Prevalence of Pregnancy Induced hypertension among Gestational Mothers Admitted in Gynae Units in a Tertiary Level Hospital, Sylhet

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Abstract

Introduction: Hypertension in pregnancy is defined as a systolic BP of 140 mmHg and higher, and a diastolic BP of 90 mmHg and higher. Hypertensive disorders of pregnancy are one of the major causes of both maternal and neonatal morbidity and mortality leading to 10-15% of maternal deaths, especially in developing world. The prevalence of hypertension during pregnancy is not well-documented in Bangladeshi literature and the studies related to hypertension in pregnancy in Bangladesh were mostly hospital based.

Objective: To assess the prevalence of pregnancy induced hypertension among gestational mothers admitted in Gynae units in a tertiary level hospital, sylhet.

Methods & Materials: Study design: Descriptive cross sectional study.

Study Location: At Gynae units, labour room, Gynae and obestectical ward of Sylhet MAG Osmani Medical Collage hospital, Sylhet.

Study Population: Gestational mohters admitted in Gynae units of Sylhet MAG Osmani Medical College Hospital, Sylhet.

Sample Size: (n=80).

Results and finding: A cross sectional study was carried out to find out the prevalence of pregnancy induced Hypertension (PIH) among gestational mothers admitted in the Gynae Units of Sylhet MAG Osmani Medial College and Hospital, Sylhet. Total 80 gestational mothers selected according to eligibility criteria. They were interviewed with a pre-designed and pretested questionnaire. 50 (fifty) patients were admitted in the observation ward and the interview was carried out in the ward. 30 patients were interviewed at the time of admission in the labour ward. No data were collected from document review. All are primary DATA. Collected data were cleaned, edited and analyzed with the help of software SPSS window version-11.5.In my study shown that 46 (57.5%) Pregnant women were form the age group 18-25 years followed by 22 (27.5%) from 26-30 years, 12 (15%) form 31-35 years. Mean is 24.72, Range 17 Maximum age 35 years and minimum is 18 years. Among them the religion was Islam 70 (87.5%) and Hindu 10 (12.5%).Among them the occupation was employed 8 (10%), unemployed 7 (8.75%), housewife 65 (81.25%).Among them education level illiterate 7 (8.75%), primary education 65(81.25%), secondary education 8 (10%).Among them age of marriage before 18 was 10 (12.5%), after 18 was 70 (87.5%).Among them the history of LUCS 17 (21.25%), history of no LUCS 63 (78.75%).Among them there was no history of destructive operation like Craniotomy and Decapitation. Among them history of abortion 21 (26.25%), with no history of abortion 59 (73.75%).Among them history of stillbirth 13(16.25%), no history of stillbirth 67(83.75%).Among the respondents out of 80, there were 14 patients found to be suffering from pregnancy induced hypertension (PIH). They were examined; Blood Pressure recorded, Symptoms and signs were recorded in the questionnaire. All the examinations were carried out clinically. No of pregnant mother with history of PIH were 14 (17.5%), the rest were 66 (82.5%). All the gestational mother with PIH were more than 20 weeks of pregnancy 14(100%), All had oedema 14(100%), All had vertigo 14(100%), All had weight gain 14(100%), All had oliguria 14(100%), All suffering from insomnia 14(100%).

Conclusion: Being a tertiary hospital the prevalence study stands 17.5% which is most usual. In developing country it is near about 10-15%. Worldwide the ranges vary from 5-8%. The study reveals that among the patients of PIH- Most are Primi, Age varies form 18-25 years. They are of low socio economic status and poorly educated.

Key words: Prevalence, pregnancy, hypertension, gestational, tertiary.

INTRODUCTION

This terminology is preferred over the older but widely used term pregnancy-induced hypertension (PIH) because it is more precise. The newer terminology reflects simply relation of pregnancy with either the onset or first detection of hypertension and that the question of causation.

Hypertension in pregnancy is defined as a systolic BP of 140 mmHg and higher, and a diastolic BP of 90 mmHg and higher.

Hypertensive disorders of pregnancy (HDP) represent a group of conditions associated with high blood pressure during pregnancy, Proteinuria and in some cases convulsions. The most serious consequences for the mother and the baby result from Pre-Eclampsia and Eclampsia.

These are associated with vasospasm, pathologic vascular lesions in multiple organ systems, increased platelet activation and subsequent activation of the coagulation system in the micro Vasculaturel Eclampsia is usually a consequence of Pre-Eclampsia consisting of central nervous system seizures which often leave the patient unconscious; if untreated it may lead to death. The long-term Sequelae of both Preeclampsia or Eclampsia are not well evaluated, and the burden of hypertensive disorders of pregnancy stems mainly from deaths.

Hypertensive disorders of pregnancy are one of the major causes of both maternal and neonatal morbidity and mortality leading to 10-15% of maternal deaths, especially in developing world. It is associated with adverse pregnancy outcomes as well as maternal morbidity and mortality. It may complicate about 3-10% of all pregnancies with variable incidence among different hospitals and countries. However, the prevalence of hypertension during pregnancy is not well-documented in Bangladeshi literature and the studies related to hypertension in pregnancy in Bangladesh were mostly hospital based. Maternal hypertensive disorders occurred in about 20.7 million women in 2013. About 10% of pregnancies globally are complicated by hypertensive diseases. In the United States hypertensive disease of pregnancy affect about 8% to 13% of pregnancies. Rates have increased in the develop odd they resulted in 29,000 deaths in 2013 down from 37,000 deaths in 1990. They are one of the three major causes of death in pregnancy (16%) along with ost artuleedin (13%) and puerperal infections (2%). In Sylhet region neonatal mortality rate is higher (53 /1000 total birth) than our national neonatal mortality rate (37/l000 total birth) (BDHS, 2007).

Classification of hypertension in pregnancy:
  i) Preeclampsia Hypertension developing after 20 weeks gestation with proteinuria and/or edema.
  ii) Gestational hypertension (also termed transient hypertension of pregnancy) Hypertension developing after 20 weeks gestation without other signs of preeclampsia.
  iii) Chronic hypertension before 20 weeks gestation in the absence of neoplastic trophoblastic disease.
  iv) Preeclampsia superimposed on chronic hypertension Preeclampsia developing in a woman with preexisting hypertension.

According to WHO 1987 Gestational Hypertension without the development of significant Proteinuria (=0.3 g/l) after 20 weeks of gestation or during labour and/or within 48 hours of delivery Pre-'eclampsia Development of gestational hypertension and significant proteinuria after 20 weeks of gestation or during labour and/or within 48 hours of delivery Eclampsia Convulsions ante, intra- or postpartum Underlying hypertenslo~ n or renal disease Underlying hypertension, or renal disease, or other known causes of hypertension (such as Pheochromocytoma) Pre-existing hypertension or renal hypertension and or proteinuria in Pregnancy Pre-existing hypertension, pre-existing renal disease, pre-existing other causes of hypertension Superimposed preeclampsia/eclampsia a) Pre-existing hypertension with suPerimposed pre-eclampsia or eclampsia (a worsening of hypertension, with an increase in diastolic blood pressure to at least of 15 mm Hg above non-pregnancy values, accompanied by the development or worsening of proteinuria b) pre-existing renal disease with superimposed pre-eclampsia or eclampsia) Risk factors for the development of hypertensive disorders of pregnancy Several risk factors have been found to be associated with an increased risk of developing preeclampsia: the presence of type I diabetes, gestational diabetes, twin birth and obesity (body mass index>29).The likelihood of progression from gestational hypertension to pre-eclampsia may be increased by a prior miscarriage5, Mortality and case fatality Although eclampsia is responsible for the majority of deaths associated with hypertensive disorders of pregnancy, death can occur in the absence of convulsions . Evidence on case fatality rates of eclampsia is limited to mainly hospital-based studies where rates are likely to be higher. As for other maternal conditions, deaths due to hypertensive disorders of pregnancy were estimated using a proportional mortality model.

