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POSTPARTUM DEPRESSION EFFECTS ON THE PUERPERAL

OS EFEITOS DA DEPRESSÃO PÓS-PARTO NAS PUÉRPERAS

LOS EFECTOS DE LA DEPRESIÓN POSPARTO EN LAS PUÉRPERAS

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ABSTRACT

Introduction: Postpartum depression (PPD) is one of the diseases that has the greatest effect on the health status of postpartum women. Knowing the consequences and risk factors of this pathology in the puerperium is a key condition to identify its influences on both the mother's and the newborn's health and to provide effective interventions to combat the problem.

Objective: To assess how postpartum depression influences the health status of the puerperal woman and the newborn and which nursing interventions contribute to prevent the onset of this pathology.

Methodology: Integrative literature review using the PICO mnemonic to compile the research question. Articles were searched on the EBSCOhost platform, selecting articles published between January 2002 and December 2022 in the MEDLINE complete and CINAHL complete databases. Nine articles were selected and the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses – PRISMA method were followed.

Results: Most of the selected articles suggest there is scientific evidence that the presence of previous psychological and emotional illness and socioeconomic factors are the most relevant elements in the onset of the diagnosis of PPD in puerperae, such that not only the puerperal woman, but also the rest of the household are affected.

Conclusion: Based on the scientific evidence obtained, it is essential for nurses to develop interventions with the mother and her family members during and after pregnancy, to establish a close and trusting relationship with the whole household. Thus, there is a greater understanding of the whole context and a greater ease in identifying any indicator of PPD, in order to act and prevent the diagnosis.

Keywords: Depression; Newborn; Postpartum; Puerperae; Risk Factors; Women's Health.

RESUMO

Introdução: A depressão pós-parto (DPP) é uma das patologias que mais efeitos tem no estado de saúde das puérperas. Conhecer as consequências e os fatores de risco de tal patologia no puerpério é uma condição fulcral para identificar as suas influências tanto na saúde da mãe como na saúde do recém-nascido e para que sejam desempenhadas intervenções, de forma eficaz de modo a combater o problema.

Objetivo: Avaliar de que modo a depressão pós-parto influência o estado de saúde da puér-

pera e do recém-nascido e quais as intervenções de enfermagem que contribuem para prevenir o surgimento desta patologia.

Metodologia: Revisão integrativa da literatura que utilizou a mnemónica PICO para compilar a pergunta de investigação. Procedeu-se à pesquisa de artigos na plataforma EBSCOhost, selecionando-se artigos publicados entre janeiro de 2002 e dezembro de 2022 nas bases de dados MEDLINE complete e CINAHL complete. Foram selecionados nove artigos e seguiram-se as recomendações do método *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* – PRISMA.

Resultados: A maioria dos artigos selecionados sugerem existir evidência científica de que a presença de doença psíquica e emocional anterior e fatores socioeconómicos são os elementos com maior relevância no aparecimento do diagnóstico de DPP em puérperas, tal que não só a puérpera, mas também o resto do agregado familiar são afetados.

Conclusão: Com base na evidência científica obtida, é fundamental que os enfermeiros desenvolvam intervenções junto da mãe e dos seus familiares durante e após a gestação, de forma a estabelecer uma relação de proximidade e confiança com todo o agregado. Assim, há uma maior compreensão de todo o contexto e uma maior facilidade em identificar qualquer indicador de DPP, de modo a atuar e a prevenir o diagnóstico.

Palavras-chave: Depressão; Fatores de Risco; Pós-parto; Puérperas; Recém-nascido; Saúde da Mulher.

RESUMEN

Introducción: La depresión posparto (DPP) es una de las patologías que más afecta al estado de salud de las mujeres puérperas. Conocer las consecuencias y los factores de riesgo de esta patología en el puerperio es una condición clave para identificar sus influencias tanto en la salud de la madre como en la del recién nacido y para proporcionar intervenciones eficaces para combatir el problema.

Objetivo: Evaluar de qué manera la depresión postparto influye en el estado de salud de la madre y del recién nacido y cuáles son las intervenciones de enfermería que contribuyen a prevenir el surgimiento de esta patología.

Metodología: Revisión bibliográfica integradora utilizando la mnemotecnia PICO para compilar la pregunta de investigación. Los artículos fueron buscados en la plataforma EBSCOhost, seleccionando artículos publicados entre enero de 2002 y diciembre de 2022 en las bases de datos MEDLINE complete y CINAHL complete. Se seleccionaron 9 artículos y se siguieron las recomendaciones del método *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* – PRISMA.

Resultados: La mayoría de los artículos seleccionados sugieren que existe evidencia científica de que la presencia de enfermedad psicológica y emocional previa y los factores socioeconómicos son los elementos con mayor relevancia en el inicio del diagnóstico de DPP en puérperas, de tal forma que no sólo la puérpera, sino también el resto del hogar se ven afectados.

