ORIGINALES

Occurrence and factors associated with postpartum depression in the urban area of Brazil

Ocorrência e fatores associados à depressão pós parto em uma área urbana do Brasil
Ocurrencia y factores asociados con la depresión posparto en un área urbana de Brasil

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ABSTRACT:
Aiming to track postpartum depression among women followed in Primary Health Care, a sociodemographic questionnaire and the Edinburgh Postnatal Depression Scale were applied to 123 postpartum women between the second week and the sixth month after delivery. The frequency of postpartum depression in the sample was determined, and its association with sociodemographic variables was assessed using the chi-square test. Probable postpartum depression was identified in 19.51% of the participants, and this condition was associated with age group (36 to 44 years), age of the baby (4 or 6 months), marital status (divorced), low income and there was no association with maternal schooling. Thus, postpartum depression needs to be investigated in primary health care, paying attention to sociodemographic and individual aspects. These aspects need to be valued by nurses, who must establish a comprehensive care plan from prenatal care, to prevent this frequent puerperal disorder.

Keywords: Nursing; Psychiatry; Primary Health Care; Postpartum Period; Depression, Postpartum; Disease Prevention.

RESUMO:
Com o objetivo de avaliar a ocorrência de depressão pós-parto e alguns fatores sociodemográficos associados, entre mulheres acompanhadas na Atenção Primária à Saúde, um questionário sociodemográfico e a Escala de Depressão Pós-parto de Edimburgo foram aplicados a 123 puérperas entre a segunda semana e o sexto mês após o parto. A frequência de depressão pós-parto na amostra foi determinada e sua associação com variáveis sociodemográficas foi avaliada por meio do teste do qui-quadrado. A provável depressão pós-parto foi identificada em 19,51% das participantes, e essa

condição foi associada à faixa etária (36 a 44 anos), idade do bebê (4 ou 6 meses), estado civil (divorciado), baixa renda e não houve associação com a escolaridade materna. Assim, a depressão pós-parto precisa ser investigada na atenção primária à saúde, atentando para os aspectos sociodemográficos e individuais. Esses aspectos precisam ser valorizados pelo enfermeiro, que deve estabelecer um plano assistencial integral desde o pré-natal, para prevenir esse frequente transtorno puerperal.

Palavras-chave: Enfermagem; Psiquiatria; Atenção Primária à Saúde; Período Pós-Parto; Depressão Pós-Parto; Prevenção de Doenças.

RESUMEN:
Con el objetivo de rastrear la depresión pos parto entre las mujeres em Atención Primaria de Salud, se aplicó un cuestionario sociodemográfico y la Escala de Depresión Postnatal de Edimburgo a 123 puérperas entre la segunda semana y el sexto mes después del parto. Se determinó la frecuencia de depresión pos parto en la muestra y se evaluó su asociación con variables sociodemográficas mediante la prueba de chi-cuadrado. Se identifico depresión posparto probable en el 19,51% de las participantes, y esta condición se asoció con el grupo de edad (36 a 44 años), edad del bebé (4 o 6 meses), estado civil (divorciada), bajos ingresos y no había asociación con la escolarización materna. Por lo tanto, la depresión del parto necesita ser investigada en la atención primaria de salud, prestando atención a los aspectos sociodemográficos e individuales. Estos aspectos necesitan ser valorados por las enfermeras, qui deben establecer un plan de cuidados integral desde el prenatal, para prevenir este frecuente trastorno puerperal.

Palabras clave: Enfermería; Psiquiatría; Atención Primaria de Salud; Periodo Pos parto; Depresión Pos parto; Prevención de Enfermedades.

INTRODUCTION

Maternal health is increasingly investigated in the scientific community, and the postpartum period has been widely explored, especially Postpartum Depression (PPD), identified as a public health problem[1]. Postpartum Depression is a highly prevalent mental disorder that affects 10% to 20% of women in the postnatal period, causing emotional, cognitive, behavioral, and physical changes that usually start between the fourth and eighth week after delivery and intensify in the first six months[2].

PPD presents both psychic and physical symptoms. Physical symptoms are characterized by reduced energy and activity levels and may be associated with sleep problems, severe tiredness, loss or increase in appetite, and decreased sexual desire. On the other hand, psychic symptoms are characterized by low mood, difficulty concentrating, and experiencing pleasure in situations normally considered pleasant, decreased self-esteem, and a feeling of guilt. This clinical condition helps the individual nurture feelings of uselessness and incapacity, and in some cases, they may have suicide-related thoughts[3].

