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Prevalence of Pregnancy Induced Hypertension among Women Attending Antenatal Clinic at Wenchi Methodist Hospital, Ghana

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Abstract: Pregnancy induced hypertension is the most prevalent medical problem associated with pregnancy, affecting 6-10% of all pregnancies worldwide. It is the second leading cause of maternal death worldwide. A systolic blood pressure of 140 or a diastolic blood pressure of 90mmHg or both is considered hypertension in pregnancy. In order to diagnose hypertension disorder of pregnancy, both systolic and diastolic blood pressure rises are necessary. Pregnancy induced hypertension develops after 20 weeks of pregnancy in women who had previously had normal blood pressure. The study's objective was to determine the prevalence of pregnancy-induced hypertension by assessing the risk factors associated with Pregnancy induced Hypertension; knowledge level of pregnancy induced hypertension and further examined how women with Pregnancy Induced Hypertension are managed at the facility. A descriptive cross-sectional study was conducted among health workers and pregnant mothers attending antenatal clinic at Wenchi Methodist Hospital. 240 pregnant women were chosen using simple random sampling method. 12 health workers were chosen using purposive sampling technique. For the analysis, STATA version 14.0 was employed. The results indicate that out of 240 women recruited, the prevalence of pregnancy-induced hypertension was 8.8%. Less than half (37.5%) of pregnant women had good knowledge on pregnancy induced hypertension and its complications. 25% of health workers stated checking urine protein and 3.33% stated fasting blood sugar were the test done to check whether pregnant mothers had pregnancy induced hypertension. Despite the low prevalence of pregnancy-induced hypertension, most of these women lacked knowledge of the condition and its complications. According to the study, women who have never had the disorder are at lesser risk of getting it. Pregnant older women were more likely to experience the disease; those who do not eat fatty foods have a lesser risk of developing pregnancy-induced hypertension.

Keywords: pregnancy induced hypertension, pregnant mothers, prevalence

1. INTRODUCTION

Pregnancy induced hypertension is the most prevalent medical problem associated with pregnancy, affecting 6-10% of all pregnancies worldwide. It is the second leading cause of maternal death worldwide (Mekonen et al., 2018). Though there is no clear agreement on the definition and classification of pregnancy induced hypertension due to a lack of understanding of the etiology and the continuous nature of the signs and symptoms used for diagnosis, the American college of Obstetricians and Gynecologists Task Force on hypertension in pregnancy divides the condition into four categories: preeclampsia-eclampsia, chronic hypertension, chronic hypertension with superimposed preeclampsia and gestational hypertension (Hema et al., 2020).

A systolic blood pressure of 140 or a diastolic blood pressure of 90mmHg or both is considered hypertension in pregnancy. In order to diagnose hypertension disorder of pregnancy, both systolic and diastolic blood pressure rises are necessary. Pregnancy induced hypertension develops after 20 weeks of pregnancy in women who had previously had normal blood pressure. Gestational hypertension, pre-eclampsia and eclampsia are the three main types of pregnancy-induced hypertension (Gudeta & Regassa, 2019).

A systolic blood pressure of 160mmHg or diastolic blood pressure of 110mmHg or both indicate severe preeclampsia in pregnancy. Eclampsia is a severe form of pregnancy-induced hypertension that develops at the end of pregnancy in roughly one out of every 1600 pregnancies. High blood pressure, protein in the urine and pathologic edema are the three main hallmarks of pregnancy-induced hypertension (Tessema et al., 2015).

Hypertension caused by pregnancy is a major cause of maternal and perinatal morbidity and mortality. Hypertension is a second greatest cause of maternal mortality in the United States, accounting for around 15% of all maternal deaths. The mother's risk of cardiac failure, heart attack, renal failure and cerebral vascular accidents increases if she has severe hypertension. Furthermore, issues such as inadequate placental oxygen transfer, growth limitation, preterm birth, placental abruption, stillbirth and neonatal death put the fetus at danger. With a reported prevalence of 5-10%, hypertensive problems are the most prevalent medical consequences of pregnancy (Seyom et al., 2015).

Pregnancy induced hypertension is one of the many problems of pregnancy that presents a significant challenge to healthcare providers due to its escalating clinical manifestations, as well as the impossibility of finding a permanent remedy. It is still a major cause of death. The majority of maternal and perinatal illness and mortality occurs in underdeveloped countries (Nimmi, 2016). Nonetheless, researchers are working hard to figure out the etiology and pathophysiology of disease in the hopes of finding a solution. Pregnancy-induced hypertensive are exceedingly common worldwide, accounting for 12% of maternal mortality throughout pregnancy and the puerperium, according to studies (Hema et al., 2020).

Pregnancy Induced Hypertension refers to both gestational hypertension and preeclampsia, both of which cause high blood pressure during pregnancy. In the United States, pregnancy-induced hypertension complicates 5-10% of pregnancies, with associated maternal, fetal and neonatal morbidity and mortality. Between 4.4 and 17.5% of pregnancies are said to be complicated by gestational hypertension. Preeclampsia is estimated to affect 3-10% of pregnant women. Preeclampsia is claimed to affect 3% of pregnant women in Tehran, while hypertensive disorders of pregnancy are reported to affect 4.9% of pregnant women delivering in a tertiary care hospital in Sri Lanka (Gudeta & Regassa, 2019).

Pregnancy induced hypertension; preeclampsia, eclampsia and hemolysis are the leading cause of maternal and perinatal morbidity and mortality around the world. According to a World Health Organization systematic study, hypertensive disorders are one of the leading causes of maternal mortality with 50000 fatalities each year, primary in low- and middle-income countries. According to research, hypertensive disorders of pregnancy was the third largest cause of maternal fatalities accounting 9.1% in Africa and leading cause of death, 25.7% in Latin America and Caribbean (Njukang et al., 2020).

