



TO ASSESS THE EFFECT OF PLANNED TEACHING IN RELATION TO SELECTED ASPECT OF PIH AMONG ANTENATAL MOTHERS

Neha Rehalia

Pediatrician, Civil hospital Shahpur, Distt Kangra (HP)

Vivek Chaudhary*

Anaesthesiologist, Zonal hospital Dharamshala, Distt Kangra (HP)

*Corresponding author

ABSTRACT

Hypertension is one of the common complications and contributes significantly to perinatal mortality and morbidity. Hypertension is a sign of underlying pathology which may be pre-existing or appear for the first time during pregnancy. The identification of clinical entity and effective management plays a significant role in the outcome of pregnancy, both for the mother and the baby. The main aim of the study was to assess the effect of planned teaching on the knowledge regarding pregnancy induced hypertension among antenatal mothers. The study was conducted on conveniently selected 30 samples of antenatal mothers in Civil hospital, Shahpur. Data was collected by Socio-demographic variables and Self Structured Knowledge Questionnaire. Collected data was analyzed by descriptive and inferential statistics. Results indicated that the planned teaching had significant impact on knowledge regarding pregnancy induced hypertension among antenatal mothers. In this study, posttest knowledge score was associated with education and occupation.

KEYWORDS :

INTRODUCTION

Pregnancy-induced hypertension (PIH) complicates about 6-10% of pregnancies.¹ It is defined as systolic blood pressure (SBP) >140 mmHg and diastolic blood pressure (DBP) >90 mmHg. It is classified as mild (SBP 140-149 and DBP 90-99 mmHg), moderate (SBP 150-159 and DBP 100-109 mmHg) and severe (SBP ≥ 160 and DBP ≥ 110 mmHg).²

According to the WHO, PIH is one of the main causes of maternal, fetal and neonatal mortality and morbidity.¹ It is the most common cause of maternal death in Europe.³ In a retrospective study over the period 2000-2009 in a tertiary center in India, PIH was the third cause of maternal death.⁴

PIH-associated complications are more frequent in early-onset (< gestational week 32) compared to late-onset PE.⁵ Fetal/neonatal short-term complications include intrauterine growth restriction (IUGR), small for gestational age (SGA) neonate, low birth weight neonate, preterm birth, intrauterine and perinatal death.^{6,7}

Hypertension, collagen vascular disease, obesity, black race, insulin resistance, diabetes mellitus, gestational diabetes, increased serum testosterone concentrations and thrombophilia are considered risk factors for PIH.^{8,9} Pre-pregnancy weight, nulliparity and nulliparity, maternal age >30 years, increased body mass index (BMI), above-average weight gain during pregnancy, personal and family history are also risk factors of pre-eclampsia.¹⁰

Generation R study showed that women with low educational level were more likely to develop preeclampsia than women with high educational level.¹¹

The present study was aimed to assess the effect of planned teaching in relation to selected aspect of PIH among antenatal mothers.

SUBJECTS AND METHODS

A total of 30 antenatal mothers with hypertension and admitted CH Shahpur, were included in the study. Antenatal mothers with hypertension, able to understand, speak or read Hindi, or English, and willing to participate in the study, were included in the study. Pregnant mothers with any other health problems other than hypertension during pregnancy, were excluded from the study.

The data collection process started from April 2019 to Nov 2019. The data collection was done in four stages: Stage 1,

Administration of the questionnaire to the groups of antenatal mothers diagnosed with pregnancy induced hypertension, and the answers received through the questionnaire were assessed and based on their answers the gaps in their knowledge were identified by the investigator; stage 2, teaching plan was also prepared with attractive visual aids; planned teaching was given to the samples during their hospital stay; stage 4, the questionnaire was then administered to collect post test data for the group, so as to assess the change in their knowledge.

