

Nursing care for pregnant women in times of pandemic of SARS-COV-2

RESUMO | Objetivo: Identificar, na literatura, os cuidados de enfermagem no período gestacional, no contexto pandêmico. E expor aos leitores, a importância dele, visando prevenir a forma grave da doença e seus desfechos, evitando assim, a ocorrência de morbimortalidade. Método: Para obtenção dos dados foi realizada uma revisão integrativa, seguindo a identificação da questão norteadora, com critério de inclusão os artigos selecionados nas bases de dados MEDLINE, LILACS, BDNF, PUBMED e manuais publicados pelo Ministério da Saúde e organização de saúde entre os anos de 2020 e 2021. Resultado: De acordo com os artigos selecionados e revisados, as boas práticas de higiene, bem como a vacinação, o distanciamento social e o rastreio precoce dos casos suspeitos são ações de suma importância a serem adotadas pela equipe de enfermagem, diminuindo os desfechos mais graves pós-infecção. Conclusão: A equipe de enfermagem tem em sua importância a promover a conscientização dos benefícios da vacinação e dos cuidados para prevenção de gestantes contra COVID-19 e pós contrair o vírus, promovendo um cuidado humanizado.

Descritores: COVID-19; Gestação; Cuidados de enfermagem

ABSTRACT | Objective: To identify, in the literature, nursing care during pregnancy in the pandemic context. And expose to readers, its importance, aiming to prevent the severe form of the disease and its outcomes, thus avoiding the occurrence of morbidity and mortality. Method: To obtain the data, an integrative review was performed, following the identification of the guiding question, with inclusion criteria for articles selected in the MEDLINE, LILACS, BDNF, PUBMED databases and manuals published by the Ministry of Health and health organization among the years 2020 and 2021. Result: According to the selected and reviewed articles, good hygiene practices, as well as vaccination, social distancing and early screening of suspected cases are extremely important actions to be adopted by the nursing team, reducing the most severe post-infection outcomes. Conclusion: The nursing team has in its importance to promote awareness of the benefits of vaccination and care for the prevention of pregnant women against COVID-19 and after contracting the virus, promoting humanized care.

Keywords: COVID-19; Gestation; Nursing care.

RESUMEN | Objetivo: Identificar los cuidados de enfermería durante el embarazo en el contexto pandémico en la literatura. Y exponer a los lectores, su importancia, con el objetivo de prevenir la forma grave de la enfermedad y sus desenlaces, evitando así la ocurrencia de morbimortalidad. Método: Para la obtención de los datos se realizó una revisión integradora, previa identificación de la pregunta orientadora, con criterios de inclusión para los artículos seleccionados en las bases de datos MEDLINE, LILACS, BDNF, PUBMED y manuales publicados por el Ministerio de Salud y organización sanitaria entre los años 2020 y 2021. Resultado: De acuerdo con los artículos seleccionados y revisados, las buenas prácticas de higiene, así como la vacunación, el distanciamiento social y el cribado precoz de los casos sospechosos son acciones de suma importancia a ser adoptadas por el equipo de enfermería, reduciendo las consecuencias de la infección. Conclusión: El equipo de enfermería es importante para promover el conocimiento de los beneficios de la vacunación y el cuidado para la prevención de la gestante contra COVID-19 y luego de contraer el virus, promoviendo el cuidado humanizado.

Palabras claves: COVID-19; Gestación; Cuidado de enfermera

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INTRODUCTION

In December 2019, SARS-Cov-2 infection was first detected in humans through bronchoalveolar lavage sample collections during an outbreak of pneumonia of unknown origin, in Wuhan City, Hubei Province, China. COVID-19 is an acute respiratory inflammation caused by SARS-CoV-2, a virus of the coronavirus family, is the seventh coronavirus to infect humans. In Brazil, the presence of the virus was confirmed on March 20, 2020. 1

Transmission can occur directly - through contact with contaminated people, shaking hands, sneezing, touching eyes and mouth - and indirectly - through contact with objects and surfaces handled by the contaminated person - most is transmitted from one infected person to another, when personal protective equipment is not used correctly, as it occurs through droplets expelled when coughing or sneezing. 1

