Scientific evidence for nursing care for pregnant women during the COVID-19 pandemic: Integrative Review

Evidências Científicas para Assistência de Enfermagem à gestante durante a pandemia da COVID-19: Revisão Integrativa
Evidencia científica para el cuidado de enfermería a la gestante durante la pandemia de COVID-19: Revisión Integradora

RESUMO
Objetivo: identificar as melhores recomendações/evidências produzidas cientificamente sobre as condutas da enfermagem durante o Pré-Natal de gestantes na pandemia da COVID-19. Métodos: revisão integrativa. A questão norteadora foi estruturada por meio da estratégia PICo. Na busca bibliográfica, ocorrida em outubro de 2021, utilizou-se a Biblioteca Virtual em Saúde (BVS), especialmente, Literatura Latino-Americana do Caribe em Ciências da Saúde (LILACS), Base de dados em Enfermagem (BDefEnf), a Medical Literature and Retrieval System online (MEDLINE/PubMed®) via National Library of Medicine e SCOPUS (Elsevier), sem filtragem quanto ao idioma. Resultados: A amostra desta revisão foi composta por 6 estudos, sendo 03 de abordagem transversal, 01 método qualitativo, 01 retrospectivo e 01 estudo descriptivo, os artigos foram escritos e publicados entre 2020 e 2021. Os níveis de evidência/grau de recomendação de acordo com o método Grade foram classificados como: 03 estudos moderados/fuertes, 02 baixa/fraca, e 01 muito baixa/fraca, respectivamente. A análise dos resultados obtidos neste estudo evidenciaram que os cuidados de enfermagem à gestante foram: a necessidade de vigilância quanto a presença de sinais e sintomas da COVID-19 nas gestantes, como também apoio psicossocial, avaliação clínica, testagem periódica para rastreio precoce do novo coronavírus, a suplementação de vitaminas preconizadas no pré-natal, e consultas periódicas, seja de forma presencial, ou remota, constituem os cuidados prestados de maior relevância as mulheres grávidas. Conclusão: o estudo mostrou evidências fortes e boa recomendação quanto aos cuidados de enfermagem às gestantes no manejo do pré-natal no período pandêmico.
DESCRITORES: Pré-natal; Assistência de enfermagem; COVID-19.

ABSTRACT
Objective: to identify the best scientifically produced recommendations/evidence about nursing conduct during the Prenatal Care of pregnant women in the COVID-19 pandemic. Methods: integrative review. The guiding question was structured through the PICo strategy, in the bibliographic search, which took place in October 2021, the Virtual Health Library (VHL) was used, especially Latin American Caribbean Literature on Health Sciences (LILACS), Base Database (BDefEnf), the Medical Literature and Retrieval System online (MEDLINE/PubMed®) via the National Library of Medicine and SCOPUS (Elsevier), without language filtering. Results/Discussion: The sample of this review consisted of 6 studies, 03 of which were cross-sectional, 01 qualitative, 01 retrospective and 01 descriptive study. The articles were written and published between 2020 and 2021. Levels of evidence/degree of recommendation according to the Grade method, they were classified as: 03 moderate/strong studies, 02 low/weak, 01 very low/weak, respectively. The analysis of the results obtained in this study showed that nursing care for pregnant women was: the need for surveillance for the presence of signs and symptoms of COVID-19 in pregnant women, as well as psychosocial support, clinical evaluation, periodic testing for early screening of the new disease. Coronavirus. Vitamin supplementation recommended in prenatal care, and periodic consultations, whether in person or remotely, are the most relevant care provided to pregnant women. Conclusion: the study showed strong evidence and good recommendation regarding nursing care for pregnant women in prenatal care during the pandemic period.
DESCRIPTEES: Prenatal; Nursing assistance; COVID-19.

