

Integrative review



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## The importance of prenatal care in the context of primary care: integrative review

## A importância do acompanhamento pré-natal no contexto da atenção básica: revisão integrativa

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**ABSTRACT | INTRODUCTION:** To evaluate the importance of prenatal care during the gestational period, as well as to identify the risks, benefits and difficulties of this monitoring in primary care. **METHOD:** This is an integrative literature review. The bibliographic survey was carried out from February to March 2021, in the following databases: Scientific Electronic Library Online (SCIELO), and Latin American and Caribbean Literature in Life Sciences Health (LILACS). To operationalize the search, descriptors were used: "Primary health care"; "Prenatal care"; "Obstetric Nursing" and "Pregnant Women", in Portuguese. **RESULTS:** Thirteen articles that met the inclusion criteria were analyzed. The articles were ordered in two tables in descending order according to the year of publication. From the analysis and synthesis of the articles included, it was possible to delineate two categories: the importance of prenatal care and the health promotion for pregnant women. **FINAL CONSIDERATIONS:** It is concluded that prenatal care with a qualified health professional can contribute to the reduction of obstetric complications and maternal and child morbidity and mortality. The synthesis of the results also reveals that effective prenatal care is still not carried out in the context of primary care, as there are gaps in primary care.

**KEYWORDS:** Primary health care. Prenatal care. Obstetric nursing. Pregnant women.

**RESUMO | INTRODUÇÃO:** Avaliar a importância do pré-natal durante o período gestacional, bem como identificar os riscos, benefícios e dificuldades desse acompanhamento na atenção básica. **MÉTODO:** Trata-se de uma revisão integrativa de literatura. O levantamento bibliográfico foi realizado no período de fevereiro a março de 2021, nas seguintes bases de dados: Scientific Eletronic Library Online (SCIELO) e Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS). Para operacionalizar a busca foram utilizados os seguintes descritores: "Atenção primária a saúde"; "Cuidado pré-natal"; "Enfermagem obstétrica" e "Gestantes", em português. **RESULTADOS:** Foram analisados 13 artigos que atenderam aos critérios de inclusão. Os artigos foram ordenados em dois quadros de modo decrescente de acordo com ano de publicação. A partir da análise e síntese dos artigos incluídos foi possível delinear duas categorias, a saber: a importância do pré-natal e a promoção da saúde para a gestante. **CONSIDERAÇÕES FINAIS:** Conclui-se que o acompanhamento pré-natal com um profissional de saúde capacitado pode contribuir para a redução das complicações obstétricas e da morbimortalidade materno-infantil. A síntese dos resultados revela também que no contexto da atenção básica ainda não se realiza uma assistência pré-natal efetiva, pois existem lacunas na atenção básica.

**PALAVRAS-CHAVE:** Atenção primária a saúde. Cuidado pré-natal. Enfermagem obstétrica. Gestantes.

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## Introduction

Prenatal care is an important tool in the promotion of maternal and child health worldwide and is essential in the context of public health. The World Health Organization (WHO) recommends that women have access to prenatal care from the beginning of pregnancy, making at least four visits during this period.<sup>1</sup> During prenatal care appointments, the pregnant woman receives guidance on health care, proper nutrition, importance of physical activity, in addition to tests to monitor the health of the mother and fetus, such as ultrasound, blood tests, among others.<sup>1-3</sup>

The benefit of prenatal care includes precautions that allow early identification and treatment of possible serious complications, such as pre-eclampsia, gestational diabetes, preterm birth, low birth weight; in addition, proper diagnosis and treatment ensure safe delivery and reduce maternal and fetal morbidity and mortality.<sup>4,5</sup>

In 2015, the United Nations (UN) in its new global agenda reaffirms the reduction of maternal and infant mortality, as the goal was not achieved by many countries, including Brazil, remaining as part of an inconclusive agenda, in the goal of the Sustainable Development Goals (SDG) item 3.1: by 2030, the goal is to reduce the global maternal mortality ratio to less than 70 deaths per 100,000 live births.<sup>6</sup>

