IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A STUDY TO ASSESS THE KNOWLEDGE REGARDING PREGNANCY INDUCED HYPERTENSION AMONG ANTENATAL MOTHERS ATTENDING OP BLOCK OF MCH CENTRE AT TIRUPATI.

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ABSTRACT

OBJECTIVES

- To assess the knowledge on pregnancy induced hypertension among antenatal mothers
- To find out the association between the knowledge of antenatal mothers regarding pregnancy induced hypertension with their selected socio-demographic variables.
- To develop information booklet on pregnancy induced hypertension

Material and methods: The present study was a cross-sectional descriptive research design and non-probability convenient sampling technique was used to select 100 antenatal mothers , attending OP block of MCH centre , Tirupati. Data were collected by using structure questionnaires and data were analyzed by using frequency, percentage mean, standard deviation sand chi-square test.

RESULTS:

In this study, out of 100 antenatal mothers 61 (61%) of them had moderate knowledge, 10(10%) had adequate knowledge and only 9 (9%) of them had inadequate knowledge on PIH , with mean score 29.23 and standard deviation 4.34. Hence it indicates the results were significant at $p<0.01$ level. There was no significant relationship between knowledge and demographic variables as religion, education of the spouse ,occupation of the spouse ,age at menarche in years, type of family, family history of hypertension in pregnancy ,if yes the relationship of the client with participant and exposure to mass media.

CONCLUSION:

The study shows that, the pregnant women were having moderate knowledge regarding PIH , so to improve their knowledge on PIH among antenatal mothers, educational sessions need to be conducted on various aspects of the PIH.

Keywords: Assess, Knowledge ,Pregnancy induced hypertension and Antenatal mother.

INTRODUCTION:

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

Hypertension is one of the common medical complication of pregnancy and contributes significantly to maternal and perinatal morbidity and mortality. Hypertension is a sign of an underlying pathology ,which may be pre-existing or appears for the first time during pregnancy. The identification of this clinical entity and effective management plays a significant role in the outcome of pregnancy, both for the mother and the baby. In developing countries with inadequately cared pregnancy ,this entity on many occasions remains undetected till major complications supervene.

Hypertension may appear for the first time during pregnancy as a direct result of gravid state or as a sign of underlying pathology, which may be pre existing Pregnancy and child birth is a normal physiological process with an expected positive outcome. However the process of carrying ,labouring and delivering a baby has its own risk , for both the mother and the baby especially in developing countries like India, which are well documented.

Pregnancy-induced hypertension (PIH) is defined as hypertension that appears at 20 weeks or more gestational age with or without proteinuria. Hypertension during pregnancy is defined as a sustained systolic BP $\geq$ 140 mmHg or diastolic BP $\leq$90mmHg.Globally, pregnancy-induced hypertension is a significant public health threat both in developed and developing countries contributing to high maternal and perinatal morbidity and mortality . According to World Health Organization (WHO) systematic analysis, hypertensive disorders of pregnancy attributed to 14% of maternal mortality and it is the second leading cause of maternal deaths s after hemorrhage in sub-Saharan Africa which accounts for

16.0% of maternal mortality.

Pregnancy induced hypertension, formally known as toxemia, is one of the common complications of pregnancy which neglected, results in considerable maternal and fetal consequences. WHO estimates shows that out of the 5,29,000 maternal deaths globally each year36,000 (25.7%)were contributed by India, the highest by a single country National health policy states reduce MMR to 100/ lakh is one of the goals to be achieved by 2015. During the clinical experience, the investigator found that many antenatal mothers in outpatient department were diagnosed as PIH and also lacks knowledge on safe care. Hence, the investigator felt that there is a need of study on self care of PIH mothers using IEC Techniques. Highest percentage 46%of mothers were in the age group of 26 –30 years,28%of mothers were in the age group of 21-25 years, 16% belongs to less than 20 years and 10% belongs to more than 30years.

The prevalence of eclampsia globally is reported to be 0.3% . This is based on secondary analysis of a World Health Organization (WHO) multi-country survey that included 875 cases of eclampsia, collected over a short duration from only secondary or tertiary hospitals.[7]

In India the incidence of preeclampsia reported to be 8-10% among the pregnant women. According to study the prevalence of hypertensive disorder of pregnancy was 7.8 % with preeclampsia in 5.4 % of the study population in India.