Preeclampsia was found to be 7.03% common in Ghana. Various risk factors have been identified among women presenting with pregnancy-induced hypertension at Komfo Anokye Teaching Hospital, including maternal age, body

mass index, parity, family history of hypertension, contraceptive use, oxidative stress and metabolic syndrome. Other research has looked at seasonal changes in the occurrence of preeclampsia to try to figure out what role the environment might play in the etiology of pregnancy-induced hypertension (Meazaw et al., 2020).

In Ghana, behind hemorrhage, which covers, 22% and induced abortion, which covers 9% of maternal death, hypertensive disorders of pregnancy, is the third greatest cause of maternal death, which covers 9%. However, the prevalence of pregnancy-induced hypertension appears to vary across the country (Asamoah et al., 2011). According to Ghana Maternal Health Survey done in 2007, hypertensive disorders of pregnancy where pregnancy induced hypertension is part were more common in heavily urbanized in Accra, the capital city, accounting for 19% of all maternal deaths. Between January 2008 and June 2010, a retrospective analysis of maternal deaths at Komfo Anokye Teaching Hospital in Kumasi, Ghana indicated that hypertensive disorders of pregnancy were the primary cause of institutional mortality, accounting for 26.4% of all maternal deaths. It has surpassed hemorrhage as the leading cause of death among pregnant women (Middendorp et al., 2013).

Pregnancy Induced Hypertension patients were found to be sensitive to a range of endogenous chemicals that might cause vasospasm and platelet aggregation (Ejike et al., 2018). As a result, health practitioners must provide effective management to such women in order to reduce the unfavorable occurrences they commonly experience. There is little research in Ghana that look at the link between Pregnancy Induced Hypertension, self-care, knowledge and hypertension control in pregnant women.

This study therefore determined the prevalence of Pregnancy Induced Hypertension in Wenchi Methodist Hospital by assessing the risk factors associated with Pregnancy induced Hypertension; knowledge level of pregnancy induced hypertension and further examined how women with Pregnancy Induced Hypertension are managed at the facility.

2. MATERIAL AND METHODS

Study Area

Wenchi is a town and is the capital of the Wenchi Municipality of the Bono Region in Ghana. It is approximately 30km north of Techiman and about 50km east of Ivory Coast. It has a population of 111,029 people as at 2020. It is within the heart of Wenchi that the Wenchi Methodist Hospital is located. Wenchi Methodist Hospital started in 1951, and it is a general district hospital as founded by the Methodist Church Ghana. Wenchi Methodist Hospital has many services that it renders to patients/clients who attend the hospital, such services include general OPD services, eye services, ENT, psychiatric, emergency, orthopedics, physiotherapy, urology, ANC unit, records unit, maternity unit, pediatrics unit. The hospital has two hundred and thirty-eight--(238) bed capacity which serves as a referral center for 19 health facilities within Wenchi Municipality, Tain and Banda districts. The hospital sometimes receives cases from Bamboi and Tinga health posts in the Northern region. The facility on the other hand refers cases to the regional hospital in Sunyani and Komfo Anokye Teaching Hospital in Kumasi.

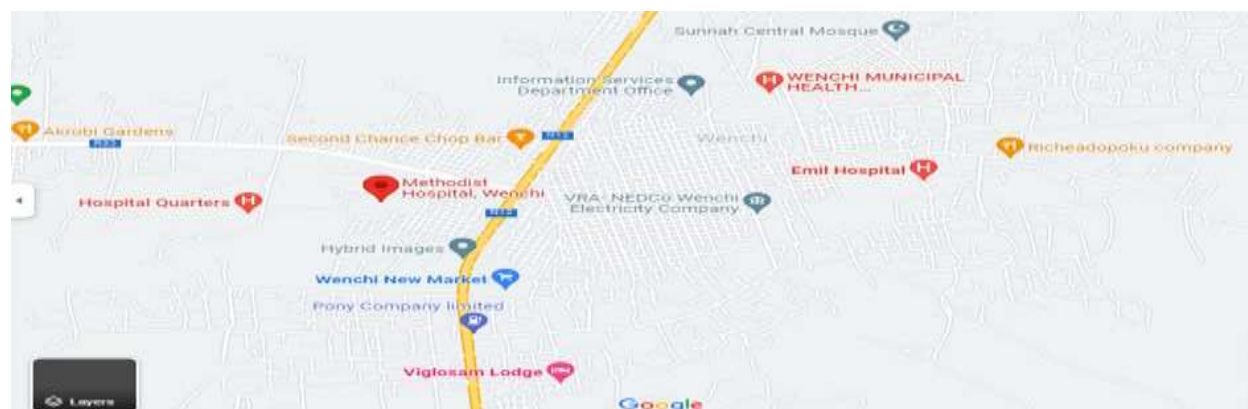


Figure 1: Map showing the location of Wenchi Methodist Hospital

Study Design

The prevalence and determinants of Pregnancy Induced Hypertension at Wenchi Methodist Hospital was investigated using a facility based cross-sectional study. A cross-sectional study was used because it simultaneously assesses both outcome and exposure variables. The main feature of this research design is to describe specific characteristics of a group of persons through questionnaires. Besides, the design was used because of its descriptive nature in order to assist in collecting from members of the sample for estimating the population parameters. The population of interest was all pregnant women attending the Antenatal Clinic of the hospital as well as health professionals on duty at the time of the study.

