ASSESSMENT OF POSTPARTUM DEPRESSION IN A BRAZILIAN MATERNITY: A PROSPECTIVE COHORT STUDY

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Abstract: Introduction: Depression is the most prevalent mood disorder in the general population. Among puerperal women, postpartum depression (PPD) stands out. It is estimated that the prevalence of PPD is 10 to 20% in the first six months after delivery and the diagnosis occurs more frequently in the period between the third and fourth week of the puerperium. One of the most widely used screening methods is the Edinburgh Postnatal Depression Scale, which makes it possible to identify and treat patients. **Objective**: To determine the prevalence and severity of Postpartum Depression in a cohort of postpartum women whose delivery took place between May and August 2021. To assess the sociodemographic data linked to diagnosed PPD cases. **Methodology**: Exploratory and descriptive research with a quantitative design. Conducted from the application of the Edinburgh scale in a cohort of puerperal women whose delivery took place at the Santa Casa de Misericórdia de Assis hospital and maternity. **Results**: The scale was applied to a sample of 70 postpartum women, of which 28 had a result suggestive of PPD (40%) when their score was greater than 10 on the applied scale. Among the variables studied, we could see a predominance of the 18-24 age group, greater parity among those at risk of developing PPD (scale greater than 10), in addition to identifying pregnancy planning and previous diagnosis of depression as vulnerability factors for the development of disorder. **Conclusion**: this study proves the need to include screening for the disease in public health policies, given its high prevalence among women.

Keywords: Postpartum period, Baby blues, Psychiatric Grading Scales.

INTRODUCTION

Depression is the most prevalent mood disorder in the general population. Females are 1.5 to 3 times more affected than males and there is a predominance among individuals between 18 and 29 years old, an age group that is equivalent to years of reproductive age. (AMERICAN PSYCHIATRIC ASSOCIATION, 2014; ACOG, 2018). Therefore, it is expected that there is a high incidence of depression during pregnancy and puerperium, with Postpartum Depression (PPD) being the most common complication (ACOG, 2018). This complication is characterized as a moderate to severe mood disorder, clinically similar to the Depressive Episode. Under the code F53.0, the ICD.10 includes it in the Mental and Behavior Disorders Associated with the Puerperium (WORLD HEALTH ORGANIZATION, 1997). As for the classification in symptomatic weeks, there are many differences in the literature.

This mood disorder is specific in the perinatal period, as women undergo unique changes during pregnancy, childbirth and the puerperium that make them more vulnerable to psychiatric disorders. Although the pathophysiological mechanism of postpartum depression is not completely understood, it is known that neuroendocrine and psychosocial changes are involved. Studies have suggested interactions between the hypothalamic-pituitary-ovarian axis and the serotonergic system. It is believed that the rapid drop in gonadal hormones (estrogen and progesterone) may decrease central serotonergic activity, causing a greater risk of mood disorders in vulnerable women (CANTILINO, et al., 2010; IBIAPINA, et al., 2010; ZUGAIB, 2010; ZUGAIB, 2010). 2016).

In addition, in the postpartum period, profound changes occur in the woman's psychosocial identity and family dynamics, leading to an increase in stressful events, such as: adding responsibility for another individual, social and body identity demands, sleep deprivation, difficulties in returning. to

work and socioeconomic changes (BOSKA, et al., 2016; COUTINHO, et al., 2008; SCHWENGBER, et al., 2003).