2. MATERIALS AND METHODS:

2.1. Study Design:

The study was a **cross-sectional descriptive research design** with a non-probability convenient sampling technique was performed among 100 primi antenatal mothers attending OP block of MCH centre, Tirupati.

2.2 Eligibility Criteria: The criteria were as following: Mothers who were available at the time of data collection, who were willing to participate in the study and able to understand Telugu and English . The women who were diagnosed as complicated pregnancy were excluded from the study.

2.3 Procedure for data collection:

The investigator obtained prior permission from the medical officer, MCH centre, Tirupati . To conduct the main study, by using non probability convenient sampling technique 100 antenatal mothers were selected as the sample with minimum 5 to 6 cases per day from 8 a.m. to 1 p.m. for data collection. The investigator introduced herself to the antenatal mothers, maintained rapport by explaining about the purpose of the study and took written informed consent from all the antenatal mothers. The investigator made the women to sit comfortably, pencil and writing pads were given and their level of knowledge was

assessed by using structured questionnaire. The investigator filled the questionnaire as per the antenatal mothers responses. Doubts were clarified. The procedure was followed for the 100 sample.

2.4 Instruments:

Tool was developed by extensive of literature, textbooks, journals and experts guidance. Tool consists of three sections as section -1Questions related to demographic data, section -ll consists of 24 Questoons related to knowledge regarding pregnancy induced hypertension and section -lll consists of 20 statements checklist related to prevention and management of PIH.

Content validity of the tool was obtained by submitting to tool for 10 experts in the field of obstetrical and gynecology department (Medical and nursing)

Reliability of the tool was established by Cronbach's Alpha. The reliability score obtained was 0.940 which indicates that tool was highly reliable.

2.5 Statistical Analysis:

SPSS version 12.0 for windows was used to analyze the data. To describe the characteristics of research units, firstly the descriptive statistics including central (mean & standard deviation) indicators and frequency distribution were calculated .Then chi-square test analysis were done for analysis of main variables.

3. RESULTS:

3.1. Demographic characteristics:

Result revealed that out of 100 primi antenatal mothers majority 33 (33%) were within the age group of above 27 years and above , 36 (36%) were Hindus, 37(37%) had higher secondary education , 43(43 %) were homemakers, 36 (36%) of the spouse had under graduation, 49 (49%) of the spouse were private employees, , 38(38%) were earning above rupees per month 20001, 52(52%) had age at menarche within the age of 11 to 12years , 63(63 %)were of nuclear , 46(46%) of mothers were in the option of two, 74(74%) were in the option of "No", 9(34.6%) were of maternal, 29 (29%) received information through health care personnel, (Table-1).

3.2 Distribution of knowledge scores regarding pregnancy induced hypertension among antenatal mothers.

Shows that out of 100 antenatal mothers,61(61%) had moderate knowledge,30(30 %) had adequate knowledge and only 9(9%) had inadequate knowledge on pregnancy induced hypertension with mean score of 29.23 and standard deviation 4.34 (Table -2).

3.3 Association between the demographic characteristics and level of knowledge on pregnancy induced hypertension among antenatal mothers.

Shows that there was significant relationship between knowledge on pregnancy induced hypertension with occupation at 0.05 level where as age, education ,income of the family and gestational age in months at 0.01level of significance.

There was no significant relationship between knowledge and religion, education of the spouse , occupation of the spouse, age at menarche in years, type of family , family history of hypertension in pregnancy ,if "yes" the relationship of the client with participant and exposure to mass media.(Table-3).

DISCUSSION:

This chapter deals with the discussion part of the results , obtained from statistical analysis based on the data of the study, the reviewed literature, hypothesis, which was selected for the study .The present study was conducted to assess the knowledge on pregnancy induced hypertension among antenatal mothers. It was presented in the view of the objectives of the study.

The first objective of the study was to assess the knowledge on pregnancy induced hypertension among antenatal mothers.