Health professionals trained to perform prenatal care include obstetricians, obstetric nurses, family doctors and general practitioners. Each of these professionals has a specific training that enables them to perform pregnancy follow-up, monitor fetal development, guide the pregnant woman on health care, perform tests and prescribe medications when necessary.<sup>7,8</sup>

In Brazil, prenatal care is a right guaranteed by the Unified Health System (SUS) and should be offered free of charge and accessible to all pregnant women.<sup>7</sup> Unfortunately, there are still challenges in accessing quality prenatal care in some regions of the world, especially in low-income countries and rural areas; in Brazil the poor and peripheral areas are the most affected.<sup>7,8</sup>

Thus, prenatal care is essential for the promotion of collective health, since it reduces health inequalities by ensuring maternal and child health.<sup>9,10</sup> It is important that pregnant women have access to quality prenatal care and that health professionals are trained to provide humanized and efficient care.<sup>11,12</sup> In addition, it is necessary to invest in public policies that guarantee universal access to prenatal care and other health services for pregnant women.<sup>13,14</sup>

In view of the above, the work is justified by the relevance of the theme, as it emphasizes how essential it is for maternal and fetal health to detect possible problems early during pregnancy, thus ensuring the safety of mother and baby and a healthy pregnancy. Thus, the present study aims to evaluate the importance of prenatal care during the gestational period, as well as to identify the risks, benefits and difficulties of this follow-up in primary care.

## Methodology

This is an integrative literature review, a method that allows the analysis and synthesis of relevant research and that enables general conclusions regarding the current state of the topic investigated.<sup>15</sup> It was elaborated following six distinct phases: 1) identification of the theme and selection of the hypothesis or guiding question; 2) establishment of criteria for inclusion and exclusion of studies/sampling or literature search; 3) definition of information to be extracted from the selected studies/categorization of studies; 4) evaluation of studies included in the integrative review; 5) interpretation of results and, 6) presentation of the review/synthesis of knowledge.<sup>16</sup>

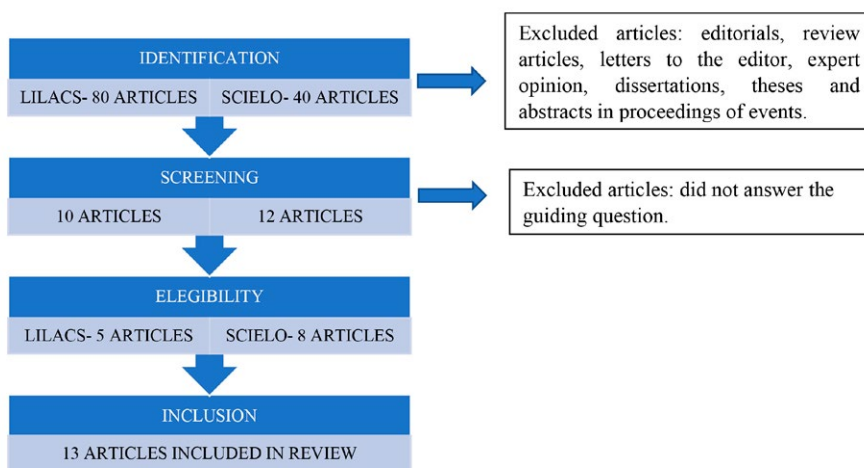
The research question was elaborated through the PICO strategy (Population, Interest/Phenomenon of Interest and Context)<sup>17</sup>, defining pregnant women as the population and the consequences generated by the lack of commitment and attendance to prenatal care as the phenomenon of interest. Thus, this study was conducted by the following question: what is the importance, risks, benefits and difficulties of prenatal care in the context of primary care?

Thus, the strategy for consultation was the combination of the terms "Primary health care"; "Prenatal care"; "Obstetric nursing" and "Pregnant women", with the Boolean operator "AND" to associate them. Thus, the search implemented for the crossing in all bases was as follows: "Primary health care AND Prenatal care AND Obstetric nursing AND Pregnant women", in the following databases: Scientific Electronic Library Online (SCIELO), and Latin American and Caribbean Literature in Health Sciences (LILACS).