Conclusión: A partir de la evidencia científica obtenida, es fundamental que las enfermeras desarrollen intervenciones con la madre y sus familiares durante y después del embarazo, para establecer una relación cercana y de confianza con todo el hogar. Así, hay una mayor comprensión de todo el contexto y una mayor facilidad para identificar cualquier indicador de DPP, para actuar y prevenir el diagnóstico.

Descriptores: Depresión; Factores de Riesgo; Posparto; Puerpera; Recién Nacido; Salud de la Mujer.

INTRODUCTION

Postpartum depression (PPD) is a pathology that affects some women after childbirth. It is characterized by the presence of symptoms of depression, such as sadness, anxiety, irritability, easy crying, changes in sleep and appetite, lack of interest in previously pleasurable activities, among others. PPD can occur in any woman, regardless of age, race, educational level, or marital status. It is believed to be caused by a combination of biological, psychological, and social factors, including hormonal changes, genetic factors, stress, and lack of social support.

It is important to note that PPD is different from the "baby blues", which is a type of mild, temporary sadness that many women experience in the first few days after giving birth[17]. PPD, on the other hand, can last for weeks or months and can affect a woman's ability to care for herself and her baby. PPD is one of the conditions that causes the most damage to the health status of postpartum women and also has repercussions on the health status of newborns. It is very important that obstetric nurses know the consequences of postpartum depression in the puerperium, since this condition can affect the mental and physical health of the woman, as well as the emotional and behavioral development of the newborn. Some of the consequences of postpartum depression for the woman include increased risk of future anxiety and depression, relationship problems, difficulties at work, and increased risk of self-destructive behaviors such as alcohol and drug abuse. For the newborn, the mother's postpartum depression can affect the quality of mother-child interaction, making it difficult to establish a safe and healthy emotional bond. In addition, exposure to an emo-

tionally negative environment can affect the child's emotional and behavioral development, increasing the risk of future mental health problems.

In a prospective study conducted by Costa *et al* (2007)[11] the estimated prevalence of a depressive episode was 12.4% in the week after delivery and 13.7% three months after delivery. In another prospective study by Ferreira (2007)[12], the prevalence was much higher, 23.3%. According to the study by Sousa (2012)[7] cited by Nurs ClinNorth Am (2019) PPD has been increasingly manifesting in the present century, affecting between 10% and 20% of women, and consecutively the newborn, during the first year after delivery, and 25% after the first year.

In addition, there are other factors considered to be increased risk for the development of PPD, namely: existence of a personal history of PPD, depression during pregnancy, personal history of depression, family history of psychiatric disorders, stressful life events, lack of social support, low maternal self-esteem, prenatal anxiety, among others. The challenges of motherhood are present since pregnancy, since it brings to the woman's body numerous physiological changes, which may prove to be destabilizing[13].

The puerperium period is the one that presents the most development of PPD, because there is an incidence of hormonal, psychological and physical changes, which can affect the mental health of women, regardless of their economic or social status. Thus, the nurse should pay special attention to the identification of depressive symptoms in the puerperal woman, so that she receives the necessary help to be able to timely detect, mitigate, and control them, avoiding serious interference in the baby[14].

The disease does not affect the mother exclusively, but can also influence the family nucleus and especially the newborn. Furthermore, the mental illness under study affects the continuity of breastfeeding, which is fundamental in the first stages of a child's life. Breast milk provides the necessary nutrients to the newborn, which are of relevant importance for the proper development of the baby's immune system and for building emotional interaction between mother and child. In addition, breastfeeding can bring countless benefits to women's health, since it provides the release of oxytocin, a hormone responsible for reducing stress levels, which condition the symptoms of depression[15].

This pathology is not something that can be avoided solely and exclusively by the mother, and the feeling of guilt for not being able to love the baby and for not being able to feed it does not correspond to a feeling, but to a consequence of depression[16].

It is very important to understand the consequences and risks associated with the development of postpartum depression (PPD), as well as the influence that this condition can have on the postpartum woman and the newborn. Moreover, PPD is often not properly detected and diagnosed, which can prolong the mother's suffering and affect the quality of care provided to the newborn. It is critical that health care providers are prepared to identify the symptoms of PPD so that they can provide appropriate support and treatment for women at risk of developing this condition. This may include systematic screening for symptoms during pregnancy and the postpartum period, as well as referral to professional resources and appropriate treatment.

The purpose of the integrative literature review was to integrate and synthesize the information contained in scientific studies on a specific theme in order to answer a research question. This review is a methodology that seeks the compilation, analysis, and synthesis of research results relevant to the topic in question, with the objective of obtaining a broad and in-depth view of the current knowledge on this theme. The review is intended to provide a critical, comparative, and interpretive analysis of research findings, with the goal of identifying gaps in knowledge and possible directions for future research, as well as informing clinical practice and contributing to health care decision making.

