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A Descriptive Study to Assess the Knowledge and Attitude among Primigravida Mothers Regarding Pregnancy Induced Hypertension at Selected Hospital of Amritsar (Punjab)

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Abstract

The study adopted a descriptive survey approach to assess the knowledge and attitude among primigravida mothers regarding pregnancy induced hypertension. The sample size is 100 primigravida mothers. The tool consists of 3 sections; section 1 consists of a self-administered structured demographic questionnaire, section 2 consists of a self-administered structured knowledge questionnaire with 15 knowledge items and section 3 consists of checklist attitude scale, 15 attitude items were selected for the collection of data. Reliability of the tool was established by Karl's Pearson prophecy formulae method and the value found for the knowledge questionnaire was 0.93 and for attitude scale was 0.93. The study was conducted at J.B.B.M Civil hospital and Hartej hospitals, Amritsar. Out of 100 samples, the majority of the samples had high knowledge and minority of samples had low knowledge. Majority of the samples had favourable attitude whereas minority of samples had unfavourable attitude. There is a positively moderate correlation between knowledge and attitude. The study findings show that there is significant association of knowledge and attitude scores with selected demographic variables such as age, education, religion, type of family occupation and dietary habits. Based on findings the following recommendations are offered for future research: (i) A similar study can be tried on different settings and samples, (ii) A study can be replicated with larger samples, (iii) A comparative study can be conducted by comparing the knowledge and attitude of antenatal and postnatal mothers regarding pregnancy induced hypertension, (iv) A Study to assess the effectiveness of planned teaching programme on knowledge regarding pre-eclampsia and its management among 4th year Bsc. nursing students.

Keywords: *Knowledge, attitude, primigravida mothers, pregnancy induced hypertension*

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INTRODUCTION

"The key to growth is the introduction of higher dimensions of consciousness into our awareness."

Chinese Philosopher

Pregnancy induced hypertension means that before pregnancy the women does not have hypertension but as a result of gravid uterus or gravid state. Blood pressure is the force of blood pushing against blood vessel walls. The heart pumps blood into the arteries (blood vessels) that carry the blood throughout the body. High blood pressure may also be called hypertension.

Pregnancy is a special event. The family and the community should treat pregnant women with particular care. The health teaching about pregnancy and its further management helps the mother to take care of herself and have a better experience of childbirth. Pregnancy links mother and fetus together and is the basis for

regenerating the generations. Pregnancy is a normal physiological process and not a disease but it is associated with certain risks to the health and survival both of women and for the infant she bears.

In the life cycle, a female has to undergo various stages like daughter, wife, mother, mother in law and grandmother. Among these one of the most beautiful and memorable event is becoming a mother. Safe motherhood is an essential factor for all women. Maternal mortality is an important index for monitoring the progress of safe motherhood programmes. But unfortunately maternal mortality rate of India is one of the highest in the world, 308/100000. Pregnancy and child birth related complication is the major cause of death among women in their reproductive age group. Around 5,29,000 women die each year from maternal causes, and for every women who dies, 20 or more suffer from injuries, infection and disabilities during pregnancy or child birth[1].

Hypertensive disorders of pregnancy are the prime causes for early hospitalization, labour induction, maternal and fetal morbidity and mortality. Though perfect remedy is not available it is possible to minimize the hazards through early detection and prompt action. Effective health education about hypertensive disorder helps the pregnant women to take care of her and to have a better child birth.

Patient has mild hypertension and the baby has not reached full development, the doctor will probably recommend rest, lying on the left side to take the weight of the baby off major blood vessels. Ideally all the patients of pre-eclampsia are admitted in the hospital, and doctors advice the patients to take complete rest (10 h) and to suspend all activities; like not going out on work, avoid cooking, avoid washing and sex. The diet should contain adequate amount of protein. (100 g), salt is neither restricted nor forced. Extra salt is avoided. Total calorie requirement should be met to 1600 cal/day. The vital signs of the patient are checked at frequent intervals till they become stable including blood pressure, respiration, pulse and temperature, drink eight glasses of water a day, some practitioners recommend strategies that are dietary, while others involve exercise and rest. Doctor may try to treat with blood pressure medication until they are far enough along to deliver safely. In patient at high risk of development of pregnancy induced hypertension test may be done to predict weather induced hypertension will develop in future[2].