The results of the study supported by the earlier study carried out by

Tesfaye AG. et.al., (2018) Conducted a case-control study to assess the prevalence of pregnancy induced hypertension and associated factors among pregnant women receiving antenatal care service at Jimma town public health facilities, Southwest, Ethiopia. 356 pregnant mothers were the sample of the study ,structured questionnaire was used to collect the data . The results revealed that prevalence of pregnancy induced hypertension was 10.3% among mothers , preeclampsia 23(63.9%) was the most common type. This study also showed that rural residence (Adjusted Odds Ratio (AOR)=5.310, 95%CI=1.518-18.574), positive family history of chronic hypertension (AOR=9.90, 95%CI=2.31-42.44), Positive family history of pregnancy induced hypertension (AOR=9.13(2.33-35.78)), kidney diseases (AOR=3.97, 95%CI=1.36-11.56) and psychological stress (AOR=5.79, 95%CI=1.66-20.25) The researcher Concluded that according to this study, the prevalence of pregnancy induced hypertension was high. Address, family history of chronic hypertension, family history of pregnancy induced hypertension, kidney diseases, psychological stress during pregnancy were the factors contributing pregnancy induced hypertension.

The second objective of the study was to find out the association between knowledge on pregnancy induced hypertension among antenatal mothers with selected demographic variables.

The researcher revealed that there was significant association between the knowledge and demographic variables such as occupation at <0.05 level where as age, education, income of the family and gestational age in months at P<0.01 level.

Sadhana V.(2021) conducted a case-control study on epidemiological factors of antenatal mothers with pregnancy induced hypertension at the tertiary care hospital Maharashtra ,India. 1600 antenatal mothers were the sample of the study and structured questionnaire were used to collect the data . The results showed that out of 1600 antenatal mothers, 97 (6.06%) had PIH. The proportion of PIH was 6.06% .The majority of the antenatal mothers in the study were between 21 and 25 years 41.69%. The pregnant women >35 years were 2%.The mean age among the study population was 22.31 ± 2.93 years. About 56.88% of antenatal mothers got married in the age group of 20–30 years. It was observed that 66% antenatal mothers had their age of first pregnancy in between 20–30 years followed by the age group of >30 years (17.32%) .The maximum 1057 (66.06%) antenatal mothers were from joint families, where as 469 (29.31%) belonged to the nuclear family. The majority (42.69%) of the antenatal mothers were primi-gravida. It was observed that 965 (60.31%) pregnant women had gestational age above 36 weeks, whereas gestational age 20–28 weeks was seen only in 128 (8%) antenatal mothers .The majority 900 (56.25%) of the pregnant women done ANC registration below 3 months of gestation .Out of the total 917 antenatal mothers, 311 (34%) had a history of preterm delivery. The researcher concluded that Pregnancy in later stages and primigravida's should be monitored carefully for PIH, and it should be prevented. Health education should be given about the consumption of iron tablets and iron rich food items to prevent anemia

CONCLUSION:

The study shows that, the pregnant women were having moderate knowledge regarding PIH , so to improve their knowledge on PIH among antenatal mothers, educational sessions need to be conducted on various aspects of the PIH. A descriptive study can be conducted on knowledge about pregnancy induced hypertension among a large population for generalization. Regular health education programs should be conducted by health professionals regarding pregnancy induced hypertension among antenatal mothers, and measure the effect on prevention of maternal and fetal complications.

NOTE: All tables enclosed next to references.

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Table 1: frequency and percentage distribution of demographic variables among antenatal mothers.

Variables	Classification	Frequency	Percentage
Age in years	Below 20-20	8	8.00
	21-23	28	28.00
	24-26	31	31.00
	27 and above	33	33.00
	Total	100	100.00
Religion	Hindu	36	36.00
	Muslim	30	30.00
	Christian	26	26.00
	Others	8	8.00
	Total	100	100.00
Education of the mothers	Primary	24	24.00
	Secondary	17	17.00
	Higher secondary	37	37.00
	Under graduation	17	17.00
	Post graduation	4	4.00
	Professional	1	1.00
	Total	100	100.00
Occupation of the mothers	Home maker	43	43.00
	Coolie	10	10.00
	Shop vender	17	17.00
	Private employee	28	28.00
	Professional	2	2.00
	Total	100	100.00
Education of the spouse	Primary	23	23.00
	Secondary	6	6.00
	Higher secondary	33	33.00
	Under graduation	36	36.00
	Post graduation	2	2.00
	Total	100	100.00
Occupation of the spouse	Coolie	26	26.00
	Shop vender	14	14.00
	Private employee	49	49.00
	Govt employee	9	9.0s0
	Professional	2	2.00
	Total	100	100.00
Total Income of the family per month in rupees	5000-10000	10	10.00
	10001-15000	24	24.00
	15001-20000	28	28.00
	20001 and above	38	38.00
	Total	100	100.00
Age at menarche in years	9-10	33	33.00
	11-12	52	52.00
	13-14	15	15.00
	Total	100	100.00