Primary studies that investigated the importance of prenatal care in the context of public health and that answered the guiding question were included in the research. Inclusion criteria were all articles published in all languages between 2017 and 2022, with full text available and open access, which answered the guiding question. The exclusion criteria defined were: editorials, review articles, letters to the editor, expert opinion, dissertations, thesis and abstracts in proceedings of events, which did not answer the guiding question would be discarded. Duplicate articles were considered only once.

This review met the requirements of the Protocol Statement for Reporting Systematic Reviews and Meta-Analyses of Studies (PRISMA)<sup>18</sup>, as shown in Figure 1.

**Figure 1.** Flowchart of selection of primary studies by adapting the PRISMA flowchart. Ceará, Brazil, 2023



Source: the authors (2023).

The critical analysis and qualitative synthesis of the studies selected in this review were based on and followed three stages: pre-analysis (stage of choice and order of the document(s) to be analyzed), leading to the creation of hypotheses, objectives and criteria to corroborate the analysis; the exploration of the material - it is the analysis of the document(s) from the use of the chosen methodology; and the treatment of results, inference and interpretation - will be the stage of interpretation and probing of the content -, from the thematic categories.<sup>19</sup>

## Results

During this review, 12 articles were chosen that fit the inclusion criteria predetermined in the methodology. These articles were organized in a table, arranged in descending order based on the year of publication. In addition, information was provided on the authors, the year of publication, the title of the article, the journal in which it was published and the language in which it is available, as presented in Table 1.

**Table 1.** Distribution of references included in the integrative review, according to authors, year of publication, title, journal and language. Ceará, Brazil, 2023

Author and year	Title	Magazine/language
Tumas, et al. <sup>20</sup> 2022	Prenatal care and social determinants: an ecological study in Argentina	Poblac. salud mesoam/Spanish
Cunha, et al. <sup>21</sup> 2022.	Multiprofessional assistance to pregnant women in the context of the COVID-19 pandemic	Revista Nursing/Portuguese
Tintori, et al. <sup>22</sup> 2022	Epidemiology of maternal death and the challenge of improving care quality	Acta Paul. Enferm. (Online)/Portuguese
Marques, et al. <sup>23</sup> 2022	Guidance to pregnant women in prenatal care: the importance of shared care in primary health care	Anna Nery School of Nursing Journal/ Portuguese
Lima, et al. <sup>24</sup> 2022	Implementation of rapid HIV testing in primary care antenatal care	Rev. enferm. UERJ/Portuguese
Santos, et al. <sup>25</sup> 2022	Prenatal care by nurses in primary health care: user's view	Nursing focus (Brasília)/Portuguese
Arruda, et al. <sup>26</sup> 2022	Pregnancy period and Covid-19: effects of the pandemic on the process of gestation in the hinterland of Paraíba.	Rev. Ciênc. Méd. Biol. (Impr.)/Portuguese
Lessa et al. <sup>27</sup> 2022	Prenatal care of Brazilian women: racial inequalities and their implications for care	Ciênc. Saúde Colet. (Impr.)/Portuguese
Rodrigues, et al. <sup>28</sup> 2022	Association between Family Health consolidation and lower incidence of congenital syphilis: an ecological study	Rev. APS/Portuguese
Cunha, et al. <sup>29</sup> 2019	Evaluation of prenatal care in Primary Care in Brazil	Brazilian Journal of Maternal and Child Health/Portuguese
Ruschi, et al. <sup>30</sup> 2018	Determinants of prenatal care quality in Primary Care: the role of Matrix Support in Women's Health	Cadernos Saúde Coletiva/Portuguese
Falavina, et al. <sup>31</sup> 2018	Hospitalization during pregnancy according to financing of delivery: a population-based study	Revista da Escola de Enfermagem da USP/Portuguese

Source: the authors (2023).

