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Nursing assistance to women affected by eclampsia and pre-eclampsia: revision integrativa

Asistencia de enfermería a mujeres afectadas por eclampsia y pre-eclampsia: revisión integrativa

Assistência de enfermagem a mulheres acometidas por eclampsia e pré-eclampsia: revisão integrativa

ABSTRACT

Objective: To search the scientific literature for what the evidence points to nursing care for women affected by pre-eclampsia / eclampsia. **Method:** This is an integrative literature review study conducted in the databases, LILACS, SciELO, MedLine and BDNF from October to November 2020. The following descriptors and search sequence were used: pre-eclampsia OR eclampsia AND nursing care. The analysis corpus comprised 5 articles. **Results:** According to the selected and revised articles, the early screening for pre-eclampsia / eclampsia is very important to minimize the risk of health problems, so the control and monitoring of blood pressure in pregnant women are indispensable approaches. **Conclusion:** The study made it possible to analyze that nursing is an indispensable and extremely important part of the multidisciplinary team, whether in the basic health unit doing screening and early nursing diagnoses, or in advanced support units.

DESCRIPTORS: Nursing Care; Eclampsia; Pre-eclampsia.

RESUMEN

Objetivo: Buscar en la literatura científica lo que indica la evidencia sobre la atención de enfermería a mujeres afectadas por preeclampsia / eclampsia. **Método:** Se trata de un estudio de revisión integrativa de la literatura realizado en las bases de datos LILACS, SciELO, MedLine y BDNF de octubre a noviembre de 2020. Se utilizaron los siguientes descriptores y secuencia de búsqueda: preeclampsia O eclampsia Y cuidados de enfermería. El corpus de análisis estuvo compuesto por 5 artículos. **Resultados:** De acuerdo con los artículos seleccionados y revisados, el cribado precoz de preeclampsia / eclampsia es muy importante para minimizar el riesgo de problemas de salud, por lo que el control y seguimiento de la presión arterial en mujeres embarazadas son enfoques indispensables. **Conclusión:** El estudio permitió analizar que la enfermería es una parte indispensable y sumamente importante del equipo multidisciplinario, ya sea en la unidad básica de salud que realiza el cribado y diagnóstico temprano de enfermería, como en las unidades de apoyo avanzado.

DESCRIPTORES: Atención de enfermeira; Eclampsia; Pre-eclampsia.

RESUMO

Objetivo: Buscar na literatura científica o que as evidências apontam sobre a assistência de enfermagem a mulheres acometidas por pré-eclampsia/eclampsia. **Método:** Trata-se de estudo de revisão de literatura integrativa conduzida nas bases de dados, LILACS, SciELO, MedLine e BDNF no período de outubro a novembro de 2020. Foram utilizados os seguintes descritores e sequência de busca: pré-eclampsia OR eclampsia AND cuidados de enfermagem. O corpus da análise compreendeu 5 artigos. **Resultados:** De acordo com os artigos selecionados e revisados, o rastreamento precoce da pré-eclampsia/eclampsia é muito importante para minimizar os riscos de agravos, por isso o controle e acompanhamento da pressão arterial em gestantes são condutas indispensáveis. **Conclusão:** O estudo possibilitou analisar que a enfermagem é peça indispensável e de suma importância na equipe multidisciplinar, seja na unidade básica de saúde fazendo rastreamento e diagnósticos de enfermagem precoces, ou em unidades de suporte avançado.

DESCRIPTORIOS: Cuidados de Enfermagem; Eclampsia; Pré-eclampsia.

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INTRODUCTION

Pregnancy is a physiological process in which maternal changes take place temporarily in the form of nourishing and oxygenating the fetus according to its developmental needs, through the uterus-placental connection. However, it is important to know how to distinguish between the normal process of the pregnancy period and the pathological process.¹

In a healthy pregnancy, there is an increase in uteroplacental blood flow, which results in a low systemic vascular resistance and a decrease in blood pressure. In complications such as pre-eclampsia, the opposite occurs, that is, the uteroplacental blood flow is at low levels, leading to an increase in systemic vascular resistance and, consequently, in blood pressure, which is considered an alarming pathological process.¹

