

The role of nursing in pregnancy-associated hypertensive disorders: Integrative review

RESUMO | Objetivo: identificar as evidências disponíveis na literatura sobre o papel da enfermagem na assistência as gestantes com síndromes hipertensivas na gestação. Método: Trata-se de uma revisão integrativa baseada na estratégia PICO, realizada com 13 artigos indexados nas bases de dados LILACS, SciELO, BDNF, MEDLINE. Os critérios de inclusão consideraram artigos disponíveis na íntegra e publicados entre 2009 a junho de 2021. Resultados: Para análise, os estudos foram divididos em 3 categorias: 1. O conhecimento dos profissionais de enfermagem sobre as síndromes hipertensivas na gestação; 2. Os cuidados de enfermagem à gestante com síndromes hipertensivas na gestação e seus neonatos; 3. A sistematização da assistência em enfermagem no cuidado as síndromes hipertensivas na gestação. Conclusão: Os estudos analisados demonstram as interfaces e desafios da enfermagem no cuidado às gestantes com síndromes hipertensivas na gestação, apontando o papel primordial da enfermagem na atenção à saúde da gestante.

Descritores: Hipertensão induzida pela gravidez; Eclampsia; Cuidados de enfermagem; Pré-eclâmpsia; Enfermagem.

ABSTRACT | Objective: to identify the evidence available in the literature on the role of nursing in assisting pregnant women with hypertensive syndromes during pregnancy. Method: This is an integrative review based on the PICO strategy, carried out with 13 articles indexed in the LILACS, SciELO, BDNF, MEDLINE databases. Inclusion criteria considered articles available in full and published between 2009 and June 2021. Results: For analysis, the studies were divided into 3 categories: 1. Nursing professionals' knowledge about hypertensive syndromes during pregnancy; 2. Nursing care for pregnant women with hypertensive syndromes during pregnancy and their newborns; 3. The systematization of nursing care in the care of hypertensive syndromes during pregnancy. Conclusion: The analyzed studies demonstrate the interfaces and challenges of nursing in the care of pregnant women with hypertensive syndromes during pregnancy, pointing out the primordial role of nursing in the health care of pregnant women.

Keywords: Pregnancy-induced hypertension; Eclampsia; Nursing care; Preeclampsia; Nursing.

RESUMEN | Objetivo: identificar las evidencias disponibles en la literatura sobre el papel de la enfermería en la asistencia a las gestantes con síndromes hipertensivos durante el embarazo. Método: Se trata de una revisión integradora basada en la estrategia PICO, realizada con 13 artículos indexados en las bases de datos LILACS, SciELO, BDNF, MEDLINE. Los criterios de inclusión consideraron artículos disponibles en su totalidad y publicados entre 2009 y junio de 2021. Resultados: Para el análisis, los estudios fueron divididos en 3 categorías: 1. Conocimiento de los profesionales de enfermería sobre los síndromes hipertensivos durante el embarazo; 2. Atención de enfermería a las gestantes con síndromes hipertensivos durante el embarazo y sus recién nacidos; 3. La sistematización de los cuidados de enfermería en la atención de los síndromes hipertensivos durante el embarazo. Conclusión: Los estudios analizados demuestran las interfaces y desafíos de la enfermería en el cuidado de la gestante con síndromes hipertensivos durante el embarazo, señalando el papel primordial de la enfermería en el cuidado de la salud de la gestante.

Palabras claves: Hipertensión inducida por el embarazo; Eclampsia; Cuidado de enfermera; preeclampsia; Enfermería.

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INTRODUCTION

Hypertensive Pregnancy Syndromes (HPS) occur in approximately 10% of pregnancies worldwide, are responsible for several maternal and fetal complications, and are among the main causes of maternal death in the world. HPS are

characterized by an increase in blood pressure during pregnancy in absolute values of systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg, classified as: chronic hypertension; gestational hypertension; preeclampsia; eclampsia and preeclampsia superimposed on chronic hypertension.

Among some of the maternal complications related to HPS are placental abruption, respiratory failure, shock, acute pulmonary edema, postpartum hemorrhage and maternal death.² Among the main repercussions for the fetus associated with HPS are: diseases related to prematurity (respiratory dis-

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tress syndrome, intraventricular hemorrhage and necrotizing enterocolitis), intrauterine growth restriction, low birth weight, APGAR score below seven in the first and fifth minutes of life and neonatal mortality.^{3,4}

Nursing plays an essential role in the care of pregnant women, they are usually the first contact professionals and the most frequent contact during the pregnancy period, being, in most cases, essential for the early identification of maternal and neonatal health problems. In the case of HPS, prevention and control measures are of paramount importance, with the nursing camp having fundamental relevance.⁵

The present study aimed to analyze and synthesize the scientific production on the role of nursing in the care of pregnant women with HPS, aiming to expand knowledge and discussions on the subject based on evidence available in the literature.