Objective

To evaluate how postpartum depression influences the health status of the puerperal woman and the newborn, and what nursing interventions contribute to prevent the onset of this pathology

METHODS

Ethical aspects

The Ethics Committee was not asked for an opinion, as this was a secondary research study. When formulating the problem, the principles of clarity, objectivity and accuracy were carefully followed. The research path was designed so that the results obtained would be relevant for nursing interventions and/or care practice and, in the case of the chosen topic, aimed at identifying how to avoid more severe complications associated with the development of PPD through the identification of risk factors. The data obtained in the selected studies were analyzed so as to respect the results collected in these investigations. Author referencing was documented according to the standards of good academic and scientific practice.

Study type

The choice of an integrative literature review aimed to access current knowledge about the problem under study and thus contribute to the incorporation of the results of this study in practical settings. The methodological procedures used involved the following steps: 1) identification of the initial question; 2) definition of the inclusion and exclusion criteria of the studies; 3) definition of the information to be extracted from the studies; 4) analysis of the included articles; 5) presentation and discussion of the results; and 6) synthesis of the knowledge[18].

Methodological procedures

As a methodological approach, the following steps were used to conduct this integrative literature review: definition of the study's research question, definition of exclusion and inclusion criteria, introduction of descriptors in the databases, identification of studies in the databases, selection of studies after reading the title and abstract of the studies, thorough evaluation of the articles selected for this study, and finally, the analysis of the collected data.

In order to achieve the proposed objective, a research question was defined by applying the PICO methodology, which we intend to answer in this integrative literature review, in which "P" corresponds to population, "I" is intervention, "C" refers to comparison/control, and "O" is outcomes. The question outlined was as follows: In postpartum women (population), how effective are nursing interventions (intervention) in preventing postpartum emotional distress (outcomes)?

With the PICO question elaborated, a data collection on the topic under study was carried out during October 2022 through the EBSCOhost platform, later selecting the MEDLINE complete and CINAHL complete databases. The descriptors used in the search were: "Depression", "Puerperal" and "Risk factors". These descriptors were organized using the Boolean operators OR and AND, in the following arrangement: "Depression" or "Puerperal" or "Obstetric nursing" or "Child development" or "Risk factors" and "Evaluation" and "Prevention and treatment".

To instill boundaries in the research carried out, the following were elected as inclusion criteria: time span from January 2002 to December 2022, presented in full text in English and Portuguese, presenting the intended nursing interventions, and seeking to answer the aforementioned research question.

To select the articles, the title and abstract of the articles were first read to check for concordance in the inclusion and/or exclusion according to the previously defined criteria. If the title and abstract revealed interest or if they were not conclusive, the entire document was read to minimize the loss of precious information for the study. If the article revealed interest, it was included in this study.

Duplicate results obtained with the search and those that had the descriptors in the title, but in terms of context did not correlate with the object of study were excluded; studies with ambiguous methodology were also excluded. The exclusion criteria defined were studies prior to the year 2010 and lack of relevant content.

After this search, a total of 385 articles were obtained. From these, we proceeded to the respective selection, which was performed in two stages. First by reading the titles, abstracts, and keywords, and then by reading them in full. At the end of the first stage, 30 articles were found, and at the end of the second stage, 9 articles were found that met all the weighted criteria for data collection and analysis (Figure 1↗).

RESULTS

In order to answer the proposed objective, several articles were read and their content was analyzed. The characteristics and main results obtained are summarized in Table 1↗.

DISCUSSION OF RESULTS

This Integrative Literature Review addresses the various risk factors that may lead to the onset of PPD in puerperae, the complications that may arise from this diagnosis and the influence that this may have on the health of both the mother and the baby. Among the nine studies analysed, there was a general agreement between authors regarding the most relevant risk factors for the onset of PPD diagnosis, with the main emphasis on the socioeconomic factor, and no significant disagreements were identified, since the different factors addressed in the articles are not mutually exclusive.

The mother's difficulty in accepting the pregnancy process and its implications, especially in the case of unplanned and unwanted pregnancies, suggest that the mother may be experiencing a conflicting experience of motherhood, which may be associated with depressive symptoms. The opposite is true for mothers without PPD, as they are directed towards

a planned and desired pregnancy. The willingness of the baby's father may also influence the development of this pathology because, in the case of healthy mothers, the father always showed desire and commitment to accompaniment. The importance of the verbalization of feelings and expectations in the construction of the mental representation about the baby is also reported, as well as the feeling of guilt and difficulty in accepting the news of pregnancy present in the interviewees with PPD[1].

The study presented by Rodovalho *et al* (2019)[2] states that PPD is more prevalent in households with lower socioeconomic and cultural conditions, either due to possible insecurities regarding expenses, lower level of education, or precarious housing conditions. There is a main emphasis on the correlation between PPD and habits of consumption of chemical substances during pregnancy until the time of delivery, namely for the use of alcohol in the first three months of pregnancy and for the smoking habit which, according to some authors, may increase by up to three times the probability of developing PPD. In addition, there is a clear genetic and hereditary predisposition to the development of PPD, due to the mother's family history of mental problems. Finally, the study reveals that the recurrent interference of the mother-in-law in the care of the baby may translate into the development of PPD, particularly due to the various emotional and physiological changes characteristic of the period.