Sampling technique and sample size

The required sample size for this study was calculated using the Prevalence of Pregnancy Induced Hypertension as reported by Muti et al., (2015) in Zimbabwe. According to the study, 19.4% of them had the condition (Muti et al., 2015). The sample size of this study will be calculated at 95% confidence interval using Cochran's formula of sample size calculation. The formula is given by:

$$n = \frac{Z^2 pq}{e^2} \text{ (Cochran, 1964)}$$

Where:

n= sample size

Z²= standard normal deviation for two tailed-test based on 95% confidence level= 1.96

p= proportion of pregnant women with pregnancy induced hypertension= 19.4% = 0.194

q= 1-p= proportion of pregnant women without pregnancy induced hypertension= 1-0.194= 0.806

e= margin of error= 5%= 0.05

Therefore, the sample size was be calculated as follows

$$n = \frac{1.96^2 * 0.194 * 0.806}{0.05^2}$$

$$n = \frac{3.8416 * 0.194 * 0.806}{0.0025}$$

$$n = \frac{0.60069}{0.0025}$$

n=240.27= 240 participants.

Simple random sampling method by lottery method was used to select participants for the study. A lottery method was utilized where Yes and No were written on pieces of papers and kept in a container. Respondents were allowed to pick the papers without replacement and those who selected yes were included in the study. The procedure was repeated until the sample size of 240 was attained.

Data collection procedure

The data collection was done in English, Twi and the local Bono language where necessary to enhance thorough understanding of the questions. The researcher and two (2) research assistants who were adequately trained regarding the overall research in order to have in-depth knowledge about the study did the data collection.

In order to ensure data validity and reliability, two (2) research assistants were adequately trained three (3) days prior to pre-testing and the final data collection regarding the overall research in order to have in-depth knowledge about the study. The training was thus to ensure their thorough understanding of the research topic, objectives and the sensitivity

of the topic and need for confidentiality of information provided by respondents. The training was also to ensure they diligently and effectively administer the questionnaires. Prior to data collection, the overall goal of the study was thoroughly explained to the pregnant mothers in order to gain their informed consent. Pregnant mothers who were willing to participate in the study were given questionnaires to answer with consistent assistance from the researchers and the research assistants.

Data Analysis

STATA was used for the analysis where frequencies were calculated using descriptive statistics. For categorical variables, percentages were used. Mean and Standard deviations were calculated for continuous variables. Pregnancy-Induced Hypertension and understanding of the condition were reported using graphs and percentages.

3. RESULTS

Table 1: Sociodemographic Characteristics of Respondents

Variable	Frequency (N=240)	Percentage (100%)
Age (Years)		
<25years	37	15.42
25-29years	89	37.08
30-34years	79	32.92
35-39years	25	10.42
40-45years	10	4.17
Mean (SD)	29.24(5.3)	
Educational level		
No Formal	18	7.5
Primary	23	9.58
JHS	38	15.83
SHS/VOCATIONAL	129	53.75
TERTIARY	32	13.33
Occupation		
Employed	143	59.58
Unemployed	97	40.42
Marital Status		
Single	93	38.75
Married	75	31.25
Co-habiting	72	30
Religion		
Christianity	71	29.58
Islam	151	62.92
Traditional	18	7.5
Tribe		
Akan	128	53.33
Ewe	19	7.92
Ga	14	5.83
Other tribes	79	32.92

Decision making at home		
Husband only	12	16
Wife Only	5	6.67
Husband and Wife	58	77.33
Place of residence		
Urban	204	85
Rural	36	15
Gravida and Parity		
Primigravida	70	29.17
Multigravida	170	70.83
Gestations		
20-28weeks	124	51.67
29-32weeks	44	18.33
33-40weeks	72	30
Was pregnancy planned		
Yes	165	68.75
No	75	31.25

Two hundred and forty pregnant women were involved in the study. The mean age of all respondents was 29.24 with a standard deviation of 5.3. More women were in the age of 25-29 years, which accounts for 37.08%, followed by 30-34 years, which also accounts for 32.92% and the least aged group were pregnant women aged 40-45 years (4.17%).

A small proportion (7.5%) of pregnant women had no education. More than half (53.75%) of the participants had Senior High School/Vocational education followed by Junior High School (15.83%), 13.33% had tertiary education and 9.58% of the respondents had Primary education. Most of the respondents are employed (59.58%) and 40.42% of them were unemployed. At the time of the study, (38.75%) of the respondents were single, (31.25%) were married and (30%) of them were co-habiting. A greater proportion (62.92%) of the pregnant women were Muslims, 29.58% were Christians and 7.5% were traditionalists.

Most of the respondents (77.33%) said that decision making at home were from both husband and wife. Where (85%) of the pregnant women were from the urban. Moreover, (70.83%) respondents were multigravida with a little more than half (51.67%) of respondents had pregnancy ranging from 20-28 weeks of gestation. Most (68.75%) of the respondents stated that their pregnancy was planned compared to 31.25% that stated otherwise.

Prevalence of Pregnancy Induced Hypertension

Pregnancy Induced Hypertension prevalence is summarized in figure 2. The prevalence of Pregnancy Induced Hypertension is 8.8%. Out of the 240 participants, more than half (57.9%) of the respondents were normal followed by pre-hypertensive to be 33.3%.