The PPD treatment is usually established according to the severity of the depressive condition presented. This treatment is based on the same established for depression unrelated to the postpartum period, psychotherapy and/or pharmacotherapy can be used and, in case of suicide or infanticide attempts, electroconvulsive therapy[4]. As a consequence of this disorder, the absence of interaction between mother and child stands out, which can be expressed by the following situations: hostility, rejection, negligence, aggressiveness, as well as less affection and greater anxiety of women when providing maternal care[3]. Given this reality, it is evident that the physical and

emotional care for the baby is vulnerable, focusing on possible affective and intellectual impairments of the child[3,5].

The main risk factors linked to the development of PPD are: low age of mothers, education, multiparity, being single or divorced, and economic issues represented by the fact that the woman or her spouse is unemployed[6]. The consequences for women affected by PPD are represented by the difficulties engaging and social interaction, with deficits in regulating their affective states[3,7].

Early and late repercussions for children are also described. They represent early manifestations: poor performance on developmental tests and high levels of insecure attachment to the mother at 12 months. Conduct disorders, impaired physical health, unsafe connections, and depressive episodes, on the other hand, represent the late repercussions[3]. It should be noted that the prognosis of this puerperal disorder is strongly linked to early diagnosis and rapid interventions. Thus, women need comprehensive care during pregnancy and in the puerperal period, minimizing the risk of developing PPD and preventing the consequences mentioned above[8,9].

From this perspective, it is emphasized that in the first weeks of the newborn's life, the woman seeks the health service, where the following interventions are commonly performed: encouragement of exclusive breastfeeding, vaccination of the baby and mother, test for neonatal screening, maternal and child health risk assessment, guidance on contraception, scheduling of postpartum and dental follow-up appointments for the mother and assessment of growth and development for the baby, and the indicative condition of PPD should still be investigated[10,11]. However, PPD is difficult to be diagnosed and, therefore, it is often not detected by the nursing staff or the obstetrician at first, since the initial symptoms can be confused with the period of postpartum emotional adjustment of the puerperal woman, called postpartum sadness[12].

Based on this context, it is considered important that scientific studies are carried out to track postpartum depression so that, in the face of signs of this disorder, women are referred to a specialized, qualified professional to establish the final diagnosis and start therapy. This intervention should predominantly take place in the context of primary health care, where nurses are responsible for welcoming and still play a leading role in disease prevention actions. In this sense[13], the ideal period for this survey is between two weeks and six months after childbirth, that is, during the period that women seek the services of the family health strategy. This study aimed to evaluate the occurrence of postpartum depression and associated demographic factors among women followed at a Health Unit located in the urban area of an inner city in the state of Minas Gerais, Brazil.

METHODS

This is a descriptive-exploratory, cross-sectional study with a quantitative approach approved by the Ethics Committee for Research with Human Beings at the University of Uberaba (CAAE: 68006017.6.0000.5145). The research was carried out in primary health care services located in sanitary district II of the urban area of a city in the countryside of Minas Gerais. The selection of this health district is because it is quite

large, with mixed social and economic characteristics, and there are many family health teams in it (fifteen).

Two hundred thirty-seven women registered in the Follow-up System of the Prenatal and Birth Humanization Program (SisPreNatal) were identified in this health district, and the sample size was calculated considering a minimum prevalence of PPD of 20%, 95% confidence, and 5% error, proceeding with a convenience sampling. The following inclusion criteria were established: be at least 18 years old; be in the postpartum period comprising the second week and the sixth month; reside in Health District 2 and be properly registered with SisPreNatal. The exclusion criteria were: live in a rural area of Health District 2 or live in areas covered by Health Districts 1 and 3.

Data collection took place between August/2017 to January/2018 and was carried out privately to protect the individuality of each participant. To do so, the structure provided in each of the aforementioned Health Units was used. The days and times of collection were organized, based on the schedules in which the puerperal women most attended the unit (heel prick test, a medical appointment for the woman or child, breastfeeding groups, among others).

To investigate PPD, the Edinburgh Postnatal Depression Scale (EPDS) was used, which has ten items and is currently in the public domain. It was developed in England in 1987[14]. Its objective is to track postpartum depression and its use is favored by the ease and speed of its application[15,16]. This scale's clinical and epidemiological value has been confirmed by several validation studies carried out in different countries, mainly among women in the postpartum period, with sensitivity and specificity in the range of 70-85%, depending on the cut-off point. It should be noted that the Scale (EPDS) was validated in several countries, and Augusto et al. carried out its Portuguese version in 1996[15,16].

