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# Prevalence of psychoactive substance use in pregnant and puerperal women

Prevalência do uso de substâncias psicoativas em gestantes e puérperas Prevalencia del consumo de sustancias psicoactivas en mujeres embarazadas y puérperas

Karen Barcelos Lopes<sup>I</sup>, Juliane Portella Ribeiro<sup>II</sup>, Alitéia Santiago Dilélio<sup>III</sup>, Amanda do Rosário Tavares<sup>IV</sup>, Beatriz Franchini<sup>V</sup>, Melissa Hartmann<sup>VI</sup>

**Abstract:** Objective: to investigate the prevalence of psychoactive substance use in pregnant and puerperal women attended at an outpatient clinic in a teaching hospital. Method: A descriptive transversal research with a sample of 174 pregnant and puerperal women. The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) and a sociodemographic and obstetric-gynecologic survey were utilized in data collection. Data analysis was performed through descriptive statistics. **Results:** the prevalence of psychoactive substance use among pregnant women was of 28.7% and 1.1% among puerperal women, with alcohol and tobacco as highlights. Tobacco constitutes the substance with greater frequency of use, triggering greater desire/urgency of consummation and a higher rate of intake lowering attempts. **Conclusion:** the use of psychoactive substances among pregnant and puerperal women constitutes a challenge to public health and for health professionals, eliciting the development of educational actions as well as early identification of these women.

Descriptors: Nursing; Pregnancy, High-risk; Postpartum Period; Drug Users; Maternal-child Health Services

**Resumo:** Objetivo: investigar a prevalência do uso de substâncias psicoativas em gestantes e puérperas atendidas no ambulatório de um Hospital Escola. **Método:** pesquisa transversal, descritiva, com amostra de 174 gestantes e puérperas. Na coleta de dados, utilizou-se o instrumento padronizado *Alcohol, Smoking and Substance Involvement Screening Test* (ASSIST) e um questionário sociodemográfico e gineco-obstétrico. A análise de dados foi realizada por meio da estatística descritiva. **Resultados:** a prevalência de uso de substâncias psicoativas entre as

VI Nursing academic. Nursery College. Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil. E-mail: hmelissahartmann@gmail.com. Orcid: https://orcid.org/0000-0002-3955-0558



<sup>&</sup>lt;sup>1</sup> Nurse. Nursing College. Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil. E-mail: karenbarcelos1@hotmail.com. Orcid: https://orcid.org/0000-0003-0734-938X

II Associate Professor. PhD. in Nursing. Nursing College. Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil. E-mail: ju\_ribeiro1985@hotmail.com. Orcid: https://orcid.org/0000-0002-1882-6762

III Associate Professor. PhD. in Epidemiology. Nursing College. Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil. E-mail: aliteia@gmail.com. Orcid: https://orcid.org/0000-0001-6718-2038

IV Nursing academic. Nursing College. Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil. E-mail: arosariotavares@icloud.com. Orcid: https://orcid.org/0000-0002-4262-1409

V Associate Professor. PhD. in Nursing. Nursing College. Federal University of Pelotas, Pelotas, Rio Grande do Sul, Brazil. E-mail: beatrizfranchini@hotmail.com. Orcid: https://orcid.org/0000-0003-3122-7091

gestantes foi de 28,7 % e 1,1% entre as puérperas, com destaque para o álcool e tabaco. O tabaco constitui a substância com maior frequência de uso; que desencadeia maior desejo/urgência de consumo; maior taxa de tentativas de diminuição. **Conclusão:** o uso de substâncias psicoativas na gestação e puerpério constitui-se um desafio à saúde pública e para os profissionais de saúde, suscitando o desenvolvimento de ações educativas, bem como a captação precoce dessas mulheres.

**Descritores:** Enfermagem; Gravidez de Alto Risco; Período Pós-parto; Usuários de Drogas; Serviços de Saúde Maternoinfantil

Resumen: Objetivo: investigar la prevalencia del uso de sustancias psicoactivas en mujeres embarazadas y puérperas atendidas en el ambulatorio de un Hospital Escuela. Método: investigación transversal, descriptiva, con una muestra de 174 mujeres embarazadas y puérperas. En la recopilación de datos, se utilizó el instrumento estandarizado Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) y un cuestionario sociodemográfico y gineco-obstétrico. El análisis de los datos se realizó mediante estadísticas descriptivas. Resultados: la prevalencia del consumo de sustancias psicoactivas entre las embarazadas fue del 28,7%, mientras que entre las puérperas fuel del 1,1%, con destaque para el alcohol y el tabaco. El tabaco constituye la sustancia de mayor frecuencia de uso; que desencadena mayor deseo/urgencia de consumo; mayor tasa de tentativas de disminución. Conclusión: el uso de sustancias psicoactivas en el embarazo y el puerperio constituye un reto para la salud pública y para los profesionales de la salud, suscitando el desarrollo de acciones educativas, así como la captación temprana de estas mujeres.