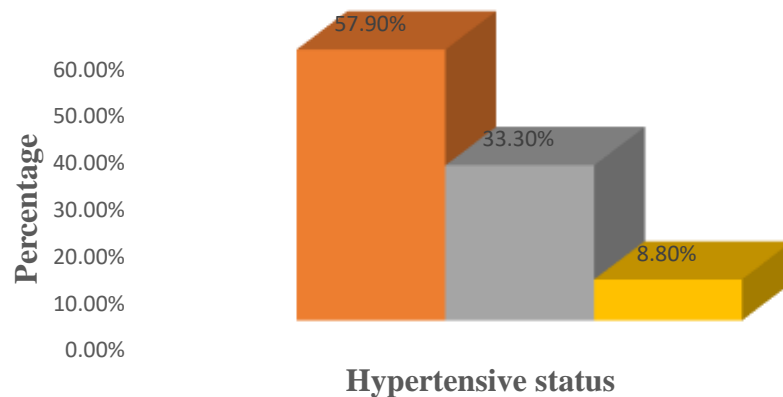


Figure 2: Prevalence of Pregnancy Induced Hypertension

Table 2: Knowledge on Pregnancy Induced Hypertension and Its complications

Variable	Frequency N=240	Percentage (100%)
Definition of PIH		
BP that occurs after 20weeks gestation	70	29.2
BP which starts when one is not pregnant	47	19.6
Both	44	18.3
I do not know	79	32.9
Information source on PIH		
Health center	116	72.0
School	6	3.7
Media	27	16.8
Relatives	9	5.6
Friends	3	1.9
Causes of PIH		
Real cause not known	75	46.6
Stress	64	39.8
Witchcraft	18	11.2
Others	4	2.5
Know signs and symptoms of PIH		
Yes	131	81.4
No	30	18.6
Signs and symptoms of PIH		
Rapid weight gain	52	39.7
Swelling of face, fingers and feet	77	58.8
Dizziness	103	78.6

Blurred vision	71	54.2
Nausea and vomiting	61	46.6
Frontal headache	89	67.9
Confusion	61	46.6
Upper abdominal pain	35	26.7
High blood pressure	125	95.4
Generalized body weakness	85	64.9
Reduced urine output	35	26.7
Reduced foetal movement	41	31.3
Blood pressure controls helps manage PIH		
Yes	123	51.3
No	14	5.8
I do not know	103	42.9
Know complications of PIH		
Yes	68	28.33
No	172	71.67
Complications of PIH		
Foetal and maternal death	40	58.8
Pre-eclampsia/Eclampsia	7	10.3
Preterm delivery	6	8.8
Others	15	22.1

In this study, it was also established what people knew about pregnancy induced hypertension and its associated problems. Nearly a third (32.9%) of the pregnant women reported not knowing what pregnancy induced hypertension was. Nevertheless, 29.2% of the respondents claimed it was "BP that occurs after 20weeks gestation, 19.6% claimed it was "BP which starts when one is not pregnant, and 18.3% claimed it was a combination of both "BP that occurs after 20weeks gestation and "BP which starts when one is not pregnant".

More than half of respondents, (72.0%) who said they were aware of pregnancy-induced hypertension said they had learned about it from hospital. Nearly half (46.6%) of respondents who were asked about the cause of PIH claimed there was no known reason and 11.2% said witchcraft causes were to blame. 81.4% of the expectant mothers claimed to be aware of the symptoms and signs of pregnancy induced hypertension. High blood pressure (95.4%), dizziness (78.6%), frontal headache (67.9%) and overall body weakness (64.9%) were the diseases most prevalent signs and symptoms. Additionally, slightly more than half of the respondents (51.3%) were aware that managing blood pressure aids in the management of the condition. The majority of the participants (71.7%) claimed to be aware of the negative effects of pregnancy-induced hypertension. Preeclampsia/eclampsia (10.3%), preterm delivery (8.8%) and others accounted for (22.1%).

Respondents Knowledge on the definition of PIH

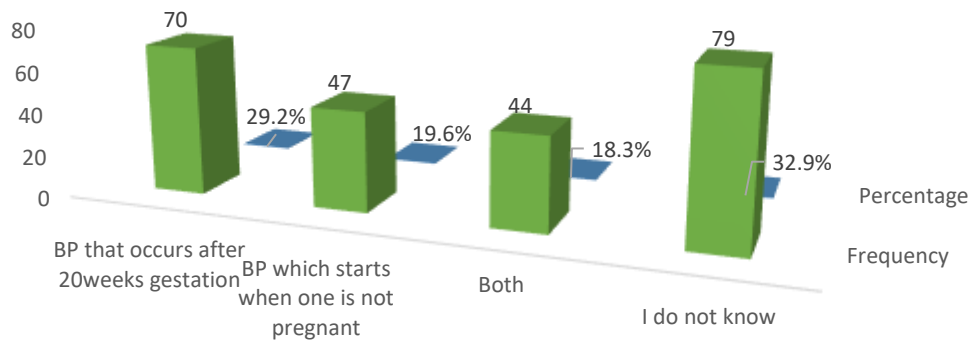


Figure 3: Definition of PIH

The figure above shows the results of knowledge on the definition of pregnancy induced hypertension. When respondents were asked about the definition of pregnancy induced hypertension, 29.17% responded in the correct way while 32.92% said they do not know the definition for pregnancy induced hypertension.

