs to be absorbed sublingually to get greatest benefit, otherwise it is destroyed in the digestive system.

Benefits of Breastfeeding

- For baby
  - Reduced: allergies, asthma, obesity, celiac disease, SIDS, IBS, Childhood leukemia, ear infections
  - Enhanced: mother/baby bonding, emotional security, increased IQ, financial security for family

- For mother
  - Reduced: breast cancer, ovarian cancer, osteoporosis, diabetes, less work time missed, clean up
  - Enhanced: sleep, financial savings, mothering skills and confidence
Treatment Best Practices
Comprehensive Opioid Addiction Treatment

Treatment Options During Pregnancy
- Inpatient Detoxification
- Residential Treatment Programs
- Outpatient Therapy
- Outpatient Medication-Assisted Treatment (MAT)
- For Opioid Use Disorders
  - Methadone
  - Suboxone (Buprenorphine/Naloxone)
  - Subutex (Buprenorphine)

Medication-Assisted Treatment in Pregnancy
- Methadone
- Buprenorphine (Subutex)
- Buprenorphine+Naloxone (Suboxone)
Medication-Assisted Treatment

**Why put a pregnant patient on medication that may result in withdrawal for the baby?**

**Risks and Benefits of MAT**

**Benefits**
- Prevents withdrawal
- Blocks euphoric effects
- Enhances treatment retention
- Reduces relapse
- Reduces fetal exposure to illicit drugs
- Stabilized intrauterine environment
- Enhances involvement in prenatal care
- Reduced Costs

**Risks**
- Risk of Neonatal abstinence syndrome
- Pain management issues
- Risk of abuse/diversion
- Familial conflict
Detox alone does not work. Relapse rate is 93%.

Comprehensive Opioid Addiction Treatment Clinic (The WV model)

<table>
<thead>
<tr>
<th>Beginner</th>
<th>Intermediate</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-90 days abstinent</td>
<td>91 – 365 days abstinent</td>
<td>&gt;365 days</td>
</tr>
<tr>
<td>Weekly group therapy</td>
<td>Bi-weekly group therapy</td>
<td>Monthly group</td>
</tr>
<tr>
<td>Signed meeting lists</td>
<td>Written report/no signatures required</td>
<td>Mandatory meetings no longer required</td>
</tr>
<tr>
<td>Monthly individual therapy</td>
<td>Monthly individual therapy</td>
<td>Monthly individual therapy no longer required</td>
</tr>
</tbody>
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Treatment Components

- In a beginner group
- Weekly medication management group with psychiatrist
- Weekly group therapy
- Random urine drug screens, can be observed
- Monthly individual therapy
- Participation in 12-step meetings, four times per week
- Work with a 12-step sponsor
- Open communication between our team and patient’s OB
- Random pill counts
- Additional items at the team’s discretion

Requirements are less intensive as patients advance in program tiers.
Therapeutic areas covered in treatment for substance use disorders

- Establishing a trusting relationship and building rapport
- Psychoeducation about addiction
- Disease model, neurobiology of addiction
- Relapse prevention
- Stages of change, skills acquisition
- Managing Feelings
- Coping strategies
- Interpersonal relationships
- Impact on family
- Establishing social supports
- Self-help

Video

Compassion + Consequences

- Use a compassionate approach.
- Addiction is a disease of the brain
- Link between trauma + SUDs
- Guilt and shame as relapse triggers
- Compassion is effective! (Especially when combined with clear expectations and consequences.)
- Hold patients accountable for their actions.
- Every action will have a consequence.
- Expectations are clear and communicated at intake.
The Value of Treatment

- Every dollar invested in addiction treatment programs yields a return of between $4 and $7 in reduced drug-related crime, criminal justice costs, and theft.
- When savings related to healthcare are included, total savings can exceed costs by a ratio of 12 to 1.

References