



## Drug Use During Pregnancy: Implications for Maternal and Neonatal Health

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 11 Sept 2023	<i>Drug use during pregnancy, both legal and illegal, is a growing public health problem that affects pregnant women and has serious repercussions on maternal and neonatal health. This daily consumption of multiple drugs, including socially accepted substances, increases the risk of complications and the development of neonatal abstinence syndrome. It is essential to provide education and specialized care to these women, implementing prevention strategies and a multidisciplinary approach. Lack of knowledge about the management of neonatal abstinence syndrome and breastfeeding in cases of active use are areas of research and action needed to improve maternal and neonatal outcomes. In conclusion, comprehensive intervention and adequate education are required to reduce the risks associated with drug use during pregnancy.</i>
CC License CC-BY-NC-SA 4.0	<b>Keywords:</b> Substance use, Pregnancy, Consequences, Literary review

### 1. Introduction

The consumption of licit and illicit substances represents an increasingly pressing challenge for public health at a global level, affecting different socioeconomic sectors and the population in general. However, it is alarming to note that this problem also frequently affects pregnant women, which has a negative impact on maternal, fetal and neonatal morbidity and mortality. A worrying aspect lies in the fact that these women consume more than one type of drug daily during pregnancy, including socially accepted substances such as alcohol and tobacco, in addition to abusing drugs for medical use (1), (2), (3).

During the research, it has been identified that the consumption of illicit drugs during the gestation period carries a high risk for both the mother and the fetus, since it can affect fetal growth, adaptation to life outside the womb with the manifestation of withdrawal syndrome and the subsequent development of the child. Most psychoactive substances cross the placental barrier by passive diffusion, which directly affects the fetus. In addition, it is necessary to consider the route of administration used, the dosage, the duration of consumption and the gestational moment at which exposure occurs.

During pregnancy, physiological changes occur that can alter the kinetics of drugs in the body, increasing toxicity and, therefore, morbidity and mortality. Women who are addicted to injecting

drugs are also at risk for serious infections, such as HIV, hepatitis B and C, which increases the possibility of vertical transmission to the newborn (3), (4), (5), (6).

Neonatal Abstinence Syndrome is characterized by the presence of a set of symptoms and signs that show the hyperexcitability of the nervous, digestive and respiratory system of the newborn, resulting from the suspension of drugs that cause addiction in the mother. The onset and duration of the syndrome vary depending on the type of drug used, the amount ingested, and the time of use in relation to the date of delivery. The American Academy of Pediatrics (AEP) estimates that 70% of children of consuming mothers develop this syndrome (7).

The diagnosis of Neonatal Abstinence Syndrome does not represent a difficulty in most cases, although an individualized evaluation of each patient is required. In general, addicted patients exhibit irresponsible behaviour, which is also reflected in the lack of prenatal care, and this makes them responsible for many complications that can affect both themselves and the fetus and newborn (8), (9).

The use of illegal drugs not only affects a woman's body, but can also have repercussions at all stages of pregnancy. These substances expose women to risky behaviours that increase the chance of contracting serious infectious diseases, such as HIV and hepatitis B or C. The effects of substance use during pregnancy are multiple and generate a risk situation for both the fetus and the newborn. Adverse effects include prematurity, malformations, vertical infections, low birth weight, neonatal abstinence syndrome, among others. These effects not only affect the fetus during gestation, but also influence its adaptation to life outside the womb and its subsequent development as a child.

It is important to highlight the high frequency of neonatal abstinence syndrome in cases of consuming mothers, which manifests with a variety of signs and symptoms (digestive, neurological and autonomic) that require an initial therapeutic approach without drugs and subsequent pharmacological treatment. Any treatment should be individualized, taking into account the specific factors surrounding the child. It is essential to have specialized units for the control and follow-up of these cases after birth, since they require special attention (10).

Pregnant women who use drugs during pregnancy often have limited knowledge about the consequences of these substances, so it is crucial to provide ongoing training to all health care personnel working with these patients. Likewise, it is necessary to disseminate relevant information depending on each situation and particular diagnosis. Drug use during pregnancy increases the mother's risk of anaemia, blood and heart infections, skin infections, hepatitis and other infectious diseases, as well as sexually transmitted diseases. Almost all drugs present in the mother's bloodstream cross the placenta and affect the fetus. Illicit substances that generate dependence and addiction in the mother can also lead to addiction of the fetus (11).

In terms of effects of opioid use on the foetus and newborn, they have been observed to include low birth weight, mainly due to intrauterine growth retardation, as well as meconium aspiration due to hypoxia and fetal distress during delivery. In addition, neonatal opioid abstinence syndrome occurs. Although this syndrome is not fatal in adults, there is evidence that the fetus is more susceptible to it than the mother.

The symptoms are similar to those seen in adults and their onset depends on factors such as the daily dose of drug consumed by the mother, the duration of addiction and the interval from the last dose to delivery. The greater the volume and time of addiction, and the shorter the interval between the last dose and delivery, the greater the probability of the syndrome appearing. Among the most important symptoms are digestive (vomiting and diarrhea), neurological (irritability, hyperactivity, tremors, hypertonia, voracity, masticatory crises, myoclonus, apnea attacks and even seizures), respiratory (tachypnea), cutaneous (rubbing injuries) and other less common, such as sneezing, yawning, nasal congestion, insomnia and fever.