Respondents Knowledge on Causes of PIH

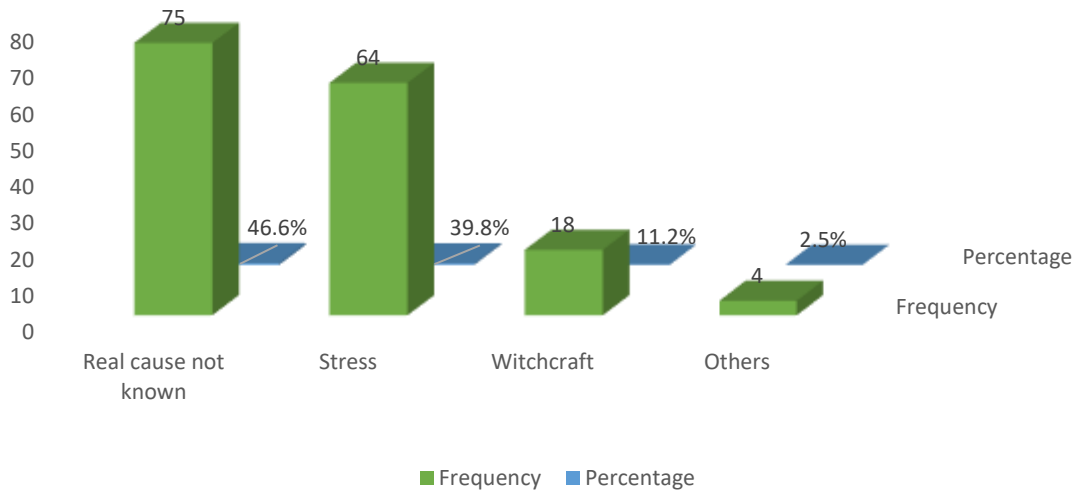


Figure 4: Causes of PIH

Based on the results shown above, the real cause for pregnancy induced hypertension accounted for 39.8% while 46.6% said real cause not known.

Respondents knowledge on the signs and symptoms of PIH

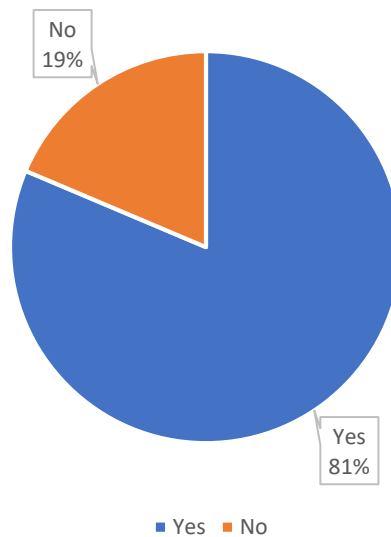


Figure 5: Signs and Symptoms of PIH

The above pie chart shows whether the respondents knew about pregnancy induced hypertension or not, 81% said Yes while 19% said No.

Respondents Knowledge on signs and symptoms of PIH

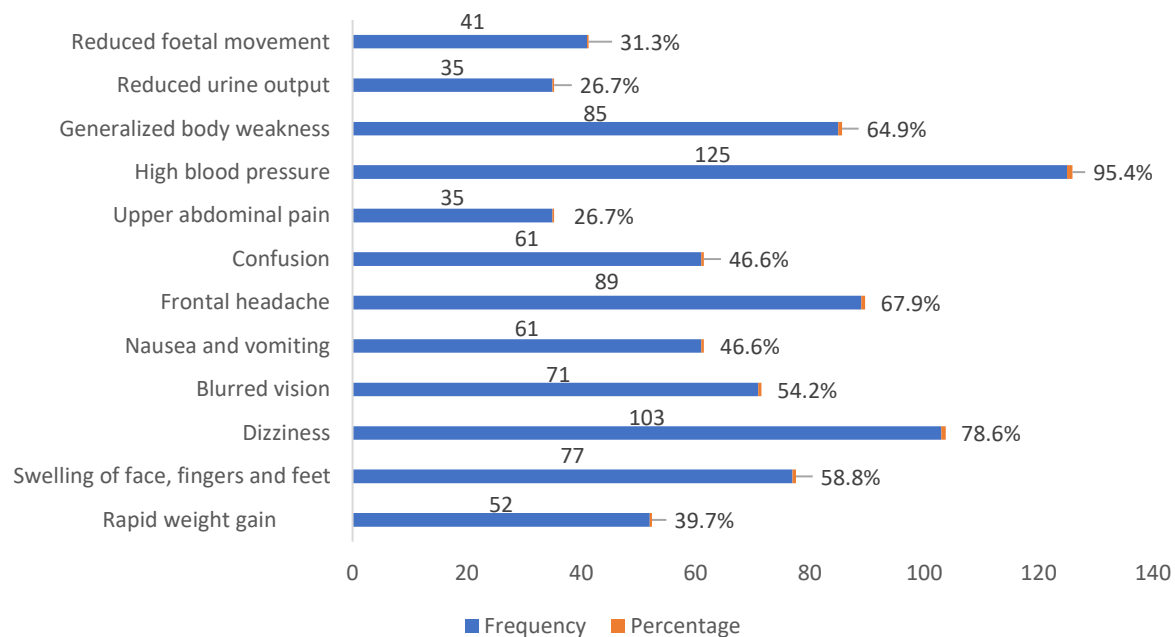


Figure 6: Signs and Symptoms of PIH

The chart above shows the frequencies and percentages of respondents who said Yes to each of the signs and symptoms of pregnancy-induced hypertension. Out of 131 who said Yes to the signs and symptoms of pregnancy induced hypertension, 95.4% said high blood pressure is the sign and symptom of pregnancy induced hypertension, out of the same 131 respondents, 35(26.7%) said upper abdominal pain.