Data in the literature indicate that sociodemographic factors such as age, education, marital status, religion, health insurance, socioeconomic conditions, adequate prenatal care or not, gestational age at delivery, type of delivery, maternal and/or fetal complications, breastfeeding, complications in the puerperium, planned or unplanned pregnancy, parity, depressive antecedents prior to pregnancy, also increase the risk of developing the disease (ARRAIS, et al., 2018; COUTINHO, et al., 2008; SCHWENGBER, et al., 2003;). It is estimated that the prevalence of PPD is 10 to 20% among women in the first six months after childbirth (IBIAPINA, et al., 2010; CANTILINO, et al., 2010). Its diagnosis occurs mainly in the period between the third and fourth week, and can extend up to six months after delivery or, according to the DSM V, in pre-delivery in 50% of cases. It is based on clinical symptoms, such as: depressed mood, loss of interest, tiredness, indisposition, feelings of guilt and sadness, anxiety and panic, changes in appetite and sleep, the first two having to be present for at least two weeks. (IBIAPINA, et al., 2010) Among the screening methodologies to facilitate the identification and treatment of patients with PPD, one of the most used in several countries, including Brazil, is the *Edinburgh Postnatal Depression Scale* – EPDS). It is a self-administered, simple and quick scale, which can be performed by health professionals and consists of ten questions that address the main symptoms present in this disorder and their intensities, with each question scoring 0 to 3 points. In Brazil, a result greater than 10 suggests a diagnosis of PPD. (FEBRASGO, 2020; FIGUEIRA, et al., 2009). In addition, it favors screening and directs the diagnosis, since this can be difficult, as some of the symptoms

can be attributed to recurrent physiological changes in the postpartum period or to other psychiatric manifestations such as puerperal blues and puerperal psychosis, considered differential diagnoses of postpartum depression (FIGUEIRA, et al., 2009).

In the context of public health, the diagnosis and management of Puerperal Depression is extremely relevant, however, the existence of records in the literature is very infrequent and little investigated. In addition, the impact generated by PPD has significant changes in the relationship between mother and child, and added to its effects, can converge, negatively affecting the baby's development and an increase in stress in the family environment, generating conflicting issues that worsen the child's life.

Framework and coexistence at home and family dynamics (BRUM, 2017). In a general context, the knowledge and investigation of risk factors, the study of prevalence and early diagnosis favor adequate treatment and reinforce the importance of managing the disease not only in public health issues, but mainly in the behavioral, affective, social unfolding., cognitive and linguistic aspects of the child (BRUM, 2017).

Thus, the study was justified by the need to investigate and assess the prevalence of Postpartum Depression in the city of Assis-SP, in order to add literary data to the academic community, prove the need to include the screening of the disease in the public health policies in the face of the variables of risk factors and mainly to carry out the diagnosis for early treatment of the condition.

METHOD

For the design of the study, the present work was developed from an exploratory and descriptive research with a quantitative design in the cohort of puerperal women whose delivery took place at Santa Casa de

Misericórdia de Assis-SP from May to August 2021 in order to to obtain the prevalence of women with Postpartum Depression and its variables involved. The choice of this location was due to the fact that it is the SUS and private hospital and maternity hospital in the city of Assis-SP, with the highest number of births performed per month in the city. The appropriate approvals were obtained from the participating institutions, Santa Casa de Misericórdia de Assis and the Educational Foundation of the Municipality of Assis. Data collection began after approval by the ethics and research committee with the approval report number of CAAE: 43873420.0.0000.8547 of April 6, 2021 and the methods adopted comply with the Criteria of Ethics in Research with Human Beings as per Resolution 466/2012 of the National Health Council.

In a sample, the entire cohort of puerperal women over 18 years old whose delivery took place between May and August 2021 were selected. As exclusion criteria, there was a refusal to agree with the Free and Informed Consent Term of postpartum women, which does not authorize the application of the questionnaire. Therefore, 70 postpartum women participated in the study.