Type of family	Nuclear	63	63.00
	Combined	34	34.00
	Extended	3	3.00
	Total	100	100.00
Gestational age in months	3-4	37	37.00
	5-6	46	46.00
	7-8	15	15.00
	9-10	2	2.00
	Total	100	100.00
Any family history of hypertension in pregnancy	Yes	26	26.00
	No	74	74.00
	Total	100	100.00
If yes the relationship of the client with participant	Maternal	9	34.60
	Paternal	9	34.60
	Far relation	8	30.80
	Total	26	100.00
Exposure to mass media	Newspapers and Journals	5	5.00
	Books and other Literature	17	17.00
	Radio and television	23	23.00
	Internet and social Media	17	17.00
	Family members and Friends	9	9.00
	Health care personnel	29	29.00
	Total	100	100.00

Table -2 : Distribution of knowledge scores regarding pregnancy induced hypertension among antenatal mothers.

S.No.	Level of knowledge	Frequency (f)	Percentage (%)	MEAN	SD
1.	Inadequate	9	9.00		
2.	Moderate	61	61.00		
3.	Adequate	30	30.00		
4.	Total	100	100	29.23	4.34

Table -3 : Association between the demographic characteristics and level of knowledge on pregnancy induced hypertension among antenatal mothers.

Demographic variables	Classification	N/%	Level of knowledge			Total	Chi square	p value
			Inadequate	Moderate	Adequate			
1 Age in years	Below 20 -20	N	3	4	1	8	24.936**	0.000
		%	3.00%	4.00%	1.00%	8.00%		
	21-23	N	6	19	3	28		
		%	6.00%	19.00%	3.00%	28.00%		
	24-26	N	0	18	13	31		
		%	0.00%	18.00%	13.00%	31.00%		
	27 and above	N	0	20	13	33		
		%	0.00%	20.00%	13.00%	33.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		
2 Religion	Hindu	N	2	25	9	36	9.531	0.146
		%	2.00%	25.00%	9.00%	36.00%		
	Muslim	N	2	15	13	30		
		%	2.00%	15.00%	13.00%	30.00%		
	Christian	N	5	14	7	26		
		%	5.00%	14.00%	7.00%	26.00%		
	Others	N	0	7	1	8		
		%	0.00%	7.00%	1.00%	8.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		
3 Education	Primary	N	5	15	4	24		
		%	5.00%	15.00%	4.00%	24.00%		
	Secondary	N	1	9	7	17		
		%	1.00%	9.00%	7.00%	17.00%		
	Higher secondary	N	3	29	5	37		
		%	3.00%	29.00%	5.00%	37.00%		
	Undergraduation	N	0	7	10	17		
		%	0.00%	7.00%	10.00%	17.00%	28.760**	0.001
	Post graduation	N	0	0	4	4		
		%	0.00%	0.00%	4.00%	4.00%		
	Professional	N	0	1	0	1		
		%	0.00%	1.00%	0.00%	1.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		