Drugs which are given to patients are magnesium, pethidine, diazepam, paraldehyde phenobarbitone, sodium. The complication among patient with pre-eclamsia such as HELLP syndrome (a group of physical changes including the breakdown of red blood cells, changes in the liver and low platelets), seizures, pregnancy loss, neurological damage, kidney failure or liver, blood clotting, maternal and fetal death. Prognosis in maternal mortality is about 10% in pregnancy induced hypertension being 1% in mild pregnancy induced hypertension. It is 17.5, 9.3 and 6.5% in ante partum, postpartum, and intrapartum eclampsia respectively. Longer the convulsions of delivery interval; greater is the mortality.

NEED OF THE STUDY

"Pregnancy is special, let's make it safe"

Pregnancy is one of the most crucial events of a human's life. It is where our mother strives hard and exerts a priceless effort just to expel a fetus inside her womb. It is where our fathers tremble and so anxious to what might happen to her loved one upon delivery, and it is where a new member of their family appears just in a sudden after nine months of caring in the belly. But beside from that, it is where our mother also becomes so weak that every payment taken and mistake done

will surely put her and her baby both to danger and risk for accident. Pre-eclampsia is a multisystem disorder that complicates 3–8% of pregnancies in the Western world, and is a major source of morbidity and mortality worldwide[3].

Despite the progress, an estimated 358,000 maternal deaths occurred worldwide in 2008. This means that each day about one thousand women die worldwide because of complications related to pregnancy and childbirth. Developing countries account for 99% of the deaths. Two regions, Sub-Saharan Africa and South Asia, accounted for 87% of global maternal deaths. Sub-Saharan Africa suffers from the highest MMR at 640 maternal deaths per 100,000 live births, followed by South Asia, with an MMR of 290. In stark contrast, MMR in industrialized countries is 14. In addition to substantial regional disparities, MMRs vary greatly across countries.

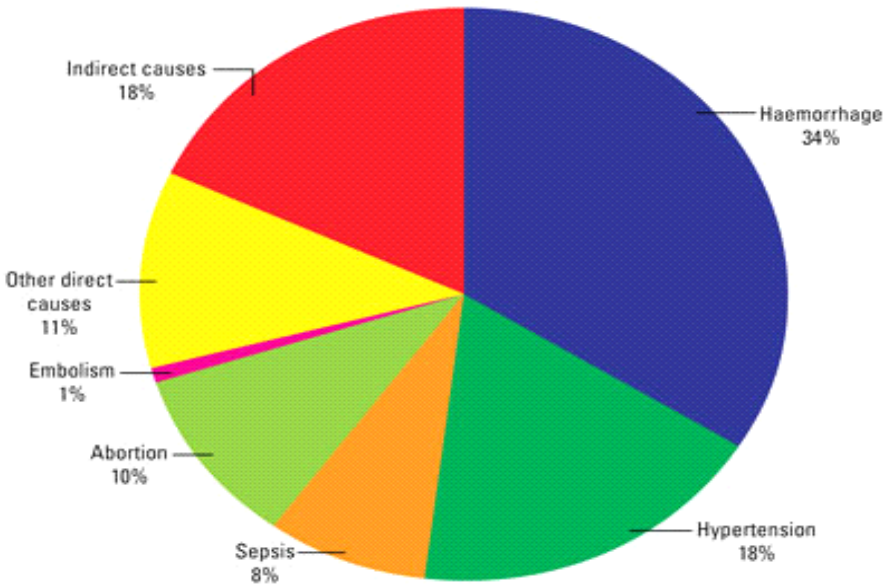

Fig. 1: *Causes of Maternal Death*

Source: *WHO, Systematic Review of Causes of Maternal Death (Preliminary Data), 2010.*

A study was undertaken to assess the knowledge of primigravida women and found that they had knowledge deficit in all the learning need areas under warning signs and symptoms and prevention of pregnancy induced hypertension. The study highlights that need for structured teaching on self-care for women with pregnancy induced hypertension in a clinic to enable early identification and prevention of complication contributing to safe motherhood. The Finding showed that the post test score of experimental group was significant and ($P < 0.05$). The findings showed that women in the experimental group gained better knowledge on prevention of pregnancy induced hypertension than the control group.

