Background: The United States has experienced an epidemic of opioid addiction over the past decade. Unfortunately, this disease has not spared pregnant persons, contributing to increased morbidity and mortality rates for the childbearing individual and fetus (Krans, 2015). Opioid use disorder (OUD) in pregnancy can lead to an increased likelihood of preterm birth and increased chance of the newborn being admitted to the NICU, especially for complications such as neonatal abstinence syndrome (Krans, 2015; Sutter, 2017). Also, when pregnant persons abstain from OUD during pregnancy the risk of relapse is high, especially if they have a history of trauma (Goodman, 2015). The current first-line treatment for childbearing individuals with OUD, is opioid agonist treatment (OAT). OAT involves the use of medications such as buprenorphine and methadone. The goal of OAT is to prevent illicit opioid use known to cause morbidity and mortality to a fetus. However, a common contributor of opioid abuse is past trauma and co-occurring mental health disorders. In fact, 50–80% of women with OUD have experienced some sort of trauma leading to OUD and 45% of women with OUD have a co-occurring mental health disorder (Saia et al., 2016). This necessitates a trauma-informed care framework that considers the impact of victimization and trauma, leading to opioid-use activity. Preliminary evidence suggest multidisciplinary treatment (MDT) services within a trauma-informed care approach may improve perinatal outcomes for gestating individuals with OUD (Sutter, 2017). A valuable model implementing this approach is the Dartmouth-Hitchcock Medical Center’s Perinatal Addiction Treatment Program in Lebanon, New Hampshire (Goodman, 2015).

Purpose: The purpose of this literature review is to establish whether a multidisciplinary team approach within a trauma-informed care approach improves perinatal outcomes for pregnant women with opioid use disorder.

Methods: An internet search was performed to determine the efficacy of the current gold-standard treatment for OUD in pregnancy compared to a MDT approach. A systematic literature search was conducted based on the identification of two outcome variables: length of gestation and rate of opioid relapse. Five databases were searched using the PRISMA-P checklist to frame the search. These databases included PubMed, CINAHL, Embase, Grey Literature Report, and Open Grey. The inclusion criteria included articles published in English within the last 10 years, contained the keywords from the search strategy, and were from peer-reviewed journals and government reports. In vitro research, animal research, expert opinions and editorials, and case reports were excluded in order to appraise higher level evidence. Studies were also excluded that didn’t report the outcomes variables including length of gestation and relapse rate. Mesh terms included maternal health services, interprofessional relations,
opioid related disorders, harm reduction, pregnancy complications. Additional keywords included trauma informed care, relapse rate, opioid-related, opioid use, opiate addiction, opioid abuse, substance use disorder, cross disciplinary, harm minimization, reduction, perinatal substance use, postpartum, pregnancy, antenatal, opiate abuse, risk behavior, maternal health, opiate dependence, opioid agonist, interdisciplinary, multidisciplinary, communication, harm, reduction, and minimization. A total of 89 articles were found through the search strategy and 10 met the inclusion criteria for analysis. The 27 item PRISMA checklist is being utilized to appraise the evidence, summarize key findings, and synthesize those findings into evidence-based recommendations for current clinical application. Emerging evidence shows the overall strength of the evidence is good and consistent. Gaps in the evidence are being identified to provide a roadmap for future research priorities.

**Results:** Emerging evidence of clinical research shows the use of a a trauma-informed, MDT approach improves neonatal and childbearing outcomes. Mental health treatment, trusting patient-provider relationships, and a MDT approach each correlate with regular antenatal care (Kramlich, 2015; Krans, 2015; & Sutter, 2017). Positive outcomes of regular antenatal care include increased length of gestation (Kramlich, 2015). Additionally, individuals who receive MDT deliver higher birth weight neonates, decreasing the need for hospital interventions and longer hospital stays (Kramlich, 2015; Saia, 2016; & Sutter, 2017). MDT services also increase the rates of sustained recovery for the childbearing individual, and combination therapy yields the best results for sustained recovery (SAMHSA, 2016; & Sutter, 2017).

**Implications:** The literature review shows consistent evidence that a MDT approach yields better patient and neonatal outcomes than OAT. This MDT team should include a local coalition of representatives from the community and all representatives must be trained to provide non-judgmental care when working with this population. MDT services should include family case management, access to OAT, psychiatric consultation, access to behavioral health counseling, resources for relapse prevention, specialized perinatal care, child care, and peer support. It is also recommended that providers use a trauma-informed approach when caring for pregnant persons with OUD.

In order to evaluate the effectiveness of the MDT, it is important to examine a variety of patient and neonatal outcomes to allow for better between study comparisons. Suggested variables include adherence to prenatal care, relapse rates, gestational age, birth weight, hospital stay length, and number of hospital interventions. Future research should also assess which MDT services are most effective for improved outcomes for the childbearing individual. Cost-effectiveness analyses could further support the promotion of this approach to treatment and should be employed. As the death rate from opioids has increased every year for the past two decades, this is a program of research that demands our attention and innovation to improve the outcomes for childbearing persons with opioid use disorder.

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**Title:**

Multidisciplinary Treatment for Pregnant Persons With Opioid Use Disorder
Keywords:
Length of gestation and rate of opioid relapse, Multidisciplinary treatment and Opioid use disorder in pregnancy

References:

Abstract Summary:
A trauma-informed, multidisciplinary team (MDT) approach has shown improved outcomes for childbearing individuals with opioid use disorder (OUD) and their neonates. However, opioid agonist treatment (OAT) remains the first-line treatment option. Evidence-based practice should guide practitioners to utilize variety of interventions, particularly during this vulnerable and medically resource intensive time.

Content Outline:
I. Background
A. US opioid addition epidemic
B. Morbidity and mortality rates for childbearing individual and fetus
C. Birth outcomes
1. Preterm birth
2. Complications
3. Treatment for childbearing individuals with OUD
D. Trauma-informed care framework
1. Multidisciplinary treatment
2. Dartmouth-Hitchcock Medical Center's Perinatal Addiction Treatment Program
II. Purpose
A. Literature review
B. Multidisciplinary team approach within a trauma-informed care approach
C. Perinatal outcomes for pregnant women with opioid use disorder

III. Methods
A. Internet search
1. Systematic literature search
B. Search strategy
1. Mesh terms & Keywords
   a. 89 articles found
   b. 10 met inclusion criteria for analysis
2. Outcome variables
   a. Length of gestation
   b. Rate of opioid relapse

IV. Results
A. Trauma-informed, MDT approach improves neonatal and maternal childbearing outcomes
   1. Mental health treatment
   2. Regular antenatal care
      a. Increased length of gestation
      b. Higher birth weight neonates
      c. Decreased hospital interventions
      d. Decreased hospital stays
   3. OAT – relapse prevention resources
   4. Psychiatric consultation
   5. Behavioral health counseling

V. Implications
A. MDT yields better patient and neonatal outcomes
   1. MDT members
   2. Training
   3. Non-judgmental care
B. MDT cost effectiveness analysis
C. Education for healthcare providers and nurses working with pregnant women/families.
D. Future research

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