RESUMEN
Objetivo: identificar las mejores recomendaciones/evidencias científicamente producidas sobre la conducta de enfermería durante la Atención Pre-natal de las gestantes en la pandemia de COVID-19. Métodos: revisión integradora. La pregunta orientadora se estructuró a través de la estrategia PICo. En la búsqueda bibliográfica, que se realizó en octubre de 2021, se utilizó la Biblioteca Virtual en Salud (BVS), en especial Literatura Latinoamericana del Caribe en Ciencias de la Salud (LILACS), Base de Datos (BDefEnf), el Sistema de recuperación y literatura médica en línea (MEDLINE/PubMed®) a través de la Biblioteca Nacional de Medicina y SCOPUS (Elsevier), sin filtrado de idiomas. Resultados/Discusión: La muestra de esta revisión estuvo constituida por 6 estudios, de los cuales 03 fueron transversales, 01 cualitativos, 01 retrospectivos y 01 descriptivos, los artículos fueron escritos y publicados entre 2020 y 2021. Niveles de evidencia/ grado de recomendación según el método Grade, se clasificaron en: 03 estudios moderados/fuertes, 02 bajos/débiles, 01 muy bajos/débiles, respectivamente. El análisis de los resultados obtenidos en este estudio mostró...
que la atención de enfermería a la gestante fue: la necesidad de vigilancia para la presencia de signos y síntomas de COVID-19 en la gestante, así como apoyo psicosocial, evaluación clínica, pruebas periódicas para detección temprana el despiste de la nueva enfermedad coronavirus, la suplementación vitamínica recomendada en el control prenatal y las consultas periódicas, ya sean presenciales o a distancia, son los cuidados más relevantes que se brindan a las gestantes. Conclusión: el estudio mostró fuerte evidencia y buena recomendación sobre el cuidado de enfermería a la gestante en el control prenatal durante el período de la pandemia.

**DESCRIPTORES:** Prenatal; Cuidado de enfermera; COVID-19.

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**INTRODUCTION**

At the end of December 2019, a virus variation of unknown origin was discovered in the city of Wuhan, China, located in the province of Hubei. The new Coronavirus or SARS-CoV-2, belonging to a family of viruses responsible for causing respiratory diseases, from Influenza Syndrome to emerging diseases with notable lung involvement, such as Severe Acute Respiratory Syndrome.  

At first, China was considered the major epicenter and the first country to report cases of COVID-19, in addition, it is noted that it did not take long for the virus to cross territorial barriers and acquire unprecedented proportions, in such a way that it led the World Health Organization (WHO) to declare on January 30, 2020 a State of Public Emergency of International Importance, and in March of the same
Care for pregnant women cannot be discontinued, as this can be a contributing factor to higher rates of morbidity and mortality. Care for pregnant women cannot be discontinued, as this can be a contributing factor to higher rates of morbidity and mortality. Also in this context, pregnant women should receive care based on a model of integral, universal and equitable health care that offers security guarantees. All these attributes are ensured by the nursing care practices recommended by the SUS, such as prenatal care. With the pandemic, these services needed to be reorganized and adapted to the new consultation parameters. Nurses play a fundamental role in prenatal care, since through the assistance provided, it is possible to identify complications early and monitor pregnant women who are at risk. However, caring for women in the pregnancy cycle, especially in pandemic times, is challenging and demands great resilience from the responsible professionals in addition to extensive technical competence and periodic updating of evidence-based practices.

In view of this, the justification of the research will be given as a result of the national and global panorama, aiming at nursing care that must be longitudinal, integral and resolved, which proposed to answer the following guiding question: "What is the best scientific evidence about nursing care in prenatal care for pregnant women during the COVID-19 pandemic?". The objective is to identify the best scientifically produced evidence on nursing conduct during the prenatal care of pregnant women in the COVID-19 pandemic.

METHOD

This is an integrative literature review, a methodological model in which the investigation of studies on a particular subject/theme is sought, from a comprehensive review of previous literature, supporting discussions on results, as well as reflections on subsequent studies. The steps taken to carry out this review were: 1) Formulation of the research question; 2) Establishment of criteria for inclusion and exclusion of studies and literature searches; 3) Definition of information to be extracted from selected studies/categorization of studies; 4) Evaluation of studies to extract results/data from the integrative review.

The guiding question was defined through the expression: "What is the best scientific evidence about nursing care in prenatal care for pregnant women during the COVID-19 pandemic?"
The question was elaborated using the anagram of PICo, which is a strategy from the National Library of Medicine database, which consists of segmenting the research question, thus allowing the researcher to choose words that bring the appropriate definition to the initial question, in order to determine the best scientific information on the topic. In Table 1.

In the bibliographic search, which took place in October 2021, 4 information resources were used, being two databases from the Virtual Health Library (VHL), namely: Latin American Caribbean Health Science Literature (Lilacs) and Nursing Database (BDeNf), Online Medical Literature and Retrieval System (MEDLINE/PubMed) via the National Library of Medicine and the SCOPUS database (Elsevier).

