

Research Article

Open Access

Effectiveness of Structured Teaching Programme on Pregnancy Induced Hypertension among Primigravida Mothers

Debajani Nayak

Department of Obstetrics and Gynaecological Nursing, SUM Nursing College, S 'O' A University, Kalinganagar, Ghatikia, Bhubaneswar, Odisha, India

Publication Date: 11 September 2015

Article Link: <http://medical.cloud-journals.com/index.php/IJANSP/article/view/Med-253>



Copyright © 2015 Debajani Nayak. This is an open access article distributed under the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract Hypertension and its complications are common in primigravida mother. Hypertension in pregnancy is still largely unknown & it still stands a public health problem. The present study aimed to determine the effectiveness of structured teaching programmed on pregnancy induced hypertension among primigravida mothers attending antenatal clinic (ANC) in IMS & SUM hospital, Bhubaneswar, Odisha, India. A pre experimental study was conducted over period of one month in the department of Obstetrics & Gynecology in the above hospital. A total of 50 pregnant women with Pregnancy Induced Hypertension (PIH) were enrolled in the study. The pretest and posttest structured Performa was prepared & they were interviewed to collect necessary information such as background data and knowledge regarding PIH. The mean of posttest (27.25) knowledge was found to be significantly higher than the pretest (13.96) knowledge score with a mean difference of 13.29 as evident from 't' value of 2.035 for df, 49 at <0.05 level of significance. Pregnancy induced hypertension is a common medical problem associated with pregnancy. Its incidence and related mortality are high due to lack of adequate antenatal care. Maternal and perinatal outcomes were found to be better in women who attended regular ANC. Educating primigravida will help create awareness among the public.

Keywords *Structured Teaching Programme; Pregnancy Induced Hypertension; Primigravida Mothers*

1. Introduction

Hypertension during pregnancy or pregnancy induced hypertension (PIH) is a common medical condition that may cause maternal and perinatal morbidity and mortality (Seyom et al., 2015; Witlin et al., 1997). During this condition the systolic blood pressure of at least 140 mm Hg and/or diastolic blood pressure of 90 mm Hg on at least two occasions at least 4-6 hours apart is observed in the pregnant women known to be normotensive beforehand (Sibai, 2003). PIH is multisystem disorder characterized by development of edema, hypertension and may be associated with proteinuria after 20 weeks of gestation, a condition called preeclampsia which may be fatal to the mother as well as to the developing fetus (Backes et al., 2011)

In India pregnancy induced hypertension contributes to about 7-10% of all antenatal admission (Dubhashi et al., 2008) and about 14% of maternal deaths is reported to occur due to hypertensive

disorders in pregnancy (Say et al., 2014). The prevalence of gestational hypertension and comorbidity increases with advancing age (Prakash et al., 2006). Nursing staffs face the challenge in caring the PIH patients. PIH per se and complications of severe preeclampsia could well be prevented through prenatal care, prompt diagnosis (Yücesoy et al., 2005) and patient counseling.

1.1. Objective

- 1) To determine effectiveness of structured teaching programmed on pregnancy induced hypertension among primigravida.

2. Materials and Methods

Pre experimental one group pre-test, post-test design was adopted for the present study. Population for the study consists of fifty antenatal mothers attending outpatient department of IMS & SUM Hospital, Bhubaneswar. The samples were selected by convenient sampling technique in the month of June-July 2014. The study protocol was approved by the institutional ethical committee. The pre-test and posttest structured Performa was prepared & the mothers were interviewed to collect necessary information such as background data and knowledge regarding PIH. Confidentiality of the subjects was maintained throughout of the study. Data was expressed in terms of mean and standard deviation (SD) and analyzed with SPSS v20.0 software. The 't' test was conducted to compare the mean pretest & posttest knowledge scores of the samples.