A first set of regional estimates of total number of maternal deaths have been produced using the methodology developed for WHO/UNICEF 1995 estimates of maternal mortality . Available information on cause of death distributions in each region, including data from vital registration systems, was then used to estimate the proportion of different causes of maternal mortality. Bangladesh Demographic Healthy Survey (BOBS) 2014 Policy Briefs Maternal Health Maternal Health in Bangladesh.

National Commitment towards Ending Preventable Deaths Bangladesh has committed to ending preventable child and maternal deaths by 2030. This commitment has been made in the spirit of achieving universal health coverage (UHC) and is in alignment with the goals of Sustainable Development and Ending Preventable Child and Maternal Deaths (EPCMD)

To achieve the SDG goal 3.1, Bangladesh has to bring its maternal mortality rate (MMR) down to 59 from the current level of 170.1 the average annual rate of reduction of MMR between 2001 and 2010 was 5.63%.

If a steady decline at a rate of 5.5% can be maintained, reaching an MMR of 59, in theory, seems to be an achievable target. In real life, as the mortality level declines further, business as usual is highly unlikely to work. Our efforts should prioritize (1) antenatal care (ANC), (2) normal delivery care and, (3) emergency obstetric and newborn care (EmNOC).

The intermediate goal should be to reach highly effective coverage (quality + coverage) for each of these types of care to sustain their growth as well as to reduce maternal and child mortality. Milestones should be defined and time frames should be stipulated for each of the three upcoming sector programs between now and 2030. The Shift from Home to Facility Delivery Has Begun Its evident that the population is shifting its norm of home delivery to delivery at facilities. In the last decade facility delivery increased rapidly from 12% to 37%~ the private sector has contributed to most of this increase. Between 2004 and 2014 delivery in the private sector increased from 4% to 22%; in comparison, births in the public sector increased from 7% to only 13%. However, the shift also entailed great inequity in use of facility care for maternal health services by population groups and regions. For example, 55% of women in Khulna delivered in a health facility compared with only 23% in Sylhet. And, nationwide, only 15% of the poorest women gave birth in health facilities vs~ 70% of the richest women.

Despite substantial increase in facility delivery, ultimately UHC cannot be attained if some population groups are left behind. Access to facility delivery by the poor and the marginalized groups will be possible if the public sector steps up to increase its relative and absolute share of delivery care.

Moving Forward Sustainable Development Goals and National Commitment The 2030 Global Agenda for Sustainable Development, adopted on 25 September 2015, contained 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle the effects of climate change. Bangladesh has committed to SDG target 3.2 to end preventable

deaths of newborns and children under age 5 by 2030. The aim is to reduce neonatal mortality to 12 or fewer deaths per 1,000 live births and under-5 mortality to 25 or fewer deaths per 1,000 live births. Over a period of two decades under-5 mortality in Bangladesh has declined by 65% However, the reduction in neonatal mortality has happened more slowly than the reduction in deaths among older children. To achieve SDG target 3.2, Bangladesh has to further reduce under-5 mortality by 46%, and at the same time also reduce newborn deaths by 57%.

BACKGROUND

Each year, an estimated 2.9 million babies die during the neonatal period and another 2.6 million babies are stillborn around the world. About three-fourths of the neonatal deaths occur within the first week of life. In developing countries, about two-thirds of stillbirths occur before the onset of labor and one third during labor Almost all perinatal deaths, which encompass neonatal deaths in the first week of life and stillbirths, occur in the developing world The main causes of neonatal deaths include preterm related complications, intrapartum-related complications, and infections Impaired placental function is the main causal pathway proposed for stillbirths. The primary known risk factors of stillbirths are presence of hypertensive disorders during pregnancy, obstetric complications, infections, placental dysfunction, and congenital defects. Notably, many of these risk factors are also determinants of the main causes of neonatal deaths. Thus, a substantial proportion of perinatal deaths appear to have their origins in maternal complications during pregnancy. The most common complications are hemorrhage, hypertensive disorders of pregnancy, and infections Antepartum hemorrhage beyond the first trimester is most often caused by placental abnormalities or incompetent cervix, and can result in stillbirth and maternal death. The leading cause of hemorrhage during pregnancy is placental abruption which occurs in 1% of pregnancies and is associated with perinata lcase fatality of 101-30% Up-to 10% of women experience hypertensive disorders of pregnancy and this condition can be associated with stillbirths, preterm birth, and neonatal or maternal deaths Maternal infections such as malaria, syphilis, urinary tract infection, and bacterial vaginosis are also important causes of stillbirths and important determinants of early neonatal deaths.

Early onset neonatal m~ fections may be acquired vertically during pregnancy or during delivery. Hypertensive disorders of pregnancy are among the leading causes of maternal and perinatal deaths in developing countries, and many studies have been conducted in this field.

Hypertension is a common medical problem that affects 20% - 30% of the adult population and more than 5% - 8% of all pregnancies in the world[2][3]. Hypertensive disorders of pregnancy rank high among the causes of maternal mortality and morbidity. Hypertension in pregnancy is defined as a systolic BP of 140 mmHg and higher, and a diastolic HP of 90 mmHg and higher. Being the second leading cause of maternal death in the USA, almost 15%of maternal deaths are related to hypertension (HT N). Severe HTN raises the risk of heartattacks, cardiac failure, cerebrovascular accidents and renal failure in the mothers.

The fetuses of hypertensive mothers are also at increased risks, such as: inappropriate placental oxygen transfer, IUGR, premature delivery, placental abruption, stillbirth, and neonatal death[2]. The hypertensive disorders of pregnancy affect 5% - 22% of all pregnancies. Hypertension, bleeding and infection are the triad of lethality that greatly contributes to maternal mortality and morbidity The American College of Obstetricians and Gynecologists (ACOG) has classified pregnancy induced hypertension (PIH) into four groups of disorders: gestational hypertension, where resting BP is 140/90 mmHg or higher after the 2Oth week of gestation; chronic hypertension, that exists before pregnancy or begins in the first 20 weeks of gestation; preeclampsia (raised BP and edema or proteinuria)/ eclampsia (preeclampsia and seizures); and preeclampsia superimposed on chronic hypertension . In spite of the high incidence and outcomes of hypertensive disorders of pregnancy, their pathogenesis, clinical manifestations and clinical courses greatly vary and at times complicate the diagnosis.