There are numerous factors that lead women of childbearing age and limited resources to fall into drug addiction, often resulting in unplanned pregnancies and repercussions on maternal and newborn health. Therefore, the objective is to describe the use of drugs during pregnancy and the damages that these substances cause.

## 2. Materials And Methods

The methodological approach of this study is an investigation of the quantitative paradigm of documentary type, information was collected and selected through the reading of documents, books and magazines, which allowed to develop the present research, (8). They define documentary review as a complementary observation technique, in case there is a record of actions and programmes. The documentary review allows to get an idea of the development and characteristics of the processes and also to have information that confirms or makes doubt of what the interviewed group has mentioned. The bibliographic and documentary review of the actions, experiences and ways of conceiving certain phenomena, situations and themes helped. The elaboration of a theoretical structure from this methodology used is essential to determine the consumption of drugs during pregnancy, and in this way, allows to delimit with greater precision the object of study and verify the state of the art that guides the conclusions as fundamental answers to the question posed.

## 3. Results and Discussion

The results are presented below after the literature review.

**Table 1:** Drugs and pregnancy

Finds	Article Name	Analysis
Illicit drug use during pregnancy leads to a high-risk situation for mother and fetus	Toxic effects of consumption. Drugs in pregnancy (4)	Drug use during pregnancy has serious repercussions as it affects the development of the child and the health of the mother (4)

Source: peer-reviewed articles. Own elaboration

**Table 2:** Neonatal abstinence syndrome

Finds	Article Name	Analysis
The onset and duration of NAS vary depending on the type of drug, amount consumed, and time of use in relation to the date of delivery.	Addictive substances and pregnancy: Nursing care for pregnant women and newborns to minimize their effects (8)	NAS occurs in a high percentage in mothers who use signs and symptoms due to eliminating the drugs that produce addiction (8)

Source: peer-reviewed articles. Own elaboration

**Table 3:** Characteristics of drug-dependent pregnant women

Finds	Article Name	Analysis
The behaviour of the addicted patient is usually irresponsible, and this also applies to prenatal care, which makes her responsible for many complications that can occur to her, the fetus and the newborn.	Cocaine: obstetric, medical and perinatal complications. Clinical characteristics and treatment of these patients (9)	The life of the pregnant addict is irresponsible for any act even of the being that is developing in his womb (9). In the effects of the ingested drug, they have the capacity to generate risks to the fetus and the newborn such as prematurity, malformations, neonatal abstinence syndrome etc. (12). In dependence on illicit substances, dependence or transmitted diseases can affect the fetus since drugs pass from the mother through the bloodstream through the placenta. Even the mother increases the risk of contracting anemia, infections, hepatitis etc. (13). Drug use leads to unwanted pregnancies and worsening maternal and neonatal health (15)
There are multiple effects that substance use can cause during pregnancy and that cause a risk situation in the fetus and newborn.	Drugs during pregnancy and effects on neonates and newborns (12)	
Illicit substances that cause drug dependence and addictions in the mother can also cause the fetus to become addicted.	Illegal drug use and pregnancy (13)	
Incidence of withdrawal syndrome, its manifestations	Institutional repository of the University of	

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and other effects produced by substance use in both mother and neonate before, during and after delivery.	Guayaquil (15)
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**Source:** peer-reviewed articles. Authors.

After reviewing the existing literature, it has been shown that the consumption of drugs, both licit and illicit, is more frequent in pregnant women. There are multiple causes that contribute to the development of addiction in this group, and it is worrying to note that many of these women use some type of drug on a daily basis. This phenomenon has a significant impact on maternal-fetal and neonatal morbidity and mortality, becoming a growing public health problem.

Drug use during pregnancy leads to numerous complications for both mother and fetus, affecting the woman's body and all stages of pregnancy. Some of these complications include infectious diseases, anemia, prematurity, malformations, low birth weight, and vertical infections. In several literature reviews, it is highlighted that one of the most relevant effects or complications of this consumption is neonatal abstinence syndrome, which occurs when the consumption of a drug that has caused dependence is abruptly stopped or reduced. This syndrome manifests itself through a variety of signs and symptoms, with neonatal seizures being one of the most prominent conditions.

Pregnant women who use drugs often lack information about the risks associated with these substances. It is therefore crucial that nurses intervene in these cases, based on the fundamental pillars of the national drug plan: prevention, education and rehabilitation.

The approach to this problem should be multidisciplinary and focused on prevention from the beginning of pregnancy. Once drug use is established, it is necessary to implement management strategies that include both non-pharmacological and pharmacological approaches. During the review, we identified a lack of knowledge regarding the management of neonatal abstinence syndrome, the occurrence and increase of which is attributed to the use of new drugs. Regarding breastfeeding, there is an important debate, since, although its benefits are undoubted, in cases of mothers with active consumption, the risks can outweigh the benefits. Therefore, it is essential to provide adequate education to both the mother and her family environment.

#### 4. Conclusion

Drug use during pregnancy is an ever-increasing public health problem, affecting both mother and fetus. It requires a comprehensive and multidisciplinary intervention that includes prevention, education and appropriate management of complications, such as neonatal abstinence syndrome. It is also essential to provide information and support to pregnant women and their families, in order to minimize the risks associated with this consumption and promote a healthy environment during pregnancy.

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