3. Results

3.1. Description of Sample According to the Socio Demographic Variable

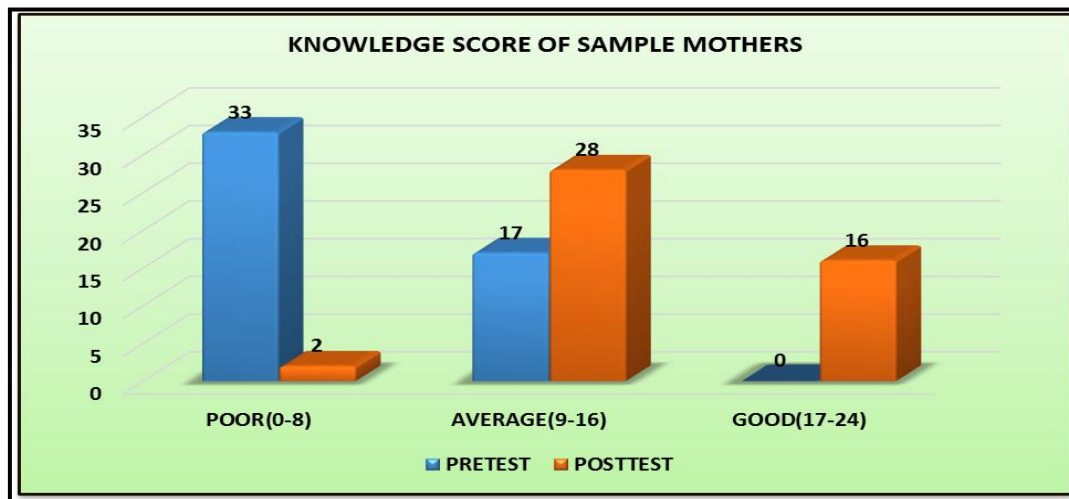
The distribution of subjects according to the age of mother depicts 40% of patients are age in between 18-22 years, 30% of mothers in between age 23-27 years, 20% of mothers in between age 28-32 years & 10% of mothers in 40 and above age group. In education level shows that 20% of mothers have literate, 30% of people under matric, 50% of mothers were graduate and above. In case of residence majority of mothers having 60% were from rural, 40% of mothers from urban areas. Dietary pattern of mothers 30% of mothers were vegetarian, 70% people are non-vegetarian. As regards to Occupation of sample 40% of mothers were working, 60% of people were not working. In monthly income of sample 15% of mothers having monthly income <5000/-, 55% of mothers having 5000-10,000/-, 30% of mothers >10,000/-. As regard to type of family 80% of people having nuclear family, 20% of people having joint family. As per the family history, family members of 60% of mothers had hypertension and 40% mothers had no family history of hypertension.

3.2. Finding Related to Evaluation of Knowledge of Mothers Regarding PIH

In this study of PIH found, 30% mothers provided the correct meaning of PIH. However, 40% mothers with their 1st pregnancy answered correctly. 70% of the mothers gave answer that family history is the risk factor of PIH while 30% had no family history as a risk factor of PIH. Back ache and hypertension before pregnancy each contributed as 40% as prominent risk factors in the mothers. In 45% cases it was observed increased chances of PIH contributed by kidney diseases. Twin or single fetus contributed equally (35% each) for PIH. Intrauterine death of fetus, hyperactivity etc. could also be observed. For therapeutic management of PIH about 65% of mothers gave answer of using methyl dopa during the questionnaire.

Table 1: Knowledge Score of Sample Mothers using Pretest & Posttest

Knowledge Score of Sample Mothers	Pretest	Posttest
Poor(0-8)	33	2
Average(9-16)	17	28
Good(17-24)	0	16

**Figure 1:** Knowledge Score of Sample Mothers using Pretest & Posttest

The depicted in Table 1 shows that the knowledge score of sample divided in 3 categories i.e. poor, average, & good. In poor knowledge i.e. (0-8): score in pretest 33 while posttest score is 2, similarly in average (9-16): score was 17 in pretest while posttest score was 28. In case of Good (17-24): pretest has low knowledge & posttest having score 16.