4 Occupation	Home maker	N	6	30	7	43	16.140*	0.040
		%	6.00%	30.00%	7.00%	43.00%		
	Coolie	N	0	7	3	10		
		%	0.00%	7.00%	3.00%	10.00%		
	Shop vender	N	1	12	4	17		
		%	1.00%	12.00%	4.00%	17.00%		
	Private employee	N	2	12	14	28		
		%	2.00%	12.00%	14.00%	28.00%		
	Professional	N	0	0	2	2		
		%	0.00%	0.00%	2.00%	2.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		
5 Education of the spouse	Primary	N	4	15	4	23	14.451	0.071
		%	4.00%	15.00%	4.00%	23.00%		
	Secondary	N	2	3	1	6		
		%	2.00%	3.00%	1.00%	6.00%		
	Higher secondary	N	3	22	8	33		
		%	3.00%	22.00%	8.00%	33.00%		
	Undergraduation	N	0	20	16	36		
		%	0.00%	20.00%	16.00%	36.00%		
	Post graduation	N	0	1	1	2		
		%	0.00%	1.00%	1.00%	2.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		
6 Occupation of the spouse	Coolie	N	5	17	4	26	10.954	0.204
		%	5.00%	17.00%	4.00%	26.00%		
	Shop vender	N	2	7	5	14		
		%	2.00%	7.00%	5.00%	14.00%		
	Private employee	N	2	32	15	49		
		%	2.00%	32.00%	15.00%	49.00%		
	Govt employee	N	0	4	5	9		
		%	0.00%	4.00%	5.00%	9.00%		
	Professional	N	0	1	1	2		
		%	0.00%	1.00%	1.00%	2.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		

7 Total Income of the family per month in rupees	5000-10000	N	6	3	1	10	43.060**	0.000
		%	6.00%	3.00%	1.00%	10.00%		
	10001-15000	N	0	15	9	24		
		%	0.00%	15.00%	9.00%	24.00%		
	15001-20000	N	3	21	4	28		
		%	3.00%	21.00%	4.00%	28.00%		
	20001 and above	N	0	22	16	38		
		%	0.00%	22.00%	16.00%	38.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		
8 Age at menarche in years	9-10	N	0	24	9	33	8.794	0.066
		%	0.00%	24.00%	9.00%	33.00%		
	11-12	N	7	26	19	52		
		%	7.00%	26.00%	19.00%	52.00%		
	13-14	N	2	11	2	15		
		%	2.00%	11.00%	2.00%	15.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		
9 Type of family	Nuclear	N	2	39	22	63	9.293	0.054
		%	2.00%	39.00%	22.00%	63.00%		
	Combined	N	7	20	7	34		
		%	7.00%	20.00%	7.00%	34.00%		
	Extended	N	0	2	1	3		
		%	0.00%	2.00%	1.00%	3.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		
10 Gestational age in months	1	N	8	16	13	37	21.518**	0.001
		%	8.00%	16.00%	13.00%	37.00%		
	2	N	1	37	8	46		
		%	1.00%	37.00%	8.00%	46.00%		
	3	N	0	7	8	15		
		%	0.00%	7.00%	8.00%	15.00%		
	4	N	0	1	1	2		
		%	0.00%	1.00%	1.00%	2.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		

11 Any family history of hypertension in pregnancy	Yes	N	0	15	11	26	4.999	0.082
		%	0.00%	15.00%	11.00%	26.00%		
	No	N	9	46	19	74		
		%	9.00%	46.00%	19.00%	74.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		
12 If yes the relationship of the client with participant	Maternal	N	0	6	3	9	0.508	0.776
		%	0.00%	23.10%	11.50%	34.60%		
	Paternal	N	0	5	4	9		
		%	0.00%	19.20%	15.40%	34.60%		
	Far relation	N	0	4	4	8		
		%	0.00%	15.40%	15.40%	30.80%		
Total		N	0	15	11	26		
		%	0.00%	57.70%	42.30%	100.00%		
12 Exposure to mass media	Newspapers and journals	N	0	4	1	5	16.190	0.094
		%	0.00%	4.00%	1.00%	5.00%		
	Books and other literature	N	0	11	6	17		
		%	0.00%	11.00%	6.00%	17.00%		
	Radio and television	N	5	13	5	23		
		%	5.00%	13.00%	5.00%	23.00%		
	Internet and social media	N	0	7	10	17		
		%	0.00%	7.00%	10.00%	17.00%		
	Family members and friends	N	1	6	2	9		
		%	1.00%	6.00%	2.00%	9.00%		
	Health care personnel	N	3	20	6	29		
		%	3.00%	20.00%	6.00%	29.00%		
Total		N	9	61	30	100		
		%	9.00%	61.00%	30.00%	100.00%		
Note : ** = Significant at 0.01 level								
* = Significant at 0.05 level								