PIH is more commonly seen in nulliparous women, and older women (owing to the risk of chronic HTN) are at greater risk of preeclampsia being superimposed. Evidence shows that discrete pathophysiological changes begin from the moment fertilization takes place. And if delivery does not take place these changes lead to the involvement of multiple organs an present with dangerous clinical signs in both the mother and fetus. Pregnancies induced with hypertension are associated with increased risks of serious outcomes such as premature delivery, IUGR, perinatal mortality & morbidity, acute renal failure (ARF), acute hepatic failure, bleeding at the time of delivery and postpartum bleeding, maternal mortality &morbidity following harms such as HELLP disseminated intravascular coagulation (DIC) a seizures. The hazards of these outcomes depend on its severity, gestational age (GA) at theonset of HTN, and GA at the time of delivery. According to literature, women who are affected with PIH before their 37th week of gestation have poorer perinatal results as compared to women who are affected at term. Moreover, IUGR and placental abruption are more common in preterm deliveries. Mothers who have had a history of preeclampsia (17.9%) are at a greater risk than nulliparous women (5.3%) (p < 0.00001) [9]. Hypertensive mother usually give birth to preterm babies, who in turn will most likely need Neonatal Intensiv Care Unit (NICU) care as a result of their IUGR and low birth weight (LBW)[10]. The prevalence of preeclampsia has been reported at 5%, but it is influenced by parity, race, ethnicity, environmental factors, socio-economic status, multiple pregnancies, maternal obesity etc. Hence different statistical results have been obtained in research. This study will be aimed to investigate the consequences of high blood pressure in pregnancy.

A study was conducted on a large cohort of Latin American and Caribbean women identified the following risk factors for developing pre-eclampsia: nulliparity, multiple pregnancy, history of chronic hypertension, gestational diabetes, maternal age over 35 years, fetal malformation and obesity Using the same source of data (the Latin American and Caribbean Perinatal System database) Conde-Agudelo et al. showed that interpregnancy intervals longer than 59 months are associated with an increased risk of pre-eclampsia and eclampsiaError! Bookmark not defined.

Tachiwenyika et al. also found that PIH was associated with an increased risk of perinatal mortality. On the contrary, Hauth et al. found in their study that fetal and neonatal mortality were similar in women with hypertension and those without. However, selected maternal and newborn morbidities such as increased cesarean deliveries, abruptio placentae, and acute renal dysfunction,

respiratory distress syndrome, ventilatory support, and fetal growth restriction were significantly greater in women with hypertension An another study was conducted to establish the prevalence of pregnancy-induced hypertension (PIH) as well as foetal and maternal outcomes among women seeking maternity servicesin Harare. Specifically they wanted to determine the characteristics of women with PIH in Harare, the prevalence of PIH in women seeking ANC services in Harare, the maternal outcomes for women with PIH, the foetal outcomes for women with PIH and assess case management of pregnant women with PIH.

A cross sectional study was conducted in the Department of Obstetrics & Gynae and Department of pediatrics Sylhet M A G Osmani Medical College Hospital, Sylhet, in 2009. During the period 8398 deliveries were done & there were 715 perinatal deaths. In Sylhe region neonatal mortality rate is higher (53 /1000 total birth) than our national neonatal mortality rate (37(1000 total birth) (BDHS, 2007). The study was revealed that most important maternal risk factor for perinatal mortality was pre-eclampsia, eclampsia an obstructed labour.

The study was also found that the adolescents are at increased risk for preeclampsia, eclampsia, IUGR, and maternal malnutrition. Women > 35yrs are at higher risk of pregnancy induced hypertension, diabetes and obesity, increased risk of cesarean section, preeclampsia and placenta praevia5 Primi & grand multi have been associated with poor perinatal outcome. Premature labour accounted for 27% of perinatal mortality. Complications during pregnancy and labour such as, prolonged or obstructed labour, abnormal fetal position and hypertensive diseases of pregnancy increased the risk of perinatal mortality fivefold. All these factors are responsible for 30% of perinatal deaths. Maternal diseases such as Diabetes mellitus, hypertension, congenital heart disease, TORCH infection, sexually transmitted diseases are also a perinatal risk factor. Identification of maternal risk factor with effective & timed intervention may help to reduce the perinatal mortalxt` y. It was found that most important maternal risk factors for perinatal mortality are pre-eclampsia, eclampsia and obstructe labour.

Key Words:
MDG (Millenium Development Goal)
SDG (Sustainable) Development Goal)
MMR (Maternal Mortality Rate)
IMR (Infant Mortality rate)
NMR (NeonatalMortality Rat e)
ANC (Antenatal Checkup)
INC (Intranatal Checkup)
PNC (Postnatal Checkup)
PIH (Pregnancy Induced Hyper tension)
LUCS (Lower u t erine ceasarean Section)
IUGR (Intra Uterine Growth Retardation)
IUFD (Inter Uterine Foetal Death)
NVD (Nor mal Vaginal Delivery)

Operational Definition:
Patient with sign and symptoms of hyper tension in pregnancy referred as PIH. After Twenty weeks of Pregnancy. PIH means rise of blood pressure more than 140/90, weight gainOedema and protenuria After Twenty weeks of Pregnancy

Justification:
PIH is a most usual complication in the latter half of pregnancy. It affects both maternal and foetalhealth like IUGR, IUFD, Still birth as well as development of eclampsia that threatens maternal and foetalIife. Identifying these groups of high risk mothers the above mention complication con be reduced. Maternal mortality. Neonatal morbidity and mortality can be markedly reduced. From my point of view a study on these groups of high risk mothers is essential.

General Objectives:
To assess the Prevalence of Pregnancy Induced Hypertension among Gestationalmothers admitted in Gynae Units in a tertiary level Hospital, Sylhet

Specific Objectives:
1) To find out the sociodemographic Characteristics of the Gestational mothers admitted in Gynae Units of a Tertiary Level Hospital Sylhet.
2) To estimate the Pregnancy induced hypertension among gestational mother admitted in Gynae Units of a Tertiary Level Hospital Sylhet.
3) To examin and Diagnosis the patient of Pregnancy induced hypertension.
   - Measuring systolic pressure and diastoles pressure.
4) To find out the Prevalenceof PIH
5) To identify behavioural factors of Gestational mothers.

Research Questions: What is Prevalence of Pregnancy Induced Hypertension among Gestational mothers admitted in Gynae Units in a tertiary level Hospital, Sylhet.

Methods &Materials:

Study design: Descriptive cross sectional study
Study Iocation:at gynae units, labour room, gynae and obstetrical ward of Sylhet MAG Osmani Medical Collage hospital Sylhet.

Study Population: Gestational Mothers admitted in Gynae units of Sylhet MAG Osmani Medical College Hospital, Sylhet

Study period: September 2017 - December 2017

Calculation of Sample Size:

$N= z^2pq/d^2$

$Q=1-p=1-.05=95$

N= Sample size

d=acceptable Error (.05)

z= Normal Distribution (1.96)

p=Prevalence (.05)

$N=1.96^2.0.05.95 /(.05)^2$

=72.96

By adding 10% of it=8O

Key Variables:

1. Socio Demographic variables- Name, age, sex, religion, occupation, profession, residence.
2. PIH Related variables-Systolic Blood Pressure/Diastolic Blood Pressure, oedema, weight gain, proteinuria Preeclampsia, Eclampsia. .
3. Obstetrical History related Variables-Gravida, Para, Lmp, EDD, Abortion Still birth and ALC.

