

Prevalence of drug abuse among pregnant women

Prevalência do uso de drogas de abuso por gestantes

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Abstract

Objective: Determine the prevalence of drug abuse among pregnant women.

Methods: Cross-sectional study including 394 pregnant women who use the primary health care service. The dependent variable was the use of drugs during pregnancy and independent variables were: socioeconomic and obstetrics-related data.

Results: The prevalence of drug abuse among pregnant women was 18.28%. Multivariate logistic regression indicates the following significant variables: years of education, participation in a pregnancy group and healthcare professional orientation as to the risk of using drugs during pregnancy.

Conclusion: The results indicate the predominance of young mixed-race pregnant women, with low educational level, income of up to three minimum wages and who use drugs, the most common being cigarettes, followed by alcohol. Illegal drugs used were cocaine and its derivate, crack, as well as marihuana.

Resumo

Objetivo: Determinar a prevalência do uso de drogas de abuso por gestantes.

Métodos: Estudo transversal que incluiu 394 gestantes usuárias de serviço de atenção primária. A variável dependente foi o uso de drogas de abuso durante a gestação e as variáveis independentes foram: socioeconômicas e obstétricas.

Resultados: A prevalência do uso de drogas ilícitas entre gestantes foi de 18,28%. A regressão logística multivariada indicou como variáveis significativas: anos de estudo, participação em grupo de gestante e orientação de profissional de saúde quanto ao risco de usar drogas de abuso durante a gestação.

Conclusão: Os resultados indicam a predominância de gestantes jovens, pardas, com baixa escolaridade e renda de até três salários mínimos e que faz uso de drogas de abuso, sendo que a mais utilizada o cigarro, seguido do álcool. As drogas ilícitas utilizadas foram a cocaína e seu derivado o crack e a maconha.

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Introduction

The consumption of drugs has become a public healthcare problem, given that its inadequate use has been causing an increase of undesirable social events, such as family crises, violent episodes and preventable hospital stays, increasing the hospital bed occupancy rate, and, thus, leading to an overload in the Brazilian Unified Health System (SUS, as per its acronym in Portuguese).⁽¹⁾

The expansion of psychoactive drug consumption, especially alcohol, cocaine - used in the powder form and in the impure forms of base paste, crack, merla and different crack derivations that can be smoked, has reached women in their fertile age, causing various medical and social challenges in the relation between drug use and mother-child health.⁽²⁾ Although there are no reliable figures regarding drug use in pregnancy, there are evidences that women have a tendency to underreport drug use.⁽³⁾ In addition, it is not uncommon for health-care professionals to detect drug consumption during pregnancy.

Complications from drug use are not restricted to pregnant women, but also to the fetus, since most of these substances cross the placental and hematoencephalic barrier with no previous metabolization, affecting especially the central nervous system of the fetus, causing cognitive deficits, deformities, abstinence syndromes etc. in the newborn.⁽³⁾

The use of cocaine during pregnancy was once considered a crime in some US states. Nevertheless, other drugs also cause problems, such as nicotine and alcohol, which can produce more severe deficits in the development of the brain than certain illegal drugs, such as cocaine. Erroneous and biased interpretations of the literature can often affect educational programs and even lawsuits.⁽⁴⁾

There are deficiencies in the embracement of drug users, because when the social and cultural context in which the individual is inserted is recognized, it becomes possible to identify risk factors that permeate the dysfunctional use of drugs, a fundamental step for the creation of strategies

for health teams with families and people in vulnerable situations.⁽⁵⁾

Early diagnosis favors intervention and enables access to specialized treatment services and alternatives to deal with drug abuse during pregnancy and/or reducing complications for the mother and the newborn.⁽⁶⁾

Hence, comprehensive health care to pregnant women requires the study of drug abuse among these women so as to deal with them early and help them adequately in basic care. Thus, this study has the objective to determine the prevalence of drug abuse among pregnant women who use the prenatal service of health care centers.

Methods

This is a cross-sectional study performed with 394 pregnant women assisted at the 25 health care centers in the city of Maringá, located in northwest region of Paraná state.

