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Effectiveness of Structured Teaching Program on Knowledge Regarding Antenatal Care during First and Second Trimester among Primigravida Mothers

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Abstract: *Pregnancy is a creative and productive period in the life of women. It is one of the physiologic vital events, which needs special care from the conception to postnatal period, every mother wants to enjoy the nine months period with the baby inside her womb. The mothers joyful experience of the pregnancy is not going to be always but sometimes it is associated with problems of some minor ailments that may present among mothers which cause discomfort to the mothers during pregnancy.to them. (Dutta)*

Promotion of maternal and child health has been one of the most important components of the family Welfare Programme of the Government of India and the National Population Policy ± 2000. One of the most important component of antenatal care is to offer information and advice to women about pregnancy related complication and possible curative measures for early detection and management of complications. Antenatal care can also play a critical role in preparing a woman and her family for birth by establishing confidence between the woman and her health care provider and by individualizing promotional health messages. Antenatal care is considered essential for health of both the mother and the child, it is important to analyze the possible factors contributing to its utilization.

The start of any civilization is the measure of consideration and care, which it gives to its weaker sections. In any community, women are especially vulnerable during pregnancy. The maternal mortality ratio (MMR) in India is very high the data given by the registrar general of India for 1998 estimate that MMR to be around 407 per 100,000 live births. (WHO 2005)

Reducing MMR to less than 100 per 100,000 live birth is a commitment enshrined in the national population 2000. India is committed to reducing MMR to less than 100 per 100,000 by the year 2010 from the current 407 / 100,000 live births (SRS, RGI, 1998)

Maternal care includes care during pregnancy and should begin from the early stages of pregnancy. Women can success antenatal care service either by visiting a health center where such services are available or from health workers during their domiciliary visits. One of the most important components of antenatal care is to offer information and advice to women about pregnancy related complication and possible curative measures for early detection and management of complication. Antenatal care can also play a critical role in preparing a woman and her family for birth by establishing confidence between the family members and pregnant women.

A quasi experimental one group pre-test post-test research design to evaluate effectiveness of structured teaching program on knowledge regarding antenatal care during first and second trimester Primigravida mothers. The study conducted on 60 samples. Samples were selected by non-probability convenient sampling. Data was collected using structured questionnaire instrument.

Among samples, Primi mothers aged between 18- 30 years and above. 9(15%) were between the age group of 18-20 yrs., 48(80%) were between the age group of 21-25 yrs., and 3(5%) were between the age group of 25 years and above. Whereas 5(8.3%) were 1-3 month , 3253.3%) were 4-5 months,

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23(38.3%) were 5-6months of gestation, among them 0(0%) were illiterate, 18(30%) were primary school, 48(80%) were higher secondary and 0(0%) were any degree, from them 33(55%) were house wife, 27(45%) were Cooley, 0(0%) was office work or . out of them 8(13.3%) were nuclear family, 52(86.7%) was joint family. Regarding bread winner of the family, 4(6.7%) were father in law, 55(91.7%) were husband, 1(1.7%) was wife. Regarding spouse education, 0(0%) were illiterate, 5(8.3%) were primary school, 55(91.7%) higher secondary, 0(0%) was any degree. Regarding Income, 7(11.7%) were 5000 / month, 50(83.3%) were 5000 10000/ month, 3(5%) were 10,000 above/ month. Regarding source of information, 3(5%) were any medias, 50(83.3%) were through VHN, 7(11.7%) were any relatives, 0(0%) were others. The obtained overall post-test mean 8.70(SD = 3.679) was less than the pre-test mean 28.58(SD = 1.329). The obtained mean score was 19.883 and t' value t=42.300 (P=0.00) was significant. Standardized co-efficient mean difference of post-test knowledge on antenatal care and selected back ground 0.263(0.092), t=0.761(0.220), t=-0.872(0.341), t=0.908(0.288), t=1.824(1.127), t=1.765(1.074), t=-0.158(0.097), t=-0.056(0.027) reported for age, gestational weeks, education, occupation, type of family, bread winner of the family, spouse education, income, source of education respectively were not significant in relation to structured teaching program..