Knowledge on Blood Pressure Control helps manage PIH

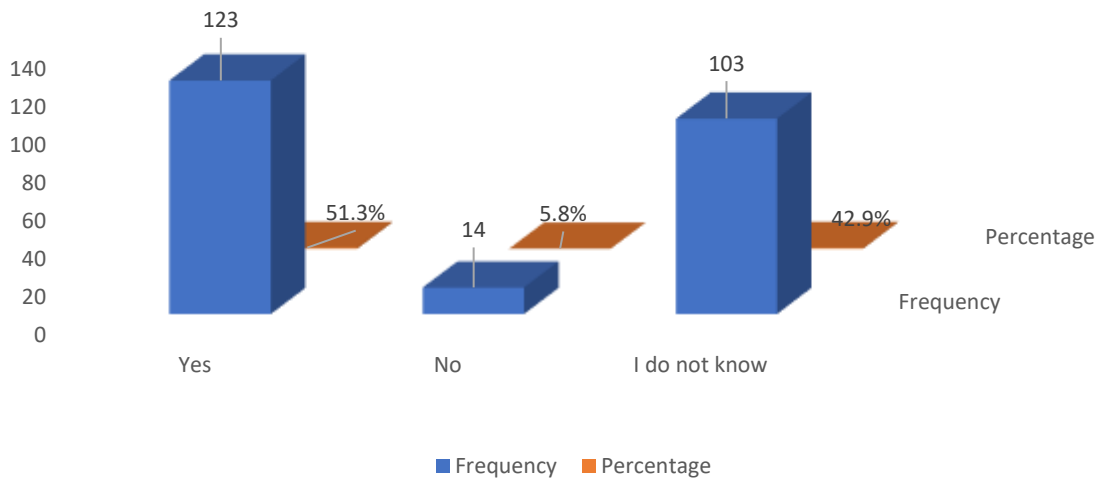


Figure 7: Blood pressure control helps manage PIH

The figure above shows whether blood pressure control helps manage pregnancy induced hypertension or not. 51.3% said Yes, 42.9% said they do not know and 5.8% said No.

Rating Respondents Knowledge Level on PIH

In rating the knowledge level of the respondents, in all sixteen (16) questions were used. Out of the 16 questions, a score of 13 indicated High Knowledge and less than 13 indicated Low Knowledge. The figure below shows the result.

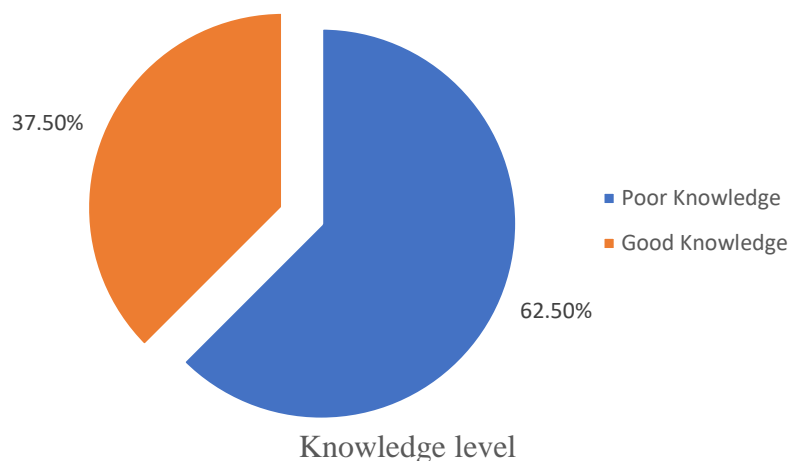


Figure 8: Knowledge on PIH

In overall, majority of respondents (62.5%) had poor knowledge whilst 37.5% had good knowledge on the disease.

Managing Pregnancy Induced Hypertension

Table 3: Managing Pregnancy Induced Hypertension

Variable	Frequency N=12	Percentage (100%)
Any additional test done?		
Yes	4	33.33
No	8	66.67
Name of the test		
Checking urine protein	3	25
Fasting Blood Sugar	1	8.33
Give advice to pregnant women with PIH		
Yes	12	100
Type of advice given		
Reduce intake of salt and fatty foods	12	100
Give treatment for PIH		
Yes	8	66.67
No	4	33.33
Medications for treatment		
Methyldopa	8	66.67

On how to treat hypertension brought on by pregnancy, health professionals were questioned. Of the 12 health professionals surveyed, 66.67% said that no additional tests are performed if blood pressure readings are high and 3.33% said differently. 4 out of 12 health professionals who said yes to additional test done, 25% said the test is by checking urine protein and 8.33% said fasting blood sugar. All of the health professional (100%) offer advice to pregnant women with pregnancy induced hypertension. The advice was targeted at reduction of salt intake and fatty foods. 66.67% of the health workers give treatment to pregnant women with pregnancy induced hypertension. Most common medication for treatment was Methyldopa (100%).

Family History of Disease and Lifestyle Activities

Table 4: Family History of Disease and Lifestyle activities

Variable	Frequency N=240	Percentage (100%)
Family history of hypertension		
Yes	57	23.8
No	183	76.2
Family history of diabetes		
Yes	45	18.7
No	195	81.3
Family history of PIH		
Yes	17	7.1
No	223	92.9

PIH in previous pregnancy		
Yes	18	7.5
No	222	92.5
Drink alcohol		
Yes	34	14.2
No	206	85.8
Daily vegetable consumption		
I don't eat vegetables	12	5
<serve a day	30	12.5
1-2serves a day	116	48.33
3-5serves a day	79	32.92
More than 5serves a day	3	1.25
Daily fruit consumption		
I don't eat fruits	8	3.33
<1 serve a day	48	20
1-2serves a day	108	45
3-5serves a day	63	26.25
More than 5serves a day	13	5.42
Engage in exercise		
Yes	164	68.33
No	76	31.67
Consume fatty foods		
Yes	135	56.25
No	105	43.75
Stress during pregnancy		
Yes	149	62.08
No	91	37.92