PPD is a pathology caused by an extremely wide range of factors, which are related and influence each other. This idea is advocated by Marques *et al* (2016)[3], which presents a series of ramifications of factors arising from the existence of less favorable socio-economic conditions in the mother – the precariousness of economic resources, which often results in difficulty in accessing quality maternal care; the unemployment situation, which develops feelings of insecurity and low self-esteem in the mother; and the low education level, which generates less sensitive and less informed mothers. On the other hand, it is highlighted (as in other analyzed articles) that unplanned pregnancy is directly related to PPD, since it translates into a more troubled psychological preparation of the mother. Age extremes – adolescence and late fertile age – are also an extremely relevant factor, since they show a lack of affective maturity and stress arising from the concerns with possible complications with pregnancy, respectively. Another relevant factor is marital status and family support. In a more unstable union, partners may not offer the necessary security and emotional comfort to the mother and baby, as well as confrontational situations and little support from the remaining family will prove to be additional and unnecessary stress factors for the mother. Finally, it should be noted that there are other less significant factors in the development of PPD, such as a significant distance between the mother and motherhood and the existence of more children requiring care at home.

In general, the depressive disorder can cause negative feelings, lack of interest in the baby, and guilt for not being able to take care of the baby, and can potentiate an unsatisfactory development in the mother-baby interaction. Consequently, the mother would develop greater difficulty in establishing physical contact, and may present intrusive behaviors that would hinder the emergence of specially directed and attuned speech with the baby. Thus, since the mother is responsible for regulating the baby's physiological and emotional states, causing the mother-infant dyad's affective and attentional behaviors to become asynchronous, potentializing an enormous risk of developing social interaction problems as well as the development of insecure attachment, which can even lead to depression[4].

The preventive action of multidisciplinary teams during pregnancy/puerperium can provide the new mother with the support she needs to face possible episodes of depression, since, when the depressive condition of the pregnant/puerperal woman is diagnosed, the main objectives become the support in this moment of transition, as well as seeking to know the multifaceted aspects of the mother's psycho-affective disorders after the birth of the baby[5].

As a psychological and emotional illness, PPD affects the mother directly and the baby indirectly, since the relationship between them is damaged. The mother's emotional state directly and negatively affects the baby's development, not only in the emotional and social aspects, but also in the child's cognitive and psychomotor development. Therefore, immediate intervention is required from the multidisciplinary health team, and the nurse's role during and after pregnancy is extremely important, so that through technical and ethical action and attention to the patient, early detection of signs and symptoms of PPD is possible, which will help to improve symptoms, reduce maternal pain, and minimize the impact on the health of the mother and her baby[6].

After the analysis of the presence of depressive symptoms in the first 72 hours and in the month after birth, we concluded that age, household, number of children, difficulty in becoming pregnant, and risk pregnancy, among others, were not influential factors in the risk of PPD in the sample, according to Sousa (2012)[7]. The presence of personal psychiatric history, low socio-economic level and lower satisfaction in marital life were the only factors which showed to be related to the risk of PPD in both time intervals in which the survey was conducted. It should be noted that discrepancies in the variation of depressive symptomatology in the first months after childbirth are due, according to the authors, to different methods applied.

Through the analysis of the descriptive study conducted by Silveira *et al* (2018)[8], it was found that mothers living in cities far from urban centers, without prenatal care, and with the habit of consuming alcohol and tobacco have a tendency for severe maternal morbidity. It is mentioned that women with severe obstetric complications were significantly more likely to have depression and anxiety than women with uncomplicated labor, and that prenatal and postnatal risk factors are likely to cause some negative consequences that may lead to maternal and infant death or the formation of disabilities and morbidities in the child. Thus, severe maternal morbidity (near miss) can be presented as a clear factor for the development of PPD.

In the integrative literature review by Araújo *et al* (2020)[9], another aspect that deserves attention is diabetes. In a study conducted in Chicago, researchers found a strong relationship between diabetes and PPD in a sample of 305 women, and it is also known that inflammatory cytokines have a notorious effect on hormone metabolism and on neurotransmitters that regulate the emotional state. In addition, it was found that the existence of diabetes in conjunction with a previous history of depression increases the chance of developing PPD by 70%. On the other hand, gynecological and/or obstetric risk factors are the main cause of a major impact on routine and, as a consequence, the presence of stress. In addition to the stress caused, these factors may be linked to a possible relationship of endometriosis with PPD, since until returning to the ovulatory period, the puerperal woman is exposed to a state of hypogonadism, and the fact that endometriosis is an "estrogen-dependent" problem, i.e., estrogen plays a role of neuromodulation in the fluctuation of steroid hormones, predominant in the placenta, is also worthy of attention.

