



Factors associated with the use of alcohol and drugs by pregnant women

Fatores associados ao uso de álcool e drogas por mulheres gestantes

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Objective: to verify the association between sociodemographic conditions and the involvement of pregnant women with drugs. **Methods:** a cross-sectional study was carried out with 268 pregnant women in a public maternity hospital, through an interview. For the bivariate analysis Fisher's Exact Test and odds ratio with 95% confidence interval were used. **Results:** statistically significant associations were observed between the use of psychoactive substances by pregnant women and schooling ($p=0.017$), race ($p=0.020$) and housing condition ($p=0.014$). **Conclusion:** it was evidenced that different factors contribute to the occurrence of vulnerability to health among pregnant women, mainly resulting from the integration of individual and social aspects.

Descriptors: Drug Users; Pregnant Women; Social Vulnerability.

Objetivo: verificar a associação entre as condições sociodemográficas e o envolvimento de gestantes com drogas. **Métodos:** estudo transversal realizado com 268 gestantes em uma maternidade pública, por meio de entrevista. Para a análise bivariada utilizou-se o Teste Exato de Fisher e *odds ratio* com intervalo de confiança de 95%. **Resultados:** foram observadas associações estatisticamente significantes entre o uso de substâncias psicoativas pelas gestantes e a escolaridade ($p=0,017$), raça ($p=0,020$) e condição de moradia ($p=0,014$). **Conclusão:** evidenciou-se que diferentes fatores contribuem para a ocorrência de vulnerabilidade à saúde entre gestantes, sobretudo resultante da integração de aspectos individuais e sociais.

Descritores: Usuários de Drogas; Gestantes; Vulnerabilidade Social.

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Introduction

The consumption and commerce of psychoactive substances are behaviors that can impact on the life of the people who adopt them, as well as for their relatives and community. Therefore, consuming, marketing and/or living with people who use and/or participate in the market of licit and illicit drugs can lead to situations of vulnerability that generate social and health damages⁽¹⁾.

Women are involved with drugs in a variety of ways. Many live with people who use drugs and/or participate in trafficking, especially with their family members who play the role of father, partner, ex-partner and child. Whatever the form of involvement, women are vulnerable to harm and social and health problems that have an impact on their quality of life⁽¹⁾.

Although drug use is still higher among men and is considered a typical male behavior, there is an increase in the number of women using psychoactive, licit or illicit substances. According to the World Drug Report, some 250 million people between the ages of 15 and 64 have used at least one drug in 2014. Among the drugs most commonly used by women are opioids and non-prescription tranquilizers⁽²⁾.

Data from the II National Survey on Drugs indicate a prevalence of 39.0% of women who used regular alcohol and 12.8% used tobacco in 2012⁽³⁾. The National Survey of Penitentiary Information, produced by the National Penitentiary Department, shows that the increase in the number of women incarcerated has as its main motive the participation in drug trafficking, corresponding to 63.0% of the imprisonments in 2015⁽⁴⁾.

Despite the moral judgment on the practices of consumption by women, it is observed that they continue to consume such substances even when they are pregnant. A national study with 394 pregnant women identified that approximately 18.0% of the interviewees used drugs of abuse during pregnancy, with the most prevalent consumption of tobacco (9.1%) and alcohol (6.1%)⁽⁵⁾.

During pregnancy, women present physical, psychological, hormonal and social changes, with greater susceptibility to various diseases. When associated with drug involvement, the context of vulnerability of these women is expanded, and can directly affect the relationship between the mother-fetus binomial and the experience of motherhood.

Vulnerability in health results from the integration of individual, social and programmatic aspects. The individual dimension implies that all people are vulnerable, to a greater or lesser degree. It involves particular characteristics such as age, race and sex, as well as the way of life, the level of knowledge and the ability to face the grievance. The social is directly linked to the economic structure, the availability of public policies for education, health, culture, gender relations, among others. The programmatic dimension involves institutional interventions, such as access to actions for the prevention and control of diseases and social resources existing in the area of health services coverage⁽⁶⁻⁷⁾.

Socio-demographic and economic factors are elements that have an impact on social and health problems or damages in the lives of individuals or groups. The social context that permeates women with low schooling, multiparous, without occupation or with low remuneration produces situations of vulnerability, and these factors result from individual, collective and contextual aspects⁽⁸⁾.

