Effect of Structured Maternal Care on Pregnancy Outcome among Antenatal Women with PIH at Various PHC and Sub-Centers in Pune District

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ABSTRACT

Pregnancy Induced Hypertension (PIH) is a common cause of maternal and newborn deaths. Globally 8-10 % of pregnant women affected by PIH. It is great concern in regards to MCH care in INDIA. A study was undertaken to find out the effect of Structured Maternal Care (SMC) on Pregnancy outcome (PO) among antenatal women with PIH at various PHC and sub-centers in Pune District

Method: A quasi-experimental method with pretest posttest nonequivalent control group design was used for the study at PHC and sub-centers of Mulshi Taluka. A structured interview technique was used to collectdemographic data and prevalence of PIH. Records from PHC and sub-center were reviewed for Pregnancy Outcome. Sample size was 60 and non-probability purposive sampling method was used to collect the data. A structured model of Maternal care including instructions on self care activities was prepared and administered.

Result: Result revealed that structured maternal care was significantly and positively correlated with pregnancy outcome. More number of visits during pregnancy was related to their outcomes in terms of birth weight, APGAR score. The study concludes that adequate antenatal care during pregnancy decreases the complications for mother and infant.

According to WHO, more than 80% of maternal deaths can be avoided by simple measures like early registration, health education, early detection of complication and off course education of antenatal mothers.

Introduction

Pregnancy is one of the significant event in the life of women. Most of the women may not have much problems during pregnancy, but some are face various problems related to pregnancy and childbirth.[1]Pre-eclampsia and eclampsia are major cause of maternal mortality and morbidity. Pregnancy Induced Hypertension (PIH) isa major complication of pregnancy[2]. There is no definite remedy available at present, but it is possible to minimize these complications by early detection and prompt action[3].

An exhaustive study has been undertaken to find out the effectiveness of Structured Maternal Care (SMC) on self-care Activities (SCA) in terms of Maternal Outcome (MO) among women with PIH, attending Antenatal Clinic at various PHC and sub-centers in Pune District.

The objectives of the study were

- To identify the knowledge and practices of experimental and control group women with PIH regarding SCAbefore and after SMC.
- To compare the knowledge and practices of experimental group with PIH regarding SCA before and after SMC.
- To determine the effectiveness of SCA on MO
- To find out the relationship between PIH and selected variables

Material and Methods

The study was conducted at the PHC and sub-centers of Mulshi Taluka of Pune District among primigravid women with PIH based on sample criteria. 60 primigravid women with PIHwere selectedassigned 30 each to the

experimental and control groups. Non-probability purposive sampling technique were used to select the samples. The SMC on PIH and its SCA were the independent variable and the effect of SMC ON MO in terms of BP, Edema, proteinuria, weight gain and type of delivery were the dependent variables. After selection pre-test was done using structured interview schedule. The bio-physiological markers such as BP, weight gain, proteinuria and edema, of all the clients were also assessed at the time of selection. They were advised to contact the investigator during each of their subsequent antenatal visit, up to delivery. On the same day of selection, the experimental group was exposed to SMC, after the pretest, in two session of 35 minutes, either individually or in group. A hand out was provided to them for further reference. The post-test on both experimental and control group were done after two weeks, using the same SMC. All the clients were monitored during each follow up till delivery, using follow up record. After delivery, to get the data regarding type of delivery, clients' clinical records were also referred. Interviews were conducted, using SMC to assess the knowledge, before and after administering SMC on SCA. Follow up record was prepared for the monitoring the client, during each follow up. SMC were prepared to impart the knowledge of PIH and its SCA, the tool were given to ten experts for content validation.

The reliability of the SMC was calculated using croanbach's Alpha. The reliability coefficient was 0.89. Inter-rater reliability was tested for follow up record. There was 100% agreement between the two raters. It was found that tools were unambiguous, SMC were clear and the data obtained were amendable to statistical analysis. The collected data were tabulated and analyzed using descriptive and inferential statistics.

Results

Table 1. Demographic description of sample by frequency and percentage

N=120

Characteristics	Category	Frequency	Percentage
Age in years	18-30	44	73.33
	31-40	10	16.66
	above 40	6	10
Antenatal women visited at health centre (throughout pregnancy)	1-2 visits (Low Frequency)	32	62.5
	3-4 visits (Moderate Freq.)	18	32.5
	4 & above (High Freq.)	10	5
Residence from home to health care center	Within 5 km	14	23
	More than 5 km	46	77
Religion	Hindu	40	67
	Muslim	15	25
	Christian	5	9
Education	Illiterate	4	7
	Primary school (I – VII)	21	35
	Secondary school (VIII-X)	28	47
	Higher Secondary School (XI-XII)	6	10
	XII standard & Above	1	1.66
Occupation	Housewives	32	62
	Farming (own farm)	12	20
	skilled worker	10	18
	unskilled worker	6	10

Sample Characteristics: The primi-gravid women with PIH included in the study.Majority (73.33%) of the samples belonged to the age group of 18-30 years, 62% antenatal women made 1-2 antenatal visit only 5% women completed their 4 and above visits. In regards to distance travelled by women 77% women staying far longer than 5 km from first referral unit. Hindus are more in majority 67% to women are from Hindu religion followed by Muslim (25%) and Christian (9%). Majority of them studied up to SSC (47%) and 62% of the women were house wives. The average monthly income of 56% of them was below Rs. 5000. It had been seen that only 15% sample had got a family history of PIH. In the present study, 95% of them were unaware of their condition and its management.