The investigator during her first year clinical placement in selected hospital observed that many antenatal mothers were admitted to the hospitals due to pregnancy induced hypertension. Statistics obtained from the health record of hospital point out that 50% of antenatal mothers are admitted in their first trimester of pregnancy and among them 25% it suffering from pregnancy induced hypertension related complications. This percentage is quite alarming and high in fast growing city of Amritsar. Professional experience of the investigator also showed

that majority of pregnancy induced hypertension related high risk pregnancies are preventable if they are receiving adequate information regarding it. Hence the investigator felt the need for developing an effective structured teaching programme on pregnancy induced hypertension among antenatal mothers[4].

AIM OF THE STUDY

To identify the risk of pregnancy induced hypertension among primigravida mothers.

OBJECTIVES

1. To assess the level of knowledge among primigravida mothers regarding pregnancy induced hypertension.
2. To assess the level of attitude among primigravida mothers regarding pregnancy induced hypertension.
3. To co-relate the level of knowledge score and attitude among primigravida mothers regarding pregnancy induced hypertension.
4. To find out the association of knowledge with their selected demographic variables among primigravida mothers regarding pregnancy induced hypertension.
5. To find out the association of attitude with their selected demographic variables among primigravida mothers regarding pregnancy induced hypertension.

METHODOLOGY

A non-experimental descriptive study design is used to reveal the knowledge and attitude among primigravida mothers regarding pregnancy induced hypertension.

The study setting is the location in which the research is conducted. It could be natural, partially controlled, or highly controlled. This study is conducted at J.B.M.M Civil hospital of Amritsar. Target population of this study is primigravida mothers attending antenatal outpatient department of J.B.M.M Civil hospital of Amritsar. The sample consists of 100 primigravida mothers who are attending antenatal outpatient department (OPD) of J.B.M.M Civil hospital of Amritsar. Non probability convenient sampling technique was employed in the selection of the sample.

DESCRIPTION OF TOOLS

Part-I: Baseline Data

It deals with demographic characters of primigravida mothers.

Part-II: Knowledge Questionnaire

It consists of knowledge questionnaire related to definition, types, incidence, causes, sign and symptoms, management and complications of pregnancy induced hypertension.

Part-III: Attitude Scale

It consists of attitude scale related to definition, types, incidence, causes, sign and symptoms, management and complications of pregnancy induced hypertension.

ORGANIZATION OF THE STUDY FINDINGS

Analysis and interpretation of the data was analyzed as per the objectives of the study under the following headings:

Section-I

Description of demographic characteristics of primigravida mothers in relation to age, education, religion, type of family, occupation, and dietary habits.

Section-II

Distribution of level of knowledge of primigravida mothers regarding pregnancy induced hypertension.

Section-III

Distribution of level of attitude of primigravida mothers regarding pregnancy induced hypertension.

Section-IV

Correlation between knowledge and attitude scores

Section-V

Association between knowledge of primigravida mothers regarding pregnancy

induced hypertension, and selected demographic variables.

Section-VI

Association between the attitude of primigravida mothers regarding pregnancy induced hypertension, and selected demographic variables.

RESULTS

Table 1: *Frequency and Percentage Distribution of Samples According to their Demographic Variables.*

Demographic Variables		Frequency(f)	Percentage (%)
Age (in years)	19–25	9	9
	26–31	23	23
	32–37	30	30
	38 and above	38	38
Education	5th passed	15	15
	10th passed	19	19
	12th passed	28	28
	Graduation	38	38
Religion	Hindu	25	25
	Sikh	66	66
	Christian	4	4
	Muslim	5	5
Type of family	Nuclear	85	85
	Joint	15	15
Occupation	Government employee	15	19
	Private employee	40	26
	Self business	15	15
	Housewife	40	40
Dietary habits	Non vegetarian	20	20
	Vegetarian	80	80
Total		**100**	**100**

Table 2: *Frequency and Percentage Distribution of Knowledge Scores of Primigravida Mothers Regarding Pregnancy Induced Hypertension.*

N=100

Categories	Grading of Knowledge Score	Frequency (f)	Percentage (%)
Low (<50%)	0–5	8	8
Moderate (51–75%)	6–10	35	35
High (>75%)	11–15	57	57

The data presented that majority 57% of the primigravida mothers had high knowledge regarding pregnancy induced hypertension followed by 35 and 8% had moderate and low knowledge regarding pregnancy induced hypertension, respectively.