Keywords: ANC (Ante Natal Care), PTP (Plan Teaching Program), Primigravida, Trimester

I. INTRODUCTION

The knowledge of pregnant women regarding antenatal care and their compliance to it is of paramount importance in preventing maternal and infant mortality rate and morbidity. The Indian society is made of large number of socio culturally diverse groups. Their views of antenatal care and the health care system in general, may be different. The disparity of their knowledge and practice has to be assessed for improving the delivery of such services to these groups Majority (76.8%) of the respondents attended ANC (Antenatal care) clinic. Women in urban areas were more than 2 times likely to attend antenatal clinic than women in urban areas [(OR=2.177, 95% CI, 1.081-4.382)]. Women who were Muslims or other religions were more than 2 times likely to attend ANC clinic than women who were Christians [(OR=2.398, 95% CI, 1.264-4.557)]. Also, Women who were 25 years and older were more than 2 times more likely to utilize antenatal for the services to be under used. In the developing countries, these problems are even more prevalent due to the current socio economic conditions and in accessibility of health facilities. The utilization of maternal health service definitely is essential strategy in reducing the risks associated with pregnancy and child bearing in this age group. The essential maternal health care services during pregnancy included antenatal care, skilled care at delivery and postpartum care and these are necessary to promote good health. Antenatal care is the care received during pregnancy from skilled health personnel such as the goal oriented model recommended by the WHO which include 4-5 visits for pregnant women who are not having medical problems. Antenatal care utilization (65%) in the developing countries is low when compared to that of the developed countries which is 97%. Skilled attendance at delivery is 53% in developing countries while it is 99% in the developed countries and postpartum care utilization is 30% compared to 90% in developed countries. In Nigeria antenatal care utilization is reported to be 63%.

The antenatal period is a very special time where women undergo the transition into motherhood. During this period the anaemic. In India over 54% of pregnant women are anaemic and for every 1, 00,000 live births there are 301 maternal deaths in India. This can be reduced by registering the pregnancy in hospital or center and mainly should counsel to come for follow up visit till the \ India majority of mothers are poor and malnourished and live under unsanitary condition. Maternal (301/1, 00, 000 live birth) and infant mortality rates (57/1000 live birth) are high compare to other developing countries. In the light this fact, we need to improve the health of the antenatal mothers by providing antenatal care the safe motherhood implies good health of the pregnant women during pregnancy and also ensures good health of the body. In other words safe motherhood is related to maternal and prenatal mortality and morbidity of 100-200 million deliveries occurring worldwide.

Annamma Jacob (2004) conducted a study about the use of antenatal care maternity services for the pregnant women in Lewero Dist. in Uganda. A sample size of 769 women in the viewed, among that 417 visiting initially, during second

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trimester 242, during third trimester 266. About the use of antenatal services most the woman delivered in health centers (28.7%), (26.4%) delivered from home, (18.2%) in private maternity homes and (13.8%) in hospital. About maternity service utilization approximately (59.2%) gave birth with a skilled attendant present others delivered other by themselves or with help of at relatives, friends and traditional birth attenders.

Banikarim C, Chacko M D, Kelder S H. (2000) performed a cross sectional survey to access the knowledge and practice of women utilizing and not utilizing antenatal care facilities during their previous pregnancy among 200 married women in the age range 15-49 years were compared by the calculating odds ratios and 95% confidence intervals. Studied showed Pallor was significantly lower among women utilizing antenatal care (57%) as compared to those who were not (77.6%) (O.R.38.95% Cl (. 18-81) p value.02). Tetanus toxoid coverage was higher among women utilizing antenatal care (92%) compared to those who were not (59.2%) (O.R 10.8 95% Cl

Amarnath G.B (2000) conducted a study to assess the status of antenatal care among pregnant women in India. In that study 89% of the pregnant women availed antenatal visits of which 62% had received three or more ANC visits. Those receiving the second dose of TT or booster dose were about 78%. About 73% of the pregnant women received IFA tablets during their pregnancy. About 53% of the pregnant women had full package proportion of pregnant women who availed full ANC package was lower in rural as compared to urban areas, lowest for (4.5-26.2). Knowledge about danger signals in pregnancy and realization of the importance of eating healthy diet during pregnancy was significantly higher among utilizing antenatal care. The finding reveals that lesser prevalence of Anaemia and better tetanus toxoid coverage was seen among women attending antenatal care facilities. Identification of danger signals in pregnancy and recognition of nutritional demands of pregnancy are better understood by women utilizing antenatal care facilities.

