Identification of Strategies for Managing Pregnancy-Induced Hypertension in Women Receiving Prenatal Care in Federal Medical Center Umuahia Abia State

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## **Abstract**

The primary aim is to examine the prevalence, management, and outcomes of pregnancy-induced hypertension in Umuahia North of Abia state using women who attend antenatal care at the Obstetrics and Gynecology unit of Federal Medical Centre, Umuahia. A retrospective study design was used for the study. The study population consisted of 335 pregnant women attending antenatal care at the center. The instruments were a proforma constructed by the researcher titled prevalence, management and outcome of pregnancy induced hypertension (PMOPIH) the proforma was validated by three experts. Analysis of PIH rates, frequencies of all variables was performed. Percentage of pregnant women with PIH compared to total births during the study period. was used to calculate the prevalence while medical records with documentation of the variables of interest (age, parity, estimated gestational age, booking status, antenatal clinic attendance, maternal outcomes, foetal outcomes and management strategies) was used to assess the maternal and foetal outcomes and management strategies. The findings revealed a variation in management especially in performing additional tests when blood pressure readings were high.

Keywords: strategies, management, pregnancy-induced hypertension, women

#### Introduction

Pregnancy-induced hypertension is a major challenge in prenatal practice due to its impact on obstetric and fetal outcomes. It is the most common medical disorder of pregnancy, complicating 6–10% of pregnancies worldwide, and is the second direct cause of maternal mortality worldwide. Almost 20% - 30% of adults and more than 5% - 8% of all pregnancies worldwide world suffered from hypertension and 5% - 22% of all pregnancies have develop some kind of medical problem due to hypertensive. Pregnancy induced hypertension is among the common health problem with adverse effects for both mother and foetus/neonate, deserves special attention. Pregnancy-induced hypertension (PIH) is a type of hypertension related to pregnancy. This is a condition of increased blood pressure that occurs after 20 weeks of pregnancy in women with high blood pressure. 9-18

Eclampsia is a serious type of pregnancy-induced hypertension that occurs in about 1 in 1,600 pregnancies and develops late in pregnancy. It is a convulsion that is not associated to another **Citation**: Okoro OV, Egbuchelem J, Vincent CCN, Ibebuike J. Identification of Strategies for Managing Pregnancy-Induced Hypertension in Women Receiving Prenatal Care in Federal Medical Center Umuahia Abia State. Elite Journal of Health Science, 2024; 2(3):18-26

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cause in a woman with preeclampsia. Any chronic hypertensive disease, regardless of the cause, puts a woman at risk for developing superimposed preeclampsia syndrome. The three main features of pregnancy-induced hypertension are high blood pressure, protein in the urine, and pathological edema. 19-30

## **Research Method**

## **Research Design**

The study adopted a retrospective design that looks back and examines exposure to suspected protective or risk factors associated with an outcome established at the start of the study.

# Area of the Study

The study was conducted at the Department of Obstetrics and Gynaecology of Federal Medical Centre, Umuahia.

# **Population for Study**

The population for the study is 335 women attending antenatal care in the Department of Obstetrics and Gynaecology of Federal Medical Centre, Umuahia, Umuahia North Local Government Area of Abia State.

## Sample and Sampling Technique

# Sampling frame

Medical records of all women managed for pregnancy induced hypertension (PIH) between September 2017 and August 2022 was retrieved, and variables related to sociodemographic characteristics, prevalence, management strategies, maternal and foetal outcomes was extracted using a proforma designed specifically for the study. Additionally, all deliveries that occurred during the period was obtained towards ascertaining the prevalence of PIH.

## Sample size determination

A total of 335 cases was considered for analysis. Selection criteria all pregnant women attending antenatal care at the Obstetrics and Gynecology Unit of the Federal Medical Center Umuahia during the study period and receiving PIH management will be included in the study.

## **Exclusion criteria**

The exclusion criteria are specified as follows:

- 1. Women who delivered before 1st of September, 2017 and after 30th of August, 2022;
- 2. Women who were diagnosed to have chronic hypertension before onset of pregnancy or before 20th week of pregnancy;
- 3. Women who did not have PIH.

# **Data Collection and Data Analysis**

The anonymous data was extracted into a form and the information contained in the form was entered into the computer. Data analysis was performed using IBM SPSS ver. 20.0 (IBM Corporation, Armonk, NY, USA). A descriptive analysis of PIH rates, frequencies of all variables was performed. Percentage of pregnant women with PIH compared to total births during the study period.

## **Ethical considerations**

Ethical clearance from Federal Medical Centre, Umuahia and permission from respective authorities and written consent of respondents' will be obtained before the data collection. To get full cooperation, respondents will be reassured about the confidentiality of their responses. They were also informed their voluntarily participation and right to take part or terminate at any time they wanted.

## **Results**

# Sociodemographic characteristics

Table 1 presents the sociodemographic characteristics are with or without pregnancy induced hypertension. As shown in Table 1, the cases females. About, 40.00% (n=134) 34 were 25-30 years of age, 25.07% (n=84) were 20-25 years, 22.09% (n=74) of cases were 30 - 35 years of age, the between age 35 – 40 years were 9.85% (n=33) and the lowest proportion of 2.99% (n=10) was noted among the cases of aged above 40 years. Most of the cases were married 92.34% (n=309), single 6.57% (n=22), 0.90% (n=3) were either divorced or separated. However, about 0.30% (n=1) were reported to be widowed. The table disclosed that out of the 335 cases, 28.36% had tertiary education, 26.87% attained secondary education, 23.28% had primary education, and a small proportion (1.49%) of the respondents had no formal education. Of the 335 cases 59.10% (n=198) were traders, 20.90% (n=70) were civil servants, 9.55% (n=32) were unemployed, 8.96% of the persons were artisans and the lowest proportion 1.49% were farmers. The study showed that the predominant religion of the rest was Christianity. 93.13% (n=312) while the protraditionalistsportion of cases is 3.88% (n=13) and the lowest proportion is Islam with 2.99% (n=10). The study also revealed that both the husband and the wife make most decision at home (66.87%).