Table 3: *Mean, SD and Mean Percentage of Knowledge and Attitude Scores of Primigravida Mothers regarding Pregnancy Induced Hypertension.*

N=100

Parameter	Max. Score	Mean	SD	Mean (%)
Knowledge	15	9.38	2.62	14.5
Attitude	15	11.42	2.43	14.4

Data presented in the Table 3 Distribution of mean, SD and mean percentage of knowledge scores of primigravida mothers regarding pregnancy induced hypertension shows that the mean score (9.38±2.62) which is 14.5% was obtained.

Distribution of mean, SD and mean percentage of attitude scores of primigravida mothers regarding pregnancy induced hypertension shows that the mean score (11.42±2.43) which is 14.4% was obtained for attitude.

Table 4: *Frequency and Percentage Distribution of Attitude Scores of Primigravida Mothers Regarding the Pregnancy Induced Hypertension.*

N=100

Categories	Grading of Attitude Scores	Frequency (f)	Percentage (%)
Unfavourable (<50%)	0–5	7	7
Moderately favourable (51–75%)	6–10	32	32
Favourable (>75%)	11–15	61	61

The data presented in the Table 4 depicts that majority 61% of the primigravida mothers had favourable attitude towards pregnancy induced hypertension whereas about 32% of them had moderately favourable attitude and 7% of primigravida mothers had unfavourable attitude towards pregnancy induced hypertension.

Table 5: *Correlation between the Knowledge and Attitude among Primigravida Mothers Regarding Pregnancy Induced Hypertension.*

N=100

Variables	Range	Mean	SD	Mean %	Correlation
Knowledge	14–5	9.38	2.62	14.5%	r=1Positive
Attitude	14–4	11.42	2.43	14.4%	r=1Positive

Data presented in Table 5 shows that the mean percentage of the overall knowledge score was 14.5% and that of attitude was 14.4% and it is observed from the table that there is a significant correlation between knowledge and attitude scores at the level of $p \leq 0.701$. If knowledge increases attitude increases and vice versa.

Table 6 shows that the majority, 57% of the respondents having high knowledge followed by 35% having moderate knowledge, and 8% of the respondents having low knowledge.

Table 6 shows the results of statistical analysis of the association between level of knowledge and age of samples. The calculated chi-square value is 4.49, shows that the association between level of knowledge and age of sample was not significant as p value is 12.59.

1. Association between level of knowledge and education of samples. The calculated chi-square value is 24.53, shows that the association between level of knowledge and education of sample is significant as p value is 12.59.
2. Shows the results of statistical analysis of the association between level of knowledge and religion of primigravida mothers. The calculated chi-square value is 44.95, shows that the association between level of knowledge and religion of samples is significant as p value is 12.59.
3. Shows the results of statistical analysis of the association between level of knowledge and type of the family of samples. The calculated chi-square value is 30.036, shows that the

association between level of knowledge and type of the family of sample is significant as p value is 5.99.

4. Shows the results of statistical analysis of the association between level of knowledge and occupation of primigravida mothers. The calculated chi-square value is 14.88, shows that the association between level of knowledge and occupation of primigravida mothers is significant as p value is 12.59.
5. Shows the results of statistical analysis of the association between level of knowledge and dietary habits of samples. The calculated chi-square value is 30.36, shows that the association between level of knowledge and dietary habits of sample is significant as p value is 5.99.

