

**Illicit drug use during pregnancy: what is the harm to the baby's integrity?***Consumo de drogas ilícitas durante el embarazo: ¿cuáles son los daños a la integridad del bebé?**Uso de drogas ilícitas na gestação: quais os malefícios à integridade do bebê?***Thaís Orona Machado<sup>1</sup>**

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**Abstract**

The aim was to describe the main negative results in the baby's integrity and in its development resulting from the use of legal/illicit drugs by the pregnant woman during pregnancy. This is an integrative literature review, with a bibliographic survey from 2015 to 2020 in databases and electronic libraries SciELO, MEDLINE, LILACS, BDNF, Index Psychology Technical-Scientific Journals and Virtual Health Library (VHL). Using the descriptors: "illicit drugs, pregnancy and children". Ten articles that were part of the inclusion criteria were analyzed. It was evident that the consumption of legal/illicit drugs during pregnancy can cause irreversible damage to the baby/child and, despite this topic being considered an important public health problem, it lacks studies, and further research is needed for greater understanding of this situation.

**Descriptors:** Children; Illicit Drugs; Pregnancy; Drug Users; Teratogenesis.**Resumen**

El objetivo fue describir los principales resultados negativos en la integridad del bebé y en su desarrollo derivados del uso de drogas legales / ilícitas por parte de la gestante durante el embarazo. Se trata de una revisión bibliográfica integradora, con un relevamiento bibliográfico de 2015 a 2020 en bases de datos y bibliotecas electrónicas SciELO, MEDLINE, LILACS, BDNF, Índice de Revistas Técnico-Científicas de Psicología y Biblioteca Virtual en Salud (BVS). Utilizando los descriptores: "drogas ilícitas, embarazo e hijos". Se analizaron diez artículos que formaron parte de los criterios de inclusión. Se evidenció que el consumo de drogas lícitas / ilícitas durante el embarazo puede causar daños irreversibles al bebé / niño y, a pesar de que este tema se considera un problema importante de salud pública, carece de estudios y se necesita más investigación para comprender mejor esta situación.

**Descriptores:** Niños; Drogas Ilícitas; Embarazo; Consumidores de Drogas; Teratogénesis.**Resumo**

Objetivou-se descrever os principais resultados negativos na integridade do bebê e no seu desenvolvimento decorrentes do uso de drogas lícitas/ilícitas pela gestante durante a gravidez. Trata-se de uma revisão integrativa da literatura, com levantamento bibliográfico do período de 2015 a 2020 nas bases de dados e bibliotecas eletrônicas SciELO, MEDLINE, LILACS, BDNF, Index Psicologia Periódicos Técnico-Científicos e Biblioteca Virtual de Saúde (BVS). Utilizando os descritores: "drogas ilícitas, gravidez e crianças". Foram analisados 10 artigos que fizeram parte dos critérios de inclusão. Evidenciou-se que o consumo de drogas lícitas/ilícitas durante a gravidez pode acarretar danos irreversíveis ao bebê/criança e, que apesar desse tema ser considerado um importante problema de saúde pública, carece de estudos, sendo necessário então, novas pesquisas para um maior entendimento dessa conjuntura.

**Descriptores:** Crianças; Drogas Ilícitas; Gravidez; Usuários de Drogas; Teratogênese.

## Introduction

During pregnancy, there are several physiological changes necessary for the development of the baby and for the time of delivery, in addition to psychological and social changes that influence the individual psychological characteristic and other social relationships of the woman. Pregnancy is defined by the period of fetal development that lasts about 40/42 weeks in human beings, counted from the fertilization and nidation of the zygote until birth, the way of life taken by the pregnant woman directly interferes in her pregnancy<sup>1</sup>.

It is possible to monitor fetal development through prenatal care, according to the Ministry of Health (MS) prenatal care should start from the discovery of pregnancy and done once a month until the 36th week, from the 36th week onwards the indicated are appointments every 15 days and from the 38th week onwards, appointments must occur every week until delivery, prenatal care is divided into 6 stages so that the experience of this pregnancy is positive<sup>2</sup>.

The steps consist of nutritional interventions, aiming for women to have a balanced and healthy diet, maternal assessment consisting of examinations, fetal assessment of general measures, interventions for common physiological symptoms, interventions in health systems to improve utilization and quality of prenatal care. This is a summarized list of recommendations for prenatal care where women and newborns are expected to have the best care throughout pregnancy, childbirth and the puerperium<sup>3</sup>.