3.3. Knowledge of Sample of Mothers using Mean, Median, & T- Value in between Pre-Test & Post-Test

Table 2: Knowledge of Sample of Mothers using Mean, Median, & 't' - Value

Knowledge of Sample Mothers							
Knowledge Score	Mean	Median	Sem	Md	Sd	't' Value	P Value
Pretest	13.96	7	6.851	13.29	48.92	2.035*	0.0472
Posttest	27.25	15	13.37		95.46		

* Significant at 0.05 level of significance

The data depicted in Table 2 & Figure 1 shows that: as regarded to knowledge of sample of mothers the mean of pretest 13.96 while increase in posttest mean 27.25, median of pretest sample 7 where the post test 15, standard error of mean in pretest 6.851 & posttest 13.37, standard deviation of pretest 48.92 & posttest value 95.46, resulting 't' value is 2.035 of both the sample, p value is 0.0472 where degree of freedom is 49 & it is significant at <0.05 level of significance.

4. Discussion

In the present study it was found that more number of primimothers (62%) were having PIH than multi mothers (38%). Similar study was conducted by Muhammad Obaid Ur Rehman et al. in a sample size of 1000 pregnant women, 37% were found to be having PIH and 72% of the cases were primigravidae and others were multi gravidae (Rehman et al., 2003).

The present study resulted in 60% of mothers having family history of hypertension whereas 40% of mothers having no family history of hypertension. This is supported by a study reported in 2010 by Shamsi et al. 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 (Shamsi et al., 2010).

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 (Parmar et al., 2012).

In the present study the findings of the study are discussed in terms of statistically measured data. The 't' test is also statistically significant. It was finding that the knowledge score of sample divided in 3 categories i.e. poor, average, & good. In poor (0-8) score in pretest 33 while posttest score is 2, for average (9-16) group, score is 17 in pretest while posttest score is 28. For good (17-24), pretest has low knowledge and posttest having score of 16.

5. Conclusion

Among PIH cases severe cases were more. The incidence of PIH was higher among teenage pregnancy, primigravida, those having history of PIH in previous pregnancy, family history of PIH. So the finding of the study may help to bring awareness among mothers regarding PIH. After analysis it was observed that there was a significant improvement in knowledge regarding awareness among pregnancy induced hypertension mothers.

References

- Backes, C.H., Markham, K., Moorehead, P., Cordero, L., Nankervis, C.A. and Giannone, P.J. *Maternal Preeclampsia and Neonatal Outcomes*. Journal of Pregnancy. 2011.
- Dubhashi, S.S., Wani, R., Chikhal, P. and Hegde, C. *PIH-Confounding Situations, Management Dilemmas and Severe Consequences: Does Antenatal Care Have a Role*. Bombay Hospital Journal. 2008. 50 (1) 34-37.
- 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.
- Prakash, J., Pandey, L., Singh, A. and Kar, B. *Hypertension in Pregnancy-Hospital Based Study*. Journal-Association of Physicians of India. 2006. 54 (R) 273.
- Rehman, M.O., Salah-Ud-Din, Siddiqui, M.A. and Rehman, S. *Incidence of Women Having Pregnancy Induced Hypertension in Karachi*. Pak. Jour. of Pharmacology. 2003. 20 (1) 5-8.
- Say, L., Chou, D., Gemmill, A., Tuncalp, O., Moller, A-B. and Daniels, J., et al. *Global Causes of Maternal Death: A WHO Systematic Analysis*. The Lancet Global Health. 2014. 2 (6) e323-e333.
- Seyom, E., Abera, M., Tesfaye, M. and Fentahun, N. *Maternal and Fetal Outcome of Pregnancy Related Hypertension in Mettu Karl Referral Hospital, Ethiopia*. Journal of Ovarian Research. 2015. 8 (1) 10.
- 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 (1) 14.

Sibai, B.M. *Diagnosis and Management of Gestational Hypertension and Preeclampsia*. Obstetrics & Gynecology. 2003. 102 (1) 181-192.

Witlin, D., Andrea, G., Sibai, M. and Baha, M. *Hypertension in Pregnancy: Current Concepts of Preeclampsia*. Annual Review of Medicine. 1997. 48 (1) 115-127.

Yucesoy, G., Ozkan, S., Bodur, H., Tan, T., Caliskan, E., Vural, B., et al. *Maternal and Perinatal Outcome in Pregnancies Complicated with Hypertensive Disorder of Pregnancy: A Seven Year Experience of a Tertiary Care Center*. Archives of Gynecology and Obstetrics. 2005. 273 (1) 43-49.