Thus, the studies were published between the years 2018 and 2022, with the equivalent of 16.7% in the year 2018, 8.3% in the year 2019 and about 75% in the year 2022. In addition, most of the analyzed studies were carried out in Brazil, totaling 91.7%, against 8.3% in Argentina. Thus, the contents of the research found referred to the importance of prenatal care for maternal and child health.

**Table 2.** Distribution of articles according to objectives and main conclusions. Ceará, Brazil, 2023 (to be continued)

Author	Objectives	Conclusion
Tumas, et al. <sup>20</sup>	To identify the socio-sanitary scenarios of prenatal care and analyze possible associations between contextual social determinants and selected synthetic indicators of prenatal care in Argentina in recent years.	This work illustrates an overview of the links between socioeconomic, sociodemographic and prenatal care aspects from a macro contextual perspective and addresses a wide range of indicators, which allowed a comprehensive prenatal analysis.
Cunha, et al. <sup>21</sup>	To analyze the multiprofessional assistance to pregnant women in the context of the Covid-19 pandemic.	Despite uncertainties about coronavirus infection, health workers followed health protocols and created strategies to continue antenatal care.
Tintori, et al. <sup>22</sup>	To describe reported maternal deaths and identify the epidemiological profile of women who died during their pregnancy-puerperal cycle and to analyze the variables related to prenatal care and childbirth.	The classification of most deaths was direct obstetric, with hypertension, infection and hemorrhage being the main causes. It was possible to know the network structure and verify good coverage of primary care and hospital care for childbirth care.
Marques, et al. <sup>23</sup>	To analyze the association between the adequacy of the guidance received during prenatal care and the professional who attended the pregnant woman in most consultations in Primary Health Care.	The prevalence of guidance given by health professionals to pregnant women was higher when prenatal care was shared between nurses and doctors, compared to the majority of care provided by professionals from only one profession.
Lima, et al. <sup>24</sup>	To evaluate the implementation of the HIV rapid test in prenatal care in primary care of a health macro-region.	Adequate implementation was found for the process markers of service organization and test results. Regarding the structure markers, it showed a partially adequate implementation.
Santos, et al. <sup>25</sup>	To evaluate the assistance provided in the prenatal consultation by the nurse in primary health care from the user's point of view.	Although the assistance provided by nurses is evaluated as facilitating in several aspects, there is a deficiency in the fulfillment of indispensable actions.
Arruda, et al. <sup>26</sup>	To analyze the effects of the COVID-19 pandemic on the process of gestation in the hinterland of Paraíba.	Contingency actions for maternal health are needed in order to encourage adherence to preventive measures and facilitate access to intensive care, as well as psychological assistance in the pregnancy-puerperal cycle in periods of pandemic.
Lessa, et al. <sup>27</sup>	To characterize women who underwent prenatal care in Brazil according to race/color and sociodemographic variables and to verify the association between prenatal care process indicators and women's race/color.	It is concluded that being black and occupying unfavorable social positions entail disadvantages for women regarding access to prenatal care considered adequate according to the criteria established by the Brazilian Ministry of Health.
Rodrigues, et al. <sup>28</sup>	To estimate temporal trends in the incidence of congenital syphilis (CS) in Minas Gerais and health regions and to investigate the spatial distribution of the disease, identifying regions of higher incidence and their association with socioeconomic and care factors.	The incidence of CS has increased significantly in the recent period, especially in large urban centers and regions with lower FHS and prenatal care coverage.
Cunha, et al. <sup>29</sup>	To evaluate prenatal care in Primary Care, identifying the aspects that influence structural and operational adequacy.	Adequate prenatal care needs to be comprehensive and equitable, with the strengthening of regional networks aimed at social inclusion.

**Table 2.** Distribution of articles according to objectives and main conclusions. Ceará, Brazil, 2023 (conclusion)

Author	Objectives	Conclusion
Ruschi, et al. <sup>30</sup>	To evaluate prenatal care in Primary Care in the municipality of Vitória, Espírito Santo, and the influence of Matrix Support (MS), as a work management methodology, in determining the quality of care.	The implementation and valorization of strategies to reorganize services and practices, such as BF, are determinants of quality improvement in prenatal care, and it is necessary to expand the degree of support.
Falavina, et al. <sup>31</sup>	To analyze the occurrence, profile and main causes of hospitalization in pregnancy due to financing of delivery.	Anemia, influenza, urinary tract infection, preterm labor and hypertension should be prevented and treated in particular to avoid hospital admissions in pregnancy, especially for pregnant women on the SUS.