Currently, there is a lot of discussion about the use of alcohol and drugs, however starting this discussion during pregnancy is not easy. The tracking of drug use during pregnancy is of paramount importance to identify possible complications and additive risks for the baby during its development and to, based on the identification, plan interventions<sup>1,4</sup>.

The consumption of legal/illicit drugs is considered a significant problem of vulnerability and public health, being among the 20 main causes of health problems cataloged by the World Health Organization, however the identification of pregnant drug users has been frequent, which makes the problem more serious, as the integrity of the mother and fetus is compromised by exposure to drugs during pregnancy<sup>5</sup>.

The State Division for the Prevention and Repression of Drug Trafficking (DENARC) was founded on September 24, 1987, as a department of the Civil Police of the State of São Paulo - Brazil, the term drug being defined by them as:

*"The term drug refers to any chemical entity or mixture of entities that alters the biological function and possibly the structure of the organism. Those that act directly on the functioning of the Central Nervous System (CNS) and cause a variety of changes in behavior or perception are called psychotropic drugs and are divided into three groups: CNS depressant drugs - alcohol, barbiturates, benzodiazepines, inhalants and opiates, CNS stimulant drugs – amphetamines, cocaine*

Drugs can also be classified according to their legality, where legal drugs are those that are not prohibited in the legislation regarding production, use and commercialization and illegal ones that are prohibited by specific laws and that have the production, commercialization and consumption considered a crime<sup>7</sup>.

Legal and illegal drugs are considered diseases by the World Health Organization (WHO) and a public health problem, considering that they are used compulsively. Of these, the most used are alcohol, cigarettes, crack and cocaine, which worries nations around the world as they affect cultural, social, economic, political values and the quality of life of people with chemical dependency<sup>8</sup>.

Drug addiction is a major public health problem and has increased among pregnant women, the prenatal exposure of the baby to these substances increases the risk of obstetric complications and has serious consequences. Not just in the fetal development stage, but also lifelong implications. There are few recent follow-up studies on this theme, especially in Brazil<sup>9</sup>.

The objective of this study is to identify the negative impact on the baby resulting from the use of both legal and illegal drugs during pregnancy, such as teratogenicity, mental and neurological damage, as well as its impact on the development of children and adolescents.

## Methodology

The present study was carried out through an integrative literature review, which enables the summary and analysis of the scientific knowledge already produced on the topic addressed. The research was developed regarding the problem of the use of drugs of abuse by women while pregnant and the possible consequences for the baby.

The construction of an integrative review is developed from 6 steps, with this, the following steps were followed: identification of the topic and selection of the research question, establishment of inclusion and exclusion criteria/search in the literature, identification of pre-selected and selected, categorization of selected studies, analysis and interpretation of results and synthesis of knowledge on the subject and presentation of the review<sup>10,11</sup>.

Data were collected between August and October 2020, using databases and electronic libraries: Scientific Electronic Library Online (SciELO), Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Literature in Health Sciences (LILACS) São Paulo State Health Department, Nursing Database (BDENF), psychology index - technical-scientific journals and Virtual Health Library (BVS).

The Health Sciences Descriptors (DECS) "illicit drugs" and their synonyms "abuse drugs", "club drugs", "street drugs", "misuse drugs", "illegal drugs", "drugs" were used recreational" and "prohibited drugs", "pregnancy" and its synonym "pregnancy" and "children" and its synonym "child", using "OR" and "AND". No articles were found in



SciELO; Through the VHL platform, a total of 442 articles were found, being 385 in the MEDLINE database, 45 articles in LILACS, 5 articles in the Sec. Est. Saúde SP, 4 articles in the Index Psicologia - Technical-scientific journals and 3 articles in the BDEF<sup>12</sup>.

The following inclusion criteria were adopted: White literature (conventional or formal document that provides facilities for identification, dissemination and obtaining, produced within the commercial circuits) of the last 5 years, full text available for free and articles in English and Portuguese that address issues directly linked to the object of research of this study, which are the complications that may occur with the baby in the intrauterine phase through the use of drugs by the mother during the gestational period, resulting in 10 articles that fit the established criteria. The criteria for elimination were articles in different languages from which we searched, articles from

years prior to the last 5 years and by exclusion by title, these, integrative reviews and articles with themes that diverged from the research focus<sup>12</sup>.