According to the Brazilian Society of Cardiology, systemic arterial hypertension (SAH) is considered a worldwide public health problem. SAH is characterized by a high and sustained increase in blood pressure greater than or equal to 140/90 mmHg. In most cases, it is related to structural and/or functional changes to the point of affecting organs such as the heart, brain, kidneys and blood vessels. These changes can also

have a metabolic nature, such as cardiovascular events.²

Hypertensive Syndromes in Pregnancy (HSP) represent the third cause of maternal death in the world and the first in Brazil. These syndromes usually evolve without showing signs of complications. However, in another portion of pregnant women they can be characterized by changes that can put the life of the pregnant woman and the fetus at risk.³

During pregnancy, it is possible to develop some pathologies that are directly linked to the pregnancy period, such as pregnancy-induced hypertension, pre-eclampsia and eclampsia, chronic hypertension and hypertension with toxemia. These pathologies cause intrauterine growth retardation, prematurity, placental abruption, maternal-fetal death, among other complications.³

Data from the World Health Organization indicate that a quarter of maternal deaths in Latin America are associated with these disorders. Among them, pre-eclampsia and eclampsia have the greatest impact on maternal and child morbidity and mortality.⁴ In Brazil, about 3% to 7% of pregnant women have preeclampsia.⁵

Pre-eclampsia affects pregnant women after the twentieth week of pregnancy and is characterized by the development of gradual hypertension (equal to or greater than 140/90 mmHg) and

proteinuria (greater than 300mg/24h) in women who have never had increased blood pressure. Its classification is based on the symptoms presented. When a high weight gain is identified, it is classified as mild. The severe one occurs when it presents one or more of the aforementioned symptoms, oliguria less than 500 ml/day, or 25 ml/hour, thrombocytopenia <100.000/mm and epigastric or right hypochondrium pain.⁶

When there are seizures in a woman with preeclampsia, the process is called eclampsia. In addition, there are signs such as migraine, occipital headache and severe abdominal pain, characterizing it as an obstetric emergency.⁷

With regard to risk factors, weight gain, maternal age below 15 and above 35 years, edema, family history, nulliparity stand out. In relation to weight gain, this has a great impact on the health of the pregnant woman and the risk for developing preeclampsia is greater. The maternal age group (less than 15 years/greater than 35 years) and the presence of edema, especially when located in the lower limbs, are also warning signs. A nullipara woman is at greater risk compared to a woman who already has children. Family history of people with first-degree kinship, such as a mother or sister, who had reports of pre-eclampsia is also a risk factor.³

Pregnant women diagnosed with pre-eclampsia can present many complications that are characterized by the involvement of vital systems such as: liver, brain, blood, electrolyte and placental uterus changes. The condition can progress to eclampsia, which increases the risk in relation to mortality. It is noteworthy that these complications can result in sequelae, affecting the fetus or both. For this reason, it requires greater attention in the care of pregnant women.⁸

Already the disorders caused by eclampsia can occur in childbirth and up to 10 days in the puerperium. Generally, maternal deaths from eclampsia occur due to complications such as: stroke, congestive heart failure or surgical complications.³

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The role of nursing towards women affected by hypertensive syndrome during the pregnancy-puerperal period is highlighted. The nurse, in addition to following the protocols, must also welcome the pregnant woman in emergencies, in a holistic way. The review of the gestational history is essential for the correct identification of pathologies in the pregnancy period for later elaboration of the care plan. Professionals should be aware that patients diagnosed with preeclampsia cannot be treated with tocolytics, which is the pharmacological suppression of pre-term delivery before the thirty-seventh week of pregnancy.⁹

The approach generated according to methods based on scientific evidence is essential and provides greater quality in the reception and improvement of positive results in order to guarantee the safety and reliability of the service.¹⁰

Given this context, the objective of the research was to identify in the litera-

ture what the scientific evidence points to about nursing care for women affected by preeclampsia/eclampsia.

METHOD

The methodology used for the research was an integrative literature review, which aims to synthesize information based on data collection techniques from bibliographic research, allowing a deeper analysis of assistance to women affected by preeclampsia/ eclampsia, contributing for nursing practice based on scientific evidence. This method made it possible to comprehensively analyze and understand what is in the literature on the subject from the following guiding question: What does the scientific evidence indicate about nursing care for women affected by preeclampsia/ eclampsia?

From this questioning, we proceeded to the other steps to carry out the research: formulation of inclusion criteria, definition of information to be extracted from selected studies, rigorous evaluation of the studies included in the integrative review, interpretation of results and synthesis of knowledge.¹¹

The guidelines were followed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).¹²

To select the studies, the following databases were searched: Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Literature on Health Sciences (LILACS), Scientific Electronic Library Online (SciELO) and Database in Nursing (BDENF), from October to November 2020. The databases were chosen for their wide range of studies. The selection of descriptors was performed after consulting the DECS/ Mesh. The descriptors used and their combinations were: pre-eclampsia OR eclampsia AND nursing care.