METHOD

The present study is an integrative literature review, following the development of the following steps: 1. Selection of the theme and elaboration of the research question; 2. Search and choice of studies in scientific bases; 3. Categorization of studies; 4. Critical analysis of included studies; 5. Interpretation and discussion of results; and 6. Presentation of studies in the framework of the integrative review.⁶ To elaborate the guiding question, the PICO strategy was used - acronym for Patients, Intervention, Comparison and Outcomes; where (P) corresponds to pregnant women with HPS, (I) nursing care, (C) does not apply to the study and (O) control and prevention of health problems and complications for the mother-baby binomial.⁷ Therefore, the following guiding question was elaborated: what is the role of nursing in the care of pregnant women with HPS?

For the development of this research, the Health Sciences Descriptors (DeCS)

were consulted to select the following descriptors in Portuguese and English: “Hipertensão/Hypertension, Hipertensão Induzida pela Gravidez/ Pregnancy-Induced Hypertension”, “Eclampsia/Eclampsia” and “Cuidados de enfermagem/ Nursing care”. The bibliographic survey was carried out in July 2021 in four databases: Latin American Literature in Health Sciences (LILACS), Scientific Electronic Library Online (SciELO), Nursing Database (BDENF), Medical Literature Analysis and Retrieval System Online (MEDLINE) at the VHL Portal.

The Boolean operators “AND” and “OR” were used among the descriptors, and the following search strategy was defined: “Hipertensão OR Hipertensão Induzida pela Gravidez OR Eclampsia AND Cuidados de enfermagem”, then the same descriptors in English “Hypertension OR Pregnancy-Induced Hypertension OR Eclampsia AND Nursing care.”

The inclusion criteria defined were: articles available in full and published between 2009 and June 2021; the exclusion criteria were: course conclusion works, dissertations, theses, experience reports, case studies and review studies.

For data collection, an advanced search was carried out in the databases, detailing the number of articles in each selected journal. Then, articles unrelated to the chosen topic were excluded, by reading all titles and abstracts. After this selection, the articles included were read in full. Figure 1 presents the flowchart with the search strategies used and steps that constituted the final selection of the articles that make up this study.

The included studies were classified according to the Level of Evidence (LE): I- systematic reviews or meta-analysis of relevant randomized and controlled clinical trials; II- evidence from at least one well-designed randomized controlled clinical trial; III- well-designed clinical trials without randomization; IV- well-designed cohort and case-control studies; V- systematic review of descriptive

and qualitative studies; VI- evidence derived from a single descriptive or qualitative study; VII- opinion of authorities or expert committees including interpretations of information not based on researches.⁸

RESULTS

2094 publications were found, 550 of which were duplicates, selecting 1544 articles for full reading. Of these, 1531 articles were excluded after reading the title and abstract: they were not related to the research question (n=1520), or were characterized as case studies (n=4), experience report (n=3) and review studies (n=4). The final sample consisted of 13 articles.

Studies were analyzed according to title, author, year, location, type of study, objective, sample, results and conclusions. In all, 8 articles were published in Portuguese, 4 in English and 1 in Spanish, indexed in the MEDLINE (6), LILACS (3), BDENF (3) and SciELO (1) databases.

As for the place where the studies were carried out, the countries where the studies were carried out were: Jordan, Mexico, Bangladesh, Romania, India and Brazil. Regarding the year of publication, most (5) were published in 2019. Regarding the methodological approach, the studies presented were divided into: cross-sectional quantitative approach (7), qualitative approach (5) and quantitative and qualitative approach (1).

Table 1 presents the classification of the articles analyzed according to the level of evidence, title and publication journals.

DISCUSSION

The results presented in the studies were divided for analysis into 3 categories: 1. The knowledge of nursing professionals about HPS; 2. Nursing care for pregnant women with HPS and their

newborns; 3. Systematization of nursing care to direct care in HPS.