Data organization was performed using an assessment instrument by tables that facilitate the identification of article structures, including article title, year of publication, authors, level of evidence, basis, results, and conclusion. As for the critical evaluation, the studies were read in full and the results were reread to identify relevant points that were repeated or highlighted, the flowchart Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) presented in Figure 1 shows how to choose the study articles<sup>12</sup>.

The study aimed to identify the main negative effects on the baby's integrity and on its development from the consumption of legal/illicit substances by the mother during pregnancy.

Figure 1. Selection flowchart of integrative review articles. Rio de Janeiro, RJ, Brazil, 2020



Results

After surveying the studies used to produce this literature review, 10 articles were selected, which were

organized in a table that comprises: title, authors, year, database, and the synthesis of the results, which are expressed in Table 1. The studies nationals cover 40% of the



theoretical framework used, followed by the United States with 30%, and Théquia, New Zealand and China, representing respectively 10% each.

Chart 1. Synthesis of studies on the use of drugs during pregnancy. Rio de Janeiro, RJ, Brazil, 2020

TITLE	AUTHORS	YEAR	DATABASE	SUMMARY OF RESULTS
A unique opportunity to study short- and long-term consequences in children prenatally exposed to illicit drugs and opioid maintenance treatment using czech and scandinavian registers	Roman Gabrhelík, Blanka Nechanská, Viktor Mravčík, Svetlana Skurtveit, Ingunn Olea Lund, Marte Handal.	2016	MEDLINE	The study found that although the drugs used in OMT had better obstetric and perinatal outcomes compared to the use of heroin and methamphetamine, their use may be associated with short-term negative effects, such as lower growth parameters and perceived long-term consequences, such as problems in cognitive development.
Características do desenvolvimento neuropsicomotor de lactentes filhos de mães que fizeram uso de drogas durante a gestação	Roberta Elian de Lima, Andrezza Aparecida Aleixo, Lúcio Borges de Araújo, Camila Piqui Nascimento e Vivian Mara Gonçalves de Oliveira Azevedo.	2017	LILACS	Of the 51 records analyzed, 39.2% belonged to the group of children of mothers who were drug abusers and 60.8% to the group of children of mothers who were not users. Infants born to mothers who were drug abusers showed greater delay in neuropsychomotor development.
Cigarette Smoking Status and Substance Use in Pregnancy	Emmanuel A. Oga, Katrina Mark e Victoria H. Coleman-Cowger	2018	MEDLINE	The study found that women smokers are more likely to use illicit substances during pregnancy, compared to recent smokers and non-smokers. Women who smoke during pregnancy, when compared to those who quit smoking, are more likely to use illicit drugs, in addition to having even more risk factors that can negatively affect maternal and fetal outcomes.
Desfecho Perinatal Em Gestantes Usuárias De Drogas Atendidas Em Um Centro Especializado	Marcos Benatti Antunes, Marcela de Oliveira Demitto, Camila Padovani, Kelye Cristina de Moura Elias, Antonio Carlos Monteiro de Miranda e Sandra Marisa Pelloso	2018	INDEX Psicologia-periódicos técnico científicos	The survey results showed that pregnant women who use legal/illicit drugs are more likely to have unfavorable perinatal outcomes such as prematurity, low birth weight and low Apgar value in the 1st minute, compromising the vitality of the NB and the mother.
Perinatal Outcomes inn Pregnant Women Users of Illegal Drugs	Tenilson Amaral Oliveira, Ana Aparecida Sanches Bersusa, Tatiana Fiorelli dos Santos, Márcia Maria Auxiliadora de Aquino e Corintio Mariani Neto.	2016	MEDLINE	The prevalence of hospitalized pregnant illicit drug users was 1.9% of the total number of participants during the study period. We observed that crack or pure cocaine, alone or together with other drugs, was the most common substance consumed by 95% of users. Low birth weight and maternal syphilis were associated with the use of these illicit drugs.
Prenatal Exposure to Recreational Drugs Affects Global Motion Perception in Preschool Children	Arijit Chakraborty, Nicola S. Anstice, Robert J. Jacobs, Linda L. LaGasse, Barry M. Lester, Trecia A. Wouldes e Benjamin Thompson.	2019	MEDLINE	With the study, you can see that babies who were exposed to marijuana showed improvements in relation to the perception of global movement when compared to those who were exposed to alcohol. In babies exposed to a combination of alcohol and marijuana, no changes were observed.
Prenatal Ketamine exposure causes abnormal development of prefrontal cortex in rat	Tianyun Zhao, Chuanxiang, Wei Wei, Haixing Zhang, Daqing Ma, Xingrong Song e Libing Zhou.	2016	MEDLINE	A study carried out in rats concluded that prenatal exposure to Ketamines can cause neurological damage such as cerebral apoptosis, loss and disturbances in neuronal maturation.
Psychological Functioning of women taking illicit drugs during pregnancy and the growth and development of their	Dana Serino, Bradley S. Peterson e Tove S. Rosen,	2018	MEDLINE	It was concluded that children in the cocaine and methadone groups were neurologically atypical relative to others. At birth, children in the marijuana group were younger and children in the cocaine group had motor and cognitive delays, both problems resolved over time. Children in the methadone group showed persistent growth and cognitive deficits.