Eligibility criteria:

Inclusion Criteria: Gestational mothers after Twenty Weeks of Pregnancy.

Exclusion Criteria-Gestational mothers before Twenty Weeks of Pregnancy.

Data Collection tool-: Pretested semi structured Questionnaire.

Data collection technique: - Face to face interview.

Plan for data analysis:- Data Collection, checked, Cleaned, compiled and Analyzed using appropriate statistical package for social Science (SPSS) software window version. Descriptive Study is expressed by mean, frequency, Distribution and standard Deviation.

Plan for data **Presentation & interpretation:** By table, Graph and Bars.
Plan for results and findings:

Recommendations:

Ethical considerations:

1. As guided by the ethical committee of Leading University.
2. Maintain privacy.
3. Voluntary participation.
4. Scientific objectivity has been maintained.
5. Personal information has been kept confidential.

RESULTS AND FINDINGS

A cross sectional study was carried out to find out the prevalence of pregnancy induced Hypertension (PIH) among gestational mothers admitted in the Gynae Units of Sylhet MAG Osmani Medial College and Hospital, Sylhet. Total 80 gestational mothers selected according to eligibility criteria. They were interviewed with a pre-designed and pretested questionnaire. 50 (fifty) patients were admitted in the observation ward and the interview was carried out in the ward. 30 patients were interviewed at the time of admission in the labour ward. No data were collected from document review. All are primary DATA. Collected data were cleaned, edited and analyzed with the help of software SPSS window version-11.5.

Table No-1: Distribution of the Respondents According to Age

Age	Frequency	Percentage
18-25	46	57.50
26-30	22	27.50
31-35	12	15.00
Total	80	100

Distribution of The Respondents According To Age Percentage

■ 18-25 ■ 26-30 ■ 31-35
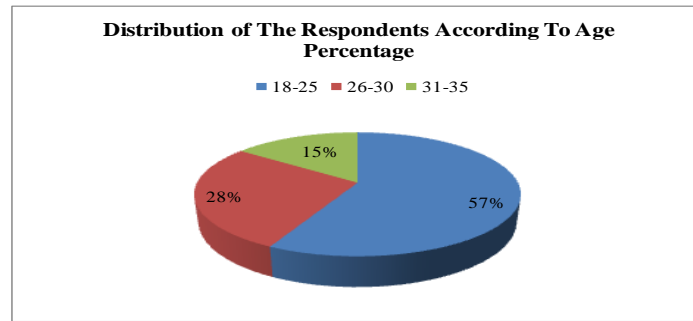
Table-2: Distribution of the Respondents According to Religion

Religion	Frequency	Percentage
Islam	70	87.5
Hindu	10	12.5

Distribution of The Respondents According to Religion.

■ Islam ■ Hindu
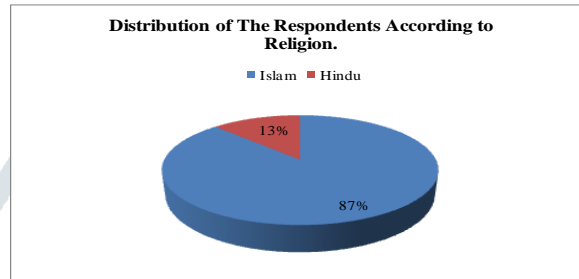
Table-3: Distribution of the Respondents According to Occupation

Occupation	Frequency	Percentage
Employed	8	10
Unemployed	7	8.75
House wife	65	81.25
Businessman	0	0
Farmer	0	0
Total	80	100

Distribution of The Respondents According to Occupation.

■ Employed ■ Unemployed ■ House wife ■ Businessman ■ Farmer
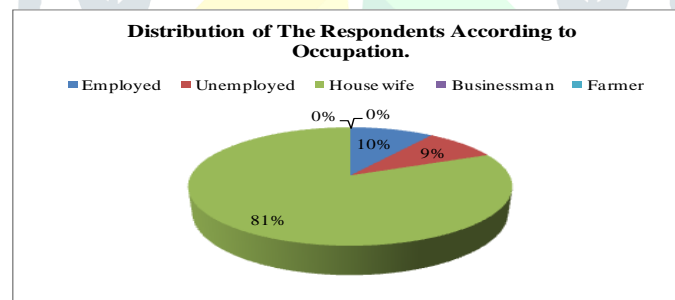
Table-4: Distribution of the Respondents According To Education

Education	Frequency	Percentage
Illiterate	7	8.75
Primary Education	65	81.25
Secondary Education	8	10
Higher Education	0	0
Others	0	0
Total	80	100

Distribution of The Respondents According to Education

■ Illiterate ■ Primary Education ■ Secondary Education
■ Higher Education ■ Others
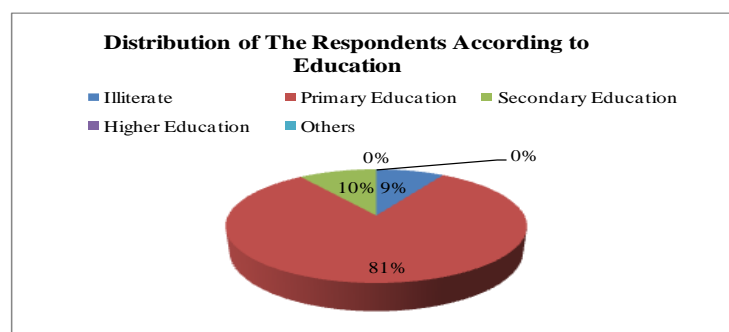
Table-5: Distribution of the Respondents According to Age of Marriage

Age of Marriage	Frequency	Percentage
Before 18	10	12.5
After 18	70	87.5
Total	80	100

Distribution of The Respondents According to Age of Marriage.
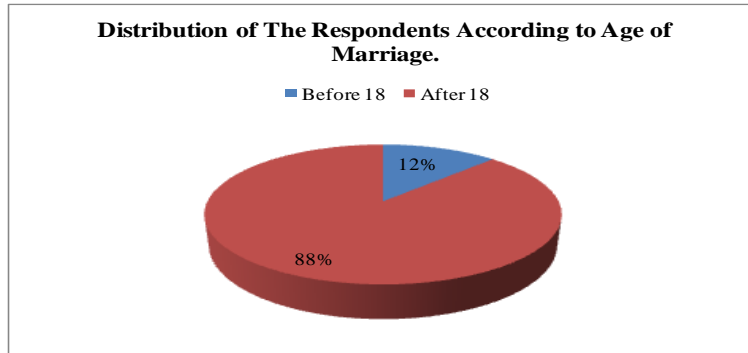
Table-6: Distribution of the Respondents According to Gravida

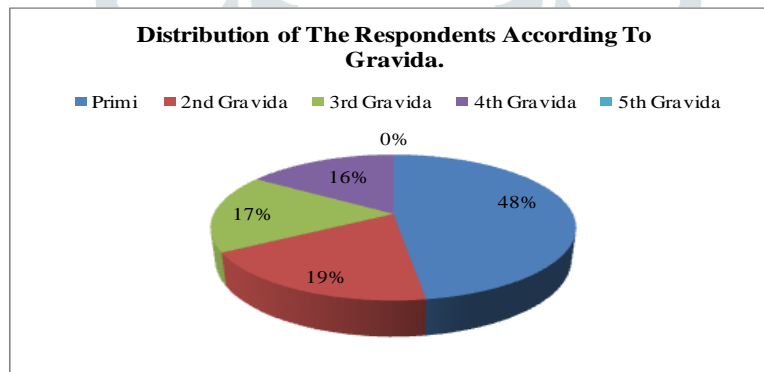| Gravida	Frequency	Percentage
Primi	30	37.5
2nd Gravida	12	15.00
3rd Gravida	11	13.75
4th Gravida	10	12.50
5th Gravida	0	0
Total	80	100

Distribution of The Respondents According To Gravida.