Table 6: *Frequency and Percentage Distribution of Chi Square Test Showing Association of Knowledge and Selected Demographic Variables.*

Sr. No.	Demographic Characteristic	Frequency	Grading and Percentage Knowledge Score						^{2} Value	df	Table Value
			Low <50%		Moderate 51-75%		High >75%				
			f	%	F	%	F	%			
1	Age (in years)										
	19–25	9	2	2	5	5	2	2	4.49>NS	6	12.59
	26–31	23	1	1	14	14	8	8			
	32–37	30	2	2	19	19	9	9			
	38 and above	38	3	3	19	19	16	16			
2	Education										
	5th standard	15	1	1	11	11	3	3	<24.53**	6	12.59
	10th standard	19	5	5	12	12	2	2			
	10+2 standard	28	1	1	17	17	10	10			
	Graduation	38	1	1	10	10	20	20			
3	Religion										
	Hindu	25	3	3	14	14	8	8	44.95>**	6	12.59
	Sikh	66	2	2	40	40	24	24			
	Christian	4	1	1	1	1	2	2			
	Muslim	5	2	2	2	2	1	1			
4	Type of family										
	Nuclear	85	2	2	53	53	30	30	<30.036**	2	5.99
	Joint	15	6	6	4	4	5	5			
5	Occupation										
	Government employee	19	5	5	12	12	2	2	<14.88**	6	12.59
	Private employee										
	Self business	26	1	1	15	15	10	10			
	Housewife	15	1	1	11	11	3	3			
		40	1	1	19	19	20	20			
6	Dietary habits										
	Non vegetarian	20	6	6	9	9	5	5	<30.036**	2	5.99
	Vegetarian	80	2	2	48	48	30	30			
	Total	**100**	**8**	**8**	**35**	**35**	**57**	**57**			

Note - Frequency, %= Percentage, df= Degree of Freedom, ^{2}= Chi-Square, (**)= Significant, NS= Not Significant.

Table 7: *Frequency and Percentage Distribution of Chi Square Test Showing Association of Attitude and Selected Demographic Variables.*

Sr. No.	Demographic Characteristic	Frequency	Grading and Percentage Attitude Score						x^2 Value	df	Table Value
			Unfavorable <50%		Moderately Favorable 51-75%		Favorable >75%				
			F	%	F	%	f	%			
1	Age (in years)										
	19–25	9	2	2	3	3	4	4			
	26–31	23	2	2	6	6	15	15	<19.06 **	6	12.59
	32–37	30	2	2	8	8	20	20			
	38 and above	38	1	1	15	15	22	22			
2	Education										
	5th standard	15	3	3	5	5	7	7			
	10th standard	19	1	1	8	8	10	10	<25.59 **	6	12.59
	10+2 standard	28	1	1	3	3	24	24			
	Graduation	38	2	2	16	16	20	20			
3	Religion										
	Hindu	25	2	2	8	8	15	15			
	Sikh	66	3	3	23	23	40	40	<44.95 **	6	12.59
	Christian	4	1	1	1	1	2	2			
	Muslim	5	1	1	2	2	2	2			
4	Type of family										
	Nuclear	85	5	5	30	30	50	50	<12.49 **	2	5.99
	Joint	15	2	2	2	2	11	11			
5	Occupation										
	Government employee	19	1	1	3	3	15	15			12.59
	Private employee	26	1	1	5	5	20	10	<26.051**	6	
	Self-business	15	2	2	3	3	10	10			
	Housewife	40	3	3	21	21	16	16			
6	Dietary habits										
	Non vegetarian	20	2	2	3	3	15	15	<12.49 **	2	5.99
	Vegetarian	80	5	5	29	29	46	46			
	Total	100	7	7	32	32	61	61			

Note - Frequency, %= Percentage, df= Degree of Freedom, ^{2}= chi-square, (**)=Significant, NS= Not Significant.

Table 7 shows that majority, 61% of the respondents level of attitude is favourable followed by 32% is moderately favorable and 7% of the respondent's level of attitude is unfavorable.

1. Shows the results of statistical analysis of the association between level of attitude and age of primigravida mothers. The calculated chi-square value is 19.06 shows that the association between level of attitude and age of samples is significant as p value is 12.59.
2. Shows the results of statistical analysis of the association between level of attitude and education of primigravida

mothers. The calculated chi-square is 25.59 and is significant as p value is 12.59.