**Descriptores**: Enfermería; Embarazo de Alto Riesgo; Periodo Posparto; Consumidores de Drogas; Servicios de Salud Materno-infantil

## Introduction

The progressive rise of psychoactive substance use by women in the gravidic-puerperal period has been configuring an important public health issue. The United States Substance Abuse and Mental Health, the greatest source of information in the United Kingdom, noted that 5.4% of women reported illicit drug use during pregnancy in 2018, a substantial rise from 4.4% in 2010.<sup>1</sup>

In a national study by the National Drug Policy Secretariat (SENAD) and the Oswaldo Cruz Foundation (FIOCRUZ) regarding the use of crack in Brazil in 2012, with a sample of 7,381 users, men were the predominant; however, it is noteworthy that 21.32% of the sample were women. Of these, approximately 13% responded being pregnant during the time of the interview.<sup>2</sup>

Another study performed in the state of Maranhão, Brazil, with a sample of 1.447 pregnant women, identified that 1.45% made use of illicit substances (cannabinoids and derivates and/or cocaine and derivates), 22.32% of alcoholic beverages and 4.22% used

cigarettes.<sup>3</sup> Regarding the puerperal period, a cohort study with 674 women performed at Campinas, in the São Paulo state, observed that around 25% declared usage after childbirth, with more than 5% making concomitant use. The most utilized substance was alcohol (20.6%), followed by tobacco (13.2%), cocaine (2.3%) and marijuana and other drugs (1.9%).<sup>4</sup>

It is significant that, when usage involves pregnant and puerperal women, its consequences have greater extent, given that irreversible damage can occur to the mother and to the fetus.<sup>5</sup> The abusive use of alcohol can generate organism alterations as cardiovascular diseases, neoplasias, depression and neurological disorders, in addition to difficulty for gestational weight gain, lesser adhesion to prenatal appointments and possible increase in the use of other substances.<sup>6</sup> A study performed in Iran with 267 pregnant women found an association between the use of crack and higher rates of pre-eclampsia, placental abruption, premature labor and lower weight at birth.<sup>7</sup>

Issues arising from drug use are not restricted only to pregnant or puerperal women, but also to the fetus and the newborn. Researchers indicate that the occurrence of intrauterine growth restriction, prematurity, fetal death, neonatal abstinence syndrome and sudden infant death are only a few of the issues related to use during pregnancy.<sup>8-9</sup> Besides, it also requires extra postpartum care, for the puerperal woman can undergo abstinence, aggressiveness, isolation, difficulty in social coexistence, self-care or newborn care crises.<sup>10</sup>

In this context, early identification favors intervention and enables access to specialized treatment services and confrontational alternatives toward the use of psychoactive substances during pregnancy and puerperium, avoiding and/or mitigating maternal and neonatal issues.<sup>11</sup> However, early detection of psychoactive substance use is regarded as a shortcoming in the assistance of women in the gravidic-puerperal period. A study with 25 pregnant women seen in Basic Health units at Maringá, in the state of Paraná, Brazil, evidenced that health professionals generally did not cover matters regarding licit or illicit drug use during prenatal care.<sup>12</sup>

The approach regarding illicit or licit substance use must be a part of the prenatal routine, exploring the past and current consumption, amount and periodicity history.<sup>13</sup> Recognizing the existing fragilities in the actions of health professionals when screening and assisting pregnant and puerperal substance users, researchers allude to the necessity of developing activities of lifelong education to qualify early identification and offer a sensible accommodation to the health demands and specificities of these women.<sup>14</sup>

Facing the above, there is a necessity to investigate psychoactive substance usage by pregnant and puerperal women toward allowing for the future development of contextualized and effective actions. For such, the following research question is presented: what is the prevalence of psychoactive substances use amid pregnant and puerperal women? To answer this question, this study aims to analyze such usage in these populations specifically at an outpatient clinic of a teaching hospital.

## Method

This is a transversal descriptive study developed in a reference outpatient clinic for monitoring high-risk pregnant and puerperal women, located in a teaching hospital in the interior of the Rio Grande do Sul state, Brazil, from August to November 2018.

The total number of inhabitants of the city of Pelotas, 328,275, was used to perform the sample calculation. A total of 1% corresponds to the number of pregnant women, totaling 3,283. To calculate the number of pregnant women which are high-risk, the parameters proposed by the Ordinance n. 650 of October 5<sup>th</sup>, 2011, were considered, in which 15% of the total number of pregnant women would pertain to this group. Thus, this proportion estimates a total of 493 pregnant women in the high risk group per year.