Table-7: Distribution of the Respondents According to History of Hypertension

History of Hypertension	Frequency	Percentage
Yes	5	6.25
NO	75	93.75
Total	80	100

Distribution of The Respondents According To History of Hypertension Percentage
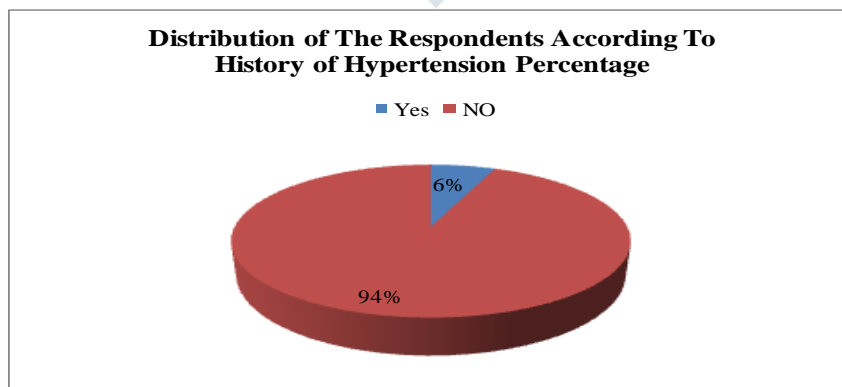
Table-8: Distribution of the Respondents According to History of L.U.C.S

History of L.U.C.S	Frequency	Percentage
Yes	17	21.25
NO	63	78.75
Total	80	100

Distribution of The Respondents According To History of L.U.C.S Percentage
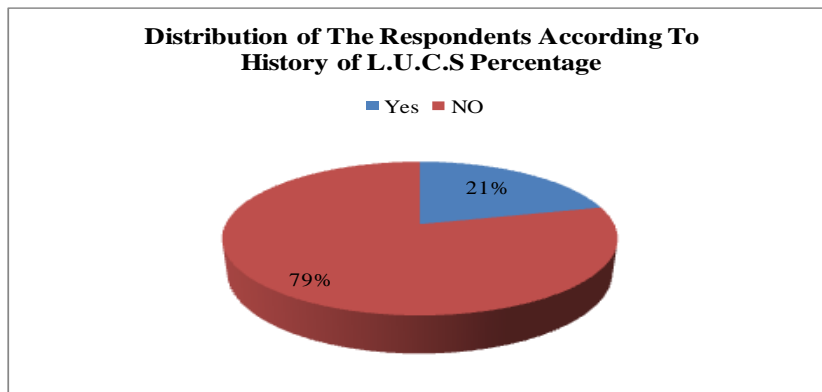
- Yes - NO

21%
79%

Table-9: Distribution of the Respondents According to History of Craniotomy/Decapitation

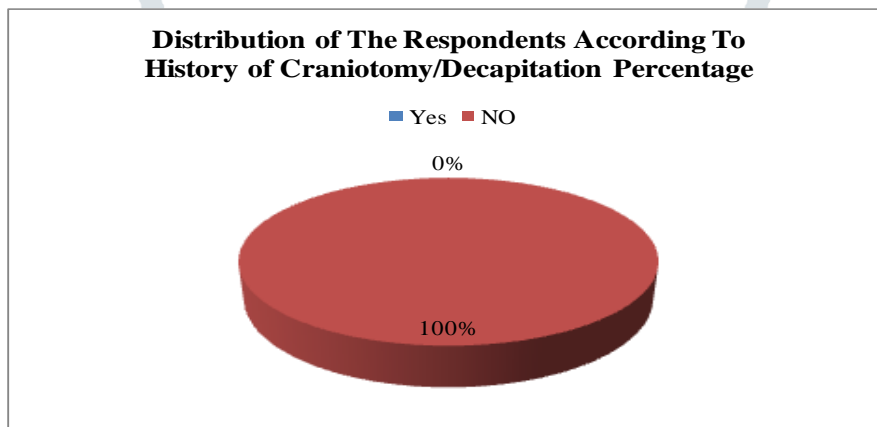| History of Craniotomy/Decapitation	Frequency	Percentage
Yes	0	0
NO	80	100
Total	80	100

Distribution of The Respondents According To History of Craniotomy/Decapitation Percentage

- Yes - NO

0%
100%

Table-10: Distribution of the Respondents According to History of Abortion

History of Abortion	Frequency	Percentage
Yes	21	26.25
NO	59	73.75
Total	80	100

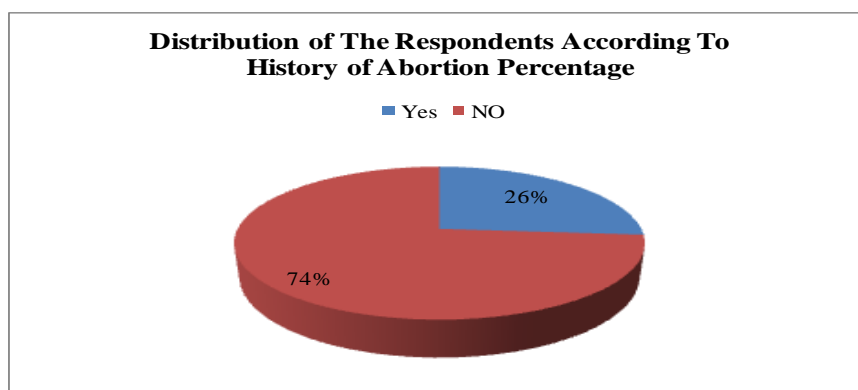**Distribution of The Respondents According To History of Abortion Percentage**