A structured questionnaire was prepared to assess the knowledge of antenatal mothers diagnosed with hypertension. The tool was prepared and given to 10 subject experts for validation. There was common agreement among the experts, who were incorporated thereafter in the tool. Thus, the content validity of the tool was established.

The first draft of the tool consisted of demographic data (personal data, medical data and obstetric data) and thirty four multiple choice questions on knowledge assessment regarding selected aspects of care during pregnancy diagnosed with hypertension. Based on suggestions given by the experts, the necessary modification of the tool was made and the final tool was prepared which consists of thirty four multiple choice questions grouped under different sub-headings.

The reliability of the questionnaire was calculated by using test re-test method. The co-coefficient of correlation was found to be 0.93. A pilot study was done to assess the feasibility. The pilot study was conducted from 04.04.2010 to 10.04.2010. It was performed on three antenatal mothers diagnosed with hypertension during pregnancy. The observations of the group were recorded (group with planned teaching). The pilot study helped the investigator to assess the feasibility and practicability of the tool and helped her to gain more clarity about the data gathering process.

STATISTICAL ANALYSIS

Data were presented as frequency, percentages, and mean. Association of risk factors with the knowledge was measured using Chi square test. Paired t-test was used to compare knowledge before and after planned teaching programme.

RESULTS

DEMOGRAPHIC VARIABLES

Table 1 shows demographic variables of the study participants. 50% of the subjects aged between 18 and 25

years. 43.3% subjects had secondary level education while 3.3% subjects were illiterate. 73.3% subjects were Hindu. 53.3% subjects were living in joint family. None of the subjects had habits of smoking, tobacco and alcohol abuse. 30% subjects were earning less than Rs. 3000/month. Majority of the subjects were housewife. A detailed presentation has been shown in table 1.

All the study subjects were diagnosed with hypertension after pregnancy. 83.3%, 13.4%, and 3.3% of these subjects were in 3rd, 2nd, and 1st trimester respectively. 96.7% of the subjects have no other medical or surgical illness (table 2).

63.3% of the subjects were primigravida while 37% of the subjects had previous history of pregnancy. 13.3% subjects' outcome of previous pregnancy was abortion.

Effect of Planned teaching

Our study observed that knowledge on the concept of hypertension, etiology and risk factors, signs and symptoms, investigations, exercise-related management of PIH, dietary management, prevention and complications during PIH was significantly higher after teaching programme in comparison to before teaching programme. Overall knowledge of antenatal mothers to manage hypertension was significantly higher post-test in comparison to pre-test.

Risk Factors

Our study observed that age, type of family, family income, parity, labor history, were not associated with knowledge of hypertension while education and occupation were significantly associated with knowledge of antenatal mothers about hypertension.

DISCUSSION

Pre-eclampsia is pregnancy induced hypertension (PIH) of unknown etiology. Preeclampsia can be quite serious as it can lead to various complications both for the mother and the baby. In fact, complications of PIH like preeclampsia and eclampsia, are the leading cause of maternal death in India. Hypertension complicates an estimated 6-8% of all pregnancies. Pre-eclampsia is a multisystem disorder that complicates 3-8% of pregnancies and is a major source of morbidity and mortality worldwide.

Though the cause for pre-eclampsia is unknown, there does appear to be certain risk factors associated with the condition. The factors that have been postulated to influence the risk of preeclampsia among the mothers include diabetes, renal disease, and obesity, multiply pregnancy primiparity, age above 30 years, personal or family history of preeclampsia and chronic hypertension.

Hypertensive disorders of pregnancy are the primary cause for early hospitalization, labor induction, maternal and fetal morbidity. 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 safe child birth. This trend of knowledge indicates a wide awareness and knowledge of certain specifics in relation to PIH; such awareness is needed to adjust factors that influence the individual's own self performance.

