

A Pathway to Treatment for Pregnant Women With Opioid Use Disorder

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Abstract

Background: Addiction to opioids, a well-known public health crisis, is now more prevalent in pregnant women as evidenced by the parallel rise with pregnant women in the epidemic with the general population. Evidence is now available that substantiates the need for global awareness to increase efforts in the treatment of pregnant women with opioid use disorder (OUD) as this vulnerable population lacks equal access to opioid abuse treatment across the United States.

Aim: The overarching aim and purpose of this quality improvement project was to increase access to treatment for pregnant women with OUD who are currently underserved in a community located in Florida.

Methods: Between January and April 2022, the 4Ps (parents, partners, past, and pregnancy), a validated screening tool, was implemented in an organization that accepts individuals with substance abuse. Each positive screen was referred for assessment for buprenorphine induction and medication-assisted treatment follow-up. Descriptive statistics were collected counting the number of screens completed, the number of positive screens, the number of referrals, and the number of patients remaining in treatment for 30 and 60 days.

Results: Twenty-two screens were completed. The results yielded an increase in referrals, a 75% increase in treatment of pregnant women, and an average of 83% of participants remained in treatment.

Conclusion: The implementation of a validated screening tool assisted in increasing access to treatment for pregnant women with OUD. Once implemented, the screening tool forges a pathway for referrals and evidence-based treatment for pregnant women with OUD.

Keywords: Buprenorphine, Medication-Assisted Treatment, Opioid Addiction in Pregnancy, Opioid Related Deaths, Opioid Use Disorder, Overdose, Pregnancy

INTRODUCTION

Opioid addiction is a treatable, chronic disease involving interactions among brain circuits, genetics, the environment, and an individual's life experiences (American Society of Addiction Medicine, 2021). Since the mid-1990s, the United States has battled an uptick in addiction to opioids, which has resulted in a national public health crisis (Pan & Zakowski, 2017). Consequently, the number of pregnant women diagnosed with opioid use disorder (OUD) has quadrupled in the past decade and therefore created a need for change (Cochran et al., 2019). This issue is significant in nursing practice because of the debilitating health risks for opioid-exposed infants and the lack of available prenatal treatment options.

According to the American College of Obstetricians and Gynecologists (ACOG, 2017), the universally accepted and recommended treatment for pregnant women with OUD is medication-assisted treatment (MAT) involving methadone or buprenorphine combined with comprehensive behavioral and medical care. There is a critical need to intentionally explore interventions that screen and treat pregnant women with OUD, decrease the risks of opioid overdose, and increase the number of providers and facilities available that provide treatment to pregnant women with OUD. This quality improvement (QI) project explores improving health outcomes and treatment availability gaps in the southwestern region of Florida by implementing a screening tool that increases referrals and treatment for pregnant women with OUD.

The opioid epidemic continues to devastate communities across the United States. According to the National Institute of Drug Abuse (2021), in 2018, almost 68% of the reported deaths related to drug overdose in Florida involved opioids. In a substance use and behavioral health treatment organization in the southwest region of Florida, there is a need for treatment options for pregnant women with OUD owing to the complexity of their health with opioid use complicating pregnancy outcomes.

Within the organization of interest, no treatment is provided to pregnant women with OUD. In 2019, 146 referrals for pregnant women were received, and only 6% were admitted to the inpatient unit with MAT services in place. In 2020, because of the COVID-19 pandemic, a dramatic decrease was

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observed resulting in 92 referrals. Of those referrals, 5% received services within the organization. There is no screening tool currently in use for pregnant women. The needs assessment revealed only two of five facilities in the area that currently offer MAT to pregnant women with OUD.

The identified needs strategically align with the organization's overall goals and mission. Implementing the parents, partners, past, and pregnancy (4Ps) screening tool (see Figure 1) will mitigate the lack of treatment options and introduce a referral process for expectant women with OUD. The number of referrals, protocols for treatment of pregnant women with OUD, and MAT services will increase and improve patient outcomes, which is the organization's main aim. Before the implementation of the screening tool, MAT services were offered to men and nonpregnant women with OUD. An identified weakness of the project was the lack of knowledge regarding referrals and treatment of pregnant women, which may initially result in low participation during the project timeframe.

REVIEW OF LITERATURE

The terms used in the search process were “opioid use disorder,” “medication-assisted treatment,” “buprenorphine,” “opioid-related death,” and “pregnancy.” The advanced search was conducted using EBSCO, PubMed, and Cumulated Index to Nursing and Allied Health Literature databases. The search yielded 42 articles. The literature selected were peer-reviewed articles published between the years 2017 and 2021. The inclusion criteria involved articles examining MAT in pregnancy,

opiate use in pregnant women, management of OUD, and utilization of buprenorphine during the gestation period. The exclusion criteria involved articles not written in English or dated before 2017.