- Yes - NO

26%
74%

Table-11: Distribution of the Respondents According to History of Stillbirth

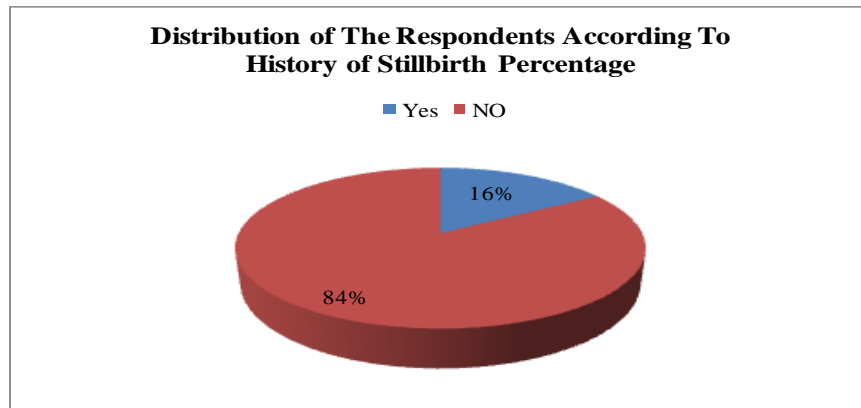| History of Stillbirth	Frequency	Percentage
Yes	13	16.25
NO	67	83.75
Total	80	100

Table-12: Distribution of the Respondents According to Pregnancy Induced Hypertension (PIH)

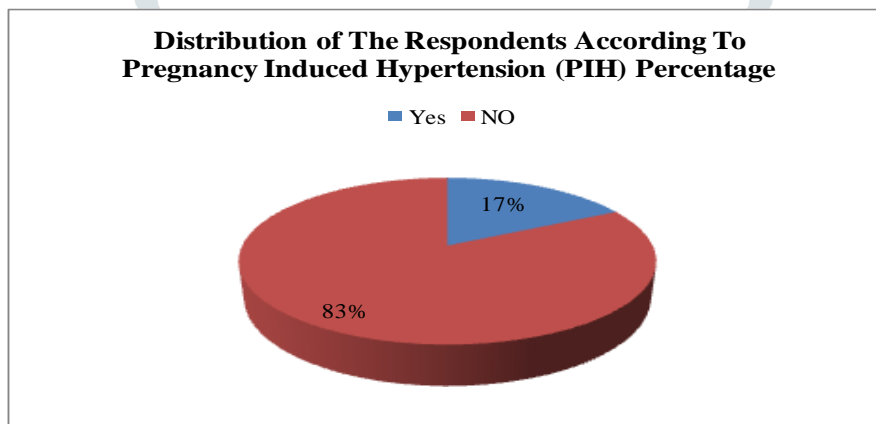| (PIH)	Frequency	Percentage
Yes	14	17.5
NO	66	82.5
Total	80	100

Table-13: Distribution of the Respondents of PIH According To Level of Hypertension (Diastolic)

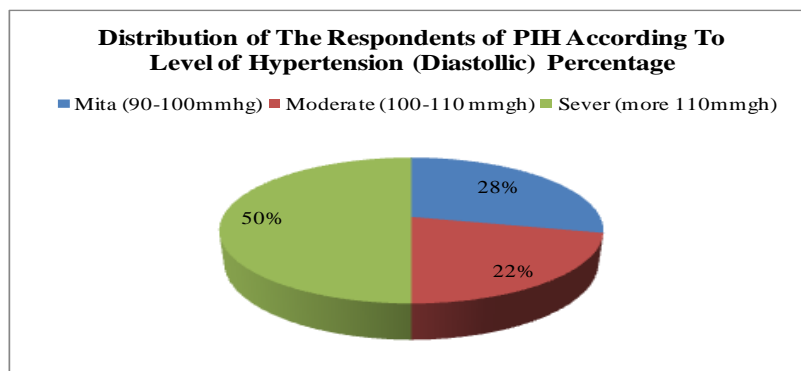| Level of Hypertension	Frequency	Percentage
Mita (90-100mmhg)	4	28.50
Moderate (101-110 mmgh)	3	21.50
Sever (more 110mmgh)	7	50.00
Total	14	100

Table-14: Distribution of The Respondents of PIH According To weeks of pregnancy

Weeks of Pregnancy	Frequency	Percentage
More than 20 weeks	14	100
Less than 20 weeks	0	0
Total	14	100

Distribution of The Respondents of PIH According To weeks of pregnancy Percentage

■ More than 20 weeks ■ Less than 20 weeks

0%

100%
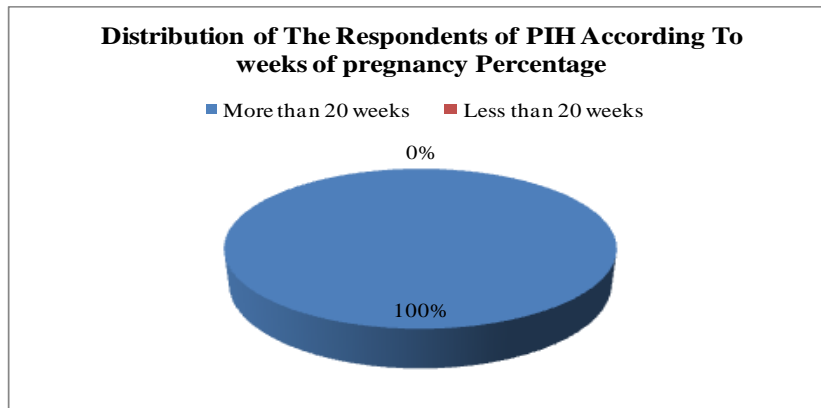
Table-15: Distribution of the Respondents of PIH According to ANAMIA

ANAEMIA	Frequency	Percentage
Mild	9	64.28
Moderate	2	14.22
Severe	3	21.50
Total	14	100

Distribution of The Respondents of PIH According To ANAEMIA

■ Mild ■ Moderate ■ Severe

22%

14%

64%
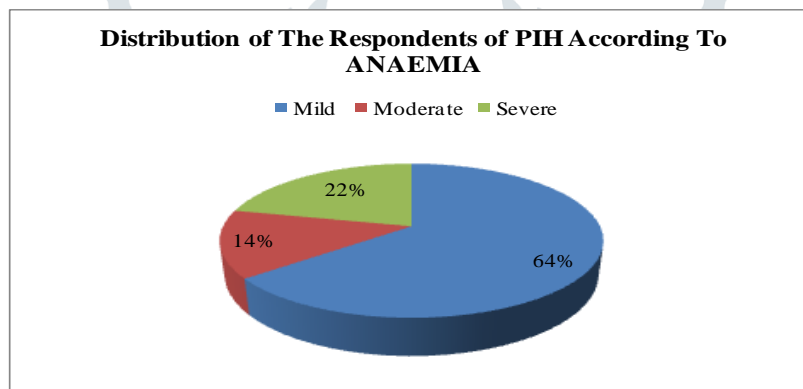
Table-16: Distribution of the Respondents of PIH According to Odema

Odem	Frequency	Percentage
Present	14	100
Absent	0	0
Total	14	100

Distribution of The Respondents of PIH According To Odema

■ Present ■ Absent

0%

100%
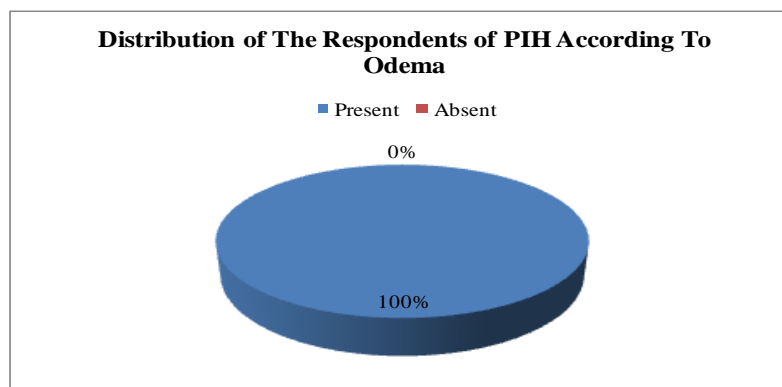
Table-17: Distribution of the Respondents of PIH According to Vertigo