Therefore, understanding the factors related to the social context that influence the involvement of pregnant women with drugs can contribute to the early diagnosis of vulnerability and the planning of interventions that assist in the development of healthy pregnancy. Thus, the article has as a matter of study: is there an association between the sociodemographic and socioeconomic characteristics of pregnant women and their involvement with drugs? To answer it, the objective is to verify the association between sociodemographic conditions and the involvement of pregnant women with drugs.

Methods

This was a cross-sectional study carried out with 268 pregnant women attended at a public maternity hospital in the city of Salvador, Brazil, between July and December 2013. Participants were included based on the following criteria: being enrolled in the unit and present conditions to interact with the researcher. Pregnant women under the age of 18 did not participate in the study. Due to the absence of specific records on monthly prenatal care, a non-probabilistic and convenience sample was chosen.

The pregnant women were approached in the waiting room of the service, while awaiting the attendance of the prenatal consultation, to clarify the objectives of the research. By agreement to participate in the study, the woman was taken to a private place where a structured, non-recorded interview was conducted, with an average duration between fifteen to twenty minutes.

Data were produced using an instrument containing as outcome variables: drug use by pregnant women at some point in life and the use of psychoactive substances by relatives; (age group, race color, marital status, religion, occupation, schooling, living conditions, financial dependence, family income and financial assistance).

The data were stored and analyzed in the Statistical Package of Social Science software version 20.0 of the Windows platform. The analysis consisted in estimating the association between the involvement with psychoactive substances and the sociodemographic conditions of the pregnant women, using Fisher's Exact Test, at the statistical significance level of 5% ($\alpha \leq 0.05$). In order to verify the magnitude of the associations, odds ratios and their respective 95% Confidence Intervals (CI) were estimated.

The study respected the formal requirements contained in the national and international norms regulating research involving human beings.

Results

Table 1 presents information on the association between drug use and the sociodemographic characteristics of pregnant women. The odds ratio for drug use was 2.6 times higher for illiterate women with incomplete elementary school (OR: 2.59; CI: 0.72-9.30). The relationship between schooling and drug use showed a statistically significant difference ($p=0.017$) between the groups, as well as between race and substance use ($p=0.020$). A statistically significant association ($p=0.001$) was observed between the use of psychoactive substances and housing conditions ($p=0.014$). Women living in a rented home were 2.8 times more likely to use drugs (OR: 2.82; CI: 1.16-6.83). There were more pregnant women who used some substance and declared themselves totally financially independent (30.8%), with income of one to three minimum wages (40.0%) and receiving no government benefit (59.7%).

Table 2 shows the relationship between the use of drugs by relatives/acquaintances and the sociodemographic variables of the participants. There were no statistically significant associations between these variables. Pregnant women totally dependent financially presented 2.5 times more chances to live with drug users (OR: 2.48; CI: 0.56-11.00). When associated with income, the use of psychoactive substances by acquaintances was higher among women who had between one and three minimum wages (42.2%). Pregnant women with a family income of more than three minimum wages had 3.9 more chances to live with people using drugs (OR: 2.51; CI: 0.72-8.70).

Table 1 – Association between drug use and sociodemographic characteristics of pregnant women

Variables	Drug use in life		p*	Odds ratio	CI(95%)**
	No (%)	Yes (%)			
Age group (years)					
< 20	3 (1.1)	28 (10.5)	0.498		
20 -29	29 (10.8)	126 (47.0)	0.60	(0.18 – 2.00)	
> 30	16 (6.0)	66 (24.6)	0.65	(0.18 – 2.29)	
Race					
Black	44 (16.4)	203 (75.8)	0.020	1.86	(0.35 – 3.38)
White	4 (1.4)	17 (6.4)			
Education					
Illiterate/Grade school incomplete	6 (2.2)	34 (12.7)	0.017	2.59	(0.72 – 9.30)
Grade school full/High school incomplete	5 (1.9)	62 (23.1)	0.61	(0.24 – 1.57)	
High school Full/University	37(13.8)	124 (46.3)			
Occupation (n=252)					
Unemployed	11(4.4)	60(23.8)	0.704		
Non Remunerated	8(3.2)	29(11.5)	0.65	(0.24 – 1.77)	
Remunerated	27(10.7)	117(46.4)	0.81	(0.38 – 1.72)	
Home					
Own home	41(15.3)	147(54.9)	0.014		
Rented	7(2.6)	73(27.2)	2.82	(1.16 – 6.83)	
Economic situation (n=263)					
Independent	19(7.2)	81(30.8)	0.381		
Totally dependente	20(7.6)	82(31.2)	1.79	(0.56 – 2.49)	
Partial dependency	7(2.7)	54(20.5)	1.19	(0.72 – 4.46)	
Family income (wages) (n=248)					
< 1	15(6.0)	58(23.4)	0.644		
1 a 3	18(7.3)	99(40.0)	1.42	(0.67 – 3.01)	
> 3-	10(4.0)	48(19.3)	1.22	(0.51 – 2.92)	
Social program					
No	37(13.8)	160(59.7)	0.592	1.27	(0.58 – 2.80)
Yes	11(4.1)	60(22.4)			

