



## ASSESSMENT OF NURSES' KNOWLEDGE FOR THE TREATMENT OF PREGNANCY-INDUCED HYPERTENSION IN THE LADY WALLINGTON HOSPITAL, LAHORE, PAKISTAN: A DESCRIPTIVE STUDY

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### Abstract

**Background:** The most frequent pregnancy-related complication, the leading cause of maternal death, and a contributing factor to the morbidity and mortality of newborns is pregnancy-induced hypertension (PIH).

**Objective:** Evaluate the level of understanding and knowledge among nursing staff at Lady Wallington Hospital regarding pregnancy-induced hypertension, to identify areas for education and improvement in care.

**Methods:** The Descriptive research was carried out at Lahore's Lady Wallington Hospital. This was a non-probability purposive sample of one hundred nurses. In the Gynecology Ward, including the emergency department and wards medical (using a purposive and non-probability sample), nurses filled out standardized, self-report surveys.

**Results:** The study's demographic analysis revealed that the majority of participants (80%) were between 31 and 39 years old. Females constituted the majority of the sample (56%), and a corresponding proportion (56%) were unmarried. In terms of educational background, 52% of the participants held a degree in nursing, and 50% had 11-20 years of experience in the field. Notably, the assessment of nurses' knowledge regarding gestational hypertension showed a satisfactory level of understanding, indicating a strong foundation in this critical area of care.

**Conclusion:** The study concluded that the nurses demonstrated a good level of knowledge regarding pregnancy-induced hypertension, indicating a strong foundation in this critical area of care. This is a positive finding, suggesting that the nurses are well-equipped to provide appropriate care and support to patients with this condition.

**Keywords:** Descriptive Study, Nurses' Knowledge, Pregnancy-Induced Hypertension

## Introduction

The most prevalent pregnancy-related problem, pregnancy-induced hypertension (PIH), is linked to both newborn morbidity and mortality as well as being one of the primary causes of mother death. Approximately 10% of pregnant women worldwide are affected by it (Tadele et al., 2020).

Prenatal treatments may lead to better outcomes for mothers. By offering quality prenatal care, this strategy combines primary prevention, enhanced risk identification, and early detection of PIH at any stage. Initially treating patients or referring them to a professional can stop secondary progression. It is well known that the best medical care is that which is based on scientific evidence (Edward and Mills, 2013).

Pregnancy-induced hypertension is defined as blood pressure more than 140/90 mmHg on two separate occasions. Following a period of rest or more than 160/110 mmHg in a lady who had previously been normotensive on one occasion (Nissaisorakarn, Sharif and Jim, 2016).

High blood pressure is defined as a diastolic blood pressure (DBP) of more than 90 mmHg and a systolic blood pressure (SBP) of more than 140 mmHg. While SBP 140-149 and DBP 90-99 mmHg are mild, SBP 150-159 and DBP 100-109 mmHg are moderate, and SBP >160 and DBP >110 mmHg are severe, SBP >160 and DBP >110 mmHg are considered serious (Eze et al., 2018).

Prenatal hypertension, chronic hypertension, superimposed pre-eclampsia, eclampsia, and pre-eclampsia are associated with this condition. Before conception or before the 20th week of pregnancy, there was chronic hypertension. Both eclampsia, a debilitating disorder, and preeclampsia, a systemic illness including hypertension and proteinuria, occur after the 20th week of pregnancy (Catherine, 2013). Concerns about hypertension include eclampsia, superimposed preeclampsia, preeclampsia, persistent hypertension, and prenatal hypertension. Women might have an evaluation for persistent hypertension before becoming pregnant or during the twentieth week of pregnancy. Preeclampsia is different from eclampsia in that severe hypertension is defined as more than 160/110 mm Hg. Preeclampsia presents with hypertension and protein in the urine after 20 weeks of pregnancy. Preeclampsia, sometimes referred to as eclampsia, is a condition in which proteinuria and organ damage develop from elevated blood pressure after the 20th week of pregnancy. Preeclampsia in females suffering from hypertension or severe renal failure (Ebrahimy, Jobori and Safi, 2019).