Data collection took place through a questionnaire formulated on the platform Google Forms, sent by email and/or Whatsapp to all postpartum women, according to preference. Both the e-mail address and the telephone number to be sent on Whatsapp were required from the parturient at the time of admission and/or discharge, as well as the preference for receiving them. These were oriented in front of the research, in order to be aware that from the fortieth day they would receive the questionnaire link in their preferred medium and that they must agree with the Free and Informed Consent Term described online and answer according to the questions. The questionnaire was sent and answered from the fortieth day of puerperium, due to the period found in the literature with the highest incidence of symptoms after the thirtieth day. This contained information about the research, the Free and Informed Consent Form (ICF), sociodemographic variables (age, education, ethnicity, marital status, socioeconomic conditions [whether they contributed to the family income and whether it was sufficient to pay for the monthly expenses], adequate prenatal care [6 or more consultations], gestational age at delivery, mode of delivery, maternal and/or fetal complications, exclusive or complementary breastfeeding, complications in the puerperium, planned or unplanned pregnancy, parity, depressive antecedents prior to pregnancy) and the Edinburgh Depression Scale. The model of the Edinburgh Scale used consisted of 10 questions with 3 alternatives each in which the participant must choose the alternative that best fitted her current feeling situation.

The collected data were tabulated using the Excel® program. The calculation of the prevalence of the number obtained in the sample of women diagnosed with Postpartum Depression was carried out from the answers given in the Edinburgh Scale and analysis of the elements of the sociodemographic profile applied in the questionnaire. The variation obtained from the data was analyzed according to frequency and comparison with previously published literature in a comparative scope.

RESULTS

The application of the scale was performed with a sample of 70 postpartum women. Of these, 40% had a result equal to or greater than 10 on the Edinburgh scale. At the time, 60% of the participants did not report symptoms of PPD (figure 1). The average obtained on the scale was 9 points, with the minimum result

equal to 0 points and the maximum equal to 27 point.

Among the 70 postpartum women, 48% are between 18 and 24 years old. As for education, 60% have completed high school. With regard to ethnicity, 57% declare themselves as white and 37% declare themselves as brown. Regarding marital status, 48% are married while 34% are single, as shown in Table 1.

In the analysis of Table 2, we observed that women at risk of developing postpartum depression (scale greater than 10) are more present in the labor market and 46% of them consider that their family income is not enough.

As for the parity of postpartum women, we observed that most women at risk of postpartum depression have 3 or more children (43%). Among those who scored less than 10 on the Edinburgh scale, most are primiparous (50%) (Figure 2).

Regarding the obstetric history, 97% of the puerperal women reported having had prenatal consultations, and 87% of them had more than 6 consultations. Gestational age at delivery was between 37-42 weeks for 97% of participants. The main mode of delivery was cesarean section (70%). Complications in childbirth were more frequent among those with a scale greater than 10 (28%) than among those with a scale of less than 10 (11%).

It can be seen in Figure 3 that, regarding pregnancy planning, women who scored less than 10 on the Edinburgh scale had a higher rate of pregnancy planning (45%), compared to those at risk of developing PPD, in which 21% had planned.

Data on breastfeeding reveal that of the mothers with an Edinburgh scale suggestive of PPD, 86% are exclusively breastfed, while the remaining 93% are also exclusively breastfed.

As for psychiatric history, we could see that among those with a scale greater than 10, 32% reported a previous diagnosis of depression, while among those with a scale less than 10, 12% had already been diagnosed with depression. (Figure 4).

DISCUSSION

The present study showed a high probability rate for Postpartum Depression among the participants (40%), a fact that corroborates the results found in the literature (AMORIM, et al., 2016; ARRAIS, et al., 2018; TEIXEIRA, et al.., 2021) in which the prevalence ranged between 14% and 39.13%. Such divergence can be explained by factors such as choice of scale to be used for screening and postpartum period in which data were collected, which may vary. (HARTMANN, et al., 2017).