Study limitations

The limitations of this Integrative Literature Review are essentially due to the fact that the selection of articles was only in Portuguese and English, which may have limited the scope of the results obtained and, consequently, led to a loss of significant information from other potentially important international investigations written in other languages. It is essential to emphasize that the Integrative Literature Review is a methodology that allows obtaining an overview of the studies already conducted on a given theme, but does not guarantee the total comprehensiveness of all available information. Therefore, it is necessary to continue to research and update knowledge on the topic to ensure a complete and up-to-date approach.

Contributions to Nursing

The results discussed here, arising from the integrative literature review on nursing interventions in preventing postpartum emotional distress in puerperal women can bring several contributions to clinical practice and the discipline of nursing, such as:

- Identification of best practices in nursing to prevent postpartum emotional distress in postpartum women, contributing to the improvement of the quality of care.
- More robust interventions by nurses in monitoring and supporting postpartum women, allowing them to develop more effective, evidence-based strategies for the prevention of postpartum emotional distress.
- Determination of more effective nursing guidelines and protocols for the prevention of postpartum emotional distress in postpartum women, which can contribute to the standardization and improvement of care.
- Subsidies for the formation of more qualified and updated nursing professionals in relation to the interventions that have proven to be effective in preventing postpartum emotional disorders in puerperal women, allowing for a more qualified and safe performance in the care provided to women.
- Dissemination of relevant information for health decision-making, both by health professionals and by puerperal women themselves and their families, contributing to the promotion of a more participatory and patient-centered care.

FINAL CONSIDERATIONS

Once the results were analysed and discussed, it was possible to conclude that there are several risk factors that contribute to the development of PPD, with lower economic conditions, lower education, poor housing conditions, severe obstetric complications and history of mental problems in the family being considered as some of the most common. However, we cannot forget that unplanned or unwanted pregnancies, low self-esteem of the mother, existence of diabetes, poor marital status and lack of family support are also occurring and that the factors are often interconnected.

Another important conclusion is related to the fact that the presence of PPD causes, on the part of the puerperal woman, a lack of interest in the baby and less interaction with it, which can lead to a decrease in the bond and stimuli between the two and, consequently,

to a weak psychomotor and cognitive development of the baby, as well as to a marked discomfort for the mother at a psychological and also physical level.

Therefore, and taking into account the previous content, it is the competence and duty of the multidisciplinary health team to intervene with the mother and her relatives during and after pregnancy, with an ethical and personalized attention, given the unique nature of each case. On the other hand, nurses should seek to establish a close and trusting relationship with the mother, so as to understand the whole phenomenon surrounding her and better identify any PPD indicator, so that they can act and prevent it.

In conclusion, postpartum depression is a mental disorder that can affect women after childbirth and requires specific and appropriate health care. It is a condition that can have a significant impact on the mental health and well-being of both mother and baby, so it is important that women who experience symptoms of postpartum depression receive support and treatment. In addition, it is critical that society as a whole is aware of the importance of maternal mental health and that efforts are made to create more welcoming and inclusive environments for mothers at all stages of their lives, including the postpartum period. Awareness and access to mental health resources are crucial to help prevent and treat postpartum depression and ensure the well-being of mothers and their babies.

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AS: Study design, data analysis, review and discussion of results.
AR: Study design, data analysis, review and discussion of results.
DD: Study design, data analysis, review and discussion of results.
FS: Study design, data analysis, review and discussion of results.
GG: Study design, data analysis, review and discussion of results.
MG: Study coordination, study design, data collection, storage and analysis, review and discussion of results.
AJ: Study coordination, study design, data collection, storage and analysis, review and discussion of results.
AC: Review and discussion of results.
AD: Review and discussion of results.
LL: Review and discussion of results.
All authors read and agreed with the published version of the manuscript.