Our study observed that the planned teaching significantly improved the knowledge of mothers about hypertension. Our results are in concordance with Nayak D. Nayak determined the effectiveness of structured teaching programmed on pregnancy induced hypertension among primigravida mothers attending antenatal clinic. He observed that the mean of posttest (27.25) knowledge was significantly higher

than the pretest (13.96) knowledge score. Similar findings were also observed by Rupali et al,¹³ Heiham and Reddy,¹⁴ and Fadare et al.¹⁵

We also observed that education and occupation were significantly associated with knowledge of antenatal mothers about hypertension. Shamsi et al reported that the family history of hypertension is an important risk factor for preeclampsia and happens more frequently in the women having family history of hypertension.¹⁶ Low socio-economic status, teenage pregnancy and family history of hypertension also affect the outcome of PIH in primigravidas and reported to be higher in these cases as shown by Parmar et al.¹⁷

CONCLUSION

Our study observed that teaching programmes are effective in increasing knowledge of women about PIH, which would be further helpful in prevention of early complications of the disorder.

Table I: Distribution Of Demographic Variables

Variables	n	%
Age	15	50
a. 18- 25 Years	12	40
b. 25-35 Years	3	10
c. 35-45 Years	0	0
d. 45 Years & Above		
Education	1	3.3
a. Illiterate	3	10
b. Primary	13	43.3
c. Secondary	8	26.7
d. Higher Secondary	5	16.7
e. Collegiate		
Religion	22	73.3
a. Hindu	7	23.3
b. Muslim	1	3.3
c. Christen		
Type of family	12	40
a. Nuclear family	16	53.3
b. Joint family	2	6.7
c. Extended family		
Habits	0	0
a. Smoking	0	0
b. Tobacco chewing	0	0
c. Alcohol	30	100
d. Tea /coffee		
Monthly Income Of the family	9	30
a. Rs. 1000 -3000	7	23.3
b. Rs. 3001-5000	7	23.3
c. Rs. 5001 -8000	7	23.3
d. More than Rs. 8001/-		
Occupation	23	76.67
a. Housewife	3	10
b. Laborer	4	13.33
c. Skilled Worker		

Table II: Distribution Of Medical Data

Variable	n	%
Diagnosed as Hypertension	0	0
a. Before Pregnancy	30	100
b. After Pregnancy		
Trimester of Pregnancy	1	3.3
a. First Trimester	4	13.3
b. Second Trimester	25	83.3
c. Third Trimester		
Any Other Medical / surgical illness in the past	1	3.3
a. Yes	29	96.7
b. No		

Table III: Distribution Of Obstetric Data.

Variables	n	%
Gravida & Para	19	63.3
a. Primi Gravida	4	13.3
b. Second Gravida	7	23.3
c. More than two		
Previous history of pregnancy	6	20
a. Full Term	5	16.7
b. Pre Term		
Previous history of labour	22	73.3
a. Full term normal delivery	5	16.7
b. Caesarean section	3	10
c. Forceps / Vacuum delivery		
Outcome of pregnancy	7	23.3
a. Living	4	13.3
b. Abortion	0	0
c. Still birth		

Table IV: Comparison Of Pre -test And Post-test Scores

		Mean Scores	S ²	t _{cal}	D.F.	0.05,29
Concept of hypertension	Pre - test	2.33	0.5929	5.135	29	2.05
	Post - test	3.00				
Etiology/Risk Factors	Pre - test	1.30	1.24	9.832	29	2.05
	Post - test	3.30				
Signs and Symptoms	Pre - test	4.83	1.31	9.57	29	2.05
	Post - test	6.83				
Investigation of Hypertension	Pre - test	1.20	0.4238	2.52	29	2.05
	Post - test	1.50				
Management (Exercise & Relaxation)	Pre - test	5.27	1.3225	7.365	29	2.05
	Post - test	6.83				
Dietary Management	Pre - test	3.20	0.764	7.309	29	2.05
	Post - test	4.37				
Preventions and Complications	Pre - test	2.1	1.5230	8.137	29	2.05
	Post - test	3.93				