The controlled and uncontrolled descriptors used in the search strategy were previously consulted in the Descriptors in Health Sciences (DeCS/McSH) tool, using the terms in Portuguese and English due to the specificity of the search of each database. The crossing of the descriptors came from the Boolean operator “OR” between each acronym of the acronym PICo and “AND” between the descriptors of P, I and C. For each database, a search strategy was adopted (Chart 2).

The studies chosen for research were those that met the pre-listed inclusion criteria: Articles available online, complete, free, with different methodologies, any language and dealing with prenatal care in the context of COVID-19. The criteria used for exclusion were: Documents of an editorial nature, such as letters, brief notes, theses, dissertations, review articles, duplicate articles in the databases and which did not adhere to the theme.

Still in this methodological aspect, for the selection of articles, a priori, each title and abstract were read in detail to confirm that they are capable of solving the guiding problem and thus meet the inclusion criteria, while data collection, in turn, decided to by adapting the instrument from the literature, highlighting the following information: title, author/year/country, database, methodological design, level of evidence, degree of recommendation and results. Regarding the order of presentation of eligible studies in the summary table, they were coded using the letter N.

Each phase of this review was independently prepared (identification, screening and inclusion). To this end, aiming at better clarity and understanding of the selection method, it was preferred to present the flowchart of scientific articles based on the criteria of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses – PRISMA statement. The search initially found 197 publications in MEDLINE/Pubmed, 66 in VHL and 863 in SCOPUS, after applying the aforementioned inclusion/exclusion criteria and later reading their titles and abstracts led to the selection of 53 articles.
of them, of which, 47 were excluded, resulting in 6 articles for analysis, 04 from SCOPUS and 2 from MEDLINE/Pubmed (Figure 1).

Published journals were selected at levels of evidence called: Evidence-Based Practice, so this assessment followed the “Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group”. The Grade system qualifies the evidence at four levels (high, moderate, low and very low) and assesses the degree of recommendation of each study. In this way, the level of evidence represents the quality of the evidence and is associated with confidence in the information used, and the strength of recommendation indicates the importance of adopting or rejecting a certain conduct (BRASIL, 2014).

The data analysis process consisted of the complete reading of each article and filling in the collection instrument, which allowed the characterization of publications and subsidized the construction of a summary table in order to synthesize the knowledge of the selected research. These data were grouped using the Microsoft® Word 2013 program.

RESULTS AND DISCUSSION

The sample of this review consisted of 6 studies: 03 cross-sectional, 01 qualitative, 01 retrospective and 01 descriptive. All articles were coded for better identification and relationship of findings. Due to the large number of authors, we chose to expose only the first one.

The articles were written between 2020 and 2021, of which 1 was published in 2020 and 5 in 2021, which reflects the contemporaneity of the theme and the indispensability of this subject being debated on the world stage.

There was diversity in relation to the place of origin of the studies, all studies being international. As for the

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**Figure 1. Flowchart of identification, screening and inclusion in the research, according to PRISMA, (adapted). Teresina (PI), Brazil, 2021.**

**Table 3 - Levels of Evidence according to the Grid System. Teresina (PI), Brazil, 2021.**

<table>
<thead>
<tr>
<th>Level of evidence</th>
<th>Definition</th>
<th>Implications</th>
<th>Source of Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>There is strong confidence that the true effect is close to that estimated.</td>
<td>It is unlikely that further work will change the confidence in the effect estimate.</td>
<td>- Well-designed clinical trials, with a representative sample. - In some cases, well-designed observational studies with consistent findings.</td>
</tr>
<tr>
<td>Moderated</td>
<td>There is moderate confidence in the estimated effect</td>
<td>Future work may change the confidence in the effect estimate, and may even change the estimate</td>
<td>- Clinical trials with mild limitations, Well-designed observational studies, with consistent findings</td>
</tr>
<tr>
<td>Low</td>
<td>Confidence in the effect is limited</td>
<td>Future work is likely to have a major impact on our confidence in the effect estimate.</td>
<td>- Clinical trials with moderate limitations, Comparative observational studies: cohort and case control.</td>
</tr>
<tr>
<td>Very low</td>
<td>Confidence in the effect estimate is very limited. There is a significant degree of uncertainty in the findings.</td>
<td>Any effect estimate is uncertain</td>
<td>- Clinical trials with severe limitations, Comparative observational studies presence of limitations, Non-compared observational studies, Expert opinion.</td>
</tr>
</tbody>
</table>

Source: Authors, 2021.