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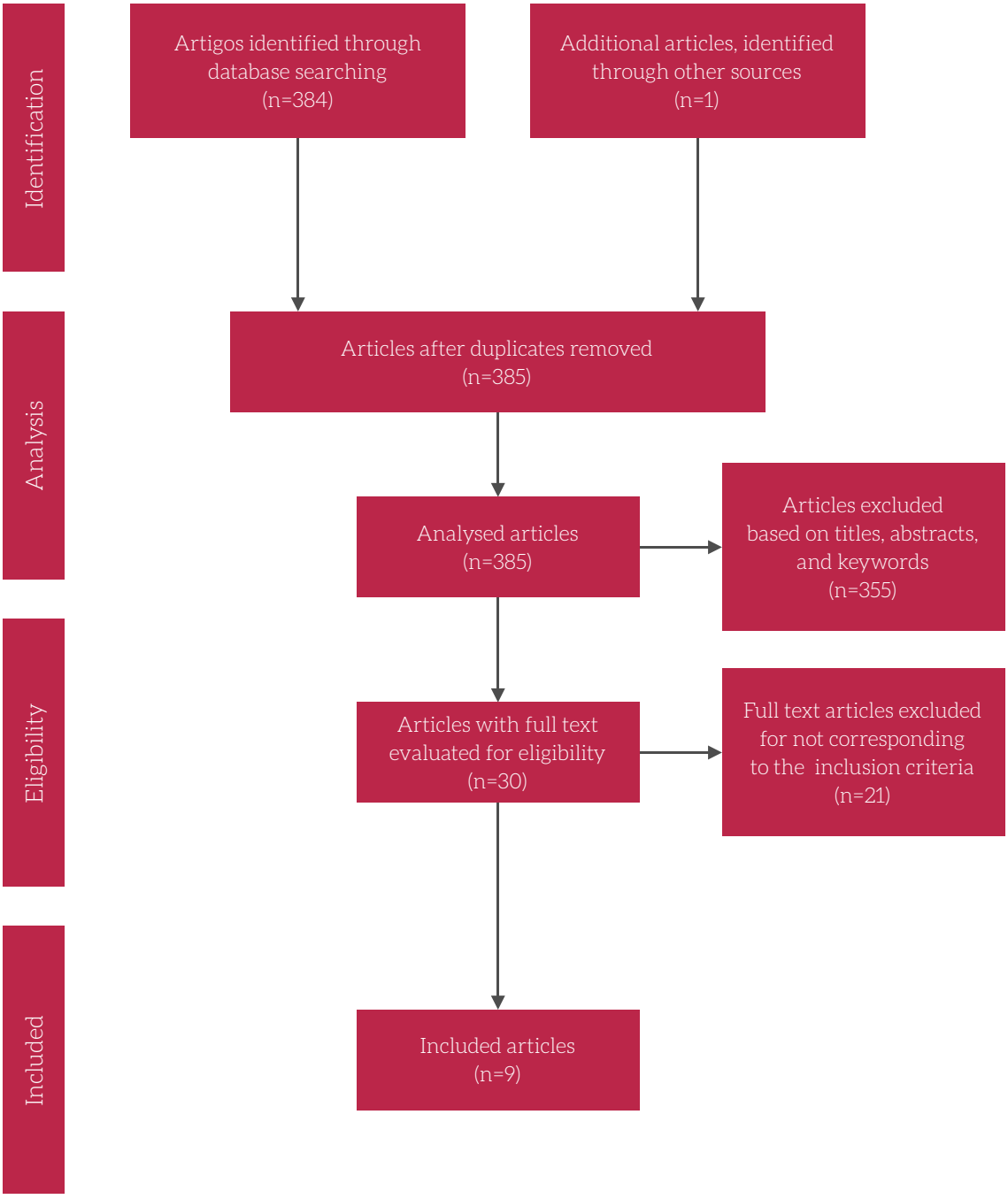


Figure 1 – 2020 PRISMA diagram for the presentation of the research methodology.

Chart 1 – Identification of the studies and main results.

Authors/Year/Method	Objectives	Results
Schwochow, M; Frizzo, G (2020)[1]. Integrative literature review.	To retrospectively evaluate the pregnancy experience of mothers with and without postpartum depression.	Among the six cases described in this study, the first three mothers (M1, M2, and M3) represented the experience of motherhood with the presence of postpartum depression. The remaining three cases (M4, M5, and M6) described the maternity of mothers without postpartum depression. From the data analysis, it was possible to identify the existence of negative perceptions regarding the experience of pregnancy, which is possibly influenced by the presence of postpartum depression. A depressed woman during pregnancy may remember conception as involuntary. It is noteworthy that, according to the studies carried out, in the cases of mothers with postpartum depression, only one mother reported planning her pregnancy. In addition, this mother left doubts when asked about her desire to be a mother, mentioning only the will of her partner. While this situation occurs with mothers with postpartum depression, the opposite happens with mothers without postpartum depression, that is, the pregnancy was planned and desired in all three cases. These facts indicate that an unplanned pregnancy is a risk factor for the development of postpartum depression. This desire and planning was only present in one of the cases in which the mothers developed the disease – on the part of the baby's father – showing that it may also influence the development of this pathology, because in all cases of healthy mothers, the fathers demonstrated desire and commitment. The importance of verbalizations of feelings and expectations in the construction of the mental representation about the baby is also reported. Maternal anxiety and stress, as well as the fact that the pregnancy is unwanted, stand out for their possible relationship to the symptoms of prenatal depression. In maternity, in the case of mothers with postpartum depression, the reports of irritability, loss of interest in usual activities and in organizing the baby's outfit, feeling of guilt, and difficulty in accepting the news of the pregnancy were emphasized. On the other hand, mothers who were not depressed also exposed some worries and anxieties about motherhood; however, they showed a greater capacity to cope. This situation allows for the perception that depressed mothers had a negative perception of their pregnancy experiences.