Data were collected between January and July of 2012. The dependent variable was drug abuse during pregnancy. Independent variables were: age, years of education, marital status, profession, family income, race, pregnancy term, number of children, planned pregnancy, previous abortion, chronic diseases, hospitalization during pregnancy, participation in a pregnancy group and healthcare professional guidance as to the risks of drug use. The only thing taken into consideration was the pregnant woman's declaration at the moment of interview.

Data were arranged in spreadsheets using the software Excel for Windows 2010. Statistical analysis was performed using the calculation of frequencies of the defined variables. The software Statistical Analysis System (SAS) was also used to analyze multivariate logistic regression. Significance was set at 5% and the confidence interval was 95%.

The development of this study complied with national and international ethical guidelines for studies involving human beings.

Results

From the 394 women interviewed, 72 (18.28%) used drugs during pregnancy. The mean age of the pregnant women was 25.28 years (median 26.0). From 72 women, 63.89% were between 19 and 30 years, 48.61% were between 9 and 11 years of age, 36.11% were single, 59.16% were employed, 75% had a family income between two and three minimum wages and 45.83% were mixed-race.

As to obstetric variables, 54.17% were in their second term, had no children (44.44%), did not plan pregnancy (83.33%), never had an abortion (86.11%), had no mental illness (84.72%) and no chronic illness (86.11%), were not hospitalized during pregnancy (72.22%), did not participate in a pregnancy group (65.28%) and over a half declared having received no professional orientation (52.78%) (Table 1).

As to the multivariate logistic regression, significant variables were: years of education, participation in a pregnancy group and healthcare professional orientation as to the risk of using drugs during pregnancy.

Risk analysis showed an odds ratio of 9.41 (IC 95%: 1.52-58.07) for the variable years of education, i.e. the pregnant women who had less than four years of study had 9.41 times the chance of using drugs as compared to women with over 11 years of education. Women who did not participate in a pregnancy group had 4.13 (IC 95%: 2.11-8.12) times more chance of using drugs in relation to those who did. As to professional orientation by a member of the health care center regarding the risks of using drugs during pregnancy, results demonstrate that the women who had no orientation had 1.87 (IC 95%: 1.07-3.24) more chance of using drugs during pregnancy as compared to women who did receive orientation.

The most commonly used drug was cigarettes, followed by alcohol. From the interviewed women, six (1.52%) used these substances concomitantly and two (0.51%) used marijuana, cocaine and alcohol in association.

Table 1. Number and percentage of drug abuse among pregnant women assisted in the primary health care service according to obstetric variables

Obstetrics variables	n(%)
Pregnancy term	
First	14(19.44)
Second	39(54.17)
Third	19(26.39)
Number of children	
None	32(44.44)
Up to 2	29(40.28)
From 3 to 4	3(4.17)
Over 4	8(11.11)
Planned pregnancy	
Yes	12(16.67)
No	60(83.33)
Previous abortion	
Yes	10(13.89)
No	62(86.11)
Mental illness	
Yes	11(15.28)
No	61(84.72)
Chronic illness	
Yes	10(13.89)
No	62(86.11)
Hospitalization during pregnancy	
Yes	20(27.78)
No	52(72.22)
Participation in a pregnancy group	
Yes	25(34.72)
No	47(65.28)
Professional orientation at the health care center on drug abuse	
Yes	34(47.22)
No	38(52.78)

Legend: n = 72

These figures are alarming, because from the 394 women interviewed, 72 (18.28%) used some kind of drug, i.e., one out of every 5 pregnant women probably used these harmful substances to the fetus (Table 2).

Table 2. Relation of the drugs used by pregnant women assisted at the primary health care service

Drugs	n(%)
Alcohol	24(6.09)
Cigarettes	36(9.14)
Crack	02(0.51)
Marihuana	2(0.51)
Alcohol and cigarettes	6(1.52)
Alcohol, cocaine and marihuana	2(0.51)
None	322(81.72)
Total	394(100.0)

Legend: n = 394

Discussion

The effects of drug abuse during pregnancy have been reported on a number of studies, although as to illicit drugs, very few studies have been performed nationwide.