In the last two decades, OUD and overdose deaths have risen among childbearing age and pregnant women in the United States (Lo-Ciganic et al., 2019). MAT with methadone or buprenorphine is the first line of treatment for pregnant women combined with behavior therapy (ACOG, 2017). However, the lack of treatment protocols and properly trained staff in organizations across the nation remains a significant gap (Reising et al., 2019). According to Jones (2018), health care facilities providing buprenorphine treatment are less likely to be found in nonmetropolitan areas. A systematic review showed the efficacy of buprenorphine and clinical considerations in treating pregnant women with OUD (Tran et al., 2017). The review also compared the use of buprenorphine with methadone and indicated that buprenorphine has more advantages and better outcomes than methadone and should be used by pregnant women with OUD (Tran et al., 2017).

Oga et al. (2018) examined the necessity for a validated screening tool and justified for the instrument to assist pregnant women in receiving a referral for treatment. The study illustrated the significance of a validated screening tool that will discreetly identify the necessity for referral to services and treatment of OUD (Oga et al., 2018). Rausgaard et al. (2020) argued that buprenorphine is effective and has more advantages than methadone, and therefore, its monotherapy should

Screening Tools for Drug and Alcohol Use

4 Ps

This screening device is often used as a way to begin discussion about drug and alcohol use. Any woman who answers yes to one or more questions should be referred for further assessment.

1. Have you ever used drugs or alcohol during this Pregnancy?
 - a) Yes
 - b) No
2. Have you had a problem with drugs or alcohol in the Past?
 - a) Yes
 - b) No
3. Does your Partner have a problem with drugs or alcohol?
 - a) Yes
 - b) No
4. Do you consider one of your Parents to be an addict or alcoholic?
 - a) Yes
 - b) No

Figure 1. 4Ps screening tool.

be the first-line therapy for pregnant women with OUD. ACOG (2017) also confirms MAT with opioid antagonist pharmacotherapy combined with behavior therapy is the first line of treatment for pregnant women with OUD.

BARRIERS TO TREATMENT

Some barriers contribute to limited treatment options for OUD in pregnant women (Jones, 2018; Reising et al., 2019). Jones (2018) argued that facilities that provide buprenorphine treatment are less likely to be found in nonmetropolitan areas. Sound evidence is revealed in the reviewed literature regarding safe medication treatment guidance, educational needs of practitioners and health care workers, lack of treatment availability in nonmetropolitan regions, and the adverse effects of opioids on women and children when used prenatally. Adequate evidence is available that lends to positive outcomes related to the use of screenings to improve referrals and the effectiveness of MAT for pregnant women with OUD. Overall, it appears that pregnant women are not receiving equal access to resources that assist with opioid addiction because of the perceived complicated diagnosis of pregnancy. Despite the overwhelming evidence regarding the treatment of pregnant women with OUD, there remains an inadequate number of health care facilities and providers to address the need.

METHODS

Participants and Criteria

The Doctor of Nursing Practice (DNP) QI project included consecutive sampling of patients. The inclusion criteria included all pregnant women aged 18 years or older with a documented diagnoses code of F11.2 for OUD according to the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (American Psychiatric Association, 2013). These individuals may be referred from any internal or external transfer source. The exclusion criteria are those participants whose health condi-

tions exceed the scope of care of the organization. This includes but is not limited to individuals needing a higher level of care because of medical complications needing hospital care management. A physician addiction specialist will review each participant who is not included before exclusion. Any individual who is excluded because of acute medical complications may receive a referral and return once medical issues have resolved. On the basis of the number of referrals received in 2020, in a 12-week period, the minimum number of participants expected was 20.

Setting

The setting was a substance abuse and behavioral health treatment organization located in southwest Florida. Participants may be admitted to inpatient residential, detox, or outpatient MAT clinic. If an emergency arises, the participant will be transferred immediately to the Emergency Care Center. According to a community healthy start care coordinator in a personal interview, the issue that may impact the QI project is the possible fear of negative consequences for pregnant women actively using illicit substances (M. Cona, personal communication, October 11, 2021). If reported, substance use may lead to a child protective services investigation, and women may decline treatment to avoid these consequences. To mitigate this challenge, education will be provided to women with OUD regarding decreased risk for consequences because of accepting and remaining engaged in MAT.

Tools

The 4Ps is a validated screening tool that provides an opportunity for early intervention for at-risk pregnancies owing to substance use (Chasnoff et al., 2007). Chasnoff et al. (2007) reported the overall reliability for the 4Ps screening was 0.62. According to the study, the 4Ps is reliable and effective for screening pregnant women for risk of substance use, including those women missed by other perinatal screening methodologies (Chasnoff et al., 2007). The use of this tool initiates a