The symptomatology varies from individual to individual, and may or may not be asymptomatic. The patient may have symptoms similar to those of a flu-like syndrome, namely: fever, sore throat, chills, headache, cough, runny nose and taste disturbances, shock and acute respiratory syndrome. 2 If, together with the symptoms reported above, the patient who develops dyspnea or persistent pressure in the chest or in ambient air has a saturation lower than 95% or cyanosis, it is a case of Severe Acute Respiratory Syndrome - SARS. 3 The diagnosis is made clinically and epidemiologically, with anamnesis and physical examination. The history of contact with infected people in the 14 days before symptoms appear is also taken into account. 1 It is important to confirm the findings through laboratory tests, which are RT-qPCR (molecular biology) and serology (immunological). High Resolution Computed Tomography also enters the list of exams for the detection of the disease. 4

According to the Special Epidemiological Bulletin, COVID-19 infection in Brazil has been increasing in pregnant and postpartum women and in severe cases leading to maternal death. That's why isolation, social distance, the use of masks and hand hygiene is recom-



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mended. 5 The states of São Paulo, Minas Gerais, Rio de Janeiro and Ceará have the highest numbers of confirmed cases of COVID-19 in pregnant women according to epidemiological data from

May 13, 2021. The age range of confirmed cases varies between 30 to 39 years old with 44.8% of cases and 20 and 29 years old with 38.3% of cases, being more frequent in the third trimester of pregnancy. 6 Pregnant women are more vulnerable to COVID-19 than the general population, especially if they have a chronic disorder. 2

A meta-analysis study carried out by researchers at Baqiyatallah Hospital showed the main comorbidities in pregnant women, which were: obesity, advanced maternal age (>35 years), diabetes, cardiovascular diseases (hypertension, preeclampsia, HELLP syndrome and heart problems), and history of asthma. The pregnant women had complications and died after contracting the coronavirus. Considering that the negative outcomes promoted by the disease are exuberant during the gestational period, it is very common to need more advanced support. In Brazil, about 72% of pregnant women go to the ICU and 15% of them need ventilatory support. 7

Nursing care must be provided comprehensively, also observing the signs of psychological change in women infected with COVID-19, who may experience peaks of anxiety and depression that can be caused by isolation, fear and concerns regarding vertical transmission, in addition to the "common" fears of this period such as the possibility of not being able to breastfeed. The team must pay attention to symptoms related to these moments to provide psychological support and ensure adequate care to prevent injuries. 8

In view of what has been seen, this work aims to identify, in the scientific literature, which nursing care is adopted during the gestational period in women with COVID-19. Through the following guiding question: In the midst of the COVID-19 pandemic and concerns about the increase in interventions that arise in the health of pregnant women,

during pregnancy and in the postpartum period, how should nursing care be provided to prevent injuries?

METHOD

To search for the articles, the selection of descriptors was carried out after consultations in DeCS/MeSH, the descriptors used were: "COVID-19", "Gestation (Gestação)", "Cuidados de Enfermagem (Nursing Care)". An advanced search and selection of articles was carried out in the databases used were Medical Literature Analysis and Retrieval System Online (MEDLINE), Database on Nursing (BDENF) and Latin American and Caribbean Literature on Health Sciences (LILACS) extracted through the Virtual Health Library (VHL) and at PUBMED. The search was performed manually by the three respondents of this research and review articles, meta-analysis and meta-synthesis articles, cohort studies, systematic review articles were selected. The same sequence was followed in the insertion of the descriptors for the searches in the databases, making the delimitation of studies carried out in the period between the years 2020 and 2021, aiming to select the largest number of publications on the subject. The selected articles had to meet the following inclusion criteria: research available electronically in the selected databases, published in peer-reviewed journals, full texts available in full and free of charge in Portuguese, English and Spanish. Articles and articles from journals that did not answer the guiding question of the study, articles not freely available, articles without abstracts, and articles on animal studies were excluded.