The same sequence was followed in the insertion of descriptors for searches in the databases, delimiting the period

of studies in five years, with the objective of covering the largest quantity of publications on the subject. The selected articles met the following inclusion criteria: researches available electronically in the selected databases, published in peer-reviewed journals in the last five years, full texts available in full and free of charge in Portuguese, English and Spanish and published in the last five years. Articles, magazine articles and complete books that did not answer the study's guiding question were excluded.

The selective reading of the articles was carried out, initially, with analysis of the title and abstract. Duplicate articles were registered only once. To ensure the joint record of information relevant to the topic, a specific instrument was used to analyze the articles, which included identification data (period published, education and institution to which the authors are linked, language and country), methodological aspects of the studies (research design, sampling and data processing) and main results and conclusions. Then, a detailed analysis of the articles was carried out, considering their rigor and characteristics, followed by the recording of the information listed in the instrument. The information was interpreted, summarized and organized in a summary table, comparing the results, and finalized with propositions about the studies.

Initially, 51 articles were found, 2 of which were excluded by duplicate. After reading the titles and abstracts, 20 studies were excluded. After reading the studies in full, 13 were excluded. The corpus of analysis consisted of 5 articles.

The selected articles were submitted to the classification of the level of evidence consisting of seven levels: I) evidence obtained from systematic review or meta-analysis of randomized controlled clinical trials or clinical guidelines based on systematic reviews of randomized controlled clinical trials; II) evidence from at least one well-designed, controlled, randomized clinical trial; III) evidence from well-designed, non-

-randomized clinical trials; IV) evidence obtained from well-designed cohort and case-control studies; V) evidence that originated 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 a report by expert committees. According

to this classification, levels 1 and 2 are considered strong evidence, 3 and 4 moderate and 5 to 7 weak.¹³

RESULTS

Twenty articles were found in Medline, 12 in BDENF, 12 in LILACS and 7 in SciELO. Figure 1 shows the flowchart

of the article selection strategy according to the pre-established eligibility criteria.

Chart 1 presents the characterization of the analysis of articles referring to title, country, year of publication, study design, sample and main results. The articles were published between 2016 and 2020, being 3 integrative review articles (level of evidence V), 3 descriptive studies (level of evidence VI). Most studies (5) were carried out in Brazil and 1 in Italy.

DISCUSSION

For a better presentation of the discussion about the results of this integrative review, it was decided to divide it into two categories: Profile of pregnant women affected by pre-eclampsia/eclampsia and Nursing care for pregnant women with preeclampsia and eclampsia.

Category 1: Profile of pregnant women affected by pre-eclampsia/eclampsia

Regarding the profile of pregnant women affected by pre-eclampsia and eclampsia, the predominant age group

Figure 1 – Flowchart of the selection of articles and reasons for exclusion, Jaboatão dos Guararapes/PE. 2020