It responds to 76,000 maternal deaths and 500,000 newborn deaths annually. Preeclampsia is seven times more likely to cause death in women who do not receive prenatal care than in those who do. Although majority of the deaths caused by preeclampsia are avoidable, it is not always preventable. To reduce deaths from preeclampsia, all pregnant women should receive comprehensive prenatal care (Hadian et al., 2018). Gestational hypertension (GH) and preeclampsia (PE) are hypertensive disorders that can affect pregnant women; preexisting hypertension may manifest or worsen during pregnancy (Roberts, Davis and Homer, 2017). Pregnancy hypertension, which affects 5% to 10% of pregnancies, is one of the most common medical disorders during pregnancy. Depending on the country, region, and hospital, the prevalence varies. Globally, hypertensive diseases are a leading source of morbidity and mortality in mothers and newborns (Jacob et al., 2018).

## Literature Review

Jacob et al. (2022) stated that it is crucial to demonstrate the need for particular care measures for pregnant women via specialized and high-quality prenatal care given the high incidence of GHS, its extent and influence on perinatal outcomes, and the current care strategy for high-risk pregnant women.

Muti et al. (2015) revealed that in the world, 5% to 8% of pregnant women are estimated to be affected with gestational hypertension syndrome (GHS). In Brazil, GHS is the main factor contributing to maternal deaths as well as the sharp rise in perinatal deaths and low-probability births.

Pre-eclampsia and eclampsia are the main causes of mother and fetal death during pregnancy, and 10% of pregnancies worldwide are affected with hypertension. Given that some expectant mothers "lack" an understanding of hypertension syndromes, more professional involvement in preventive

and health promotion is necessary, with an emphasis on potential issues and suitable treatment (Mol, Roberts and Thangaratnam, 2016).

It is crucial to show the necessity for particular care measures for pregnant women through specialized and high-quality prenatal care, given the high incidence of GHS, its scope and influence on perinatal outcomes, as well as the present treatment strategy for high-risk pregnant women (Antunes et al., 2017).

Thuler, Wall and Benedet (2018) described that it is necessary to extrapolate the disease's biological background as well as its particularities and singularities to account for them. To preserve each pregnant woman's uniqueness, nursing care must identify the signs of GHS concerns as soon as possible and provide systematic care measures based on instruments that lead to significant actions.

## Materials and Methods

To meet the study's objectives, a descriptive analysis was performed on the nurses' knowledge of pregnancy-induced hypertension at the Gynecology Ward in Lady Wallington Hospital, Lahore. Purposive (non-probability) sampling consists of (100) nurses. By reviewing the literature, past studies, and prior information, a questionnaire structure was established and designed for the current study's objective study. To analyze the instrument's dependability, the internal consistency approach and the Alpha Cronbach's test (Alpha Correlation Coefficient) were applied. The Alpha Correlation Coefficient was calculated in Version 24.0 of IBM SPSS, Statistical Package for Social Science 26.0.

## Results

**Table 1. Demographic Characteristics of the Respondents**

Variables		Frequency	Percentage	Mean	St. Deviation
Age	22-30	2	2	28.46	6.834
	31-39	80	80		
	40-48	8	8		
	49-50	10	10		
Gender	Male	44	44	1.56	0.501
	Female	56	56		
Educational Level	Diploma in Nursing	16	16	2.36	0.749
	Bachelor in Nursing	52	52		
	Master in Nursing	32	32		
Marital Status	Single	42	42	1.46	0.542
	Married	56	56		
	Divorced	2	2		
Total Years of Service	1-10	34	34	6.54	7.399
	11-20	50	50		
	21-30	16	16		

**Table 2. Pregnancy-Induced Knowledge among Nurses**

Questions	Response				Means	Assessment
	True		false			
	F	%	F	%		
When does pregnancy-related high blood pressure happen?	34	34	66	66	1.66	Good
The best posture for a pregnant lady to take her blood pressure is on her left side.	8	8	92	92	1.92	Good
Chronic hypertension mean	50	50	50	50	1.50	Good
The following factors raise the chance of getting preeclampsia:	32	32	68	68	1.68	Good
What causes preeclampsia?	18	18	82	82	1.82	Good
What exactly is edema?	32	32	68	68	1.68	Good
What are the contributing reasons to elevated blood pressure?	76	76	24	24	1.24	Poor
What are some of the preeclampsia risk factors?	52	52	48	48	1.48	Poor
What is the effect of preeclampsia on the fetal outcome?	58	58	42	42	1.42	Poor
What is the outcome for the fetus when preeclampsia occurs?	40	40	60	60	1.60	Good