Given the objective of investigating the prevalence of psychoactive substance use in high-risk pregnant and puerperal women seen in the months of August, September, October and November of 2019 4/12 months were specifically considered in this study. Thus, a total sample size of 143 pregnant and puerperal women was stipulated, to which 20% was added considering possible losses or rejections, reaching a requirement of 172 women. It is noteworthy that during the investigated period it was possible to identify beyond the estimates, obtaining 174 participants.

The criteria for inclusion were being a high-risk pregnant or puerperal woman under cohort in the data collecting period; being capable of verbal communication through the Portuguese language, as it is the native language of the interviewers; and authorizing publishing the data in the scientific medium. The exclusion criterion was being a pregnant or puerperal woman lacking clinical conditions to participate, as having issues to communicate and dyspnea.

The pregnant and puerperal women were identified in the waiting room of the outpatient clinic. If accepted, they were directed to an available room for the referred service, toward providing privacy and discretion. In this occasion, the Term of Free and Informed Consent (TCLE), if older than 18 years old, was read; and if they were younger than 19 years old, the Term of Free and Informed Assent (TALE) was read, and their legal representatives were asked to sign the TCLE. After the awareness and acceptance to participate in the research were made explicit through their signature, data collection proceeded.

Data collection was performed through a semi-structured questionnaire with 16 questions, eight being multiple choice and eight open questions, aiming to capture information referring to sociodemographic and obstetric-gynecologic aspects of the sample, followed by the standardized instrument ASSIST, developed by the World Health Organization to evaluate psychoactive substance consumption.<sup>15</sup>

The instrument contains eight questions offering information regarding psychoactive substance use in life and the last three months, issues related to substance use, current risks or future issues arising from use, addiction indications and injectable drug use.<sup>15</sup> Each question

presents structured answers corresponding to a numeric value, which are added toward obtaining a final ASSIST score.

For data analysis, descriptive statistics with percentage calculation for categorical variables and median for numerical variables through simple frequency was utilized. Data were stored in Microsoft Excel® sheets, and the analysis performed through descriptive statistics using the statistics software Stata 12.0.

The aforementioned study respected Resolutions 466/12, 510/16 and 580/18 regarding research on human beings and was submitted to an Ethics Committee in Research in the Field of Health, being approved by the report n. 2.843.605, in August 24, 2018, and the Certification of Presentation for Ethical Appreciation n. 96034518.6.0000.5316.

## Results

# Sociodemographic and obstetric-gynecologic profile of the pregnant and puerperal women

The sample in this study was composed of 174 women, being 162 (93.1%) pregnant and 12 (6.9%) puerperal, being monitored at the outpatient clinic. It is noteworthy that there were no losses by refusal or not filling the data collection instruments in this period. Ages vary between 13 and 44 years old, with a prevalence of 20 to 29 years old (n=90; 51.7%). Regarding marital status, most reported being married (n=96; 55.1%), not having working activities (n=93; 53.4%), with education corresponding to incomplete high school (n=57; 32.7%) (Table 1).

**Table 1 -** Sociodemographic profile of the pregnant and puerperal women attending prenatal care at an outpatient clinic in the interior of Rio Grande do Sul (Aug/2018 to Nov/2018).

Variables	N(%)
Age (years)	
≤ 19	13 (7,4)
20 to 29	90 (51,7)
30 to 39	55 (31,6)
≥ 40	16 (9,2)
Marital Status	
Single	77 (44,2)
Married	96 (55,1)
Divorced	1 (0,5)
Education	
Illiterate	31 (17,8)
Incomplete Elementary School	23 (13,2)
Complete Elementary School	31 (17,8)
Incomplete High School	57 (32,7)
Complete High School	18 (10,3)
Incomplete Higher Education	10 (5,7)
Complete Higher Education	3 (1,7)
Graduation	1 (0,5)

Regarding the obstetric-gynecologic profile, 55 (32%) women reported having one or two previous abortions; the number of gestations varied from 0 to 9, averaging 2.55 gestations; and the number of children varied from 0 to 8. Gestational age varied from 7 to 41 weeks, predominantly  $\leq$  19 to 29 weeks (n=96; 59.2%), followed by 30 to 39 (n=59; 33.9%) and  $\geq$  40 (n=2; 2.1%). Regarding prenatal consultations, 114 (65%) of women stated less than six of them, and 60 (34.4%) more than six gestational consultations.

From the 174 (100%) interviewed women, 91 (52%) utilized another service during gestation; 141 developed issues associated with gestation, predominantly gestational diabetes mellitus (GDM) (n=60; 34.48%), pregnancy-induced hypertension (PIH) (n=39; 22.4%) and hemorrhagic syndromes (n=19; 10.9%); 29 (17%) were admitted during gestation due to issues associated with it. Regarding birth methods, six (50%) had vaginal birth and six (50%) had a C-section.