offspring in early childhood				
Recreational use of marijuana during pregnancy and negative gestational and fetal outcomes: Na experimental study in mice	Sarah G. Benevenuto, Marlise D. Domenico, Marco Antônio G. Martins, Natália S. Costa, Ana Rosa L. de Souza, Jose L. Costa, Marina F.M. Tavares, Marisa Dolhnikoff e Mariana Matera Veras.	2016	MEDLINE	In this experimental study in rats, five minutes of daily low-dose marijuana exposure during pregnancy was shown to result in reduced birthweight, larger litter size, increased placental wet weight, and decreased placental fetal weight. Smoking marijuana during pregnancy, even at low doses, causes embryotoxicity and fetotoxicity.
Sex-specific alterations of White matter developmental trajectories in infants with prenatal exposure	Linda Chang, Kenichi Oishi, Jon Skranes, Steven Buchthal, Eric Cunningham, Robyn Yamakawa, Sara Hayama, Caroline S. Jiang, Daniel Alicata, Antonette Hernandez, Christine Cloak, Tricia Wright e Thomas Ernst.	2016	MEDLINE	Altered white matter developmental trajectories, which are often sex-specific, in several important tracts of infants with prenatal exposure to stimulants, may be due to epigenetic influences that lead to sex-specific delays or disrupted myelination, or neuronal growth aberrant, as observed in preclinical studies.

The articles selected for this literature review study addressed different types of substances, legal and illegal, such as: marijuana, cigarettes, cocaine, crack, heroin, and methamphetamine, with marijuana as the most prevalent substance in the studies. With this fact, an initially individual approach to the results obtained by the articles was necessary, given the discrepancies in results when comparing different drugs, and later the analysis and synthesis of the grouped information.

**Discussion**

Through the analysis of the studies, it was found that the use of drugs of abuse by pregnant women was prevalent in the United States (USA). In 2014, the rate was approximately 5.4% pregnant drug users<sup>9</sup>. In the 15–44-year-old age group, the prevalence was 10.8% for the use of alcohol, 3% for the use of tobacco, 4.4% for the use of illicit drugs and 11.8% for the use of illicit drugs concomitant with legal drugs, being the most frequent use among underage women. The overall prevalence of illicit or prescribed drug use during pregnancy, in a convenience sample conducted in Maryland - USA, with 500 pregnant women, was 27%<sup>4,13</sup>.

The use of drugs of abuse is an important public health problem that lacks epidemiological studies in Brazil, something that is not observed in countries like the one mentioned above. However, among the articles analyzed, the country in question was the second most discussed, followed by European countries, New Zealand, and China. In São Luiz, one of the Brazilian states, an analysis was carried out with 1447 pregnant women where it was concluded that the use of psychoactive substances during pregnancy was 22.3% in relation to the use of alcohol, 4.2% of tobacco and 1.4% in relation to some type of illicit drug<sup>9,13</sup>.

As for the countries of Europe, New Zealand and China, no data were found on the use of illicit substances in general, since in the studies of the countries in question the approach is focused on specific drugs prevalent in each territory. Taking as an example, in Europe, at national levels, Opioid is the predominant psychoactive use<sup>14,15,16</sup>.

It is estimated that the amount of people who use opioids in the European continent, according to an annual average carried out in 2012, was about 0.4% - which corresponds to 1.3 million individuals - in the age group between 15 and 64 years, 20% of this index being composed of women of childbearing age. Within Australasia, the effects of intrauterine exposure to methamphetamine were investigated due to the high prevalence of individuals who use it, despite the lack of general statistical data, the study is rich in information on the harmful effects of the abuse of illicit substances<sup>14,15</sup>.