Adil H. (2012) performed a study about utilization of routine antenatal health care services in Khartoum State, Sudan. Interviews were held among a representative sample of 400 marries women aged 15-49 years from both urban and rural localities was approximately 5 times and application of TT vaccination was 3.7 times higher in urban women as compared to women in rural areas. A higher quality of care (odds ratio 5.8) and shorter walk time (odds ratio 3.1) were significantly associated with more utilization of routine antenatal care services. Mother education showed a nearly significant positive relationship both with use of routine antenatal health care services (odds ratio 2.1).

Ahuja A, Tewari S. (1995) performed a study to assess the level of self-motivation of primi-gravida mothers towards antenatal care at Sree Ramachandra Hospital and Research institute Chennai, among 100 mothers only 8% of the mothers were with high level of self-motivation towards receiving or following the antenatal care and she finds that there is a responsibility for the nurses to increase the level self-motivation among antenatal mothers. Are women and providers satisfied with antenatal care? Views on a standard and a simplified evidence-based model of care in four developing countries. BMC Womens Health 2002; 2(1):7. This study is a nested cohort questionnaire based trial, located within the WHO RCT on evidence based antenatal care reported above. 1600 women were randomly selected to evaluate their satisfaction with an alternative model of antenatal care involving fewer visits. A further questionnaire was sent to 174 antenatal care providers20. The majority of women in both arms expressed satisfaction with ANC. More women in the intervention arm were satisfied with information on labour, delivery, family planning, pregnancy complications and emergency procedures. More providers in the experimental clinics were worried about visit spacing, but more satisfied with the time spent and information provided. Women under the new ANC model were slightly less satisfied with the number of visits.

II. OBJECTIVES OF STUDY

- To assess the pre-test level of knowledge regarding antenatal care amongPrimigravida mothers
- To assess the post-test level of knowledge before and after structured teaching programe among Primigravida mothers.
- To test the association between posttest knowledge score selected backgroundfactors among Primigravida mothers.

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III. MATERIALS AND METHODS

A quasi experimental one group pretest post-test research design to evaluate effectiveness of structured teaching program on knowledge regarding antenatal care during first and second trimester Primigravida mothers. The study conducted on 60 samples. Samples were selected by simple random convenient sampling. Data was collected with following structured tool.

Part A: Demographic Performa

The characteristics included in the base line preforms it contains of age, gestation weeks, education, occupation, and type of family, bread winner of the family, education of spouse, income, and source of information.

Part B: Structured knowledge questionnaire

It included 30 knowledge questions of which consist of care during first and second trimester of pregnancy among Primigravida.

The questionnaire consists of 30 multiple-choice items, each had alternatives responses. Each item had only one correct response.

The content validity of questionnaire was established by experts. The experts were selected on the basis of their expertise, experience and interest in the problem being studied. They were from different specialties i.e. Nursing, Midwifery Nursing, Education, Research, and Statistics. They were requested to give their opinions on the appropriateness and relevance of the items in the tool. Necessary modifications were made as per the expert's advice. The reliability of tool was for knowledge 0.79.

Final study was conducted on 60 samples. The sample for the study comprised of adolescents girls, who met the designated criteria were selected through simple random sampling technique. Objectives of study was discussed and obtained consent for participation in study. Base line data was assessed by administering a structured assessment questionnaire. Based on the objective and the hypothesis the data was analyzed by using various statistical tests i.e. %, mean, t test and chi square test.

IV. STATISTICAL METHODS

The data collected from the participants was planned to be analyzed on the basis of the objectives of the study using descriptive and inferential statistics. Data was organized data in a master data sheet.

Data analysis is the systematic organization of research data and the testing of research hypothesis using that data.

The plan of data analysis was as follows

- The data was entered in a master sheet.
- Back ground variables of Primigravida mothers were analyzed using frequency percentage distribution.
- Mean score and “t” test analyzed data on knowledge regarding Antenatal care during first and second trimester among Primigravida mothers.
- The association between in post-test knowledge score and relation to the back ground factors were analyzed by using linear regression.
- Results would be represented in tables and graphs.