Chart 1 – Identification of the studies and main results.[↔↖]

Authors/Year/Method	Objectives	Results
Rodovalho, I; Migliavacca, L; Labre, M; Andrade, M; Silva, S; Cozac, E (2019)[2]. Integrative literature review.	Describe the psychosocial and biological factors related to the development of PPD.	In this study, the authors evaluated Minor Mental Disorders (MMSD), based on the Edinburgh Depression Scale (EPDS), socioeconomic and cultural characteristics and the gestational period, involving from habits during pregnancy to the moment of delivery and possible complications of this period (such as involvement with chemical substances). In addition, the influence of neurological problems in the family and the mother-in-law's interference in the relationship with the newborn were highlighted. In this research, it was observed that the symptoms of depression and the ingestion of psychoactive substances were strongly associated with the use of alcohol in the first three months of pregnancy and with smoking, which increases by up to 3 times the possibility of the occurrence of the pathology. Furthermore, the research concluded that the probability of developing PPD in women who are victims of psychological or emotional violence increases considerably, which can also happen in cases of recurrent interference of the mother-in-law in the baby's care, mainly due to the several emotional and physiological alterations characteristic of the period. The pregnant woman's poor housing conditions, her insecurities about expenses, and her history of mental problems in the family were identified as equally relevant factors, since it was evidenced that depression has a strong relationship with genetic inheritance. Finally, with the development of the analyzed article, the authors found that mothers with lower education, who do not reside with their partner, are not primigravidae, who have had an abortion, have used alcohol/tobacco, and who have suffered some stressful event, had previous depression and depression in the family, are more likely to develop depression.

Chart 1 – Identification of the studies and main results.

Authors/Year/Method	Objectives	Results
Marques, L; Silva, W; Lima, V; Nunes, J; Ferreira, A; Fernandes, M (2016)[3]. Cross-sectional, descriptive, and exploratory study.	To identify the factors that contributed to Postpartum Depression in women assisted in a maternity hospital in the interior of Maranhão.	In order to evaluate the diversity of factors causing PPD, several factors were taken into consideration in this study, such as: economic difficulties, unemployment, marital status, previous history of depression, unplanned pregnancy, pregnancy in children under 16 and over 30, short intervals between pregnancies, number of children, premature births, and staying longer than expected in the hospital and place of residence different from the city where the maternity hospital is located. The results were obtained by comparing the results of the answers of the characterization of the research subject with the evaluation instrument used (Edinburgh Depression Scale - EPDS). From the characterization of the sample 49.3% of women are studying at university or completed high school, 51.7% of puerperal women live with a minimum wage and 76.4% are without formal occupation, since they are housewives. After the interviews were conducted, it was found that 80% of the puerperal women interviewed are in a marital relationship and most are women between the ages of 17 and 30. Of the 280 participants, 80 were currently at risk of developing PPD, and this factor of occurrence could be caused by previous cases of depression. Of the 80 postpartum women who had this same risk, 61 had risks and predisposing factors and 19 had risks but no predisposing factors. Regarding unplanned pregnancy, they found that among the participants 155 (55.4%) did not plan their pregnancy and 45 of these 155 were at risk of developing PPD. Of the interviewees, 130 were primiparous, of which 33 were at risk. A total of 54 multiparous women interviewed (36%) had a difference of 2 years between their 2 pregnancies, and 19 of these 54 were at risk. The remaining 96 (64%) had children with a gestational difference of more than 2 years, contributing a total of 28 (29.2%) to the development of PPD. Of the 48 (17.1%) who had premature (preterm) births, 19 (39.6%) were at risk for PPD. Of the 49(17.5%) who were days older than expected in the Hospital, 22 (44.9%) were at risk.

Chart 1 – Identification of the studies and main results.[↔↖]

Authors/Year/Method	Objectives	Results
Alves & Silva, (2021)[4]. Bibliographic review with articles in Portuguese that address the characteristics of postpartum depression and how the disease can directly interfere in the mother's relationship with the baby.	To analyze the characteristics of postpartum depression and risk factors associated with its occurrence, as well as the interference in the mother-baby relationship.	In the first months of life, the only means of communication between mother and baby is through postpartum emotional expression and behavior. Maternal depression compromises the mutual process, since the mother is the external component of the baby's regulatory system and would no longer regulate her physiological and emotional states. As a consequence of this, mothers would show less contingency and less ability to establish physical contact, and may manifest intrusive or withdrawn behaviors that hinder the emergence of specially directed and attuned speech with the baby. PPD contributes to mother-infant affective and attentional behaviors becoming asynchronous, as the mother may become unresponsive, tend to physically withdraw and exhibit more negative behaviors to get attention, and infants are at greater risk of later developing problems related to social interactions. Paternal depression contributes to the development of insecure attachment, which eventually puts the child at risk for future depression.
Coutinho, M; Saraiva, E (2020)[5]. Theoretical analysis on postpartum depression.	To present a theoretical analysis about postpartum depression, as a biopsychosocial manifestation, in order to enable health professionals to reflect on this psychic suffering.	Depression, as an expression of human suffering and pain, affects women in the puerperal period, accompanied by biopsychosocial symptoms associated with the occurrence of stressful events, in a prevalence that varies between 10% and 42% of the women studied.
Oliveira, C; Abreu D; Souza C (2022)[6]. Integrative literature review.	Examine theoretical issues regarding maternal depression, in particular the impact of maternal depression on early child development interactions.	Postpartum depression affects about 25% of puerperal women by the 18 months of the baby, which damages the mother-infant interaction relationship. Comparing depressed mothers with non-depressed mothers, it was found that the former spend less time interacting with the baby, thus the negative expressions are greater than the positive ones, which may cause a delay in the child's cognitive and psychomotor development. Taking this into account, the nurse's action during and after pregnancy is very important for the early detection of PPD signs, since it can also affect the quality of the baby's sleep, brain activity, emotional development, self-esteem, as well as interference with language, nutrition and breastfeeding, also causing anxiety and depression in adulthood.