A survey conducted in China points out that Ketamine, a substance with anesthetic purpose commonly used in surgeries performed on pregnant women due to the safety of its use, however, is popularly used by pregnant women in West and Southeast Asia as a recreational drug of abuse. Such information was the precursor to start an experimental study in rats, with success in proving neurotoxic effects in the offspring<sup>16</sup>.

Based on the articles analyzed, the experiments carried out on animals have the advantage of non-interference of lifestyle, environmental and socioeconomic factors, which may hinder the interpretation of results, for example, most of the toxicological knowledge regarding the effects of marijuana in fetal development and the reproductive system comes from studies in rodents<sup>17</sup>.



Regarding the harmful effects on the baby from the use of drugs of abuse by the mother, exposure to marijuana - the most used drug in the world, with 140 million users, can change the neuronal structure and its function through endocannabinoid receptors, which are well distributed in fetal brain<sup>9,17</sup>.

Neuropsychological impairments in learning, attention, memory, executive function, head circumference, lower weight and height at birth were observed compared to infants born to mothers who used other drugs<sup>9</sup>, increased risk for neonatal infection, delay in neuropsychomotor development, intrauterine growth retardation and teratogenicity<sup>17</sup>.

Cocaine use is associated with altered neuronal growth and cytoarchitecture, neuropsychological deficits in memory, attention, learning and school performance, neurobehavioral abnormalities (decreased orientation, hyperactivity, irritability), neonatal withdrawal syndrome, deficits in cognitive and motor development, abnormalities in the brain structure (necrosis, intraventricular hemorrhage, and cavitory lesions), risk for neonatal infection, premature birth and low birth weight<sup>4,9,13</sup>.

Factors such as clinical conditions at birth and at hospital, psychosocial disorders, maternal socioeconomic and behavioral risks can influence the development process of these infants, another factor of great influence is the concomitant use of illicit drugs with legal drugs, a study carried out with 10,000 pregnant women showed that 93% of all women who used cocaine during pregnancy also used alcohol and tobacco. Although the focus of the research is not focused on the abuse of legal substances, for this reason, it is inexorable to address them<sup>13</sup>.

In a 2012 study in Europe, nearly 734,000 opioid users received maintenance treatment with opioids, which has become the top treatment choice for pregnant women addicted to heroin. Methadone, a narcotic of the opioid group, was prescribed for this purpose to approximately 20% of these women and regardless of positive obstetric and perinatal results obtained with these drugs, its use can be harmful<sup>14</sup>.

This substance acts on opioid receptors interfering with DNA synthesis and mitosis of fetal brain cells, leading to neonatal withdrawal syndrome and lower growth parameters (weight, length, and brain circumference) in children who were exposed to this drug in the pre- birth, in addition to causing long-term problems in cognitive development, motor skills and eventually social skills<sup>9,14</sup>.

Crack, in turn, also results in delay in psychomotor development, structural abnormalities in the brain - such as subependymal cysts, vascular disease, subependymal hemorrhage and choroid plexus cysts - in addition to the risk of neonatal infection. The use of this drug during pregnancy can cause placental detachment, liver rupture, uterine rupture, heart attack and even death for this pregnant woman, whereas for the baby the consequences of using crack are intrauterine growth retardation, possible premature birth and low birth weight<sup>5,13</sup>.

The use of amphetamines and methamphetamines during pregnancy was associated with a greater than expected cardiac risk, gastroschisis and atresias of the small intestine, cleft lip, and cleft palate. However, these results are not restricted to the isolated use of methamphetamine, as the prevalence of its use during pregnancy is lower than the use of heroin, cocaine and other narcotics<sup>14</sup>.

Furthermore, 70-90% of methamphetamine users use it concomitantly with tobacco, which can lead to unreliable results from restricted methamphetamine use. Although there is little evidence about the long-term effects of its use, children exposed to methamphetamine in utero have decreased arousal, increased stress, decreased school performance, movement disorders, and lower scores on sustained, spatial, and verbal attention<sup>14,17</sup>.

Regarding the use of Heroin during pregnancy, there are a considerable number of negative consequences for the baby, such as parameters and symptoms of abstinence from this drug after birth, premature birth, negative long-term physical and mental results, as well as reports of development deficits<sup>14</sup>.