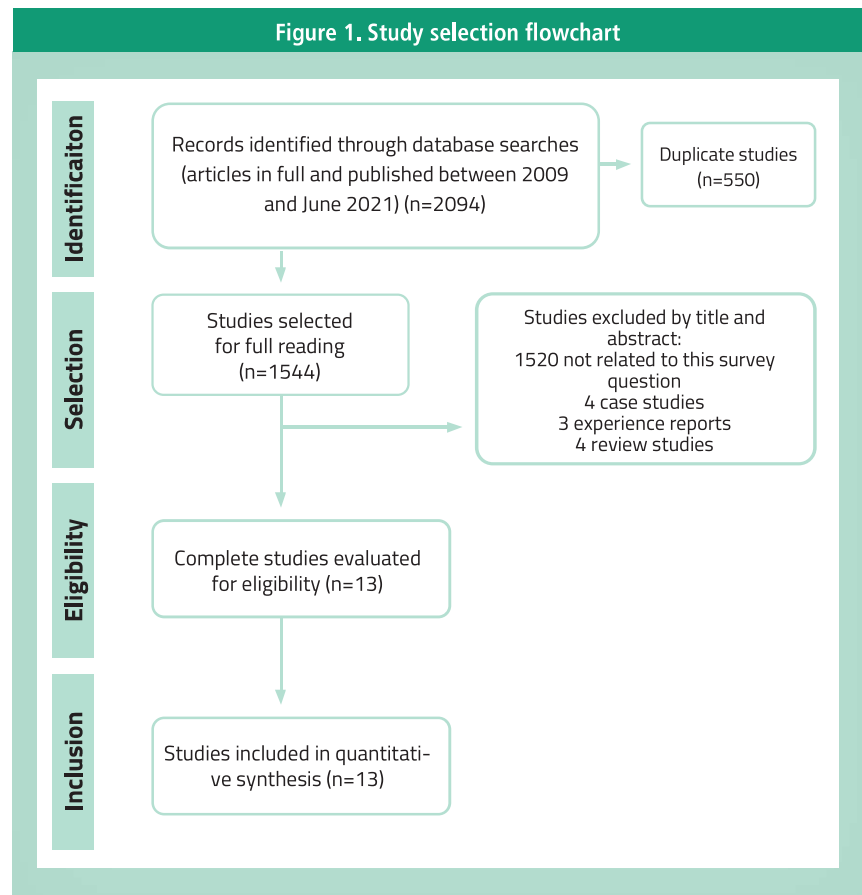
1. The knowledge of nursing professionals about PHS

Regarding the knowledge of nursing professionals about HPS, two national studies analyzed showed that the professionals surveyed showed adequate knowledge about the care of pregnant women with these disorders, and that the work of these professionals is of paramount importance in the prevention of complications.²⁰⁻²¹ However, international studies on the subject indicated a lack of knowledge of nursing professionals regarding care for pregnant women with HPS.¹²⁻¹³

For quality care for pregnant women with HPS, there must be continuing education for professionals who work directly in this care. The use of realistic simulation has been used as an effective strategy for training nurse midwives in the management of SHG, as described in one of the analyzed studies.¹⁴ Self-assessment instruments have also been built to identify strengths and weaknesses of the nursing professional's clinical competence in the face of the assessment of women with HPS.¹¹ In addition, one of the studies evaluated showed that the use of clinical cases can be a useful tool in the assessment of the skills of professionals working in care services for pregnant women at risk.¹²

A randomized controlled clinical trial conducted at a public hospital in Jordan to examine the effects of an intervention program on preeclampsia in women with high risk pregnancies, noted that the intervention group showed improvement in maternal and neonatal outcomes, and concluded that health education programs need to be designed by professionals based on an update of evidence and women's needs.¹⁰

2. Nursing care for pregnant women with HPS and their neonates



Source: Adapted from Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2009).⁹

The analyzed studies presented, among the main nursing care for pregnant women with HPS, physical examination, early detection of signs and symptoms of HPS, monitoring and evaluation of laboratory tests, dietary guidelines and blood pressure control, and fetal and/or neonatal assessment.^{15,18} Some factors may interfere or hinder adequate nursing care for pregnant women with HPS. Among the studies analyzed, the main factors that interfere with the quality of care are the lack of adequate fetal assessment, quality prenatal consultations in primary care, lack of humanization of professionals and lack of knowledge regarding the handling of equipment.¹⁷

A study carried out in Rio de Janeiro

analyzed the adequacy of management during prenatal care of pregnant women with arterial hypertension and the factors associated with inadequate management, and compared the care of hypertensive pregnant women with those considered to be at low risk. The study concluded that adequate management of HPS in prenatal care was low, with the health professional being the factor that most contributed to inadequate management. Among pregnant women who were unaware of having the disease, 12% reported that professionals did not inform about this health condition, and only 56% of those who were informed reported that blood pressure was measured again to confirm the change at the time of diagnosis.²³ It is essential that nursing professionals are

prepared to provide quality prenatal care in order to prevent or reduce risks to maternal and neonatal health.