The EPDS consists of a self-record tool composed of 10 statements, whose options are scored (0 to 3) according to the symptom presence or intensity. Its items cover psychic symptoms such as depressive mood (feelings of sadness, self-depreciation, and guilt, ideas of death or suicide), loss of pleasure in activities previously considered pleasant, fatigue, decreased ability to think, concentrate, or make decisions, in addition to physiological symptoms (insomnia or hypersomnia) and behavioral changes (crying fits). The sum of the points makes a score of 30, with a value equal to or greater than 12 being considered for depressive symptoms, as defined in the validation of the scale in a Brazilian sample[17]. Before applying that scale, a sociodemographic survey was carried out, including the following approaches: puerperal woman's age and education, family income, number of children, baby's age, marital status.

Data from the sociodemographic survey were typed, tabulated, and consolidated in the Microsoft Excel software by double entry and independent typists to minimize data entry failures. The database was transferred to the BioEstat version 5.0 software, through which descriptive statistics were performed, and the chi-square test was applied to assess the association between PPD and the puerperal woman's age, her marital status, her education, the family income, the number of children, and the baby's age.

RESULTS

The sample consisted of 123 postpartum women, and probable depression was identified in 24 (19.51%) of them. The sample characteristics and distribution of factors associated with possible postpartum depression are consolidated in Table 1 and detailed below.

Table 1: Characteristics and factors associated with postpartum depression in postpartum women of the urban area of a municipality in the countryside of the state of Minas Gerais.Uberaba, MG, Brazil, 2022.

	Variable	Sample description (%)	p-value (distribution in the sample)	PPD (%)	p-value (frequency of PPD)
	Puerperal woman's age		<0.0001		<0.0001
	18 a 26	53.66		19,70	
	27 a 35	35.77		15.91	
	36 a 44	10.57		30.77	
	Number of children		0.0012		0.0042
	1	38.21		14.89	
	2	30.89		26.31	
	3	17.07		9.52	
	4 or more	13.83		29.41	
	Baby age(months)				
≤1		27.64	0.0654	14.70	0.0109
2		15.45		15.79	
3		12.19		33.34	
4		13.01		25.00	
5		18.70		13.04	
6		13.01		25.00	
	Family income (minimum wages)				
≤1		27.64	0.0654	14.70	0.0109
2		15.45		15.79	
3		12.19		33.34	
4		13.01		25.00	
5		18.70		13.04	
6		13.01		25.00	
	Marital Status				
	Single	39.01	<0.0001	27.08	<0.0001
	Married	34.14		11.90	
	Cohabitation without marriage	15.47		15.79	
	Common-law	9.76		16.67	

marriage				
Divorced	1.62		50.00	
Maternal education		<0.0001		0.1991
Complete or incomplete elementary school	32.52		30.00	
Complete or incomplete high school	52.03		17.19	
Complete or incomplete higher education	15.45		5.26	

Source: Data collection

The women's age ranged from 18 to 44 years (median 26). An association was found between age and PPD (p<.0001), more prevalent in the 36-44 age group. The size of the children ranged from 1 to 10 (median 2), with 38.51% of them being primiparous, with an association of PPD (p=0.0042) with this variable, with a higher prevalence among women with four children or more.

The baby's age ranged from 0 to 6 months (median 3). There was an association of probable depression with the baby's age (p=0.0109), with the highest prevalence among mothers with babies aged 4 or 6 months.

In addition, family income ranged from less than a minimum wage to 10, with half (50.41%) earning up to one minimum wage. This variable was associated with the probable PPD (p<0.0001), noting that the frequency of postpartum depression tends to decrease with the increase in family income.

Concerning marital status, 19 declared they were cohabitating without marriage, 12 were in a common-law marriage, 48 were single, 42 were married, and two were divorced. In the analyzed sample, this variable was associated with PPD, more prevalent among divorced mothers (p<0.0001). However, given the low contribution of divorced mothers to the sample (1.62%), the high prevalence of PPD among them may not reflect reality. An analysis was then carried out excluding divorced mothers, in which no association was found between marital status and probable postpartum depression (p=0.0698).

As for education, the puerperal women reported having from incomplete elementary education to complete higher education, with a higher occurrence for complete high school incomplete or complete (52.03%). Results did not show an association between PPD and this variable.

DISCUSSION

The development of PPD in women is characterized by a variability of associated factors, capable of negatively impacting the quality of life of the puerperal woman, the

development of her child, and the relationship with her spouse[5,18-20]. Given the above, this study is relevant to nursing science as it tracks PPD in postpartum women and associates it with sociodemographic factors, which contributes to the knowledge of the signs of this disorder, in order to establish disease prevention actions and provide women with an early diagnosis.

As in this investigation that detected 24 (19.51%) women with PPD in a sample of 123 participants, a study carried out in Ethiopia with 450 women found that 102 of them (22.4%) had depressive symptoms indicating PPD, and they predominated between the first six weeks after delivery[21]. A similar percentage was found in a study developed in southern Brazil, in which 61 (21.9%) of the 278 women had symptoms compatible with PPD[12].