# Psychoactive substance use by the pregnant and puerperal women

The use of psychoactive substances in life was stated by 141 (81%) pregnant and puerperal women cared for in the outpatient clinic, being alcohol (n=134; 77%) the most utilized substance, followed by tobacco derivates (n= 75, 43.1%). Additionally, 33 (18.9%) interviewees stated never having used any psychoactive substances.

Regarding the last three months, 50 (28.7%) pregnant and 2 (1.1%) puerperal women reported having utilized some psychoactive substance. Generally, alcohol was the substance with greatest use prevalence (n=33; 63.4%) by the pregnant and puerperal women, followed by tobacco (n=28, 53.8%) and marijuana (n=2, 3.85%) use. It is noteworthy that 20 (38.4%) interviewees stated daily tobacco use (Table 2).

**Table 2** - Frequency of psychoactive substance use by pregnant and puerperal women attending an outpatient clinic in the interior of Rio Grande do Sul (Aug/2018 to Nov/2018) in the last three months

Frequency of use						
Substance*	Never N (%)	Once or twice N (%)	Monthly N (%)	Weekly N (%)	Daily or nearly every day N (%)	Total N (%)
Tobacco	112 (64,3)	2 (3,8)	1 (1,9)	5 (9,6)	20 (38,4)	28 (53,8)
derivates						
Alcohol	107 (61,4)	21 (40,3)	8 (15,3)	4 (7,6)	-	33 (63,3)
Marijuana	132 (79,3)	2 (3,8)	-	-	-	2 (3,8)

<sup>\*</sup>Cocaine/crack, amphetamine/ecstasy, inhalers, hypnotic/sedative, hallucinogen and opioid substances were not consumed in the last three months. There were pregnant and puerperal women who informed the simultaneous use of more than one substance or using none of the studied substances.

Amid the pregnant and puerperal women utilizing some substance in the last three months (n=52; 29.8%), 26 (50%) stated desire or urgency to consume tobacco derivates, while 22 (42.3%) manifested having daily or nearly every day desires. Regarding the other psychoactive substances, 16 (30.7%) reported desire or urgency to consume alcohol and 2 (3.8%) to consume marijuana in the last three months (Table 3).

**Table 3** – Desire or urgency to consume psychoactive substances in the last three months by pregnant and puerperal women attending an outpatient clinic in the interior of Rio Grande do Sul (Aug/2018 to Nov/2018)

	Desire or urgency				
	Never N (%)	Once or twice N (%)	Monthly N (%)	Weekly N (%)	Daily or nearly every day N (%)
Substance*					
Tobacco	30 (17,2)	1 (0,5)	-	3 (1,7)	22 (12,6)
derivates					
Alcohol	40 (22,9)	9 (5,1)	4 (2,3)	1(0,5)	2 (1,1)
Marijuana	54 (31,0)	1(0,5)	1 (0,5)	-	-

<sup>\*</sup>Cocaine/crack, amphetamine/ecstasy, inhalers, hypnotic/sedative, hallucinogen and opioid substances were not cited regarding desire or urgency for their use. There were pregnant and puerperal women who informed the simultaneous use of more than one substance or using none of the studied substances.

From those who utilized psychoactive substances in the last three months (n=52, 29.8%), eight (15.3%) pregnant and puerperal women marked the association between the use of tobacco derivates with health, social, legal or financial issues stemming from it. It is noteworthy that three (5.7%) stated forfeiting some activity expected of them due to alcohol and one (1.9%) due to tobacco derivates.

Among the pregnant and puerperal women utilizing some psychoactive substance in life (n= 141, 81.6%), 14 (9.9%) mentioned attempting to diminish or stop the use of tobacco derivates, five (3.5%) of alcohol and one (0.7%) of marijuana in the last three months. Eighteen (12.7%) stated that friends or family demonstrated concern due to their use of tobacco derivates, ten (7%) due to alcohol use and two (1.4%) due to marijuana use.

Amid the 174 (100%) pregnant and puerperal women interviewed in this research, 130 (74.7%) presented a low risk for psychoactive substance addiction, being 127 (72.9%) related to alcohol, 35 (20.1%) to tobacco derivates and 16 (9.2%) to marijuana, having no requirement for intervention.

In addition, 38 (21.8%) interviewed pregnant and puerperal women presented moderate risk for addiction, being 35 (20.1%) related to tobacco addiction, seven (4.0%) to alcohol and four (2.3%) to marijuana, which suggests a necessity for brief intervention on these women. Another five (2.8%) presented a serious risk of addiction to tobacco, demonstrating a need to referral for intensive treatment (Table 4).