**Table 1: Sociodemographic characteristics of the respondents** 

Variable $(N = 335)$	Frequency (n)	Percentage (%)
Sex		
Male	0	0
Female	335	100
Age (years)		
20 - 25	84	25.07
26 - 30	134	40.00
31 - 35	74	22.09
36 - 40	33	9.85
Above 40	10	2.99
Marital status		
Single	22	6.57
Married	309	92.34
Widowed	1	0.90
Divorced/separated	3	0.30
<b>Educational status</b>		
No formal education	72	21.49
Primary education	78	23.28
Secondary education	90	26.87
Tertiary education	95	28.36
Occupation		
Unemployed	32	9.55
Artisanship	30	8.96
Farming	5	1.49
Civil servant	70	20.90
Trading	198	59.10
Religion		
Christianity	312	93.13
Islam	10	2.99
African traditional religion	13	3.88
<b>Decision making at home</b>		
Husband only	91	27.16
Wife only	20	5.97
Husband and wife	224	66.87

Table 2 shows the management of pregnancy induced hypertension. On the management and how to treat hypertension brought on by pregnancy, health professionals were questioned. 53.33 % said that no additional tests are performed if blood pressure readings are high whereas only 46.67 % additional test are performed. 71.43 % cases urine checking for protein was done while 28.57 % fasting blood sugar was done. The results also showed that all of the health professional (100.00 %) offer advice to pregnant women with pregnancy induced hypertension. The advice was targeted Citation: Okoro OV, Egbuchelem J, Vincent CCN, Ibebuike J. Identification of Strategies for Managing Pregnancy-Induced Hypertension in Women Receiving Prenatal Care in Federal Medical Center Umuahia Abia State. Elite Journal of Health Science, 2024; 2(3):18-26

at reduction of the intake of salty and fatty foods. Furthermore, 60.00 % of the health workers gave treatment to pregnant women with pregnancy induced hypertension. The Most common medication for treatment was Methyldopamin (100.00 %).

**Table 2: Management of Pregnancy Induced Hypertension (PIH)** 

Variable	Frequency (n)	Percentage (%)
Any additional test		
Yes	7	46.67
No	8	53.33
Name of test		
Checking urine	5	71.43
Fasting blood sugar	2	28.57
Do you give any advice		
Yes	15	100.00
No	0	
Advise given		
To reduce intake of fatty and salty foods	15	100.00
Do you give treatment		
Yes	9	60.00
No	6	40.00
If yes, what do you give		
Methyldopamin	9	60.00

## **Discussion**

Almost all of the women were married or in a stable relationship, which may indicate that they had access to social support and health care during their pregnancy.<sup>31</sup> However, it is also possible that some of them faced domestic violence or marital conflict, which can negatively affect their mental and physical health. A study by Oyedokun *et al.* <sup>32</sup> found that domestic violence was significantly associated with PIH among pregnant women in Nigeria. This suggest that marital status may have an impact on the psychological well-being of pregnant women, which in turn may affect their blood pressure levels.<sup>33</sup> For instance, widowed women may have more social support from their family or friends than divorced or separated women, who may face more stigma or isolation.<sup>34</sup> Alternatively, divorced or separated women may have more financial difficulties or legal issues than widowed women, which may increase their stress levels.<sup>35</sup>

The findings revealed that there was a variation in the practice of performing additional tests when blood pressure readings were high. First, it is surprising that more than half of the women (53.33%) did not perform any additional tests if blood pressure readings are high. This could indicate a lack of awareness, resources, or guidelines for diagnosing pregnancy induced hypertension. High blood pressure alone is not enough to confirm pregnancy induced hypertension, as it could be due to other factors such as stress, anxiety, or chronic hypertension. Therefore, it is recommended that health professionals perform additional tests such as urine protein or fasting blood sugar to rule

out other causes and assess the severity of pregnancy induced hypertension. It is encouraging that all of the women (100%) offer advice to pregnant women with pregnancy induced hypertension. This shows that health professionals recognize the importance of lifestyle modification and education for preventing and managing pregnancy induced hypertension.<sup>37</sup> However, the advice given was limited to reducing the intake of salty and fatty foods. While this is a good start, it is not enough to address all the risk factors and complications of pregnancy induced hypertension. Other advice that could be given include increasing physical activity, drinking enough water, avoiding alcohol and tobacco, monitoring blood pressure at home, and seeking medical attention if symptoms worsen. It is interesting that only 60% of the respondents give treatment to pregnant women with pregnancy induced hypertension. This could imply that some health professionals are reluctant or unable to prescribe medication for pregnancy induced hypertension due to cost, availability, or side effects.<sup>38</sup> However, untreated pregnancy induced hypertension can lead to serious consequences for both the mother and the baby, such as seizures, stroke, organ damage, or stillbirth. Therefore, it is essential that health professionals follow the evidence-based guidelines for treating pregnancy induced hypertension with antihypertensive drugs such as methyldopa, which was the most common medication used for treatment.

## Conclusion

The socio demographic characteristics of the respondents revealed some interesting patterns. The majority of the women were young, married, educated and engaged in trading as their occupation. The study provides a valuable insight into how health professionals manage pregnancy induced hypertension in a low-resource setting. Therefore, it is recommended that more human resources should be available, along with capacity building and staff in-service training on proper pregnancy induced hypertension management.

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