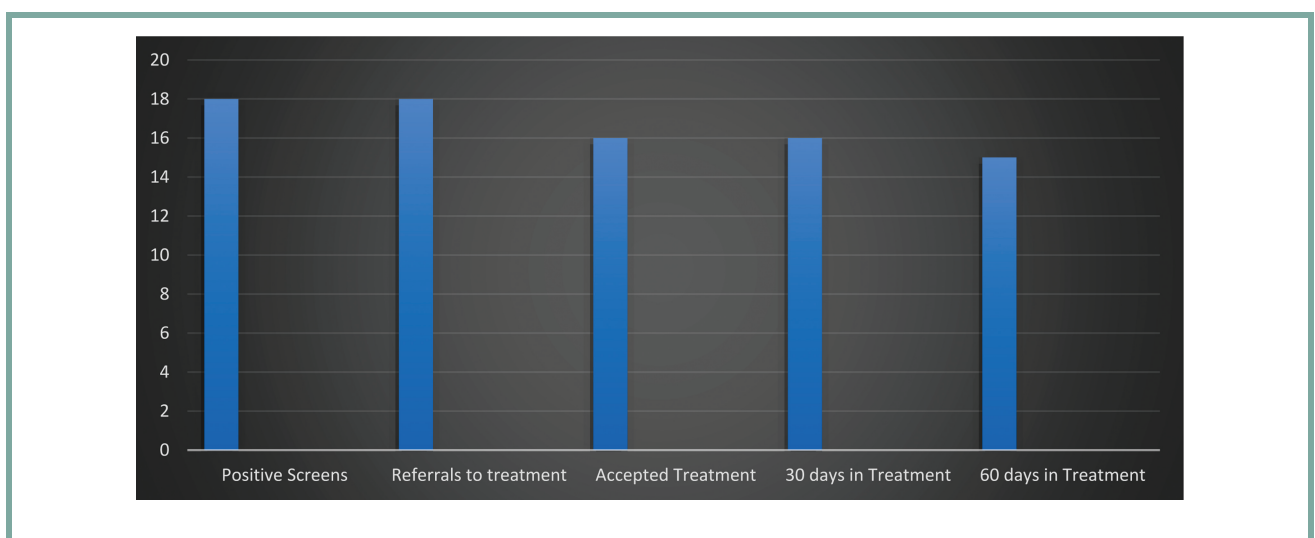


Figure 2. Results.

pathway to assessment, referrals, and treatment for pregnant women with OUD.

Intervention and Data Collection

The 4Ps screening tool was administered by the admissions counselors, nurses, and nurse practitioners on admission. The screen includes four yes/no questions. If one or more answers are yes, the screen is positive. All positive 4Ps screens were referred to the DNP student, the referrals were reviewed, and patients were scheduled for MAT program assessment.

The timeline for the QI project was 12 weeks starting in January and ended in April of 2022. The information collected was the number of referrals received, the number of participants accepting treatment, and the number of participants remaining in treatment for 60 days or more. The DNP student trained health professionals on how to use the 4Ps screening tool to ensure continued and consistent use to promote referrals and increase access to MAT services for pregnant women with OUD. The DNP student also conducted trainings on bias as well as provided resources and information related to treating this population.

ANALYSIS

This DNP project is a QI project, which implemented a process that was nonexistent. In 2019, 146 referrals for pregnant women were received, and only 6% were admitted to the inpatient units with preexisting MAT services from an outside provider. A completely new process is being implemented; therefore, no benchmark statistics exists. Descriptive statistics collected were the number of referrals received, the number of positive screens, individuals accepting MAT, and those remaining engaged in MAT for 30 and 60 days. These data were analyzed using a single-sample z test of proportions to test if the percentage retained is different from the 6% who would have possibly been accepted into treatment within the organization. The descriptive statistics were entered into an Excel spreadsheet in real time to measure the number of screens and the number of individuals accepting and remaining in treatment.

RESULTS

There were 22 screens completed. Of those, 18 were positive screens, all of which were referred for treatment. Sixteen patients remained in treatment for 30 days, and 15 patients remained in treatment for 60 days, as shown in Figure 2. The results yielded an increase in referrals, treatment, and percentages of participants remaining in treatment for both 30 and 60 days. After implementation of the screen in 2022, the percentage of referrals increased from 6% to 81%. There was a 75% increase in the number of pregnant patients accepted and treated for OUD. There was an overall average of 83% of patients who remained in treatment for 60 days.

SIGNIFICANCE TO ADVANCED PRACTICE NURSING

The QI project translates current research on the screening and treatment of pregnant women with OUD to nursing practice.

The results of this project increased treatment options for pregnant women with OUD. Participants who receive treatment for OUD may have less risk for overdose, reduce use of illicit substances, minimize further damage to an unborn fetus, and decrease hospitalization stay for infants born to mothers with OUD. In addition, the current QI project will offer guidance to treatment protocols, increase access to care for pregnant women with OUD, and provide treatment outcomes that are available through its implementation.

Strengths and Limitations

Strengths of the project include the random consecutive sampling design as each person presenting to the facility who was pregnant with the appropriate diagnosis was presented with the opportunity to receive treatment. The environment to receive this population is conducive to accepting this population as the organization specializes in individuals with substance use disorder. Limitations include sample size. Because of the limitation of time, the sample size is small and replication with a larger size is needed. There were also some changes in leadership and staff that impacted some aspects of the project during the implementation phase.

CONCLUSION

The use of a validated screening tool provides a pathway of initiating treatment for pregnant women with OUD. The positive results of the QI project revealed the necessity of screening tools in organizations aiming to initiate interventions leading to treatment in a timely manner. This is further supported by the retention rates shown in 30 and 60 days of treatment. The use of a validated screening tool assists in increasing assessment, referrals, and treatment of OUD in pregnant women with OUD.

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