Results

Section I: Description of Socio demographic data

Findings of section I table 1 depicts that majority of of antenatal mothers 48(80%) belongs to 21-25 yearsand least 3(5%)belongs to the age group above 30 years, Regarding bread winner of family majority of 55(91.7%) belongs to husband and least 1(1.7%) belongs to the wife. Spouse education of majority of 55(91.7%) belongs to secondary school and least 5(8.3%) belongs to the primary school. In relation to income majority of 50(83.3%) belongs to 5000-10000/ month andleast 3(5.0%) belongs to the 10000 and above.

N=60

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S. No	DEMOGRAPHIC DATA	FREQ	(%)
1	AGE		
	18 ± 20 years	9	15.0%
	21 ± 25 years	48	80.0%
	30 ± Above	3	5.0%
2	Bread winner of the family		
	Father in Law	4	6.7%
	Husband	55	91.7%
	Wife	1	1.7%
3	Education of spouse:		
	Illiterate	00	00%
	Primary school	5	8.3%
	Secondary school	55	91.7%
	Any Degree	00	00%
4	Income:		
	a) >5000 / month	7	11.7%
	b) 5000 ± 10000 / month	50	83.3%
	c) 10,000 above / month.	3	5.0%¶

Section II: Comparison of pre-test and post-test knowledge scores

N=60

KNOWLEDGE SCORE ON ANTENATAL CARE	MEAN	STANDARD DEVIATION (SD)	MEAN DIFFERENCE	CALCULATED VALUE ³t´	P(>0.05)
PRETEST	8.70	3.679	19.883	42.300	0.00 significant
POST TEST	28.58	1.239			

t = 1.645 at 58 df at 5% significant

Table 2 shows that Mean, SD, Mean difference "t" value and P value of pre-test and post-test on knowledge among Primigravida of first and second trimester pregnancy care. t = 1.645 at 58 df at 5% significant. The obtained overall post-test mean 28.58(SD = 1.239) was greater than the pre-test mean 8.70(SD = 3.679). The obtained mean score was 19.883 and t' value t=42.300 (P=0.00) was significant. It inferred that knowledge have significantly increased after the structured teaching program among Primi mothers. It was found to be very effective.

Section III: Association between The mean difference of post-test knowledge on antenatal careduring first and second trimester and back ground factors among Primigravida mothers

Results of the study reveals that standardized beta indicates that the relative contribution of their demographic variables in predicting antenatal care based on the percentage of prediction of antenatal care. Age (09.2%), gestational weeks (22.0%), education (34.1%) occupation (28.8%). Type of family (11.27%), breadwinner of family (10.74%) spouse education (09.7%), income (02.7%), source of information (38.7%), thus, the demographic variables influence on antenatal care.

V. DISCUSSION

Among samples, majority Primi mothers aged between 18- 30 years and above. 53.3%) were 4-5 months of gestation, among them were primary school, 48(80%) from them 33(55%) were house wife, and 52(86.7%) was residing in joint family. Regarding bread winner of the family majority i.e. 55(91.7%) were husband. Whereas spouse education 55(91.7%) higher secondary and their Income 50(83.3%) were 5000 10000/ month whose source of information 50(83.3%) were through VHN. The obtained overall post-test mean 8.70(SD = 3.679) was less than the pre-test mean

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VI. CONCLUSION

The conclusions were drawn on the basis of the findings of the study that existing knowledge has increased remarkably after teaching. The enhancement in knowledge was significant with administration of PTP.

Implications

The findings of the study have certain important implications for the nursing profession in the field of Nursing Practice, Nursing Education, Nursing Administration, Nursing Research and Community Health Nursing.

IMPLICATIONS FOR NURSING PRACTICE

Structured teaching program is an effective measure to increase the knowledge. Nurse can use the structured teaching program as an effective measure to increase the knowledge.

NURSING EDUCATION

Structured teaching program on Antenatal care during first and second trimester among Primigravida mothers can be brought in detail in nursing curriculum from undergraduate level.

NURSING RESEARH:

The study will be valuable reference for further research.

The findings of the study would help to expand the scientific body ofprofessional knowledge up on which further research can be conducted.

Structure teaching program can be used as a specific nursing intervention.

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