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levels of evidence and degrees of recommendation, they were evaluated according to the Grade System, where 03 were classified as moderate/strong evidence: N1, N2 and N6; 02 classified as low/weak evidence: N3 and N5; and 01 classified as very low/weak evidence: N4.

The articles were arranged below (Chart 4), which presents the synthesis of the studies included in this integrative review that constituted the body of the study, used for the elaboration of the results, discussion and conclusion.

The analysis of the results provided the design of the following conclusions, nursing had and still has a key role in the assistance to the mother-child binomial during the new coronavirus pandemic, reinventing assistance beyond the recommended follow-up, to ensure comprehensive and longitudinal care during prenatal care. Recommendations for nursing care are based on the use of teleconsultations, continuous monitoring, health surveillance, rapid testing and psychosocial monitoring of parturients, which will be discussed below.

The study carried out by 17 (N1) with an audience of 389 pregnant women in Ethiopia, having as interest the study of prenatal care of pregnant women in the hospital environment in the pandemic period, emphasizes among its results that nursing must maintain prenatal routines in person, dealing with the follow-up carried out in basic health units through periodic consultations interspersed between doctor and nurse, maternal fetal assessment, routine exams, and emphasis on maintaining nursing prescriptions for supplementation of folic acid and elemental iron.

Furthermore,18 (N5), carried out a study with 24 nurses working in maternity hospitals in South Korea, the...
Therefore, nursing, as the organizer of care, needs to be attentive and intervene in what fits in the social determinants and psychosocial assessment, as emphasized in the study carried out in the USA proposing the use of social determinants to improve prenatal care during the pandemic in the psychosocial assessment of pregnant women, aiming at the inherent psychological and social support to guarantee a safe and harm-free pregnancy. Using Prenatal consultations as the main tool, which provide a favorable environment to establish a bond with these parturients so that they feel comfortable to clarify doubts, tell their fears and ask for help.

The literature showed limitations regarding the conduct for pregnant women who have COVID-19, and only the retrospective study carried out by the review of 35 medical records of pregnant women in China. This study recommends that care for these women includes: performing deep breathing activities for pregnant women with COVID-19 to relieve pulmonary congestion and increase the ability to clear secretions.

In addition to these recommendations, studies have concluded that to prevent complications for the mother and baby from COVID-19, nurses must provide timely psychological counseling, since most of the women in the research showed apprehension related to the disease and its effects on the fetus, such findings are in line with the study's proposal. In addition, the limitations inherent to this research consisted of the scarcity of publications that answered the research question and that had a significant level of evidence and degree of recommendation, given the designs adopted. Therefore, in order to achieve the listed objectives, a careful reading and knowledge of the researchers of this review was carried out to extract the results. It was observed that the articles were mostly of the moderate type. However, it is worth noting that studies with a low level of evidence are subject to change, given that the practices adopted will be aligned with the best recommendations.

Given the limitations, it was possible through this study to compile the care inherent to prenatal care in the face of COVID-19, evidencing the unmet needs as well as encouraging studies that bring specific care to serve as a basis for obtaining the best practices to be offered to pregnant women in a pandemic scenario.

CONCLUSION

The analysis of the results obtained show that nursing care for pregnant women can be expressed in the need for surveillance regarding the presence of signs and symptoms of COVID-19, psychosocial support, clinical evaluation, periodic testing for early screening of the new coronavirus, supplementation of vitamins recommended in prenatal care and periodic consultations, either in person or remotely, given that they are the most relevant care provided to pregnant women.

The aforementioned care is routinely planned, executed and evaluated by the nurse, added to the construction of the bond with the pregnant women, in addition to coordinating the other care to be offered by the multidisciplinary team in view of the needs that they may present during prenatal care, this being the ideal instrument for monitoring the pregnancy.

In addition, through the findings achieved, it is expected to instigate the production of literature that deals with specific care of nurses to pregnant women during the pandemic, in view of the fragility of future perspectives. Concluding that the nurse must be prepared for the different scenarios, scientifically supported with the best evidence of the care to be provided, in order to guarantee quality care to the mother-child binomial.
REFERÊNCIAS


