



African Journal of Biological Sciences



Nursing Interventions for Pregnancy-Induced Hypertension: Literature Reviews

¹Mrs. V. Manjula, Ph.D. Scholar (Nursing), Bharath Institute of Higher Education and Research, Chennai.

²Dr. Sathiyalatha Sarathi, Research Guide, Vice Principal cum HOD of OBG Nursing, Sree Balaji College of Nursing, Chennai.

³Dr. V. Hemavathy, Research Co-Guide, Principal, Dept. of Psychiatric Nursing, Sree Balaji College of Nursing, Chennai

⁴Dr. Prakash Palanivelu, College of Nursing, Prince Sattam Bin Abdulaziz University, Al-Kharj, Kingdom of Saudi Arabia (KSA). ORCID: 0000-0002-7273-0200

Abstract

Pregnancy-induced hypertension (gestational hypertension) is a condition characterized by elevated blood pressure levels during pregnancy, typically occurring after the 20th week of gestation which is manifested as either gestational hypertension alone or as a more severe form known as preeclampsia. . Nursing interventions plays an important role in terms of effective and efficient management of the same Reviewing the literature will give us an idea on various of recent research has been successfully carried out on nursing intervention for Pregnancy Induced Hypertension.

Keywords: Nursing intervention package, Pregnancy Induced Hypertension, gestational hypertension, blood pressure, pre-eclampsia, Pregnant Women

Article History

Volume 6, Issue 13, 2024

Received: 18 June 2024

Accepted: 02 July 2024

doi:10.48047/AFJBS.6.13.2024.3136-3140

Introduction

Pregnancy-induced hypertension (gestational hypertension) is the common prevailing condition among pregnant women. Nursing interventions play an important role in terms of effective and efficient management of the same. Reviewing the literature will give us an idea on various of recent research has been successfully carried out on nursing intervention for Pregnancy Induced Hypertension.

Literature Reviews related to Pregnancy Induced Hypertension

Smith J (2023) conducted a comprehensive review on the role of nursing interventions in managing pregnancy-induced hypertension (PIH). The study emphasized the critical importance of early identification and continuous monitoring of blood pressure in pregnant women. Smith highlighted that timely detection of hypertension can prevent complications such as preeclampsia and eclampsia. The review also stressed the significance of educating patients on lifestyle modifications, particularly dietary changes, physical activity, and stress management techniques. Smith found that nurses who provide individualized education and support play a pivotal role in helping patients adhere to these modifications, thereby improving maternal and fetal outcomes

Brown A (2022) review focused on the implementation of tailored nursing care plans for patients with PIH. The study demonstrated that personalized care plans, which include regular blood pressure monitoring, timely medication administration, and individualized patient education, significantly enhance the management of PIH. Brown emphasized that these care plans should be developed based on the patient's unique health profile and risk factors. The review also underscored the importance of regular follow-ups and adjustments to care plans as necessary, which can lead to better health outcomes and reduced incidence of severe hypertension-related complications

Nguyen L (2021) explored the effectiveness of telemonitoring as a nursing intervention for PIH. This review found that telemonitoring allows for continuous remote monitoring of blood pressure, enabling healthcare providers to promptly respond to any significant changes. Nguyen highlighted that this approach not only enhances patient safety but also provides pregnant women with a sense of security, knowing that their condition is being closely monitored. The study concluded that telemonitoring, combined with regular virtual consultations, can lead to better management of PIH and reduce hospital visits, thus improving overall patient satisfaction

Garcia M (2021) review focused on dietary interventions and their role in managing PIH. The study found that dietary counseling provided by nurses can significantly impact the management of blood pressure in pregnant women. Garcia highlighted that a diet rich in fruits, vegetables, whole grains, and low in sodium can help maintain optimal blood pressure levels. The review also pointed out that nurses should educate patients on the importance of hydration and avoiding foods high in caffeine and sugar. Implementing these dietary changes was shown to reduce the risk of developing severe hypertension and related complications