Source: the authors (2023).

The main objectives highlighted were to analyze the multiprofessional assistance in prenatal care and promote health through information consistent with the pregnant woman. And the main results were to seek to implement behaviors that prevent comorbidities and reduce the risks of maternal and child mortality, as well as to seek to improve the care provided by professionals.

## Discussion

From the analysis and synthesis of the included articles, it was possible to outline two categories: the importance of prenatal care and health promotion for pregnant women.

### The importance of antenatal care

Nurses and/or obstetric nurses have the necessary competence and skills to perform low-risk prenatal care, as well as to monitor normal deliveries and the postpartum period. This care can be provided in different settings, such as hospitals, normal birth centers, basic health units or even at the pregnant woman's home. However, if complications arise during prenatal care, the nurse should refer patients for appropriate medical evaluation.<sup>32</sup>

Prenatal care provided by a trained professional willing to listen and guide pregnant women helps to reduce complications and morbidity and mortality of the mother-child binomial.<sup>25</sup> The most frequent guidelines during the consultation were those related to the signs of pregnancy risks, the harm of alcohol and smoking consumption, and the dangers of self-medication.<sup>23</sup>

There is a strong commitment to expand the coverage of primary health care services for pregnant women, both nationally and internationally. Maternal and child health remains an important research topic, as there is a need to overcome fragmented and dichotomous approaches to education and intervention. Reducing maternal and child mortality has made slow progress and remains a priority on global policy agendas. For this reason, it has been included again as one of the Sustainable Development Goals.<sup>33,34</sup>

In a study on the profile of women who died during their pregnancy and puerperal period, it was observed that 72.2% started prenatal care in the appropriate period, that is, before the 12th week of gestation, with 36.1% performed in primary care, 19.4% in high-risk care and 13.9% in the private network. Regarding the number of consultations, 50% had 7 or more consultations<sup>22</sup>, differing from another article in which 64.8% of pregnant women had less than 7 consultations.<sup>29</sup>

A survey in Santa Catarina found that pregnant women who attended seven or more prenatal consultations had a 1.29% chance of being more compliant with the instructions than those who attended less than six consultations, and pregnant women who started prenatal care within the recommended period had a 10% higher chance of being compliant with the guidelines.<sup>23</sup> It was also found that there were lower rates of Congenital Syphilis in regions where there was a consolidated work of the Family Health Strategy and at least six prenatal consultations.<sup>28</sup>

In an analysis of the quality of prenatal care in Primary Care, it was found that when prenatal care was evaluated considering only early uptake and the number of consultations, the quality percentage reached 63%, but from the moment the procedures performed during the consultation and the requests for tests were considered, this number dropped to 13%<sup>30</sup>, which shows that these parameters alone are not criteria to attest to the quality of prenatal care.<sup>22</sup>

Corroborating this, studies have shown that despite early uptake, most of the municipalities analyzed had low adequacy in prenatal care. Tests such as early diagnosis of pregnancy, syphilis and HIV were considered inadequate, in addition to the lack of units with extended hours of service, making it difficult for pregnant women who work.<sup>29</sup> Other points that presented deficiencies were the non-performance of clinical breast examination, rapid tests and the lack of educational activities, not taking advantage of opportunities to disseminate knowledge that helps pregnant women to have a good pregnancy, delivery and postpartum.<sup>25,27</sup>

### **Health promotion for pregnant women**

It is noteworthy that the affirmation of the Ministry of Health for prenatal consultation is that pregnant women should be oriented on puerperium, receive guidance on newborn care and various themes that are important for health promotion, such as the risks of self-medication during pregnancy, alcohol consumption and smoking, in addition to emphasizing the importance of exclusive breastfeeding up to 6 months and forms of delivery.<sup>23</sup>