REFERENCES

- World Health Organization, 2011 WHO Recommendations for prevention and treatment of pre-eclampsia and eclampsia.
- Visintin C, Muggleston MA, Almerie MQ, Nherera LM, James D, Walkinshaw S, 2010 Management of hypertensive disorders during pregnancy: summary of NICE guidance. *BMJ* 341: c2207.
- Wildman K, Bouvier-Colle MH, 2004 Maternal mortality as an indicator of obstetric care in Europe. *BJOG* 111: 164-169
- Khumanthem PD, Chanam MS, Samjetshabam RD, 2012 Maternal mortality and its causes in a tertiary center. *J Obstet Gynaecol India* 62: 168-171.
- Gong YH, Jia J, Lu DH, Dai L, Bai Y, Zhou R, 2012 Outcome and risk factors of early onset severe preeclampsia. *Chin Med J (Engl)* 125: 2623-2627.
- Bakker R, Steegers EA, Hofman A, Jaddoe VW, 2011 Blood pressure in different gestational trimesters, fetal growth, and the risk of adverse birth outcomes: the generation R study. *Am J Epidemiol* 174: 797-806.
- Yucesoy G, Ozkan S, Bodur H, et al, 2005 Maternal and perinatal outcome in pregnancies complicated with hypertensive disorder of pregnancy: a seven year experience of a tertiary care center. *Arch Gynecol Obstet* 273: 43-49
- Roberts JM, Pearson G, Cutler J, Lindheimer M, 2003 Summary of the NHLBI working group on research on hypertension during pregnancy. *Hypertension* 41: 437-445.
- Koual M, Abbou H, Carbonnel M, Picone O, Ayoubi JM, 2013 Short-term outcome of patients with preeclampsia. *Vasc Health Risk Manag* 9: 143-148
- Kintiraki E, Papakatsika S, Kotronis G, Goulis DG, Kotsis V. Pregnancy-Induced hypertension. *Hormones*. 2015, 14(2):211-223
- Silva LM, Coolman M, Steegers EA, Jaddoe VW, Moll HA, Hofman A, et al. Low socioeconomic status is a risk factor for preeclampsia: the Generation R Study. *J Hypertens*. 2008 Jun;26(6):1200-8
- Nayak D. Effectiveness of Structured Teaching Programme on Pregnancy Induced Hypertension among Primigravida Mothers. *International Journal of Advanced Nursing Science and Practice*. 2015;2(3):49-53
- Rupali, Kaur R, Sharma S. A Quasi Experimental Study to Assess the Effectiveness of Exhibition on Knowledge regarding Pregnancy Induced Hypertension among Antenatal Mothers attending Antenatal Outpatient Department of Selected Hospitals, Jalandhar, Punjab. *Int. J. Adv. Nur. Management*. 2015;3(4):367-371
- Heikham GC, Raddi SA. Effectiveness of Planned Teaching Programme (PTP) on Knowledge Regarding Management of Selected Obstetric Emergencies among the Final Year GNM Students of Selected School of Nursing, Belgaum, Karnataka- One Group Pretest Post Test Pre Experimental Study. *International Journal of Science and Research*. 2015;4(3):1336-1340
- Fadare RI, Akpor OA, Oziegbe OB. Knowledge and Attitude of Pregnant

Women towards Management of Pregnancy-induced Hypertension in Southwest Nigeria. 2016;11(2):29764

- Shamsi, U., Hatcher, J., Shamsi, A., Zuberi, N., Qadri, Z. and Saleem, S. A Multicentre Matched Case Control Study of Risk Factors for Preeclampsia in Healthy Women in Pakistan. *BMC Women's Health*. 2010. 10:14
- Parmar, M.T., Solanki, H.M. and Gosalia, V.V. Study of Risk Factors of Perinatal Death in Pregnancy Induced Hypertension (PIH). *Community Med*. 2012. 3 (4) 703-707.