* Fisher's Exact Test; **CI – Confidence interval

Table 2 – Association between the use of drugs by relatives/acquaintances and the sociodemographic characteristics of pregnant women

Variables	Drug use by family members		p*	Odds ratio	CI (95%)**
	No (%)	Yes (%)			
Age group (years)					
< 20	1(0.4)	30(11.2)	0.742		
20 -29	8(3.0)	147(54.9)	1.11	(0.18 – 6.78)	
> 30	2(0.7)	80(29.8)	1.77	(0.22 – 14.12)	
Race					
Black	11(4.1)	236(88.1)	0.329		
White	-	21(7.8)	0.68	(0.93 – 0.98)	
Education					
Illiterate/Grade school incomplete	2(0.7)	38(14.2)	0.910		
Grade school full/High school incomplete	2(0.7)	65(24.3)	1.64	(0.27 – 9.98)	
High school Full/University	7(2.6)	154(57.5)	1.59	(0.34 – 7.44)	
Occupation (n=252)					
Unemployed	2(0.8)	69(27.4)	0.901		
Non Remunerated	1(0.4)	36(14.3)	0.87	(0.11 – 6.89)	
Remunerated	7(2.8)	137(54.3)	0.65	(0.15 – 2.84)	
Home					
Own home	8(3.0)	180(67.2)	1.000		
Rented	3(1.1)	77(28.7)	1.09	(0.30 – 3.90)	
Economic situation (n=263)					
Independent	6(2.3)	94(35.7)	0.352		
Totally dependent	2(0.8)	100(38.0)	2.48	(0.56 – 11.00)	
Partial dependency	3(1.1)	58(22.1)	1.17	(0.30 – 4.51)	
Family income (wages) (n=248)					
< 1	6(2.2)	67(25.0)	0.187		
1 a 3	4(1.5)	113(42.2)	2.51	(0.72 – 8.70)	
> 3	1(0.4)	57(21.3)	3.86	(0.63 – 23.61)	
Social program					
No	9(3.4)	188(70.2)	0.733	1.38	(0.33 – 5.74)
Yes	2(0.7)	69(25.7)			

* Fisher's Exact Test; **CI – Confidence interval

Discussion

The study presents limitations on sample selection and was developed in a health service as a research field, which interferes with the generalization of the findings. For this reason, a maternity hospital was chosen that served women from all over Salvador, Brazil and the metropolitan region, in order to contemplate a more diversified sample.

When assessing drug involvement associated with the sociodemographic characteristics of pregnant women, it was observed that drug use is a broad behavior adopted by people of all age groups. The highest proportion of consumption was perceived in the interviewees under 20 years of age. It is emphasized that the onset of consumption usually occurs during adolescence, by insertion into a new social context and influence of friends, family and the environment⁽⁹⁾.

Regarding consumption by relatives and/or acquaintances, the proportion of pregnant women was similar for the three age groups. This can be justified by the fact that alcohol use, for example, is part of rituals of socialization and recreation in different spheres of social life, becoming common in meetings with friends or family⁽⁹⁾. A national study has identified the influence of permissive and stimulating behavior by parents, siblings, uncles, cousins and partners among the factors that trigger women's drug use⁽¹⁰⁾.