The high rate found reinforces the importance of early identification of PPD symptoms, which favors the diagnosis and management of the condition. Other authors also point to PPD as an important public health problem, highlighting the need to implement screening strategies in primary care (MOLL, et al., 2019). The Brazilian Federation of Gynecology and Obstetrics Associations (FEBRASGO) recommends the use of the Edinburgh Postpartum Depression Scale (EPDS) as a screening strategy for the disease. Regarding the socioeconomic factors studied, age was not a determining factor for the risk of developing PPD, a finding similar to other studies (TEIXEIRA, et al., 2021). The age group with the highest occurrence of depressive symptoms was 18 to 24 years old, with a similar proportion to those who did not present depressive symptoms. Studies associate a higher prevalence in this age group with the main period of fertility for women in general (BOSKA, et al., 2016). Other studies point to age greater than 25 as a protective factor for the development of the disease (HARTMANN, et al., 2017). Education and ethnicity were not considered risk factors for symptoms of depression, although data in the
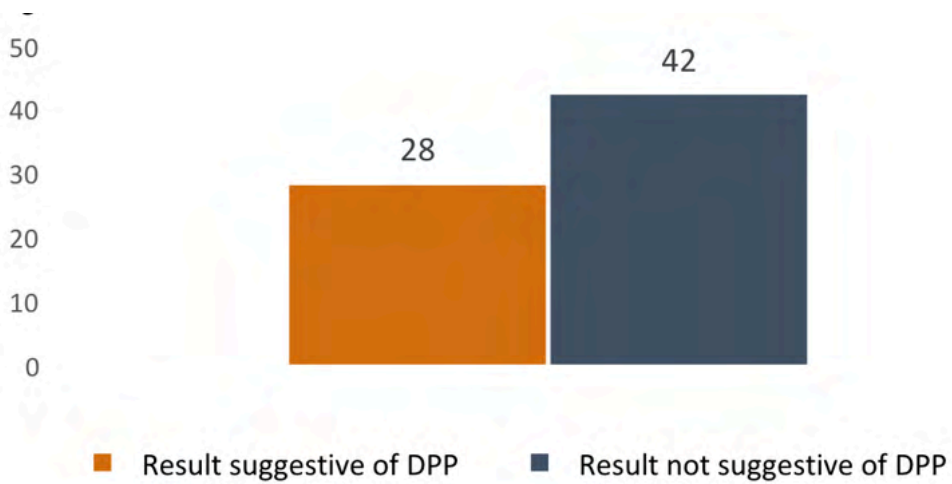
Figure 1: relationship between the responses of the Edinburgh scale, from May to August 2021.

Variable	n	%
Age		
18-24	34	48,57
25-29	11	15,71
30-34	16	22,85
35-39	8	11,42
> 40	1	1,42
Education		
Elementary school	9	12,85
High school	42	60
University level	18	25,71
The person does not know	1	1,42
Ethnicity		
White	40	57,14
Black	3	4,2
Brown	26	37,14
Yellow	1	1,42
Marital status		
Married	34	48,57
Single	24	34,28
Legal separation	2	2,85
Other	10	14,28

Table 1: Postpartum sociodemographic variables, Assis-SP, 2021.

Variable	Puerperal women with a scale > 10		>	Puerperal women with a scale < 10	
The person contributes to the family income					
Yes	18	64,28%		23	54,76%
No	10	35,71%		19	45,23%
It is considered enough income					
Yes	15	53,57%		27	64,28%
No	13	46,42%		15	35,71%

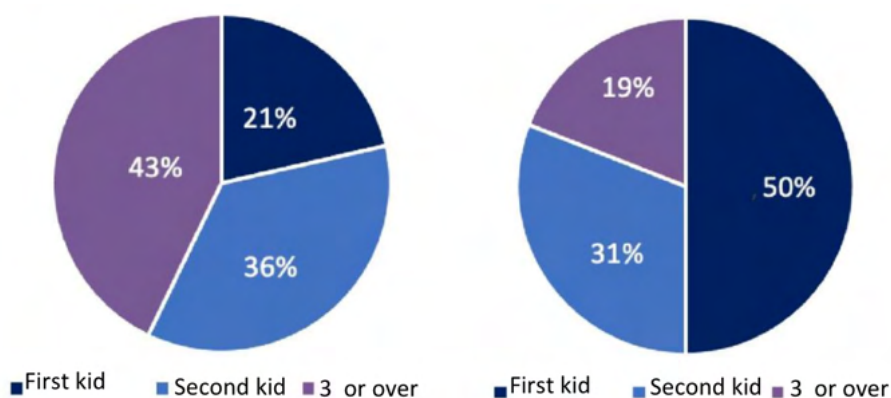Table 2: Postpartum economic conditions, Assis-SP, 2021.

