

## REVIEW ARTICLE

# ETHICAL DILEMMAS OF POSTPARTUM PATIENTS WITH A HISTORY OF DRUG USE FROM U.S.

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Received 23<sup>rd</sup> July 2017.

Revised 2<sup>nd</sup> October 2017.

Published 9<sup>th</sup> March 2018.

### Summary

Pregnant or postpartum patients with history of substance use disorder who desire to breastfeed present healthcare providers with numerous issues as drug use increases risk for adverse health outcomes for both the mother and her child. Drug use in the U.S. is common. In 2013, an estimated 24.6 million Americans aged 12 or older were current illicit substance users representing 9.4 % of the population. This statistic unfortunately closely corresponds with substance use in pregnant women. Totally 9% of pregnant women used drugs during their first trimester. Substance use during pregnancy and during breastfeeding presents serious problem for the health of our society.

When a mother with a history of illegal/illicit drug use or illegal substance abuse desires to breastfeed, her healthcare providers are faced with several ethical dilemmas. The most obvious is whether she should be allowed to breastfeed her child. Does the benefit of breastfeeding outweigh the risk of possible substance transmission to the infant or is formula feeding safer and more appropriate option for the infant? What is the consequence of formula feeding on the fragile relationship between the newborn and the troubled mother? Lastly, the infant's right to be breastfed needs to be taken into consideration as a part of this complex issue.

Healthcare leaders need to be able to understand ethical challenges of this specific population, acknowledge variances between individual substances, and most importantly differentiate between occasional drug use, diagnosable substance use disorder and treated substance use disorder. Healthcare leaders should be able to clearly identify how to best provide the most effective and supportive care. Changes to policies and healthcare practices can advance the overall health of this specific and challenging population as well as can improve the relationship between these patients and their healthcare providers.

*Key words: pregnancy; postpartum patient; breastfeeding; drug user; healthcare*

## Introduction

Illicit substance use includes the non-medical use of a variety of drugs that are prohibited by international law. These drugs include: amphetamine type stimulants, cannabis, cocaine, heroin and other opioids, and ecstasy [23]. Among pregnant women 15–44 years of age, 5.2% had used illicit drugs in the past month, 9.4% reported current alcohol use, 2.3% reported binge drinking, 0.4% reported heavy drinking during the pregnancy, and 15.4% reported cigarette use in the past month. Illicit drug use of the same demographic category was the highest during the first trimester (9.0%) but decreased during the second trimesters (4.8%) and was the lowest during the third trimester (2.4%) [21].

Even though the data show that illicit drug use declines during pregnancy, it still represents serious ethical dilemma. Ethical dilemmas arise in situations where a choice must be made between unpleasant alternatives and often require the caregiver to make a decision that may break some ethical norms or contradict some ethical values [15]. The choice of breastfeeding by a pregnant woman or newly postpartum woman with history substance use disorder or current illicit drug use or misuse is problematic for many reasons [18]. The most important challenge is to decide whether the women should breastfeed her infant. The well-documented benefits of human milk and breastfeeding must be carefully and thoughtfully weighed against the risks associated with the substance that the infant may be exposed to during lactation [18]. When deciding whether the mother should breastfeed, the healthcare provider needs to take into consideration whether and how long is the mother abstinent, is she an occasional user, a patient with diagnosable substance use disorder or is she actively treated for substance use disorder. Furthermore it is important to know how easily the drug passes into mother's breastmilk. This is directly related to the characteristics of the drug, such as plasma protein binding, ionization, degree of lipophilicity and molecular weight [6]. The concentration of the substance in milk is further affected by the dose ingested, duration of the consumption, the amount of milk excreted daily, the mother's health and her genotype. According to *Friguls et al.* [6] infant's exposure to drugs in breastmilk depends on plasma concentration, milk intake and infant's ability to clear the drug from his body. Accurate assessment of this ethical dilemma and a straightforward clear simple resolution is not always possible.

The currently used punitive postpartum care when women are frequently separated from their infants needs to be redirected with emphasis on therapeutic care, appropriate screening, and development of adequate community resources. Individual approach is important and the only ethically acceptable solution as every case of a breastfeeding mother with a history of substance use disorder or substance abuse maybe different. It is crucial that healthcare professionals support these patients in nonjudgmental way and provide them with the same care and attention as nondrug-using women [7].