A study performed in Rio de Janeiro revealed that 5.5% of the pregnant women smoked and, in Spain, they found 16%, which is a higher percentage than that found in the present study (9.14%). Nevertheless, other studies demonstrated greater prevalences, up to 20%.⁽⁷⁻¹⁰⁾

The harmful effects of smoking are very subtle and harder to identify in relation to illicit drugs, and its use can go unnoticed to healthcare professionals, bringing consequences both during pregnancy and breastfeeding.^(11,12) Approximately 80% of smoking women continue the habit during pregnancy. In the past few decades, there was a decrease in the number of people who smoke, due to the increase in campaigns and local bans.⁽¹³⁾

In relation to alcohol consumption, 6.09% used it during pregnancy, which is consistent to the literature, with the prevalence of alcohol during pregnancy varying between 0.15% and 62%, depending on the type of study and the method of investigation used.^(14,15)

The mechanisms through which alcohol affects the concept have not been fully explained so far. It is believed that the substance crosses the placental barrier, leaving the fetus exposed to concentrations

similar to those in the maternal blood. Since metabolism and the elimination of alcohol are slower, the amniotic liquid is impregnated by the substance, making the environment inhospitable for the fetus and favoring the incidence of Fetal Alcoholic Syndrome (FAS).⁽¹⁶⁾

The variables years of education, participation in a pregnancy group and professional orientation at the health care center as to the risk of using drugs during pregnancy, have shown a statistically significant correlation, but that was not the case in the other studies.^(10,16) The importance of pregnancy groups at health care centers and the responsibility of healthcare professionals in the orientation of women on drug use during pregnancy must be highlighted.

The prevalence of the use of illicit drugs was 1.53%, and 0.51% reported frequently using alcohol, cocaine and marihuana, 0.51% only marihuana and 0.51% only crack. A Brazilian study using hair analysis of pregnant women, performed in São Paulo, Southeastern Brazil, found a 4% rate of marihuana use, 1.7% of cocaine and 0.3% combined use.⁽¹⁷⁾

The habit of using drugs, both illicit and licit, during pregnancy, may be underreported due to “guilty feelings” of the pregnant women, who, anticipating a possible repression and disapproval by the healthcare professional, may deny or underreport her drug use.

Drug use among pregnant women is a social and public healthcare problem. Pregnant women with chemical dependence have a lower participation rate in prenatal care, in pregnancy groups and a higher risk of obstetric and fetal problems. Moreover, most users abandon their children or may be legally declared incapable of taking care of their children.

They have a high-risk pregnancy, not only due to drug use during the development phase of the fetus, but also due to these women’s social and emotional state. Therefore, it is important to offer specialized services to follow up this population and to detect drug use among pregnant women early.

The results are positively associated with drug use in the population studied: years of education, participation in pregnancy group and healthcare professional orientation as to the risk of using drugs during pregnancy.

Despite the limitations of the results related to the cross-sectional method and to the self-reported information, the authors observed the need to train professionals in primary health care and to implement a specialized service to deal with these women after birth, since many are in situation of emotional and social risk.

The nurse is an essential professional in primary health care to perform and/or follow up the pregnant woman during prenatal care, and therefore professionals who perform prenatal must be trained to detect the use of these substances and to know how to adequately assist these pregnant women, supporting them in their desire to overcome addiction, and not merely judging or orienting regarding the implications of drug use for the woman and the fetus.

Conclusion

The results in this study indicate the predominance of young mixed-race pregnant women with low educational level, income of up to three minimum wages and who use drugs, the most common drug being cigarettes, followed by alcohol. Illegal drugs used were cocaine and its derivative, crack, as well as marihuana.

Collaborations

Kassada DS; Marcon SS; Pagliarini MA e Rossi RME have collaborated with the conception of this project, analysis and interpretation of data, writing of the article, relevant critical review of its intellectual contents and the final approval of the version to be published.

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