Figure 2: Puerperal parity. On the left, those with a scale greater than 10. On the right, those with a scale smaller than 10. Assis-SP, 2021.
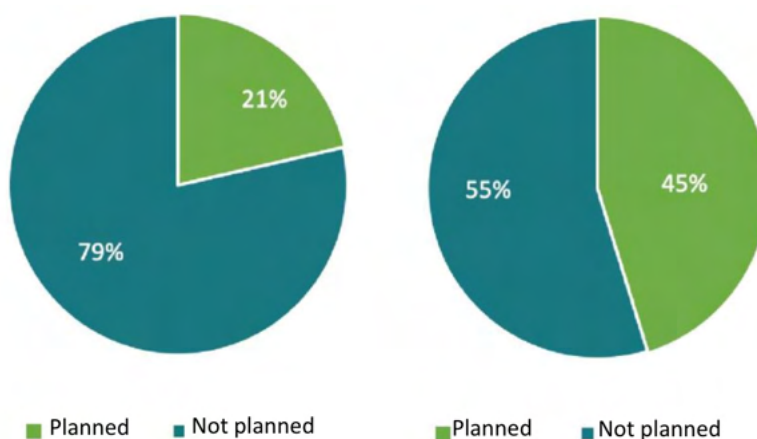

Figure 3: Pregnancy planning. On the left, those with a scale greater than 10. On the right, those with a scale smaller than 10. Assis-SP, 2021.
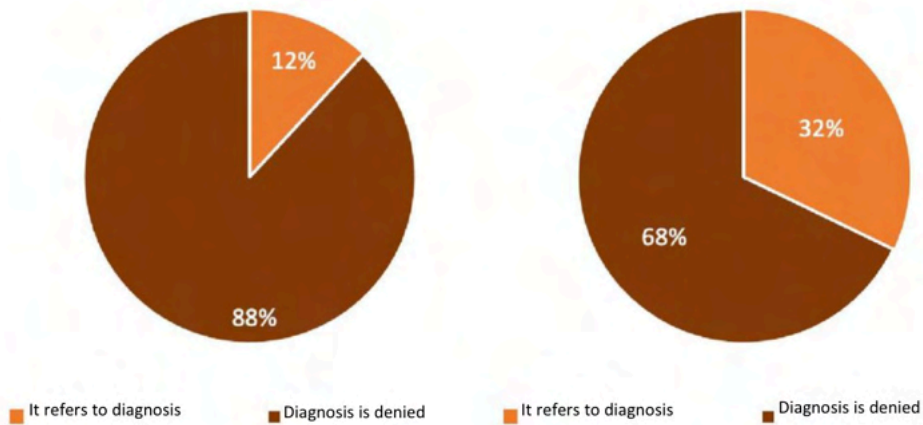
Figure 4: Previous diagnosis of depression. On the left, those with a scale greater than 10. On the right, those with a scale smaller than 10. Assis-SP, 2021.

literature indicate that the higher the level of education, the greater the protective factor for postpartum depression (BOSKA, et al., 2016; HARTMANN, et al., 2017). Regarding ethnicity, in some studies, a higher percentage was noted among the studies in relation to women who declared themselves white, but without significant numbers to consider as risk factors (HARTMANN, et.al., 2017). In others, it was shown that the self-declared brown color was more prevalent (TEIXEIRA, et.al., 2021).