3. Shows the results of statistical analysis of the association between level of attitude and religion of primigravida mothers. The calculated chi-square value is 44.95 shows that the association between level of attitude and religion of samples is significant as p value is 12.59.
4. Shows the results of statistical analysis of the association between level of attitude and type of the family of primigravida mothers. The calculated chi-square value is 12.49 shows that the association between level of attitude and type of the family of samples is significant as p value is 5.99.
5. Shows the results of statistical analysis of the association between level of attitude and occupation of primigravida mothers. The calculated chi-square value is 26.051 shows that the association between level of attitude and occupation of samples is significant as p value is 12.59.
6. Shows the results of statistical analysis of the association between level of attitude and dietary habits of primigravida mothers. The calculated chi-square value is 12.49 shows that the association between level of attitude and dietary habits of samples is significant as p value is 5.99.

MAJOR FINDINGS OF THE STUDY

Description of Knowledge and Attitude Scores of the Primigravida Mothers Regarding Pregnancy Induced Hypertension

1. The findings of the study showed that majority, 57% of the samples had high knowledge followed by 35 and 8% having moderate and low knowledge, respectively.
2. The findings of the study showed that majority, 61% of the samples had favorable attitude followed by about 32 and 7% of them having moderately favorable and unfavorable attitude, respectively.
3. The analysis of findings reveals that overall knowledge mean-score of the sample is found to be 9.38.
4. The analysis of findings reveals that overall attitude mean-score of the sample is found to be 11.42.
5. The correlation between knowledge and attitude results shows that the calculated correlation coefficient (r) was with p value 0.701, which shows that there was moderately positive. Correlation between knowledge and attitude.

Nursing Implications

1. The present study enables to find out the knowledge and attitude of primigravida mothers regarding pregnancy induced hypertension. The findings of the study have several implications for nursing practice, education, administration and research.

Nursing Practice

1. By assessing the knowledge and attitude level of primigravida mothers regarding pregnancy induced hypertension. The investigator feels that the third trimester primigravida mothers were lacking in knowledge regarding pregnancy induced hypertension so the nurses are in a position to impart knowledge to the primigravida mothers regarding pregnancy induced hypertension.
2. The public health nurse can also conduct health education programme for the general public on preventive aspects of certain infections to the mothers during antenatal or postnatal visit[5].

Nursing Education

1. In school of nursing and college of nursing, the teachers should emphasize

and motivate the students to give planned health education, discussion and debates regarding pregnancy induced hypertension in clinical area as well as in classrooms.
2. In addition to, primigravida antenatal mothers, primigravida postnatal mothers can also be given information about the pregnancy induced hypertension and the different manner to prevent the disease.
3. This will help the women to promote good health before and after delivery.

Nursing Administration

1. Administrators of private and Government health agencies can plan to organize and conduct health education programmes, camps and puppet shows in the community and in the hospital setup to create awareness to the mothers to impart knowledge regarding pregnancy induced hypertension. Workshops should be conducted to teach the mothers how to do during pregnancy induced hypertension.

Nursing Research

1. As a nurse researcher, promote more research on promotion of knowledge among primigravida mothers regarding pregnancy induced hypertension. Disseminate the findings of the researches through conferences, seminars and publishing in nursing journal. Promote effective utilization of research findings on promotion of knowledge regarding PIH especially during antenatal period[6].

DELIMITATIONS

1. Study is limited to primigravida women who are in the age group of 19 to 40 years.
2. The study is limited to the antenatal OPD at selected hospital of Amritsar.
3. The sample of the study is limited to 100 samples.

RECOMMENDATIONS

1. A similar study can be tried on different settings and samples.
2. A study can be replicated with larger samples.
3. A comparative study can be conducted by comparing the knowledge and attitude of antenatal and postnatal mothers regarding pregnancy induced hypertension.
4. A study to assess the effectiveness of planned teaching programme on knowledge regarding pre-eclampsia and its management among 4th year Bsc. nursing students.

SUGGESTIONS

The attitude of primigravida mothers from different culture and religions beliefs will help to give more awareness to the health team members as it will provide support to the primigravida mothers.

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