INTERVENTIONS TO SUPPORT BREASTFEEDING IN WOMEN ON OPIOID MAINTENANCE THERAPY: A SYSTEMATIC REVIEW

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Background

- Increased prevalence of opioid use disorder
- Increased incidence of Neonatal Abstinence Syndrome
  - Acute opioid withdrawal
  - Irritability
  - Difficulty feeding
  - Sleep disturbances
  - Gastrointestinal dysfunction
  - Central nervous system dysfunction
Opioid Maintenance Therapy in Pregnancy

- Opportunity to “capture” women into treatment
- MAT improves maternal and neonatal outcomes
  - Better physiologic outcomes
  - Less NAS (MOTHER trial)
  - Decreased risk of relapse
- *Stigma and fear of losing custody of children a major barrier*
Significance of Breastfeeding and NAS

- Breastfeeding is more than safe – it is effective and beneficial
- Decreased severity of symptoms
- Decreased need for pharmacologic treatment
- Decreased newborn’s length of stay in hospital
- Decreased length of treatment, lower total dose of opioid replacement
- Mothers more likely to retain custody of the infant
Additional Benefits of Breastfeeding

• Impact on attachment and bonding
  *Attachment improves neurobehavioral development*

• Impact on maternal health
  *Physical and mental*

• Impact on infant health
  *Decreased risk of chronic disease with breastfeeding in comparison to formula feeding*
  *Improved mental health*

• WHO, CDC, AAP, ACOG, others all see breastfeeding as a public health concern
Why are Attachment and Bonding Important?

- Impact on mental health
- Impact on self-efficacy and self-esteem
- Decreased postpartum anxiety and depressive symptoms in women who breastfeed
- Improved social functioning in the infant/young child
- Other neuropsychological and social benefits
Basics of Lactation and the Importance of Education

• Colostrum begins developing during the 2nd trimester, triggered by pregnancy hormones
• Sudden drop in progesterone after delivery triggers production of larger volumes of milk
• *It takes 30-40 hours for this “trigger” to take place, and 50-73 hours for milk to “come in”*
• Once milk begins to be produced, the impetus for stimulating milk supply is *emptying the breast* – the more frequently the breast is emptied, the more milk the breasts will produce
• **There is a psychologic component to the “let-down” reflex**
• Positive and negative feedback loops from a physiologic *and* psychological standpoint
Breastfeeding and Women on OMT

• How many?
  
  *Mixed results*

• When?
  
  *Mostly in immediate postpartum period*

• Why/Why not?
  
  *Misinformation, barriers, lack of preparation*
Question:

How do we promote and support breastfeeding for women in treatment for opioid addiction?
Methods

PubMed, CINAHL, PsycINFO, Embase, Scopus, Web of Science, and Cochrane Database of Systematic Reviews

Search Terms: breastfeeding or lactation, opioid use disorder or opioid maintenance therapy

Published since 2008
Results of Systematic Review

- Four Studies, 1312 participants
- 1 USA, 2 Canada, 1 Australia
- 1 prenatal model, 1 postpartum model, 2 newborn treatment models
- Urban, tertiary, specialized settings
- Quasi-experimental, non-randomized, retrospective cohort studies
- High risk of bias related to confounding variables (ROBINS-I tool)
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What does the research say?

• Breastfeeding was significantly increased in the intervention group in all four studies

• Most effective programs had these common features:
  
  * Multidisciplinary, integrated
  * Continuity from pregnancy to after birth
  * Maintain the integrity of the mother/infant dyad
  * Consolidated, comprehensive prenatal care
  * Professional staff who are prepared

• Need to address misinformation and barriers
Gaps in Knowledge – Future Directions for Research

• More detailed understanding of barriers from patients’ and providers’ perspective
• More detailed understanding of women’s needs and wants related to breastfeeding
• Evaluation of specific components of care models or combinations of interventions
• Long-term outcomes (mother, child, family) in this population
Key Take-Aways for Nurses Working in Addiction Treatment

• Pregnancy increases women’s vulnerability – physical, emotional, psychological
• Pregnancy is also a time to “capture” women – motivates access to and participation in treatment
  • An opportunity to change the trajectory of their disease
• Potential benefits of breastfeeding for these women, relative to mental health:
  • Decreased risk of postpartum morbidity, including relapse
  • Self esteem
  • Parenting skills
• But ... women have to be given the necessary education, tools, and guidance
  • Breast feeding is a skill that must be learned
  • Lactation is a process that must be managed
  • Anticipatory guidance is critical

If they are in treatment ...

They need

To breastfeed!
Conclusions

• Childbearing women with opioid addiction are a vulnerable population who need exceptional care.

• Breastfeeding is a public health issue with multiple benefits to physical, mental, developmental, and social health.

• Improving breastfeeding in women with opioid use disorder has the potential to make a significant difference in their lives, the lives of their children, and their communities.
QUESTIONS?
Recommendations

**Education**
Update education and training of health care professionals and paraprofessional workers

**Practice**
- Make breastfeeding the norm and overcome misinformation
- Educate and prepare women for breastfeeding *during pregnancy*
- Encourage family and social support system

**Research**
- Descriptive and qualitative studies to explore barriers
- Develop and test interventions
- Longitudinal research of long-term outcomes

**Policy**
- Improve access to substance abuse care and opioid maintenance therapy

- Retrospective, cohort study
- Vancouver, 2003-2006
- 952 opioid-exposed newborns
- Interdisciplinary rooming in v. standard care
- Increased odds of receiving breastmilk during hospitalization, but not at discharge

- Retrospective review with comparison of groups
- Columbus, Ohio, 2007-2009
- 121 Newborns treated for NAS
- Combined inpatient & outpatient treatment v. standard inpatient care for NAS
- Increased breastfeeding at discharge in combined program, 24% v. 8%, $p < 0.05$

- Retrospective review
- Toronto, Ontario, 2000-2006
- 121 women in comprehensive treatment program
- Length of time in treatment program
- Longer duration of time in program associated with a higher rate of breastfeeding at discharge (64.7% v. 39.3%, \( p < 0.05 \))

- Retrospective review
- Parkville, Victoria, Australia, 2004-2010
- 118 Newborns treated for NAS
- Inpatient v. Home-based weaning from treatment
- 45% v. 22% breastfeeding at discharge, $p = 0.022$
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Discussion – Related Studies and Reviews


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