Considering this reality, the postpartum period and where PPD is tracked through the Edinburgh Scale should be valued. Thus, a study in which the scale was applied within 48 hours of the immediate postpartum period in a hospital environment resulted in not so significant data, because of 2,687 women interviewed in the aforementioned puerperal period and environment, in a medium-sized city in the south of the country, only 14% had symptoms compatible with PPD[6].

Despite this difference, it is stated in a study carried out in Brazil with 23,894 postpartum women that depression is one of the most frequent mental disorders in the postpartum period and is related to different sociodemographic and individual factors[22]. It is also added that damage to the mother's affective state can negatively interfere with the child's cognitive and behavioral maturation, as well as in their relationship[5,23].

Undoubtedly, PPD is a public health problem, as its frequency is significant in different scientific studies, as evidenced in this investigation. From this perspective, an association between probable postpartum depression and the following factors was confirmed: baby's age, maternal age, marital status, number of children, and education.

The investigation identified maternal age as a variable associated with a depressive state, with women between 23 and 27 years old being more susceptible to PPD, which is close to the findings of scientific research[24] indicating that young women (20 to 24 years) are more sensitive to depressive symptoms. It is noteworthy that adulthood pregnancy is a protective factor for postpartum mood disorders[6].

It differs from the present research, a cross-sectional study aiming to identify the risk factors and concerns of PPD in 360 women who sought care at a *North Central Regional Health Authority* clinic in Trinidad & Tobago, which showed that there was no significant association between PPD and the age. However, the study argues that younger women are more likely to develop PPD[20].

Before motherhood, the woman was adapted to the inherent roles (daughter, wife, worker, among others). After the baby's birth, she needs to include maternity among these roles, which tends to bring about intense changes in her life, requiring an adaptation so that the care of the baby can be carried out. This study identified the association with the baby's age in postpartum women with babies aged four months or six months. Considering that this condition can be associated with several other

stressful phenomena (lack of family support, interruption of activities, which can lead to socio-economic problems), it is justified that the first six months correspond to a period of emotional and daily adjustments that can lead to depressive conditions[25].

Although the low frequency of divorced mothers may influence the result of this study, there was an association of PPD with the mother's marital status, with a predominance among divorced women, which was also evidenced in scientific research[24] which highlights that partner support is essential for reducing the risk related to postpartum depression. It is also argued about the importance of women living with their spouses to minimize PPD[1].

This study corroborates with the studies already presented, carried out with 618 women who attended the health services in the city of DebreBerhan, Ethiopia, in which it is highlighted that widowed women are also more likely to suffer PPD, this if justified by the fact that having a partner contributes to the mental health of postpartum women[5].

The association with the number of children in this investigation was represented by having four or more children. Similar results were found in studies carried out in Brazil between 2011 and 2012[22] and specifically, in a medium-sized city in the extreme south of that country, during 2013[6], which point out that multiparity is directly related to probable depression. It is justified that many children tend to generate overload and stress for women[1].This reality was detected in a study conducted in the United States, which also used the Edinburgh Scale as a tool for data collection[19].

There was no association between PPD and education level in this study. However, a recent Brazilian investigation using the Edinburgh Depression Scale[24] found association with low level of education. In the international context, a study carried out in Vietnam, with 116 women, detected an association between PPD and education, especially for women with a low educational level[18].

The association of PPD with lower family income was also observed in this investigation, which was also pointed out in a study carried out in 2017[12] as well as in investigations[8,23] mentioning an association between the unfavorable economic situation and the development of depressive symptoms in the puerperium. Family income is identified as a risk factor for the development of PPD. Thus, a study carried out with 124 postpartum women in the United States shows that employed women are less likely to develop the disease and also complements that employment has a protective effect for PPD[19].

CONCLUSIONS

In this study, it was possible to identify the probable postpartum depression in 19.70% of the 123 postpartum women who participated in the investigation. This condition was associated with the following factors: baby age (two months or between five and six months), multiparity (having four or more children), maternal age (36 and 44 years) and family income, with low income prevailing.

At first, the fact that the study does not cover perinatal factors and circumstances associated with childbirth, which can also affect the emotional state of women after

childbirth, stands out as a limitation. However, it was possible to show that postpartum depression needs to be investigated in primary health care, including sociodemographic and individual aspects, to establish a comprehensive care plan from prenatal care to prevent this frequent puerperal disorder. In this context, it is necessary that team members working in primary health care, with an emphasis on nurses, establish emotional care at all stages of the pregnancy-puerperal cycle, paying attention to the inclusion of tracking and monitoring postnatal depression among the priority actions during the puerperium.

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