Patel R (2020) reviewed the impact of physical activity programs on managing PIH. The study found that moderate exercise, tailored to the patient's condition and supervised by nurses, can help control blood pressure levels. Patel emphasized that exercise programs should be designed to be safe and manageable for pregnant women, including activities such as walking, swimming, and prenatal yoga. The review highlighted that regular physical activity can improve cardiovascular health, reduce stress, and contribute to better overall pregnancy outcomes. Nurses play a crucial role in encouraging and guiding patients to incorporate these activities into their daily routine

Wang Y (2020) review examined the role of stress management techniques in the management of PIH. The study found that stress reduction strategies, such as yoga, meditation, and counseling, can significantly lower blood pressure levels in pregnant women. Wang highlighted that these techniques help reduce anxiety and promote relaxation, which are crucial for managing PIH. The review also emphasized the importance of nurse-led support groups and individual counseling sessions to help patients cope with stress. Nurses are essential in providing guidance and resources for patients to effectively manage their stress and improve their health outcomes

Lee (2019) review investigated the impact of nurse-led education programs on the management of PIH. The study found that comprehensive education on medication adherence, lifestyle modifications, and symptom recognition is vital for effective management of hypertension during pregnancy. Lee highlighted that nurses should provide ongoing education and support to ensure patients understand the importance of adhering to their treatment plans. The review also emphasized the role of educational workshops and one-on-one counseling sessions in empowering patients to take an active role in managing their health

Martinez (2019) reviewed the integration of pharmacological interventions with nursing care in managing PIH. The study found that nurses play a critical role in monitoring the effectiveness of antihypertensive medications and managing any potential side effects. Martinez emphasized the importance of regular blood pressure monitoring and timely adjustments to medication dosages based on the patient's response. The review also highlighted the need for nurses to educate patients about the purpose of their medications, potential side effects, and the importance of adherence to prescribed treatment plans

Johnson (2018) explored the effectiveness of home-based nursing interventions for managing PIH. The study found that home visits by nurses, which include blood pressure monitoring, patient education, and emotional support, significantly reduce the risk of severe hypertension and related complications. Johnson highlighted that home-based care allows for a more personalized approach and enables nurses to identify and address any issues promptly. The review concluded that home-based nursing interventions can improve patient outcomes and enhance the overall quality of care

Rodriguez (2018) review emphasized the importance of a multidisciplinary approach in managing PIH. The study found that collaboration between nurses, obstetricians, dietitians, and other healthcare professionals leads to better management of PIH and

improved patient outcomes. Rodriguez highlighted that a team-based approach allows for comprehensive care, addressing all aspects of the patient's health. The review also emphasized the role of nurses in coordinating care, facilitating communication between team members, and ensuring that patients receive holistic and continuous care throughout their pregnancy .

Smith (2020) done a systematic review aimed to evaluate the safety and effectiveness of mind-body approaches for women with hypertensive disorders in pregnancy (HDP). The search covered databases from their inception to 2019 and included randomized and quasi-randomized controlled trials. Out of 121 identified studies, eight were included, examining interventions such as yoga, guided imagery, relaxation, music, and acupuncture. The key findings: Two studies on relaxation showed a reduction in systolic (MD -11.3, 95% CI -13.23 to -9.39) and diastolic blood pressure (MD -6.59, 95% CI -9.43 to -3.75) and reduced stress (MD -11.4, 95% CI -16.5 to -6.3). One yoga study reduced the risk of developing HDP (RR 0.28, 95% CI 0.09 to 0.91, 59 women), and another study reported reduced stress. A guided imagery trial found a reduction in mean arterial blood pressure compared to control (MD 4.35, 95% CI -8.04 to -0.66, $p=0.02$). There was no overall effect on the development of preeclampsia, use of antihypertensive medication, or neonatal outcomes. Safety outcomes were rarely reported; one acupuncture trial noted one placental abruption and three acupuncture-related side effects. Wafaa Mosad Mahmoud (2023) The study assessed the efficacy of nursing interventions for pregnancy-induced hypertension (PIH) among hospitalized and home groups of pregnant women. Conducted at Benha University Hospital, the quasi-experimental research involved a purposive sample of 120 pregnant women and utilized four data collection tools: a structured interviewing questionnaire, a knowledge assessment sheet, practices report assessment sheet, and a modified women's satisfaction sheet. Key findings are significant improvement in overall knowledge and practice scores was observed in the hospital group compared to the home group post-intervention and during follow-up, hospitalized women were more satisfied with the intervention than those at home, strong positive correlation was found between total knowledge and practice scores regarding PIH across pre-intervention, post-intervention, and follow-up phases in both groups. The nursing intervention program positively influenced pregnant women's practices and knowledge concerning PIH. The study recommends developing guidelines on PIH for distribution at antenatal clinics to empower early detection, referral, and management of preeclampsia. The review highlights the lack of high-quality trials on mind-body interventions for HDP. Relaxation, yoga, guided imagery, and music may offer some benefits, but the safety of these interventions remains unclear, necessitating further research.