The selection of articles took place during the period of May, April and September 2021. The results obtained were reviewed by the three researchers. Initially, a selective reading of the articles was carried out, with analysis of the title and abstract. For an initial

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analysis of the articles, it was observed: published period, language and country, methodological aspects of the studies (research design, sampling and data processing) and main results and conclusions. Soon after, a detailed analysis of the articles was carried out, considering the rigor and characteristics for the selection of articles if it corresponded with the guiding question of this research.

The researches were carried out in a judicious way where the descriptors were used in a combined and crossed way: COVID-19, pregnancy and nursing care and "COVID-19 and pregnant women" using the Boolean operator AND. We obtained a result of 46 articles in the VHL database and 49 articles in the PUBMED database.

After selecting the articles, they were submitted to the classification of the level of evidence consisting of seven levels: I) evidence obtained from a systematic review or meta-analysis of randomized controlled trials or clinical guidelines based on systematic reviews of randomized controlled trials; II) evidence from at least one randomized, controlled, well-designed clinical trial; III) evidence from well-designed, non-randomized, clinical trials; IV) evidence obtained from well-designed cohort and case-control studies; V) evidence originating from a systematic review of descriptive and qualitative studies; VI) evidence from a single descriptive or qualitative study and; VII) evidence from the opinion of authorities or the report of expert committees. According to this classification, levels 1 and 2 are considered strong evidence, 3 and 4 moderate, and 5 to 7 weak. 9

RESULTS

After searching the articles in the databases, we had as a result: 46 articles in the VHL database and 49 articles in the PUBMED database. The process of detailed selection of articles

was started, where 3 were eliminated by duplicate, 30 articles were excluded after reading the title and abstract, 5 for not having the full text available for free or not being an article. After reading in full, 48 articles were excluded because they did not answer the guiding question or because they did not fit the research topic. A total of 9 articles were selected.

Table 1 presents the characterization of the analysis of the selection of articles referring to title, country, study design, sample and main results. The articles were published between 2020 and 2021, with 1 review article of a descriptive study with level of evidence VI, 7 articles of systematic review with levels of evidence V, 1 review of a study with levels of evidence VII. 3 studies were carried out in Brazil, 1 in China, 3 in Iran, 1 in Kenya, 1 in Australia.

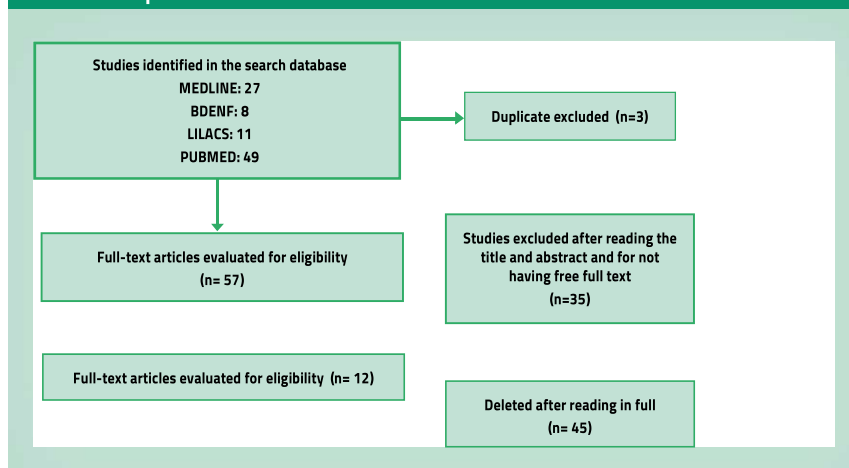
DISCUSSION

For better detailing of the discussion that will be presented as a result of this review, they were separated into three categories: Infected pregnant women and manifestations caused by COVID-19; Nursing care and its importance in the face of COVID-19; The importance of vaccination against COVID-19 for pregnant women.

Category 1: Infected pregnant women and manifestations caused by COVID-19

Pregnant women are at greater risk of contracting viral respiratory infections and pneumonia due to physiological changes in their immune and cardiopulmonary systems, especially those who already have existing comorbidities. 9/7 Infection during pregnancy can result in adverse events such as malaise, insomnia, depression and stress, vomiting and diarrhea, productive sputum, chills, hyperthermia, myalgia, and dyspnea. 13/10 Fever and neonatal complications are also evident. 11

Figure 1 – Flowchart for selection of articles and reasons for exclusion, Jaboatão dos Guararapes/PE. 2021.