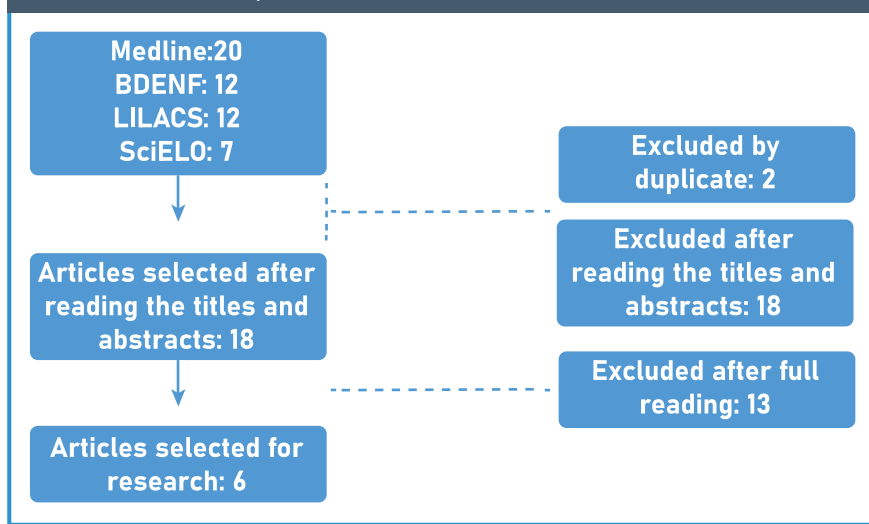


Chart 1 – Characteristics of selected studies, Jaboatão dos Guararapes/PE. 2020

TITLE	COUNTRY/ YEAR	STUDY DESIGN AND SAMPLE	MAIN RESULTS	LEVEL OF EVIDENCE
Influence of Estrogens on Uterine Vascular Adaptation in Normal and Preeclamptic Pregnancies ¹ .	Italy, 2020	Integrative review. Sample of 157 article	It was observed that lower plasma estrogen levels and down-regulation of ERs have been frequently observed in pregnant women with pre-eclampsia.	V
Profile of pregnant women with hypertensive syndrome in a public maternity hospital. ³	Brazil, 2016	Descriptive study, 468 medical records of pregnant women who underwent cesarean from January 2008 to December 2012.	It was observed that gestational hypertensive syndromes deserve special attention in public health starting with prenatal care.	VI
Nurse care in gestational hypertensive syndrome in a low-risk obstetric hospital. ⁸	Brazil, 2017.	Field research, sample of 9 nurses.	It evidenced the analysis of the care provided by nurses to pregnant women with hypertensive syndrome, with this attention being essential in the preservation and maintenance of the life of the woman and the fetus.	VI
Nursing care for women with preeclampsia and/or eclampsia: an integrative review. ¹⁰	Brazil, 2016	Integrative review, sample of 17 primary articles.	The study made it possible to characterize the profile of pregnant women with preeclampsia admitted to a public maternity hospital.	V

Profile of pregnant women with pre-eclampsia. ¹⁴	Brazil, 2017.	Descriptive study, sample of 28.399 women who were admitted to the maternity hospital in 2013 and 2014	It highlighted the importance of specific nursing care for women with pre-eclampsia and eclampsia, which are capable of reducing complications and morbidity and mortality rates.	VI
Preeclampsia/eclampsia. ¹⁵	Brazil, 2020	Systematic review, sample of 60 articles	Data available between 2002 and 2010 showed an incidence ranging from 1,2% to 4,2% for pre-eclampsia and from 0,1% to 2,7% for eclampsia, and the highest rates were identified in regions of lower socioeconomic development.	V

Source: Research data, 2020.

is between 15 and 25 years. Most are single, with low education and had no reported professional occupation. With regard to age, one of the warning factors for complications during pregnancy is the extremes of age, because when you are too young or when you are older there is a risk of developing preeclampsia or eclampsia.¹⁵

Regarding low education and low income, unfavorable socioeconomic conditions have led women to a high-risk pregnancy, since the situation can cause stress and worse nutritional conditions. Linked to nutritional status, a study that evaluated the anthropometric profile of hospitalized pregnant women diagnosed with severe pre-eclampsia indicates that inadequate maternal nutrition during the period of pregnancy is a public health problem, as it is a risk factor that can favor the appearance of complications during pregnancy, such as diabetes and pre-eclampsia.^{14,15}

A study on prenatal care and risk factors associated with prematurity and low birth weight corroborates by stating that low education among mothers is an aggravating factor for women's health, being considered an obstetric risk factor.¹⁶

As for marital status, corroborating the findings of this integrative review, the literature reports that there is a predominance of gestational hypertensive syndrome in young people between 15 and 19 years old, an age at which many are single.³

Regarding the clinical profile, among the family history, the incidence of hypertension is very frequent, followed

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by Diabetes mellitus, twin pregnancy and preeclampsia.¹⁴ According to a study on maternal characteristics and risk factors for pre-eclampsia in pregnant women, anamnesis and physical examination are excellent obstetric predictors, thus supporting the personal history of the pregnant woman in search of this information.¹⁷

Category 2: Nursing care for pregnant women with preeclampsia/eclampsia

Nursing care for pregnant women with pre-eclampsia and eclampsia is of great importance for early screening. The first technique that must be standardized is the measurement of blood pressure during the nursing consultation to verify one of the first symptoms presented by this pathology. During the follow-up of the investigation, when there is an increase in pressure levels, other complementary tests are requested to confirm the diagnosis. Blood pressure measurement is important for a correct prognosis, and it must be performed properly to avoid false negatives or false positives. Its importance is given by being a strong indicator for the diagnosis of Gestational Hypertensive Syndrome, making it essential for the control and monitoring of blood pressure in pregnant women.¹⁰