The table above shows that the majority of the respondents (76.2%), along with those with diabetes (81.3%) and pregnancy induced hypertension (92.9%), did not have a family history of hypertension. Only 7.1% of the pregnant women reported having pregnancy induced hypertension in their family. Again, 7.1% of the respondents reported having pregnancy induced hypertension during their previous pregnancy. Majority of the respondents (68.3%) participate in exercise while majority (85.5%) do not drink alcohol. Majority (48.3%) consume 1-2 servings of vegetables per day and nearly the same percentage (45%) gets 1-2 servings of fruits per day. 3.3% of the respondents do not eat fruits whereas 5% do not eat any vegetables. Moreover, half of the respondents (56.25%) eat fatty foods and 62.08% said they experienced stress during pregnancy.

Risk factors associated with Pregnancy Induced Hypertension

Table 5: Risk factors associated with PIH

Variable	COR	AOR
Age (years)	OR (95%CI) p-value	OR (95% CI) p-value
Age (Years)	1.57(1.03-2.41)0.0038	

<25years	2.84(0.28-2.91)0.38
25-29years	1.57(0.13-1.86)0.719
30-34years	2.12(0.15-2.93)0.575
35-39years	1.8(1.16-2.79)0.039
40-45years	
Educational level	1.04(0.64-1.66)0.861
No Formal	
Primary	
JHS	
SHS/VOCATIONAL	
TERTIARY	
Occupation	2.12(1.09-4.12)0.027
Employed	
Unemployed	
Marital Status	1.05(0.43-2.57)0.937
Single	
Married	
Co-habiting	
Religion	0.96(0.36-2.53)0.937
Christianity	
Islam	
Traditional	
Tribe	1.03(0.67-1.60)0.875
Akan	
Ewe	
Ga	
Other tribes	
Decision making at home	0.75(0.42-1.36)0.340
Husband only	
Wife Only	
Husband and Wife	
Place of residence	0.58(0.03-10.37)0.710
Urban	
Rural	
Gravida and Parity	0.99(0.37-2.66)0.98
Primigravida	
Multigravida	
Gestations	1.18(0.72-1.95)0.508
20-28weeks	
29-32weeks	
33-40weeks	
Was pregnancy planned	0.88(0.32-2.34)0.782

Yes		
No		
Knowledge on PIH	1.94(0.79-4.79)0.146	
Poor Knowledge		
Good Knowledge		0.54(0.13-2.21)0.392
Family history of hypertension	0.54(0.13-2.21)0.392	
Yes		
No		
Family history of diabetes	0.72(0.25-2.07)0.536	
Yes		
No		
Family history of PIH	0.26(0.08-0.92)0.035	
Yes		0.45(0.08-2.45)0.354
No		
PIH in previous pregnancy	0.06(0.02-0.17) <0.001	
Yes		
No		
Drink alcohol	1.62(0.36-7.31)0.527	
Yes		
No		0.07(0.01-0.35)0.001
Daily vegetable consumption	1.10(0.64-1.92)0.723	
I don't eat vegetables		
<serve a day		
1-2serves a day		
3-5serves a day		
More than 5serves a day		
Daily fruit consumption	1.68(1.00-2.83)0.049	
I don't eat fruits		
<1 serve a day		
1-2serves a day		
3-5serves a day		
More than 5serves a day		
Engage in exercise	1.70(0.68-4.23)0.253	
Yes		
No		
Consume fatty foods	0.11(0.03-0.52)0.005	
Yes		
No		0.19(0.04-0.92)0.04
Stress during pregnancy	0.63(0.23-1.69)0.359	
Yes		
No		0.49(0.15-1.62)0.244

As illustrated in Table 6, binary logistic regression was used to identify risk factors linked to pregnancy-induced hypertension. Age, Pregnancy-Induced Hypertension during previous pregnancy and eating fatty foods were all substantially linked to developing pregnancy induced hypertension. The logistic regression test revealed that pregnancy induced hypertension risk rose with age. In comparison to younger women, older women had 80% higher risk of developing pregnancy induced hypertension (AOR=108; 95% CI: 1.16-2.79; $p=0.039$).

Pregnant women who did not have pregnancy induced hypertension during their previous pregnancy were predicted by the model to have 93% lower risk of developing the condition during their current pregnancy than those who did (AOR=0.07; 95% CI: 0.01-0.35; $p=0.001$). Furthermore, the likelihood of getting pregnancy-induced hypertension was reduced by abstaining from fatty foods. Therefore, compared to pregnant women who reported eating fatty foods, those who claimed they don't were 81% less likely to experience the disease (AOR=0.19; 95% CI: 0.04-0.92; $p=0.04$).

4. DISCUSSION

In both industrialized and developing nations, pregnancy induced hypertension is a major cause of maternal, fetal and neonatal mortality as well as morbidity (Gudeta & Regassa, 2019). To determine the prevalence of pregnancy induced hypertension and pregnant women's knowledge of its complications, as well as to evaluate the management of pregnancy induced hypertension among health workers and identify factors influencing pregnancy-induced hypertension among pregnant women, the study was conducted among pregnant women in Wenchi Methodist Hospital.