Table 4 - Risk of dependency of pregnant and puerperal women attending an outpatient clinic in the interior of Rio Grande do Sul (Aug/2018 to Nov/2018), regarding the last three months of life

	Low Risk	Moderate Risk	Serious
Substance*			Risk
	N (%)	N (%)	N (%)
Tobacco derivates	35 (20,1)	35 (20,1)	5 (2,8)
Alcohol	127 (72,9)	7 (4,0)	-
Marijuana	16 (9,2)	4 (2,3)	-
Cocaine and crack	6 (3,4)	-	-
Amphetamines	3 (1,7)	-	-
Inhalers	1 (0,5)	-	-
Hypnotics/Sedatives	5 (2,8)	-	-
Hallucinogens	1 (0,5)	-	-
Opioids	1 (0,5)	-	-

<sup>\*</sup>There were pregnant and puerperal women who presented risk for dependency for more than one substance.

## Discussion

The pregnant and puerperal women participating in this study were between 13 and 44 years old, most were married, with no job activity and incomplete high school education. A similar profile was found in a research evaluating the risk related to drug consumption among pregnant women, where the average was between 14 and 40 years old, most being married or in a stable union, with more than 8 years of education.<sup>11</sup>

Regarding the obstetric-gynecologic profile, a study analyzing the epidemiological profile of the high-risk pregnant women in the central region of the Rio Grande do Sul State, Brazil, identified that most were multiparous, in the second trimester of gestation, having one

to three children and no history of previous abortions. 16 These data corroborate the ones found in the current study.

On the issues associated with gestation, there was a prevalence of GDM, followed by PIH and hemorrhagic syndromes. A research delineating the epidemiological profile of high-risk pregnant women which attended the Woman's Institute of the Department of Health at the municipality of Francisco Beltrão in the Paraná state, Brazil, evidenced that most of them were forwarded to specialized service due to Systemic Arterial Hypertension (SAH). That is, women with chronic SAH or the ones who developed PIH, resulting in most cases in a C-section.<sup>17</sup>

Alternatively, a cohort study of pregnant women whose childbirth were financed by the Unified Health System (SUS) in the municipality of São Paulo, with a sample size of 55,404 – 14.8% being high-risk, indicated that 2,360 were admitted during gestation for obstetric issues as infections, hypertensive diseases, diabetes and hemorrhages, corresponding to the most frequent causes of maternal mortality in Brazil and in the world, similar to the results of the current manuscript. <sup>18-19</sup> Furthermore, through a study performed with pregnant women which attended health units in the SUS network at the municipality of Rio de Janeiro, it was possible to observe that women with admission previous to childbirth had worse maternal outcomes, greater frequency of postpartum and ICU admission and greater maternal mortality rates than the ones with none. <sup>20</sup>

It can be remarked that prenatal monitoring can contribute to favorable outcomes, since it enables early detection of psychoactive substance use and timely treatment of its related issues. Thus, it becomes possible to control risk factors which bring complications to the health of the baby and the mother. <sup>21</sup>

In the outpatient clinic where this study was performed, the monitoring of high-risk pregnant women is organized through appointment scheduling, considering the ones admitted and associated with this service should have the necessary procedures and exams guaranteed, as well as the hospital beds for admission at the moment of childbirth or in complication

scenarios. However, more than half the pregnant and puerperal women interviewed referred to having utilized another service during gestation, which exposes the difficulties faced regarding the deficit of obstetric beds in the municipality and in the cities around it.

Still regarding prenatal care in the current study, a great number of women (65.5%) was revealed as having less than six appointments. However, it is not possible to assert that they have less appointments than it is proposed (minimum of six), seeing that most (59.2%) found themselves with apt gestational age to reach it.

Concerning psychoactive substance use in life, 134 (77%) pregnant and puerperal women in this research reported having utilized alcohol, 75 (43.1%) tobacco derivates, 20 (11.4%) marijuana and 6 (3.4%) cocaine and crack. Similar results were found in a research in the state of Paraná, Brazil, where 209 pregnant women answered the ASSIST instrument, which indicated that 86.1% had experimented alcohol, 35.4% tobacco, 5.7% marijuana and 1.4% cocaine. 10

In respect to substance use in the last three months, alcohol was the substance with the most prevalent consumption amid pregnant and puerperal women, followed by tobacco. Such results meet the findings of the National Survey on Drug Use and Health, which observed that 4.7% of pregnant women used psychoactive substances, and among those 13.6% utilized tobacco and 9.3% alcohol.<sup>21</sup>

It is significant that tobacco derivates were the psychoactive substances used most often by the pregnant and puerperal women in this study, with its daily usage being reported by 20 (38.46%) of interviewees. Tobacco was also mentioned as the substance triggering most frequently desire or urgency for its consumption. A research developed in Maringá with 25 drug-using pregnant women evidenced that they knew the harms such use can generate during pregnancy, nevertheless they had difficulty abandoning the addiction precisely for the dependency these drugs cause.<sup>11</sup>

Hence, many women feel fear and guilt from the possibility of harm to the fetus.<sup>13</sup> Consonant with these findings, the present study identified that tobacco was the substance with

the most attempts at diminishing use or abstinence among pregnant and puerperal women, followed by alcohol and marijuana.