Regarding economic conditions, it was observed that women at risk of developing postpartum depression (scale greater than 10) are more present in the labor market, corroborating literary data that suggested that these women face more challenges and responsibilities in this context, where they collaborate with family income, are more likely to have comorbidity (SHITU, S., et.al., 2019). In addition, women who declared that their income was not sufficient to cover monthly expenses had a higher prevalence, although with results that did not change the outcome of the diagnosis. The bibliographic studies consider that although it was not a factor

associated with the diagnostic conclusion, it can be said that this is considered a risk factor (HARTMANN, et al., 2017).

In the context of pregnancy planning, 78.57% of postpartum women with scores greater than 10 reported not having planned it, reinforcing the published data that unplanned pregnancies would have a 2x greater risk of the pregnant woman developing PPD (SHITU, S., et al., 2019). Childbirth complications were also more associated with postpartum women who are at risk (28%) than those who are not (11%), which, according to the studies, can be explained by the greater fragility they present in this period to deal with problems. of health (HARTMANN, et.al., 2017). Other studies considered these aggravations as precipitating factors of Postpartum Depression (ARAÚJO, I. S, et.al., 2019).

Regarding parity, it was characterized that the majority of women at risk of postpartum depression are multiparous (45%). In comparison to the data found, there was a certain divergence of these facts. They considered primigravidae as a risk, especially those of young age (SHITU, S., et.al., 2019; TEIXEIRA, et.al., 2021). Others identified

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multiparity (2 or more children) as a danger factor (HARTMANN, et.al, 2017; RUSCHI, G.E.C, et.al., 2007).

Marital status did not present significant rates among married, divorced and single women, to consider it as a risk issue, although the bibliography shows that women who live with their spouses are more susceptible to developing the disease, which is explained by the fact that marital conflicts contribute to the symptomatology (ARAÚJO, I. S, et.al., 2019; HARTMANN, et.al, 2017). However, others showed a higher rate among divorced and single women, justified by the greater challenges and less help they find (SHITU, S., et.al., 2019).

In the gynecological-obstetric situation, exclusive breastfeeding, the mode of delivery and adequate prenatal care or not, both scores on the scale, above or below 10, present similar values, having no relationship with the possible diagnosis, reaffirming the information. literature (RUSCHI, GEC, et.al., 2007).

Regarding psychosocial and behavioral factors, the occurrence of depression as a previous diagnosis among the participants had high rates of relationship with its development in the postpartum period, results that maintain high consideration for risk factor and prove the data of the studies surveyed (HARTMANN, et.al, 2017; (SHITU, S., et.al., 2019).

CONCLUSION

In conclusion, based on the characteristics presented in this study, the most prevalent in puerperal women who obtained the risk score for developing PPD were: unplanned pregnancy, previous diagnosis of depression, history of pregnancy complications, multiparity and presence in the labor market. The other factors were also related to the diagnostic outcome present in the current literature, although they were not identifiable as risk factors.

In addition, the high incidence (40%) of women participating in the research likely to develop Postpartum Depression on the scale reinforces the significance of preventive measures, screening and early treatment in the public health context, recognizing the condition as a governmental health problem. There is also the need to involve multidisciplinary care from the time of family planning, to the completion of prenatal care and delivery, with proper knowledge and monitoring of patients who have risk factors. It is understood that prenatal care represents a crucial step for the bonding and detection of these, with this, obtaining more effective results in interventions and outcomes for both the mother and the child.

In this scenario, the domain and application of the Edinburgh Scale among professionals from all areas of health, with or without experience in the psychiatric and gynecological area, being quick and easy to access, would imply an improvement in the screening of these women. Added to this, undoubtedly, knowledge of the signs and symptoms of PPD is also necessary for the rapid management of the condition, thus avoiding unfavorable results and possible suffering for these families.

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