## Epidemiological data

In 2013, an estimated 24.6 million Americans aged 12 or older were current illicit drug users, meaning they had used an illicit drug during the month prior to the survey interview representing 9.4% of the population [21]. Among pregnant women 15–44 years of age, 5.2% had used illicit drugs in the past month, 9.4% reported current alcohol use, 2.3% reported binge drinking, 0.4% reported heavy drinking during the pregnancy, and 15.4% reported cigarette use in the past month. The survey also showed that substance use tends to decrease considerably between the 1<sup>st</sup> and 3<sup>rd</sup> trimesters, but it increases again following childbirth [21]. Despite the growing body of literature outlining a range of deleterious effects of substance use for women and their children, substance abuse among pregnant and parenting women appears to be an unrelenting societal problem [3]. Many professionals in the field believe that these national data underestimate the total number of infants and families affected by prenatal substance use as studies of prenatal screening suggest that as many as one-fifth of infants born in the United States each year are prenatally exposed to alcohol, tobacco or other drugs, and 75-90% of them go undetected [11].

One of the most critical challenges facing the healthcare provider for the woman with a substance use disorder who wishes to breastfeed is the lack of research leading to evidence based guidelines [18]. Any decision to limit the mother's breastfeeding must be justified by the fact that the risk to her baby outweighs the benefits offered by nursing [6]. Many factors affect chemical substance excretion into human milk. These include chemical properties

such as ionization, molecular weight, volume distribution, maternal serum protein binding, and lipid solubility [19]. The concentration of the chemical substance in breastmilk depends on the dose ingested, duration of consumption, the amount of milk-excreted daily, mother's health and her genotype [6]. Infant's actual exposure to drugs in breastmilk depends on the milk to plasma concentration, the milk intake and infant's drug clearance. *Friguls et al.* [6] further adds that due to immaturity of drug elimination systems, overall clearance values in neonates are low. Infant's gestational age affects drug clearance and at 24-28 weeks of gestation reaches only 5% of the adult levels, 10% at 28-34 weeks of gestation, 33% at 34-40 weeks of gestation and adult clearance values are reached between 3-7 months of age [9].

When assessing mother's substance use, it is important to consider that permanent disruption of breastfeeding can make it more difficult for the mother to care for her child. Research based on brain imaging has shown that breastfeeding at the first month postpartum has a significant link to enhanced maternal brain responses and maternal behaviors [10]. Such brain activation may facilitate greater maternal sensitivity as infants enter their social world. Consistent with these results *Kim et al.* [10] concluded that mothers who are not breastfeeding exhibit reduced responses in brain regions associated with maternal sensitivity as compared to breastfeeding mothers.

Lack of breastfeeding or interruption of breastfeeding may affect the mother-baby dyad's relationship long term. In a well designed study *Strathearn, Mamun, Najman, and O'Callaghan* [20] found that women who did not breastfeed or breastfed for a short duration were 4.8 times more likely to abuse or neglect their children than women who breastfed their children for a longer duration. This prospective study of nearly 6 000 Australian women and their children examined substantiated cases of child maltreatment over fifteen years. Even after adjustment for confounding factors, it was found that children who were not breastfed or were breastfed for less than four months were 2.6 times more likely to be neglected by their mothers than children breastfed for four months or more [20].

Additional empirical evidence of an association between breastfeeding and the quality of mother-infant interactions was found by *Thuczek, Clark, McKechnie, Orland, and Brown* [22]. Results of this study provided new evidence that a connection between breastfeeding and the quality of mother-infant interactions extends to mother-infant dyad even in the presence of neonatal diagnoses. While the mechanism for the favorable mother-infant interactions associated with breastfeeding remains unclear [22] other theory posits that the intimacy of breastfeeding interactions helps mothers learn their infants' cues and become more attuned to their needs [2].

To appropriately care for a mother with history of substance use disorder and drug abuse it is important to differentiate whether she is abusing chemical substances or she is actually addicted to drugs. Unfortunately many healthcare providers, leaders and scientists use the terms of drug abuse, addiction and dependency interchangeably. Drug abuse is the recurrent use of illegal drugs, or the misuse of prescription or over-the-counter drugs with negative consequences including problems at work, school, home and interpersonal relationships as well as problems with the law [5]. Drug addiction is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences [12]. It is considered a brain disease because drugs change the brain; they change its structure and how it works. These brain changes can be long lasting and can lead to many harmful, often self-destructive, behaviors [12].

Differentiation between drug dependence and addiction can be misleading, as a drug dependent person is not necessarily addicted. Drug dependence can simply mean that a person needs a drug to function normally [5]. WHO defines drug dependence by the presence impaired control over the use, withdrawal syndrome on ceasing or reducing use, tolerance to the effects of the drug, disproportionate amount of the user's time is spent obtaining, using and recovering from drug use; and the user continuing to take other drugs despite associated problems [23]. Healthcare of a drug user should differ from care for drug addicted or dependent patient. In 2013, American Psychological Association (APA) replaced the categories of substance abuse and substance dependence with a single category: substance use disorder. The symptoms associated with a substance use disorder fall into four major groupings: impaired control, social impairment, risky use, and pharmacological criteria i.e. tolerance and withdrawal [12].