Source: Own authorship, 2021.

SARS-CoV-2 infection can cause complications for both the mother and the fetus, such as respiratory distress, fetal distress, coagulopathy followed by liver dysfunction, and maternal death. 12

Pregnant women infected with COVID-19 who present a serious condition when associated with one or more comorbidities, can progress to an emergency cesarean delivery or even an abortion according to scientific evidence, causing a high risk of maternal and neonatal death. 13

Delivery in a critically ill COVID-19 setting is eCategory 2: Nursing care and its importance in the face of COVID-19 extremely worrying. Pregnant women who are using oxygen and with reduced functional residual capacity and inflammatory changes are predisposed to develop a maternal and fetal complication, for this reason the gestational age and the state of the mother-fetus binomial must be considered. It is of paramount importance to stabilize the pregnant woman before delivery. For the patient who has compromised cardiopulmonary function and requires intubation, preterm delivery should be indicated, considering the risks and benefits of continuing the pregnancy. The route of delivery for pregnant women infected with the virus should be indi-

cated according to individual assessment, COVID infection is not an indication for cesarean section. 5

Categoria 2: Cuidados de enfermagem e sua importância frente a COVID-19

The assistance of the nursing team is of paramount importance, from primary care to the treatment and recovery of the patient. It is the role of the nurse to guide the population, especially pregnant women, through actions that generate knowledge about preventive measures against the virus, as well as the identification of the signs of COVID-19. 14 In addition, it is important to seek follow-up also after recovery, to ensure that there are no sequelae caused by the complications of the virus infection, since, after the third trimester, the Covid-19 infection becomes more serious and fatal for the pregnant woman and the baby. 15

Therefore, it is advisable that the exposure of pregnant women is minimal, especially in the third trimester, especially if they present symptoms similar to the infection caused by the virus. 14 In prenatal care, pregnant women who present symptoms of flu syndrome are indicated to suspend consultations and routine exams for 14 days. In necessary cases, the Basic Health Unit team must

Table 1 – Characteristics of the selected studies, Jaboaão dos Guararapes/PE. 2021

Title	Country/Year	Study design and sample	Main results	Level of evidence
Effect of COVID-19 on the mortality of pregnant and postpartum women: a systematic review and meta-analysis. 7	Iran, 2021	Systematic scope review. Sample: 40 articles.	Study evaluated 117 reports from 11758 pregnant women from high- and middle-income countries, evaluating the effect of COVID-19 on mortality risk, and observed high rates of cesarean section in infected women.	V
Novel coronavirus disease 2019 and perinatal outcomes.2	Iran, 2020	Systematic review. Sample: 9 articles.	The study made it possible to assess which pregnant women are more susceptible to coronavirus infection than the general population and it is important to ensure that preventive measures are taken to avoid infection.	V
Effects of COVID-19 infection during pregnancy and neonatal prognosis: what is the evidence? 11	Brazil, 2020	Systematic review. Sample: 49 studies.	Evidenced the risk of pregnant women developing complications and the risk of developing postpartum hemorrhage and preterm delivery is significant, it is recommended that a rigorous assessment of clinical signs be made.	V
Maternal and neonatal care during the COVID-19 pandemic in Kenya: re-contextualizing the community midwifery model. 13	Kenya, 2020	Systematic review. Sample: 44 articles	It describes the importance of caring for pregnant women who do not need hospitalization and who can safely give birth in their communities to ensure their well-being with the help of midwives.	VI
Clinical guidelines for caring for women with COVID-19 during pregnancy, childbirth and the immediate postpartum period. 8	Australia, 2020	Descriptive review. Sample: 81 guidelines.	Describes updated guidelines to aid in clinical decision making.	VII
Nursing diagnoses for patients with COVID-19 10	Brazil, 2020	Systematic review, Sample: 26 articles.	The main signs and symptoms presented in cases of covid-19 identified in the NANDA-I were observed and highlighted the importance of these findings for the contribution of the SAE to the nursing team.	V
Care of pregnant women in primary health care by nursing during the SARS-COV-2 pandemic. 14	Brazil 2020	Descriptive study. Sample: 53 pregnant women.	It was observed that the prenatal consultation with nurses during the pandemic is essential for health education of this studied population.	V
Risks of novel coronavirus diseases (COVID-19) in pregnancy; a narrative review. 12	Iran, 2020	Narrative review. Sample: 13 articles	Review of articles revealed that COVID-19 can cause fetal distress, miscarriage, respiratory distress and preterm birth in pregnant women, but there were no reports of vertical transmission.	V
Novel coronavirus disease (COVID-19) in pregnancy: what clinical recommendations should be followed? 4 4	China, 2020	Systematic review. Sample: 15 articles.	The study aims to provide adequate clinical management and support for patients, while providing adequate protection for healthcare professionals.	V