Chart 1 – Identification of the studies and main results.[↔↖]

Authors/Year/Method	Objectives	Results
Sousa, S (2012)[7]. Cross-sectional quantitative descriptive study.	To evaluate the prevalence of depressive symptoms and their risk factors in puerperae at the Cova da Beira Hospital Center.	In the current study, the authors confirmed that the prevalence of puerperal women at risk of PPD was 7.1% and 1.2%, respectively during the first 72 hours and approximately one month after delivery. They found the results to be lower than expected when compared to similar studies in Portugal and abroad that also used the EPDS as a depression scale. The authors also showed a decrease in depressive symptomatology in the first months postpartum unlike other studies analyzed that found an increase in this trend. It is possible that this discrepancy is related to differences in methodology, namely in the cutoff point used in the EPDS. After the analysis of the relationship between several variables and the presence of depressive symptoms in the first 72 hours and month after delivery, we concluded that age, household, number of children, difficulty in becoming pregnant, pregnancy planning, existence of a high-risk pregnancy, type of delivery and number of weeks of gestation were not influential factors in the risk of PPD in the sample. The presence of a personal psychiatric history was the only factor that was shown to be related to the risk of PPD in both time intervals when the survey was conducted. The sample in this study consisted mostly of postpartum women with university education or equivalent, so this result cannot be generalized.
	Avaliar a relação entre a vulnerabilidade	

Chart 1 – Identification of the studies and main results.↔↖

Authors/Year/Method	Objectives	Results
Silveira, M; Gurgel, R; Barreto, I; Trindade, L (2018)[8]. Prospective descriptive cohort study.	To evaluate the relationship between severe maternal morbidity (near miss) and symptoms of postpartum depression.	It was found that the majority of women exposed to severe maternal morbidity and near miss, compared to those not exposed, lived in cities far from urban centers, had no prenatal care, and had the habit of consuming alcoholic beverages and tobacco. A higher presence of postpartum depression symptoms was found in the group of women exposed to severe maternal morbidity (near miss) and high risk of its development. It is assumed that the clinical condition of severe maternal morbidity (near miss) may increase the likelihood of developing postpartum depression. It is reported that women with severe obstetric complications were significantly more likely to have depression and anxiety than women with uncomplicated births. According to a study conducted in Africa, in addition to obstetric complications, lack of support and marital and family conflicts are among the main causes for the prevalence of postpartum depression. According to the article, prenatal and postnatal risk factors can cause negative consequences, which may result in maternal and infant death or the presence of disabilities and morbidities in the child. Severe maternal morbidity entails three types of consequences: disruption of physical integrity, damage to the economic status of the users, and a deprivation of their social life. The effects of maternal depression can harm the child's development, potentiating linguistic, behavioral, affective, cognitive, and social disorders.

Chart 1 – Identification of the studies and main results.

Authors/Year/Method	Objectives	Results
Araújo, K; Silva, S; Freire, D; Almeida, I; Albuquerque, A; Santos Batista, R (2020)[9]. Integrative literature review.	Identify the scientific evidence on risk factors for the development of postpartum depression.	The authors, through the present study, verified that there are factors with a higher predisposition to the diagnosis of PPD. Low education, low socioeconomic status, and the sociodemographic factors identified in this study may have a direct influence. These effects of low socioeconomic level in conjunction with the prevalence of postpartum depression provide high stress due to financial difficulties that consequently offer little access to education, health, food, transportation, and housing resources. Regarding clinical and/or psychological risk factors, it is interesting to highlight the levels of HDL or high-density lipoprotein. Low HDL levels may be related to the development of severe postpartum depression. It is worth noting that serum lipid levels have been related to depressive disorders; however, the literature becomes limited when it comes to women with PPD. The literature shows that gynecological and/or obstetric risk factors are the main cause of a great impact on routine and, as a consequence, the presence of stress. A possible relationship between endometriosis and PPD has been found, such that it may be related by the fact that endometriosis is an "estrogen-dependent" problem, that is, it is recognized that estrogen plays some role of neuro modulation in the fluctuation of steroid hormones. Also associated with this endocrine issue, it is worth noting that until she returns to the ovulatory period, the puerperal woman is exposed to a state of hypogonadism.