Amid the pregnant and puerperal women who used psychoactive substances in the last three months and marked having health, social, legal or financial issues because of it, three (5.7%) stated not performing something normally expected by them sometime due to the use of alcohol, and one (1.92%) due to use of tobacco derivates. Researchers identify that drug use by the maternal figure may engender issues in familiar and social frameworks, such as disqualification in the job market due to the effects of use, discontinuity in marital bond and in the commitment to the familiar bond and negligence with their children.<sup>22</sup>

The present study exposed that friends and family demonstrated concern more often when the substance in use by the women were tobacco derivates, followed by the use of alcohol and marijuana. In this context, the potential of the social network for supporting the pregnant women which use psychoactive substances for mental health care is highlighted, since, when strengthened, it can aid them in facing their condition, helping and incentivizing the search for assistance.<sup>23</sup>

Regarding the degree of dependency, most interviews (74.7%) presented a low risk for psychoactive substances, without any need for intervention. However, the fact that pregnant and puerperal women users of psychoactive substances are discriminated due to association with irresponsible use contributes to the denial of consumption, and also toward not adhering to prenatal assistance for feeling shame, fear and embarrassment.<sup>24</sup>

Notwithstanding, it should be observed that an expressive number of women presented a degree of dependency from moderate to serious (24.7%), with most cases being related to the use of tobacco (22.9%). These results corroborate with the findings of a study performed in a hospital in the interior of the state of Rio Grande do Sul, Brazil, with a sample size of 2,656 pregnant women, in which 769 (28.2%) presented a history of current or previous smoking, and 49% of these smoked from 11 to 20 cigarettes in the 6 months previous to the current gestation.<sup>25</sup>

It is noteworthy that the moderate degree of dependency signals the necessity to perform a brief intervention, and the serious degree of dependency demands an intensive treatment to be dispensed onto the user.<sup>17</sup> However, only three interviewees mentioned undergoing through this treatment.

Considering that substance use is associated with the worst maternal, perinatal and child developmental outcomes, it is due to the health professionals to develop technical and psychosocial competences to support and stimulate women. One should emphasize that the best moment to approach them is during pregnancy, since one of the main motivations for suspending their drug use is the concern with gestation and the health of their children, in addition to being a period in which it is possible to perform an adequate and effective intervention, protecting the mother-fetus binomial from unfavorable perinatal outcomes. 26-27

As limits to this study, the presented results cannot be generalized to other populations, for they were developed in a specific service attending a population with their own characteristics, as it is a reference outpatient clinic for monitoring high-risk pregnant and puerperal women.

# Conclusion

It should be noted that tobacco derivates constitute the substances with higher use frequency, identified as the ones triggering desire or urgency for consumption. In addition, these were the substances presenting higher rates of attempts for diminishing use or for abstinence, as well as whose pregnant and puerperal women presented a degree of dependency from moderate to serious.

The results from the present study indicated the pertinence of evaluating psychoactive substance use by pregnant and puerperal women, since this is a singular population whose sociodemographic profile, added to the obstetric-gynecological profile, elicits greater attention of health professionals due to the consequences imposed on the health of the mother and the baby. In this sense, the professional fostering, removed from prejudice and stereotypes, constitutes a tool enhancing anamnesis and thus identifying factors which may risk the physical as well as the mental health of these women, such as GDM, PIH, hemorrhagic syndromes and psychoactive substance use.

Regarding specifically the tracking and evaluation of psychoactive substance use, it can be highlighted that utilizing standardized and validated instruments as the ASSIST has great value, especially in the gravidic-puerperal period, when the women are more sensitized about the harmful effects these substances can engender to their child. Additionally, ASSIST is an instrument which is easy to understand, fast to apply, explores the different kinds of substances and directs the professional to the type of necessary intervention according to the presented degree of dependency.

This panorama exposes that the use of tobacco in gestation and puerperium constitutes a challenge to public health and health professionals, eliciting the development of educational actions exposing the consequences of substance use, as well as the early identification of these women for the elaboration of a singular therapeutic plan. This plan must encompass reduction and/or abstinence strategies to tobacco derivates, considering the dependency degree developed, its singularity and the underwent life period. Besides, the importance of support networks in this process can be highlighted, as it can be seen as a source of strengthening, capable of aiding in the confrontation toward supporting and incentivizing the cessation of use.

From these actions, the possibilities of the monitoring as developed through prenatal, puerperium and childcare consultations is amplified regarding reducing maternal and fetal complications. The necessity of future studies to investigate the offered assistance to pregnant and puerperal women users of psychoactive substances, analyzing identification and care strategies, is indicated.