Black women experience situations of vulnerability due to racial and gender inequalities⁽¹¹⁾. The relationship between race and drug use among pregnant women was observed. Being white presented itself as a protection factor for living with people who use drugs. In this context, vulnerabilities related to the use of substances can be enhanced by the existence of racial prejudice, judgment and violence. It is evident that the highest rates of violence are generally observed among married black women, which highlights gender and race inequality as a factor that increases vulnerability⁽¹²⁾.

There was a high proportion of pregnant women with complete primary education or incomplete secondary education who used and coexisted with

drug users. It should be emphasized that low schooling may contribute to increased vulnerability to drug use, so regular school attendance is considered a protection factor⁽¹³⁾.

Given that individual decisions are also influenced by social factors, drug use by family members can generate domestic instability; promote situations of individual vulnerability related to conflicts, violence and breakdown of affective relationships between peers⁽¹⁴⁾. The fragility of the bonds and the unstable domestic environment are factors that influence the continuity of the studies and the abandonment of the school. Therefore, the family destabilization caused by drug use can contribute to the maintenance of the continuous circle of vulnerabilities experienced by women.

The high proportion of unemployed pregnant women directly and indirectly involved in drugs is highlight. Survey data on the consumption of psychoactive substances reveal that the proportion of drug users is higher in the labor force compared to the general population, and that people who are unemployed or unsatisfied with their jobs are consuming alcohol, tobacco, drugs and other drugs⁽¹⁵⁾. Unemployment associated with drug use, poverty and inaccessibility to goods and services are elements that foster social vulnerability.

Pregnant women who use psychoactive substances, inserted in the informal labor market, usually have their income compromised by the financial instability that, associated with the economic crisis of the country, can affect the woman's ability to maintain the rent. This results in temporary housing, unhealthy housing or possibly street situations.

In addition to the unfavorable socioeconomic situation, low schooling, unemployment and underemployment contribute to inadequate housing conditions⁽¹⁶⁾, which directly influence the health condition of the population. The social and geographical context exerts important variations in health levels, because the characteristics of the environment and the people who live in it influence the processes of illness and death. The environment is the result of the interaction of

historical, social, individual and environmental situations that promote manifestations in the health-disease process of its inhabitants⁽¹⁷⁾. Therefore, the housing condition is a determining factor for vulnerability to health problems and other risk situations.

It was identified that the use of drugs by the pregnant women had relation with the condition of dwelling. Both consumption among women and living with users were proportionally higher among those who lived in rented houses. The need to revert part of the rent, which is already low, for rent payment, amplifies situations of social instability⁽¹⁸⁾. These vulnerabilities, associated with drug use, can be increased at the social and individual levels. The association between drug use, domestic violence, impoverishment, social withdrawal, loss of the home and street situation is evidenced⁽¹⁹⁾.

As for family income and financial dependence, there was a higher proportion of women who used drugs, had a family income of one to three minimum wages and depended partially on the partner or relative. The current scenario of social vulnerability determined by the exclusion and marginalization of the less favored populations and the concentration of income contributes to the increase of poverty and misery of the Brazilian population⁽²⁰⁾. The fact that women find themselves unemployed or engaging in low-paid activities, may make them economically dependent on the partner and collaborate to maintain an unsatisfactory or violent relationship.

An even greater proportion of drug use among women participating in social income transfer programs was also highlighted, which also showed greater coexistence with drug users. This can be justified by the fact that socio-welfare programs and benefits have as a priority public people in situations of extreme poverty, vulnerability and social risk.

Women involved with drugs are more susceptible to situations of vulnerability, especially in the context of maternity due to biological alterations such as preterm birth and fetal malformation; obstetric and perinatal context or gestational experience, mother-

-child relationship and maternity.

Therefore, the results of this research contribute to the visibility of the drug problem in the female population, especially for pregnant women and their contexts of vulnerability, with a view to minimizing the impacts on the mother-baby binomial and improving the health care of pregnant women involved with drugs.

Conclusion

It was evidenced that different factors contribute to the occurrence of vulnerability to health among pregnant women, mainly resulting from the integration of individual and social aspects.

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Porto PN contributed with the design, analysis, interpretation of the data and writing of the article. Borges SAC contributed to the writing of the article. Araújo AJS, Pereira MN, Oliveira JF and Almeida MS contributed with the design. All authors contributed to the relevant critical review of the intellectual content and approval of the final version to be published.

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