**Table 3. Knowledge of Pregnancy-Induced Hypertension Treatment and Prevention among Nurses**

Questions	Response				Means	Assessment
	True		false			
	F	%	F	%		
What is recommended as a general non-pharmacological course of treatment for pregnant women who have mild to moderate high blood pressure?	38	76	12	24	1.24	Poor
Why is bed rest recommended for expecting mothers who have preeclampsia?	28	56	22	44	1.44	Poor
What actions should the nurse take before giving (MgSo4)	28	56	22	44	1.44	Poor
How should pregnant women take magnesium sulfate MgSo4	16	32	34	68	1.68	Good
For severe pre-eclampsia, how is nursing care administered?	13	26	37	74	1.74	Good
What steps may be taken to avoid pregnancy-induced hypertension?	31	62	19	38	1.38	Poor
What measures are possible to prevent pregnancy-induced hypertension?	17	34	33	66	1.66	Good
What kind of medical care would you recommend for pre-eclampsia?	26	52	24	48	1.48	Poor
Severe pre-eclampsia nursing care includes:	20	40	30	60	1.60	Poor
The aim of antihypertensive treatment is to:	28	56	22	44	1.44	Poor

**Table 4. Overall Knowledge of Pregnancy-Induced Hypertension among Nurses**

Knowledge	Classification	F	%
Overall Knowledge of Pregnancy-Induced Hypertension among Nurses	Good	64	64
	Poor	36	36
	Total	100	100

## Discussion

**Age:** The age range of the sample (31 to 39) found in the current analysis supports the finding that most nurses in the research groups (80%) were under 30 years old. The results of Jaddoua et al. (2013), who stated that the majority of the study group (19%) were between the ages of 28 and 32, are not supported by the study (Table 1). The nurses' participation in research, which increased their motivation, engagement, and activity in these domains, explained this (Jaddoua, Mohammed and Abbas, 2013).

**Gender:** The current poll indicates that women make up 56% of nurses. This study verifies the findings of Gesmundo's (2016) survey, which found that women made up the majority of participants (92%), as does this study<sup>23</sup>. The results of Teshager et al., (2022) who discovered that most participants (68.6%) were females were also supported by the study (Table 1) (Teshager et al, 2022).

**Educational Level:** The majority of nurses in the study groups (52%) had a Bachelor in Nursing, according to the current study. This is in line with research by Mong et al. (2022), who found that most nurses were 25-year-old nursing college graduates (Mong et al., 2022)

**Marital Status:** (56%) of the sample, according to the current study, was married. This is consistent with research by Algarni et al. (2019), which found that married nurses made up the bulk of study participants (59.2%) (Algarni, Sofar and Wazqar, 2019).

**Total Years of Experience:** The study contradicts the findings of Jaddoua et al. (2013), who found that (6-10) years of service formed (22%) The age group of the current sample ranged from 31 to 39

years old (Jaddoua, Mohammed and Abbas, 2013). The majority of nurses (50%) had (11-20) years of experience, according to the report.

**Assessment of Nurses' Knowledge:** There was a satisfactory degree of pregnancy-induced hypertension. These results are in line with a study by Kadhim and Khairi (2020) in Al-Nasiriya, which found that the nurse's knowledge of pregnancy-induced hypertension was only fair to the poor during the pretest (Kadhim and Khairi, 2020).

### Conclusion

The majority of the participants (80%) fell within the age range of 30-49 years, with a slight majority being female (56%). In terms of marital status, the distribution was relatively even, with 42% being married and a slight majority (54%) being single or other. Most importantly, the study revealed that the nurses demonstrated a strong understanding of pregnancy-induced hypertension, showcasing their competence in this vital area of healthcare.

### Recommendations

To ensure nurses are equipped to provide optimal care for pregnant women with hypertensive diseases, it is essential to provide regular educational opportunities. This can be achieved by offering training sessions, seminars, and conferences that focus on updating their knowledge of nursing care for pregnancy-induced hypertension. Additionally, hospitals and primary healthcare facilities should organize regular educational lectures for nurses, emphasizing the latest guidelines and best practices for promoting health awareness and maintaining pregnancy and fetal health. By doing so, nurses can enhance their understanding and provide high-quality care to their patients.

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