Vertigo	Frequency	Percentage
Present	14	100%
Absent	0	0

Distribution of The Respondents of PIH According To Vertigo

■ Present ■ Absent

0%

100%
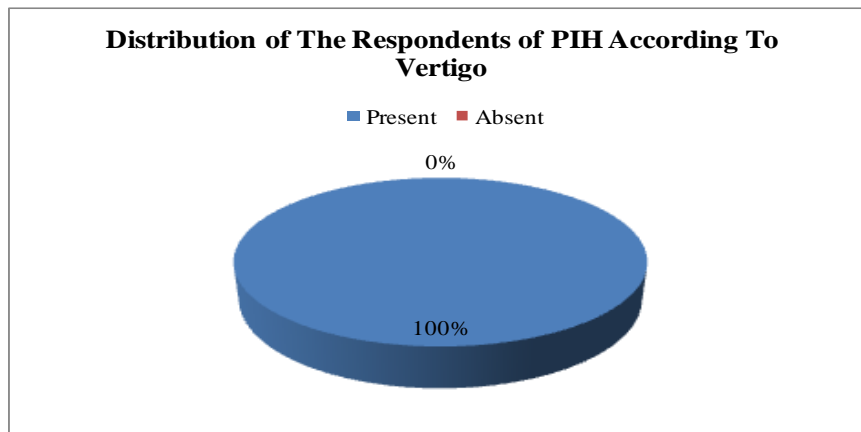
Table-18: Distribution of the Respondents of PIH According to Weight gain.

Weight going	Frequency	Percentage
Present	14	100
Absent	0	0
Total	14	100

Distribution of The Respondents of PIH According To Weight gain.

■ Present ■ Absent

0%

100%
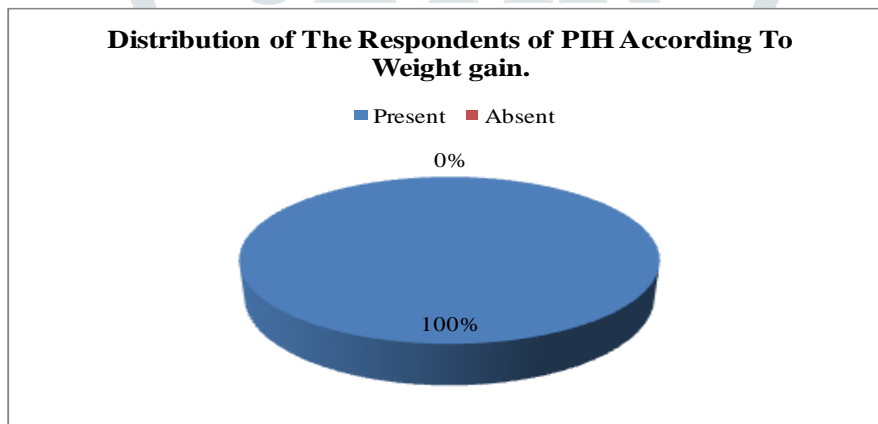
Table-19: Distribution of the Respondents of PIH According to INSOMNIA

Insomnia	Frequency	Percentage
Present	14	100
Absent	0	0
Total	14	100

Distribution of The Respondents of PIH According To INSOMNIA.

■ Present ■ Absent

0%

100%
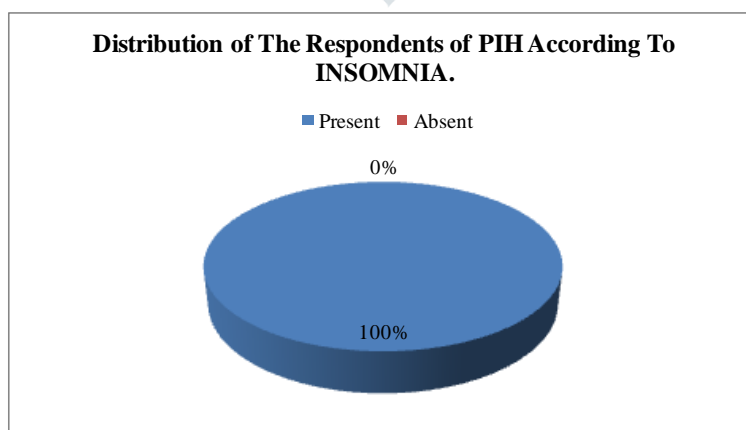
Table-20: Distribution of the Respondents of PIH According to Weight Olguria

Olguria	Frequency	Percentage
Present	14	100
Absent	0	0
Total	14	100

Distribution of The Respondents of PIH According To Weight Oliguria
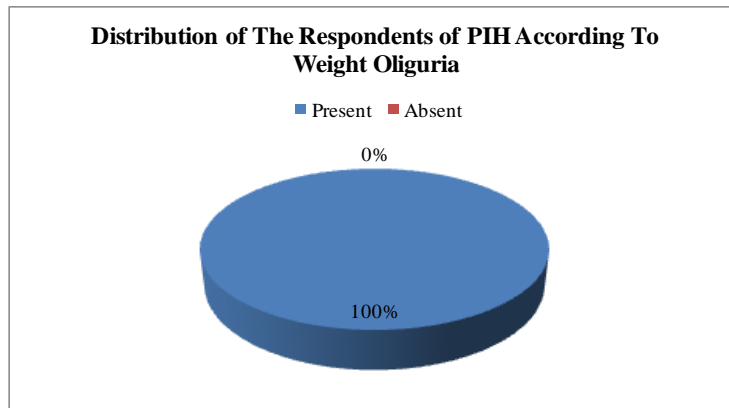
Table-21: Anaemia in the PIH group

Anaemia	Frequency	Percentage
Mild	9	64.50%
Moderate	2	14%
Severe	3	22%
Total	14	100%

Anaemia in the PIH group
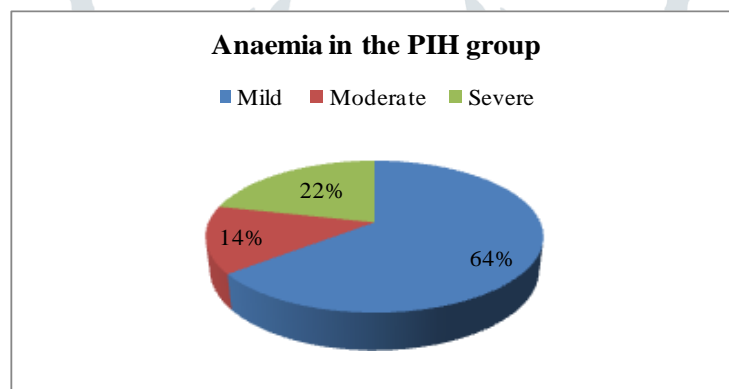
Table-22: Level of Blood Pressure among the PIH group.