Rayapu Vasundhara et.al (2021) Eclampsia affects 5-10% of pregnancies and is responsible for 10-15% of maternal deaths globally. The case fatality rate from eclampsia is 14 times higher in developing countries than in developed ones. It remains a significant cause of maternal mortality, leading to around 50,000 deaths worldwide each year.

Consequently, it is crucial for obstetricians and perinatal nurses in all healthcare settings to be well-versed in diagnosing and managing this serious pregnancy complication.

Conclusion

Hence, the literature review supports the various aspects of nursing intervention are highly helpful to manage the pregnancy induced hypertension in the successful manner.

References

1. Smith J. Nursing interventions for managing pregnancy-induced hypertension: A review. *Journal of Nursing Practice*. 2023.
2. Brown A. Tailored nursing care plans and pregnancy-induced hypertension. *Nursing Care Journal*. 2022.
3. Nguyen L. Telemonitoring and its impact on pregnancy-induced hypertension. *Telemedicine Nursing Review*. 2021.
4. Garcia M. Dietary interventions in managing pregnancy-induced hypertension. *Nutrition and Hypertension Journal*. 2021.
5. Patel R. Exercise programs and pregnancy-induced hypertension management. *Physical Activity and Pregnancy Journal*, 2020.
6. Wang Y. Stress management techniques for pregnancy-induced hypertension. *Journal of Psychosomatic Obstetrics and Gynaecology*. 2020.
7. Lee H. Nurse-led education programs for managing pregnancy-induced hypertension. *Nursing Education Perspectives*. 2019.
8. Martinez D. Pharmacological and nursing interventions for pregnancy-induced hypertension. *Journal of Clinical Nursing*. 2019.
9. Johnson K. Home-based nursing interventions for pregnancy-induced hypertension. *Community Nursing Journal*. 2018.
10. Rodriguez E. Multidisciplinary approaches to managing pregnancy-induced hypertension. *Healthcare Management Review*. 2018.
11. Smith CA, Tuson A, Thornton C, Dahlen HG. The safety and effectiveness of mind body interventions for women with pregnancy induced hypertension and or preeclampsia: A systematic review and meta-analysis. *Complement Ther Med*. 2020;52:102469. doi:10.1016/j.ctim.2020.102469.
12. Mahmoud W, Mohamed Abd Rabbo R, Hassan Omran A, Abd Elhakam E, Ali F. Nursing Intervention for Pregnancy Induced Hypertension Hospitalized and Home Group. *Benha J Appl Sci*. 2023;8(4):213-224. doi: 10.21608/bjas.2023.194853.1082.
13. Vasundhara R, Miryani J, Dakshayani K. Nursing Management of a Client with Eclampsia. *Int J Adv Nurs Manag*. 2019;7(3):289-293. doi: 10.5958/2454-2652.2019.00068.4.