Knowledge Scores
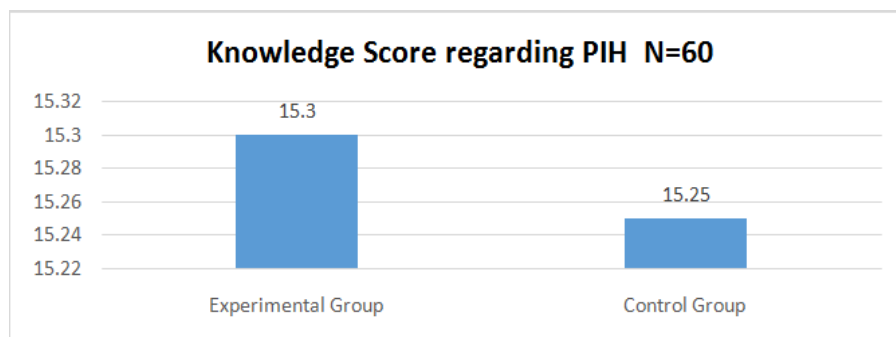
There was no significant difference in the knowledge scores of the experimental and control groups, regarding PIH (Mean knowledge score was 15.3. & 15.25)

Blood pressure: Subsequent to the practice of SCA, BP of 64% of the samples in the experimental group was established and 21% of them had low BP, from base line measurement. In contrast, 49% of the samples in the control group had fluctuating BP and 30% of them had very high BP.

Proteinuria

It was observed that &70% of the samples in the experimental group and 61% in the control group had no proteinuria, during the course. Infact, 27% of the remaining 30% samples in the experimental group (who had proteinuria at the time of selection), became free of it during the follow up period.

Edema

It had been reflected that 39% of the samples in the experimental group and 18% in the control group had no edema during the course of the disease, up to delivery but 43% of samples in the experimental group had got disappearance of edema, while it was persisted in the control group.

Weight Gain

There was not much difference between experimental and control groups regarding weight gain i.e., 97% of the samples in both groups had normal weight gain.

Warning Signs

It had been observed that there was no significant difference in the development of warning signs between experimental and control group, i.e. 94% of samples in the experimental group and 82% of the samples in the control group had no warning signs during the course of the study.

Medications

It showed that only 9% samples in the experimental group required antihypertensive drugs. On the contrary, 76% of the samples in the control group required anti-hypertensive to control BP so it was found that those who practiced SCA would require lesser antihypertensive drugs.

Type of Delivery

It had been observed that normal delivery was found more in experimental group (61%) and surgical approach was found more in control group (94%)

Association between PIH and SV

It had been found that there was significant relationship between PIH and certain variables such as age and occupation but there was no significant association between variables such as religion, educational status and family history of PIH.

Conclusions

The following are the conclusions before SMC, the knowledge of primi gravid women with women with PIH was inadequate. The SMC on SCA considerably enhanced the knowledge of primi gravid women with PIH. The SMC helped the primigravid women with PIH to practices SCA. The practice of SCA by primi gravid women with PIH helped to attend favorable MO there was an association between PIH and variables such as age and occupation i.e. PIH was prevalent more among the age group of 21 to 25 years and most of the women PIH had no occupation. There was no relationship with the PIH and variables, such as religion educational status and family history of PIH.. The conclusion drawn from the study is that SMC were effective control of PIH among primi gravid women with PIH

References

[1] Sable MR, Wilkinson DS. Impact of perceived stress, major life events and pregnancy attitudes on low birth weight. Family planning perspectives. 2000 Nov 1:288-94.

[2] Duley L. The global impact of pre-eclampsia and eclampsia. InSeminars in perinatology 2009 Jun 1 (Vol. 33, No. 3, pp. 130-137). WB Saunders.

[3] Bosch J, Abraldes JG, Groszmann R. Current management of portal hypertension. Journal of hepatology. 2003 Jan 1;38(Suppl. 1):S54-68.

[4] Prathima P. COMPARE KNOWLEDGE ON SELF CARE MANAGEMENT OF PREGNANCY INDUCED HYPERTENSION BETWEEN PRIMI GRAVID AND MULTIGRAVIDA. Nitte University Journal of Health Science. 2014 Sep 1;4(3):61.

[5] Alderdice F, McNeill J, Lynn F. A systematic review of systematic reviews of interventions to improve maternal mental health and well-being. Midwifery. 2013 Apr 1;29(4):389-99.