Prevalence of Pregnancy Induced Hypertension and its complications

According to the current study, 8.8% of pregnant women at Wenchi Methodist Hospital had pregnancy-induced hypertension. According to a cross sectional study conducted in some areas of Ethiopia, the prevalence of pregnancy-induced hypertension was 7.9% (Tessema et al., 2015). Similarly, an Ethiopian systematic review study indicated that pregnancy induced hypertension prevalence was 6.07% (Berhe et al., 2018). These findings, which show a roughly identical frequency of pregnancy-induced hypertension among pregnant women, are not commonly interspersed. The prevalence was found to be 21.4% in cross sectional study carried out in Korle Bu, Ghana (Adu-Bonsaffoh et al., 2017). Compared to the prevalence from this and other studies, this prevalence seems to be very high (Tessema et al., 2015; Berhe et al., 2018). According to Tessema et al., (2018), the variance in pregnancy induced hypertension prevalence may be related to biological factors such as family history of pregnancy-induced hypertension, gestational age and the existence of conditions including asthma and kidney issues in pregnant women. Differences in sample size and population size between the two hospitals may possibly be to blame for the discrepancy in pregnancy induced hypertension prevalence. Nevertheless, as shown by these prevalence rates, there is still a large burden of pregnancy-induced hypertension in the Ghanaian community; hence, there is a need for additional action-oriented research to identify the causes and treatments for this canker.

Knowledge on pregnancy induced hypertension and its related complications

The majority of pregnant women (65.5%) in this study had little to no understanding about pregnancy-induced hypertension, including its causes, consequences, indications and symptoms. This is consistent with the results of a cross sectional study conducted in Tanzania, which found that the majority of pregnant women were unaware of the link between pregnancy induced hypertension and maternal mortality (Eze et al., 2018). Similar information gaps about pregnancy induced hypertension were discovered by Maputle et al., (2015) in their qualitative research of pregnant women must promptly disclose any symptoms of pregnancy induced hypertension such as strong headache, difficulty breathing, nausea and vaginal bleeding at every ANC appointment in order to receive prompt medical attention (Magee et al., 2012). This suggests that providing health education on common pregnancy induced hypertension signs and symptoms to pregnant women during Antenatal Clinic visits is crucial in closing the knowledge gap that can prevent early reporting of any such signs and symptoms by pregnant women.

Management of pregnancy induced hypertension and its related complications by health workers

As the first point of contact for pregnancy induced hypertension patients, health care providers play a crucial role in the management of pregnancy induced hypertension disorders. Ribowsky & Henderson (2012) noted that proper use of antihypertensive therapy, consideration of expectant management or labor induction and ongoing monitoring for

increased hypertension and proteinuria are crucial elements in the management of women with pregnancy induced hypertension.

Health professionals must be knowledgeable with pregnancy-induced hypertension and its complications because this sets the stage for providing pregnant women with pregnancy induced hypertension with appropriate therapy and care. Methyldopa and labetalol are often prescribed drugs to treat pregnancy-induced hypertension (Eze et al., 2018).

Factors influencing pregnancy induced hypertension and its complications

The risk factors for pregnancy-induced hypertension have been the subject of numerous studies, with early teenage nulliparity, illiteracy, unemployed and family history of hypertension being the most prevalence (Tebeu et al., 2012). Similarly, Jones et al., (2017), Owiredu (2012) and Ayele et al., (2016) identified advanced maternal age, lack of awareness of the danger of hypertension and prior experience of pregnancy induced hypertension as common risk factors for pregnancy induced hypertension. The study discovered a relationship between pregnancy-induced hypertension and stress during pregnancy, pregnancy induced hypertension at the time of the previous pregnancy and age among pregnant women at the multivariate analysis level. This is consistent with the results of case control study conducted in Cameroon, where the risk of developing pregnancy-induced hypertension was linked to women who had family history of the condition and women who had previously experienced pregnancy related hypertension (Tebeu et al., 2012).

Owiredu et al., (2012), also discovered a substantial correlation between pregnancies induced hypertension and family history of hypertension in their case control study that was carried out in Ghana. The results of this investigation support those of case control study conducted in Hohoe Municipality of Ghana, where consumption of fatty foods and family history of hypertension were strongly linked to pregnancy induced hypertension (Jones et al., 2017). The findings of this study and those discovered in the literature suggest that pregnancy induced hypertension risk factors are primarily inherited and dependent on the dietary habits of pregnant women. This underscores the significance of taking a pregnant women's medical history during antenatal clinic visit because it will allow doctors to identify any women who have a history of pregnancy-induced hypertension in their families. This will influence the type of counseling provided to such mothers and their peers.

In light of this, high prevalence of pregnancy-induced hypertension was identified in Wenchi Methodist Hospital by the study. According to certain studies, women with pregnancy-induced hypertension were more likely than those without to experience unfavorable pregnancy outcome (Multi et al., 2015).

Additionally, this study's findings show that women with family history of pregnancy-induced hypertension are more likely to develop the illness themselves. As a result, pregnant women with a history of pregnancy-induced hypertension should receive extra attention in order to better manage pregnancy induced hypertension in these mothers.

5. CONCLUSION

According to the results of the current study, 8.8% of pregnant women who visit the hospital have pregnancy-induced hypertension. According to the findings of this study and others, women who experience pregnancy-induced hypertension face significant challenges with regard to pregnancy outcomes. The majority of pregnant women are ignorant of pregnancy induced hypertension indications, symptoms, problems and treatment options. It would appear that greater awareness of pregnancy-induced hypertension among expectant mothers would improve early reporting and care of pregnancy induced hypertension cases. Because early diagnosis and treatment of pregnancy induced hypertension in pregnant women sets the stage for fewer problems from pregnancy induced hypertension, the significance of healthcare professionals in these areas cannot be underestimated. Therefore, it suggests 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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