The nurse during the prenatal consultation at the Basic Health Unit must carry out the anamnesis and physical examination of all pregnant women, searching for symptoms and complaints they may have during the gestational period and, if they present risk factors, it should be highlighted in the Pregnant Woman's Card

to alert other health professionals who will follow up. When raising the suspicion of severe pre-eclampsia during the prenatal consultation, the nurse should refer the pregnant woman to a high-risk prenatal care unit or an obstetric hospital referral unit, and should also observe whether the pregnant woman is asthmatic with moderate to severe symptoms, as there is a greater risk of presenting symptoms of the disease in question.¹⁸

During low-risk prenatal consultations, the nurse must always be attentive when evaluating the progressive increase in weight of the pregnant woman and check for edema, especially after the 24th week, as pregnant women with weight gain equal to or greater than 500g per week, even without elevation of blood pressure, there must be continuous monitoring. The presence of edema occurs in 80% of pregnant women with a prognosis for preeclampsia, where the nurse's conduct should be to monitor and guide rest in the left supine position and assess fetal movements.⁵

Nurses who work in the obstetric emergency/urgency assess and stabilize the pregnant woman through risk classification. From then onwards, the appropriate referral is made, which requires the team to carry out a thorough physical examination, knowing the patient's history for better assessment and early detection. This way, if the team identifies any risky situation, it will intervene quickly. Also, if, during the evaluation of the pregnant woman, she presents changes in blood pressure, a urine test should be requested to verify the presence or absence of proteinuria.¹⁸

When diagnosed with mild preeclampsia, the pregnant woman is hospitalized and kept under observation. A normal sodium diet can be adopted by the nutritionist. In cases of severe preeclampsia, the approach will depend on the severity and gestational age of the patient. The administration of magnesium sulfate is performed by the nursing team in severe pre-eclampsia and eclampsia, as prescribed by the doctor, according to

the blood pressure value, and the professional should be aware of allergies.¹⁸

Other nursing care involves monitoring and observing the patient when she is in labor induction, in addition to explaining the importance of measures taken. These behaviors help to minimize the pregnant woman's anxiety and fear levels. If the patient evolves to gravity, studies show precautions such as: change from decubitus to the left side, oxygen therapy, venous access, admini-

nistration of medications according to medical prescription, prevention of infections and injuries, preparation and correct administration of Magnesium sulfate, installation of a Guedel's cannula (a device that keeps the airway patent in unconscious patients or patients with a lower level of consciousness).¹⁰

It should be remembered that providing assistance to the pregnant woman must include fetal assessment. For this, the partograph can be used. It is a document that is part of the medical record and must be completed from the moment the patient goes into labor with all the necessary information, including fetal heart rate. Monitoring of fetal and postpartum well-being must be rigorous and constant for at least 24 to 48 hours, and this period may be extended depending on the evolution of the condition. The use of magnesium sulfate should be continued for up to 24 hours after delivery, evaluating blood pressure stabilization. In cases of high blood pressure, antihypertensive therapy is continued.¹³

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In carrying out this research, the importance of knowledge that will drive the multidisciplinary team to offer a quality service to these pregnant women was observed, where the objective of the nurse, when monitoring the pregnant woman

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affected by the disease in question, is to reduce maternal risks/ fetal. An ordinance that can guide these professionals during their assistance within the Unified Health System is the Ordinance number 1.459/GM/MS/2011, created by the Ministry of Health and called Rede Cegonha, which aims to reduce maternal and mortality neonatal care, reception of complications in pregnancy, risk classification and access to high risk in a timely manner.⁶

Within this context, it is clear that when dealing with pregnant women affected with eclampsia/pre-eclampsia, nurses perform numerous tasks with a high degree of responsibility and complexity, where providing care correctly will contribute to reducing complica-

Most studies show that there is a predominance of young women, single, with low education and with no reported occupation, affected by pre-eclampsia/ eclampsia.

tions from this disease. Having scientific and technical knowledge contributes to adequate, humanized and effective interventions.⁵

CONCLUSION

Most studies show that there is a predominance of young women, single, with low education and with no reported occupation, affected by pre-eclampsia/eclampsia. Knowing the profile of women during the pregnancy-puerperal period is essential to use the systematization of nursing care based on the real needs of the pregnant woman, providing greater security to the pregnant woman-fetus binomial. ■

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