Source: The Authors, 2021.

provide care to pregnant women with suspected COVID-19 in their place of isolation, preserving it and avoiding agglomerations.¹⁵ In positive cases of infection, the management of obstetric care should be based on the length of gestation. In pregnant women up to 24 weeks, maternal clinical care is recommended seeking the well-being of the mother-fetus binomial. From 24 to 34 weeks, clinical care should be performed, the use of corticosteroids should be considered when necessary for fetal pulmonary maturation and an indication for delivery when there is a change in fetal vitality. With more than 34 weeks, clinical care, cardiotocography and ultrasound should be performed, indication for delivery when there is a change in fetal vitality and when there is benefit for maternal ventilation, discussed with the team. ⁵ During childbirth, the team must consider that the decision on the mode of delivery must be individualized, practicing humanization and taking into account the severity of maternal symptoms. It is also necessary to limit the ambulation of pregnant women between sectors of the unit and ensure isolation during labor, delivery and postpartum. It is important to note that the monitoring of O₂ saturation by pulse oximetry must be continuous, recorded every hour during labor. ¹⁶

Category 3: The importance of vaccination against COVID-19 for pregnant women

The recommendation of the Ministry of Health is to carry out vaccination in pregnant women according to the COVID-19 vaccination plan in Brazil. In July, Bill 2112/21 was approved, which determines that pregnant, postpartum and lactating women were allowed to be immunized even without having any type of comorbidity. Since the beginning of the pandemic, it has been proven that pregnancy and the puerperium are risk factors for an



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unfavorable outcome of COVID-19, causing a greater number of hospitalizations, premature birth and death of pregnant women. ¹⁷

Studies claim that vaccines against COVID-19 developed by Pfizer-BioNTech and Moderna do not pose risks to the mother and fetus, regardless of gestational age. ¹⁸ Thus, vaccination is recommended for all pregnant, pos-

tpartum and lactating women with or without comorbidities, since the benefits of vaccination for this priority group are proven, such as the antibodies that the mother passes on to the baby through breastfeeding when she is immunized. In addition to promoting the health of the mother to complete the pregnancy without any complications caused by COVID-19. ¹⁸

Pregnant and lactating women who choose not to take the vaccine should be advised about the effectiveness and benefits of the vaccine offered to the priority group in which it fits and the risks and harms when choosing not to be vaccinated. If your decision is not to choose, the pregnant woman must be instructed to maintain social distance, hygiene care during and after breastfeeding and all other necessary care to avoid contamination. ¹⁹

CONCLUSION

It is concluded that COVID-19, caused by SARS-Cov-2, is a highly communicable and potentially fatal disease. Therefore, this group retains a higher probability of hospitalization and admission to intensive care units, as pregnancy becomes a favorable period for infection, especially if the woman has chronic diseases. Health education is necessary to promote a better quality of life for these women in the face of the pandemic scenario, since the simple act of washing hands, together with social distancing and the use of a mask, prevent transmission and infection by the virus. Nursing, during prenatal consultations, must explain in the best way that all preventive measures are important and that immunization is the most effective way to fight the virus. Working in an integral and humane way during hospitalization, the team can have a positive impact, causing the risks of adverse events to be minimized for the mother and baby. Good assistance makes all the difference.

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