3. The systematization of nursing care in the care of HPS

The analyzed studies pointed to the Nursing Care Systematization (NCS) as an important instrument within the health services that serve high-risk pregnant women. The use of NCS forms facilitates the implementation of the nursing process, directing care to women with HPS.^{15,19-22} The implementation of the nursing process in a standardized way, which aims to promote comprehensive care based on scientific knowledge, strengthens communication and brings benefits to health care.²⁴ In primary care, it is observed that the integral approach based on NCS has not been implemented. A study showed that the nursing process is not part of the daily routine of primary care teams and that there is no established institutional process that encourages this practice.²⁵ However, the importance of implementing and exercising NCS in the various maternal care services is emphasized, seeking to contribute to a more humanized, individualized and systematic assistance.

CONCLUSION

The present study described the interfaces and challenges of nursing in the care of pregnant women with HPS, and demonstrated its primary role in care during the pregnancy period, which seeks to early identification and control of maternal and neonatal health problems. It is important that nurses have technical and structural resources to provide adequate and humanized care. The present study described the interfaces and challenges of nursing in the care of pregnant women with HPS, and demonstrated its primary role in care during the pregnancy period, which seeks to early identification and control of maternal and ne-

TABLE 1- Distribution of included studies according to title, journal and level of evidence. Cruzeiro do Sul- Acre, Brazil, 2021

Title	Journal	Level of Evidence
The effects of an educational programme about preeclampsia on women's awareness: a randomized control trial. ⁽¹⁰⁾	BMJ Open	II
Nurses self-assessment instrument in the assessment of women with preeclampsia in a second level hospital (Instrumento de autoavaliação de enfermeiras na avaliação de mulheres com pré-eclâmpsia em um hospital de segundo nível) ⁽¹¹⁾	Revista de Enfermería del Instituto Mexicano del Seguro Social	VI
Competence of healthcare professionals in diagnosing and managing obstetric complications and conducting neonatal care: a clinical vignette-based assessment in district and subdistrict hospitals in northern Bangladesh. ⁽¹²⁾	International Nursing Review	VI
Investigating Nurses' Knowledge about Preeclamptic Patients' Care in a Tertiary Care Center in Romania. MAEDICA – a Journal of Clinical Medicine. ⁽¹³⁾	MAEDICA – a Journal of Clinical Medicine	VI
Simulation-enhanced nurse mentoring to improve preeclampsia and eclampsia care: an education intervention study in Bihar, India. BMC Pregnancy Childbirth. ⁽¹⁴⁾	BMC Pregnancy and Childbirth	VI
Most prevalent nursing diagnoses in high-risk pregnant women (Diagnósticos de enfermagem mais prevalentes em gestantes de alto risco) ⁽¹⁵⁾	Enfermagem em foco	VI
Group of high-risk pregnant women as a health education strategy (Grupo de gestantes de alto-risco como estratégia de educação em saúde) ⁽¹⁶⁾	Revista Gaúcha de Enfermagem	VI
Nurses' assistance in gestational hypertensive syndrome in a low-risk obstetric hospital (Assistência de enfermeiros na síndrome hipertensiva gestacional em hospital de baixo risco obstétrico) ⁽¹⁷⁾	Revista Cuidarte	VI
Nursing care for parturients affected by preeclampsia (Assistência de enfermagem a parturientes acometidas por pré-eclâmpsia) ⁽¹⁸⁾	Revista de Enfermagem UFPE On Line	VI
Assessing nursing diagnoses and interventions in labor and high-risk pregnancy (Avaliando diagnósticos e intervenções de enfermagem no trabalho de parto e na gestação de risco) ⁽¹⁹⁾	Revista Gaúcha de Enfermagem	VI
Harms to newborn health related to hypertensive disease of pregnancy: knowledge of nurse. ⁽²⁰⁾	Revista de Enfermagem e Atenção a Saúde	VI
Pregnancy-Specific Hypertensive Disease (Conhecimento e atitudes dos enfermeiros diante de gestantes com sintomas da Doença Hipertensiva Específica da Gestação (DHEG) atendidas em Unidades Básicas de Saúde (UBS)) ⁽²¹⁾	Journal of Health Science	VI
Systematization of nursing care for patients with pregnancy-specific hypertensive syndrome (Sistematização da assistência de enfermagem a paciente com síndrome Hipertensiva específica da gestação) ⁽²²⁾	Revista Rene Fortaleza	VI


Source: Own elaboration, 2021.

onatal health problems. It is important that nurses have technical and structural resources to provide adequate and humanized care. The evidence identified contributes to the current knowledge about the role of nurses in the prevention and control of HPS and can support the planning of public health policies

that meet the needs of the mother-baby binomial, aiming at improving programs and actions aimed at a more qualified health care in the scope of prenatal and hospital care. The search for articles was limited to a few databases, which reflects only part of the potential universe of published or unpublished studies on

the topic.

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