While the mother-baby dyad are in the hospital, the protection authorities should explore options how to keep them together while the investigations proceed [8]. Historically, women needed to be separated from their children to participate in substance use disorder treatments but the care is shifting towards women and their children residing

together in residential treatment, allowing the mother to receive needed addiction treatment while managing the demands of parenting [3]. It is important to keep mothers with substance use disorder together with their infants because during early motherhood these mothers appear to be particularly motivated to use intensive support [14]. *Pajulo et al.* [14] further found that as satisfying relationships develop between mother and child, post-treatment abstinence rates improve, resulting in long-term benefits for mother and child as the relationship helps to reorganize the addictive reward system from reliance on substances to the positive associations of the relationship with baby.

Besides the most successful treatment solution for the drug-abusing mother there are legal aspects of this ethical dilemma that need to be considered. While only in two states, Alabama and South Carolina, can women be criminally prosecuted for using drugs while pregnant [1], once she delivers the situation changes. The Child Abuse Prevention and Treatment Act (CAPTA) requires States to have policies and procedures in place to notify child protective services agencies of substance-exposed newborns and to establish a plan of safe care for newborns identified as being affected by illegal substance abuse or withdrawal symptoms resulting from prenatal drug exposure (Child Welfare Information Gateway [Child Welfare], 2012). Confirmed prenatal drug exposure can be considered child neglect and abuse. According to Child Welfare (2012) Georgia State Law § 19-7-5 requires reporting of child abuse to provide for the protection of children whose health and welfare are adversely affected and further threatened by the conduct of those responsible for their care and protection.

### **Implications for Healthcare Leaders and Providers**

With the current drug use statistics it is unfortunately a harsh reality for a Healthcare provider to care for patients with a history of drug use. Ability to recognize and understand challenges of this specific population is crucial for creation of appropriate and evidence based care strategies, policies and procedures. Healthcare leaders and providers need to be able to comprehend ethical aspects of this dilemma while acknowledging variances between individual substances. It is important to differentiate between drug use, untreated substance use disorder, and methadone controlled substance use disorder. Healthcare leaders and providers should improve public awareness by educational outreach to community.

Early recognition of a drug problem in a pregnant patient is important to protect the fetus, as drug use is commonly associated with poor health outcomes both in the child as well as in the mother. There are significant and specific barriers for mothers with a history of drug use to seek treatment as fear of judgment by healthcare professionals, fear of punitive consequence including separation from children and overwhelming sense of fear and guilt related to consequence of their drug use on their children [3]. Pregnancy however may be the point of entry to the healthcare system to initiate the drug treatment process [16] as some pregnant women with substance use disorder seek help by replacing their current narcotics with methadone [13]. Creating a safe and welcoming atmosphere in the prenatal clinic is important in providing adequate medical care while retaining the woman in treatment during pregnancy and even if the woman continues to use drugs her prenatal care can improve the health of the woman and the unborn child [12]. To increase rates of breastfeeding among women with history of drug use, counseling about the safety of breastfeeding may need to be introduced at the initial prenatal visit and reinforced throughout pregnancy at each health care encounter by perinatal and substance abuse treatment clinicians [17]. Mothers with history of drug abuse and substance use disorder should be provided with concurrent addiction counseling, encouraged to remain abstinent while nursing and be educated on increased risks of adverse neonatal effects when using drugs [4]. Drug using patients have high risk of infections and psychiatric disorders as well as additional coexisting factors as poor nutrition, low education and low socioeconomic status although substance abuse crosses all socioeconomic lines [18]. Therefore it is important that a multidisciplinary team inclusive of Obstetrician/Gynecologist (OB/GYN), pediatrician/neonatologist, psychiatrist, social worker, and lactation consultant forms care and support these patients. National AIA Resource Center (NAIARC) (2012) further recommends involving these patients in individual, group, and family counseling; discharge planning; domestic violence services, and social work services in the community. Furthermore, successful treatment for substance abusing pregnant and parenting women must be gender-specific, and relationship-based. Substance-exposed children may be best served by comprehensive family centered programs that involve their entire families as engaging fathers in treatment and managing parental conflict are key to preventing child maladjustment (NAIARC, 2012).

## Conclusion

While one can consider the choice to use illicit drugs an individual right, this micro-ethical decision very quickly becomes macro-ethical dilemma. The societal and financial impact of substance exposure is high as the lifetime cost of caring for substance-exposed child have been estimated range between \$750 000 and \$1.4 million while care for exposed newborns in Neonatal Intensive Care Unit (NICU) reaches \$113 million annually (NAIARC, 2012). Given the cost associated with care for substance-exposed child and the increased recognition of the importance of early identification and treatment of this population it is unfortunate that the availability of residential services for mother-baby remains rare [3].

## Conflict of Interest Statement

None declared.

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