## References

- 1. Substance Abuse and Mental Health Services Administration (SAMHSA). Key substance use and mental health indicators in the United States: Results from the 2018 National Survey on Drug Use and Health [Internet]. Rockville (MD): SAMHSA; 2019 [cited 2020 Sept 02]. Available from: https://www.samhsa.gov/data/sites/default/files/cbhsqreports/NSDUHNationalFindingsReport2018/NSDUHNationalFindingsReport2018.pdf
- 2. Bastos FI, Bertoni N, organizadores. Pesquisa Nacional sobre o uso de crack: quem são os usuários de crack e/ou similares do Brasil? quantos são nas capitais brasileiras? [Internet]. Rio de Janeiro: ICICT/FIOCRUZ; 2014 02]. acesso em 2020 Disponível em: https://www.arca.fiocruz.br/bitstream/icict/10019/2/UsoDeCrack.pdf
- 3. Rocha PC, Alves MTSSB, Chagas DC, Silva AAM, Batista RFL, Silva RA. Prevalência e fatores associados ao uso de drogas ilícitas em gestantes da coorte BRISA. Cad Saúde Pública. 2016; 32(1):e00192714. doi: 10.1590/0102-311X00192714
- 4. Pereira CM. Avaliação do uso de drogas na gestação e no período pós-parto [dissertação]. Universidade Estadual de Campinas, Faculdade de Ciências Médicas. Campinas: Universidade Estadual de Campinas; 2017 [acesso 2020 02]. em: http://repositorio.unicamp.br/bitstream/REPOSIP/325572/1/Pereira\_CynaraMaria\_M.pdf
- 5. Tacon FSA, Amaral WN, Tacon KCB. Drogas ilícitas e gravidez: Influência na morfologia fetal. Femina [Internet]. 2018 [acesso em 2020 02];46(1):10-8. Disponível em: https://www.febrasgo.org.br/media/k2/attachments/VolZ46Z-Zn1-Z2018.pdf
- 6. Ferreira BRM, Miranda JKS. As complicações causadas pelo consumo de drogas lícitas e ilícitas durante a gestação: um desafio para a equipe de enfermagem. Rev Recien. 2018;6(18):36-46. doi: 10.24276/rrecien2358-3088.2016.6.18.36-43
- 7. Aghamohammadi A, Zafari M. Crack abuse during pregnancy: maternal, fetal and neonatal complication. J Matern Fetal Neonatal Med. 2015;29(5):795-7. doi: 10.3109/14767058.2015.1018821
- 8. Santos RS, Estefanio MP, Figueiredo RM. Prevenção da síndrome alcoólica fetal: subsídios para a prática de enfermeiras obstétricas. Rev Enferm UERJ. 2017;25:e27793. doi: 10.12957/reuerj.2017.27793
- 9. Guimarães VA, Fernandes KS, Lucchese R, Vera I, Martins BCT, Amorim TA, et al. Prevalência e fatores associados ao uso de álcool durante a gestação em uma maternidade de Goiás, Brasil Central. Ciênc Saúde Colet. 2018;23(10):3413-20. doi: 10.1590/1413-812320182310.24582016

- 10. Santos RM, Gavioli A. Risco relacionado ao consumo de drogas de abuso em gestantes. Rev Rene. 2017;18(1):35-42. doi: 10.15253/2175-6783.2017000100006
- 11. Kassada DS, Marcon SS, Waidman MAP. Percepções e práticas de gestantes atendidas na atenção primária frente ao uso de drogas. Esc Anna Nery Rev Enferm. 2014;18(3):428-34. doi: 10.5935/1414-8145.20140061
- 12. Botelho APM, Rocha RC, Melo VH. Uso e dependência de cocaína/crack na gestação, parto e puerpério. Femina [Internet]. 2013 [acesso em 2019 jul 29];41(1):23-32. Disponível em: http://files.bvs.br/upload/S/0100-7254/2013/v41n1/a3777.pdf
- 13. Lopes KB, Ribeiro JP, Porto AR. Care strategies for pregnant and puerperal psychoactive substances users: an integrative review. Rev Enferm UERJ. 2020;28:e49518. doi: 10.12957/reuerj.2020.49518
- 14. Ministério da Saúde (BR), Secretária da Atenção à Saúde. Portaria Nº 650, de 5 de outubro de 2011. Dispor sobre os Planos de Ação regional e municipal da Rede Cegonha, que são os documentos orientadores para a execução das fases de implementação da rede, assim como para o repasse dos recursos, o monitoramento e a avaliação da implementação da Rede Cegonha. Brasília (DF): Ministério da Saúde; 2011.
- 15. Ministério da Justiça e Cidadania, Secretaria Nacional de Políticas sobre Drogas. Guia do estudante: SUPERA: sistema para detecção do uso abusivo e dependência de substâncias psicoativas: encaminhamento, intervenção breve, reinserção social e acompanhamento [Internet]. Brasília (DF): Ministério da Justiça e Cidadania; 2017 [acesso em 2020 set 02]. Disponível em: https://www.supera.org.br/@/material/mtd/pdf/SUP/SUP\_Mod3.pdf
- 16. Jantsch PF, Carreno I, Pozzobon A, Adami FS, Leal CS, Mathias TCS, et al. Principais características das gestantes de alto risco da região central do Rio Grande do Sul. Destaques Acadêmicos. 2017;9(3):272-82. doi: 10.22410/issn.2176-3070.v9i3a2017.1534
- 17. Costa LD, Cura CC, Perondi AR, França VF, Bortoloti DS. Perfil Epidemiológico de gestantes de alto risco. Cogitare Enferm [Internet]. 2016 [cited 2019 Jul 30];21(2):01-8. Available from: https://revistas.ufpr.br/cogitare/article/view/44192/28239
- 18. Moura BLA, Alencar GP, Silva ZP, Almeida MF. Internações por complicações obstétricas na gestação e desfechos maternos e perinatais, em uma coorte de gestantes no Sistema Único de Saúde no Município de São Paulo, Brasil. Cad Saúde Pública. 2018;34(1):e00188016. doi: 10.1590/0102-311X00188016
- 19. Say L, Berreix M, Chou D, Tunçalp Ö, Cottler S, McCaw-Binns A, et al. Maternal morbidity measurement tool pilot: study protocol. Reprod Health. 2016;69(13):01-6. doi: 10.1186/s12978-016-0164-6
- 20. Domingues RMSM, Hartz ZMA, Dias MAB, Leal MC. Avaliação da adequação da assistência prénatal na rede SUS do Município do Rio de Janeiro, Brasil. Cad Saúde Pública. 2012;28(3):425-37. doi: 10.1590/S0102-311X2012000300003