According to a survey, regions in poverty situations are related to pregnancies with insufficient prenatal consultations<sup>20</sup>, and pregnant women monitored by SUS are two to three times more likely to be hospitalized than pregnant women monitored by the supplementary health network, which points to a greater vulnerability of this public. Therefore, care during prenatal care should be intensified in order to avoid more serious situations that may jeopardize the lives of these pregnant women.<sup>31</sup>

In Brazil, significant efforts are being made to include new professional categories, aiming to expand and improve prenatal and postpartum care in a broad and complementary way. An example of this advance is the inclusion of obstetric nurses, who have contributed to the promotion of exclusive breastfeeding up to six months, in addition to other advances in this area.<sup>35</sup>

Recognizing the importance of this care for maternal-fetal health, in the context of the pandemic, professionals sought to perform it online, so that in a way, pregnant women and babies would not be harmed. This initiative sought to carry out the six or more recommended consultations in order to reduce unwanted events.<sup>21</sup> Most pregnant women reported feeling supported by the Basic Health Unit (BHU) during the pandemic, and it is of paramount importance that this is a place to welcome and promote reliable knowledge.<sup>26</sup>

A study showed that some pregnant women died in hospital institutions despite having performed prenatal consultations as recommended, with the puerperium being the period of greatest risk, followed by the gestational period. Of the types of delivery, the one that brings the highest mortality is the cesarean section.<sup>22</sup>

Data indicate that it is necessary for professionals working in this consultation, doctors and nurses, to take better ownership of their functions and recognize that there is a need for improvement in the guidelines provided during care, one of these improvements is related to the teaching of types of delivery and the continuous struggle to demystify vaginal delivery.

This study contributes to knowledge in the area of collective and obstetric health, as it contains information that can motivate health professionals, doctors and nurses, who work directly in this care, to give more importance to their work, as well as to invest in actions to promote the health and well-being of pregnant women, so that they can resignify this care and thus pass on the learning to the next ones.

The limitations of this study are related to the use of secondary data, as it is an integrative literature review, and the information is already previously constructed. It should also be noted that the results presented did not assess the impact of prenatal care on pregnant women in the private health care network.

## Conclusion

The findings of this review show the importance of the presence of a trained health professional to provide prenatal care to these pregnant women, helping to reduce obstetric complications, providing useful information about existing doubts about the gestational process and reducing maternal and child morbidity and mortality.

It is noteworthy that the practice of early prenatal care, with adequate monitoring and in places where we have the presence of Family Health Strategies, provides greater adequacy of pregnant women to instructions about pregnancy, in addition to contributing to the reduction of transmission of vertical diseases due to early screening, demonstrating the importance of the presence of trained health professionals in the provision of prenatal care.

However, the gaps that still exist in primary care show a low quality of prenatal care, with inadequate early diagnosis of pregnancy, application of rapid tests for syphilis and HIV, lack of units with extended hours, lack of breast palpation examination and educational activities as contributing factors.

It is also noteworthy that the relationships that are created between these health professionals and pregnant women in these organizational and care conditions offer numerous possibilities to establish effective communication that can contribute to the woman's understanding of her health condition, in addition, it is necessary to invest in public policies that guarantee universal access to prenatal care and other health services for pregnant women with health professionals trained to offer humanized and efficient care.

## Authors' contributions

Freitas JCSS and Barros RA participated in the search and statistical analysis of the research data, interpretation of the results and writing of the scientific article. Rossi B participated in the introduction. Gerdes MO and Martins NS participated in the conception of the research question, methodological design, search and statistical analysis of research data, interpretation of results and critical review of the manuscript. Pessoa BVS participated in the writing and critical review of the manuscript.

## Conflicts of interest

No financial, legal, or political conflicts involving third parties (government, private companies and foundations, etc.) have been declared for any aspect of the submitted work (including but not limited to grants and funding, advisory board participation, study design, manuscript preparation, statistical analysis, etc.)

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