To analyze the effects of Ketamine, pregnant rats were exposed to it in sedative doses for two hours on the fourteenth day of pregnancy, for further study of the offspring. From this study the results obtained concluded that Ketamine causes a prolonged effect on the CNS, neurological toxicity of the developing offspring brain, leading to fetal cerebral apoptosis, neural loss, and disturbances in the maturation of neurons. Through these results it can be observed that the use of Ketamine during pregnancy is extremely harmful to the fetus, having harmful effects on brain development, specifically in the hippocampus and prefrontal cortex (PFC) of rats<sup>16</sup>.

Drug addiction during pregnancy is a challenge about obstetric care and the perinatal analysis of individuals who use illicit drugs. The negative effects generated for the mother-infant binomial are still controversial in the studies, as there are other associated factors that can contribute to change these results, such as the concomitant use of alcohol and tobacco, low adherence to prenatal care, the distinction of social classes, psychological disorders, physical and sexual abuse, environmental stressors, among others<sup>9,13,17</sup>.

Analyzing the studies, it was noted that there are vulnerability factors associated with the abuse of illicit substances by pregnant women, such as age, race/ethnicity, education, marital status, past or present addictions to other drugs, including alcohol and tobacco, physical or sexual violence, marital status, among others. These women who were exposed to illicit/licit drugs during pregnancy were associated with higher incidences of clinical and obstetric complications, with fewer consultations and higher numbers of hospitalizations<sup>4,5,14</sup>.

Given the findings, it appears that marijuana is the most used drug in the world and its use is predominant in certain countries, such as the USA, where the prevalence is 5.4%, with 11-20% being the rate of use by pregnant women. In Brazil, the prevalence of the use of this drug is also high, as well as for cocaine and crack, however, due to the lack of



studies on the consequences of drug use during pregnancy, the results obtained with research on the subject tend to be awfully specific and restricted to certain territories<sup>9,13,17</sup>.

Some countries have other drugs that are used more frequently, such as heroin which has become the most used opioid in Europe, with a prevalence of 0.4% equivalent to 1.3 million of the population. Regarding the other countries mentioned in this study, data were not found for a particular drug in relation to its prevalence throughout the territory, but in specific regions<sup>14</sup>.

Returning the focus to the object of study, the delay in neuropsychomotor development and neuropsychological damage were the negative effects in common associated with the baby of all the drugs addressed. As there were other similar negative effects found in more than one drug, the table below shows other similar effects found in different drugs, among those analyzed. The effects not included in the chart are those isolated for each type of drug.

Chart 2. Relationship between the negative effects of different drugs. Rio de Janeiro, RJ, Brazil, 2020	
Negative effects	Drogas com efeitos em comum
Low weight at birth	Marijuana, Cocaine, Methadone and Crack
Risk for neonatal infection and structural brain abnormalities	Marijuana, Cocaine and Crack
Premature birth	Cocaine and Crack
Neonatal Withdrawal Syndrome (SAN)	Cocaine and Opioids

Other illicit substances, such as ecstasy, were superficially addressed in the articles analyzed, not providing in-depth and relevant information for the preparation of this study<sup>13</sup>.

Despite the present study having as its object the negative effects resulting from the exposure of pregnant women to illicit drugs, alcohol and tobacco were the drugs most frequently reported in the analyzed studies, as almost all women who consume illegal drugs during the perinatal period do concomitant use with legal drugs. Legal drugs can have equally or more harmful effects on the developing fetus than illegal drugs<sup>13</sup>.

**Final Considerations**

Although the use of drugs of abuse during pregnancy is an important public health problem in the world, there is a lack of studies focused on this theme, especially in Brazil, which may be due to the low adherence of these pregnant women to prenatal care. Therefore, further in-depth studies are needed to elucidate better results.

Different results were observed in relation to the effects generated not only in fetal development but also

throughout its life, there is also a large discrepancy in relation to the data found in studies in different countries, some of them have a higher rate of pregnant women who are drug users than others, in addition to the fact that the prevalence of the type of substance used changes according to the location.

However, even in the face of such discrepancies in the results found in the research, it can be unanimously concluded that the consumption of drugs during pregnancy, whether these substances are legal or illegal, result in both physical and cognitive damage to the baby. Therefore, the development of new research is suggested to obtain more informed results and contribute with scientific knowledge on the subject.

This study analyzed through the literature review methodology the negative impact on the baby resulting from the use of both legal and illegal drugs during pregnancy. Consequently, there were limitations that this methodological approach provides, since discrepancies in results were found when comparing different countries and substances, which extinguished a specific approach to a drug, needing to address a broader aspect of harm.

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