- 21. Coleman-Cowger V, Schauer G, Peters E. Marijuana and tobacco co-use among a nationally representative sample of US pregnant and non-pregnant women: 2005-2014 National Survey on Drug Use
- and Health findings. Drug Alcohol Depend. 2017;177(1):130-5. doi: 10.1016/j.drugalcdep.2017.03.025
- 22. Reis LM, Sales CA, Oliveira MLF. Narrativa de filha de usuária de drogas: repercussões no cotidiano familiar. Esc Anna Nery Rev Enferm. 2017;21(3):e20170080. doi: 10.1590/2177-9465-EAN-2017-0080
- 23. Wronski JL, Pavelski T, Guimarães AN, Zanotelli SS, Schneider JF, Bonilha ALL. Uso do crack na gestação: vivências de mulheres usuárias. Rev Enferm UFPE On Line [Internet]. 2016 [cited 2019 Jul 30];10(4):1231-39.

  Available from:

https://periodicos.ufpe.br/revistas/revistaenfermagem/article/viewFile/11108/12577

- 24. Bardi ND, Antunes B, Roos CM, Olschowsky A, Pinho LB. Estigma e preconceito: vivência dos usuários de crack. Rev Latinoam Enferm. 2016;24:e2680. doi: 10.1590/1518-8345.0852.2680
- 25. Dias-Damé JL, Lindsay AC, Cesar JÁ. Cessação do tabagismo na gestação: estudo de base populacional. Rev Saúde Pública. 2018;53(3):1-11. doi: 10.11606/S1518-8787.2019053000619
- 26. Pereira C, Pacgnella RC, Parpinelli MA, Andreucci CB, Zanardi DM, Souza R, et al. Drug use during Pregnancy and its consequences: a nested case control study on severe maternal morbidity. Rev Bras Ginecol Obstet. 2018;40(9):518-26. doi: 10.1055/s-0038-1667291
- 27. Tavares AR, Ribeiro JP, Porto AR, Lopes KB, Hartmann M, Leon ER, et al. Perfil das gestantes atendidas em um ambulatório no Rio Grande do Sul e o uso de substâncias psicoativas. Rev Eletrônica Acervo Saúde. 2020;13(1):e5848. doi: 10.25248/reas.e5848.2021

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## Corresponding author

Juliane Portella Ribeiro

E-mail: ju\_ribeiro1985@hotmail.com

Address: Rua Gomes Carneiro, 01 - Balsa, Pelotas - RS.

CEP: 96010-610

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## **Authorship Contributions**

## 1 - Karen Barcelos Lopes

Contributed in the conception, project, analysis and interpretation of the manuscript data.

#### 2 - Juliane Portella Ribeiro

Contributed in the conception, project, analysis, interpretation of data and approving the final version to be published.

## 3 - Alitéia Santiago Dilélio

Contributed with analysis and data interpretation.

#### 4 - Amanda do Rosário Tavares

Contributed with analysis and data interpretation.

#### 5 - Beatriz Franchini

Contributed with the final revision.

#### 6 - Melissa Hartmann

Contributed with analysis and data interpretation.

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