BP	Frequency	Percentage
Mild (90-100)	6	43%
Moderate (101-110)	3	21%
Severe (more than 110)	5	36%
Total	14	100%

Level of Blood Pressure among the PIH group
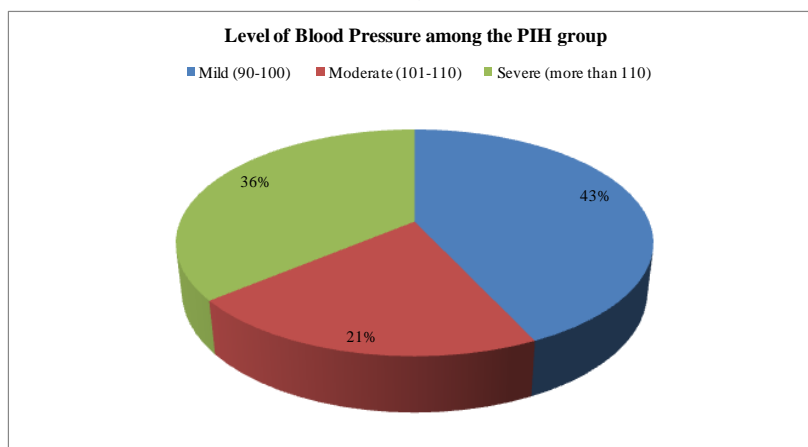
Table-23: Distribution of the respondents of PIH according to Gravida

Gravida	Frequency	Percentage
Primi	9	65%
2nd Gravida	2	14%
3rd Gravida	2	14%
4th Gravida	1	07%
5th Gravida	0	0%
Total	14	100%

Distribution of the respondents of PIH according to Gravida

■ Primi ■ 2nd Gravida ■ 3rd Gravida ■ 4th Gravida ■ 5th Gravida

7% 0%
14%
14%
65%
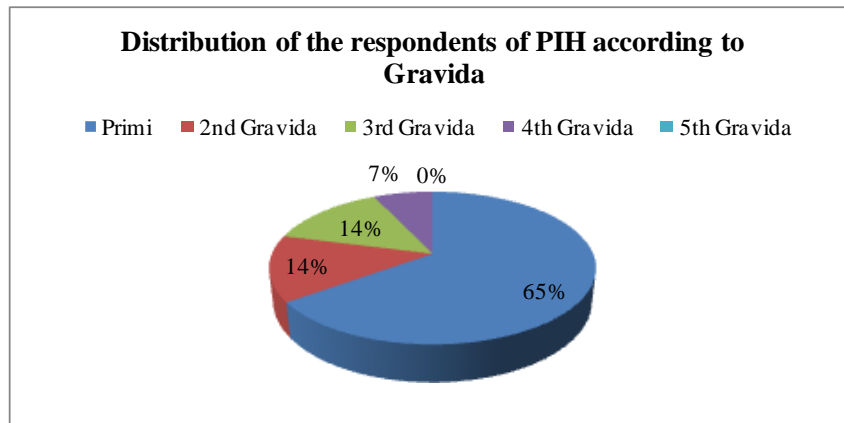
DISCUSSION AND CONCLUSION

A cross sectional study was carried out to find out the prevalence of pregnancy induced Hypertension (PIH) among gestational mothers admitted in the Gynae Units of Sylhet MAG Osmani Medial College and Hospital, Sylhet. Total 80 gestational mothers selected according to eligibility criteria. They were interviewed with a pre-designed and pretested questionnaire. 50 (fifty) patients were admitted in the observation ward and the interview was carried out in the ward. 30 patients were interviewed at the time of admission in the labour ward. No data were collected from document review. All are primary DATA. Collected data were cleaned, edited and analyzed with the help of software SPSS window version-11.5.

In my study shown that 46 (57.5%) Pregnant women were form the age group 18-25 years followed by 22 (27.5%) from 26-30 years, 12 (15%) form 31-35 years.

Mean is 24.72, Range 17 Maximum ages 35 years and minimum is 18 years.

Among them the religion was Islam 70 (87.5%) and Hindu 10 (12.5%).

Among them the occupation was employed 8 (10%), unemployed 7 (8.75%), housewife 65 (81.25%).

Among them education level illiterate 7 (8.75%), primary education 65(81.25%), secondary education 8 (10%).

Among them age of marriage before 18 was 10 (12.5%), after 18 was 70 (87.5%).
Among them

Primi	30 (37.50%)
2nd gravida	12 (15%)
3rd gravida	11 (13.75%)
4th gravida	10 (12.50%)
5th gravida	12 (15%)
Grand multi	5 (6.25%)

Among them history of hypertension was 5 (6.25%), no history of hypertension 75 (93.75%).
Among them the history of LUCS 17 (21.25%), history of no LUCS 63 (78.75%).
Among them there was no history of destructive operation like Craniotomy and Decapitation.
Among them history of abortion 21 (26.25%), with no history of abortion 59 (73.75%).
Among them history of stillbirth 13(16.25%), no history of stillbirth 67(83.75%)
Among the respondents out of 80, there were 14 patients found to be suffering from pregnancy induced hypertension (PIH). They were examined; Blood Pressure recorded, Symptoms and signs were recorded in the questionnaire.
All the examinations were carried out clinically.
No of pregnant mother with history of PIH were 14 (17.5%), the rest were 66 (82.5%).
All the gestational mother with PIH were more than 20 weeks of pregnancy 14(100%), All had oedema 14(100%), All had vertigo 14 (100%), All had weght gain 14(100%), All had oliguria 14(100%), All suffering from insomnia 14(100%).

Among the respondents maximum are in the age group of 18-25 years, most of them are Muslims, very less are from Hindu community. 81% of the pregnant women are housewives and education level was primary education. Few respondents married

before 18 years, rest of them after 18 years. Primi group occupy the major portion. 17(12.25%) admitted with the history of previous LUCS.

Among the 80 respondents only 14 patients found to be suffering from pregnancy induced hypertension.

Total	PIH	Percentage
80	14	17.5

So the prevalence of pregnancy induced hypertension is-

$$= \frac{No.\,of\,all\,current\,cases\,(new\,and\,old)}{Total\,population} \times 100$$

$$= \frac{14}{80} \times 100$$

$$= 17.5\%$$

All the patients of PIH had common complaints like Vertigo, Weight Gain, Oedema, Insomnia, Anaemia and Oliguria.

CONCLUSION

Being a tertiary hospital the prevalence study stands 17.5% which is most usual. In developing country it is near about 10-15%. Worldwide the ranges vary from 5-8%. The study reveals that among the patients of PIH- Most are Primi, Age varies form 18-25 years. They are of low socio economic status and poorly educated.

RECOMMENDATION
To achieve the goals and objectives of MDG and SDG 3.1. Moreover to reduce MMR, IMR and NMR, the reduction of prevalence of PIH is very essential.

Perinatal outcome like maternal morbidity and mortality and neonatal death can be compromised with proper antenatal check up, maternal monitoring and fetal monitoring.

Patients of PIH are the high risk group of mothers, so proper attention must have to be made for this vulnerable group.

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