

Effect of Structured Teaching Program on Knowledge and Attitude Regarding Antenatal Care among Spouses of Primigravida in Selected Hospitals, West Bengal

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Abstract:

Background: Husband's involvement in seeking timely antenatal care is important. Their support can have a positive impact on health care of pregnant women, which successively depends on their knowledge and attitude regarding the importance of antenatal care. Use of antenatal health services is a good approach to scale back the chance of maternal morbidity and mortality especially in places where the overall health status of women is poor. By increasing the use of antenatal care (ANC) the risk of maternal death can be reduced.

Methods: A non-equivalent control group pre-test post-test study was conducted among 80 spouses of primigravida 40 in the experimental & 40 in control group selected using non-probability convenience sampling technique to determine the effect of structure teaching program on knowledge & attitude regarding antenatal care among spouses of primigravida in Sonarpur Rural Hospital, West Bengal. Structured knowledge questionnaire & Five point Likert scale were administered to obtain data.

Results: The result revealed that mean post-test knowledge & attitude score (22.2 & 129.1) in experimental group & (13.75 & 90.5) in control group were higher than the mean pre-test score in both group ((12.5 & 89.8), (13.55 & 90.15 r e s p e c t i v e l y). The result revealed that significant improvement of knowledge as evident from corresponding 't' value ('t'(39) = 8.96, $p \leq 0.05$) & attitude ('t'(39) = 4.52, $p \leq 0.05$) after STP.

Conclusion: Structured teaching program is effective to improve the knowledge & attitude of the spouses of primigravida on antenatal care.

Keyword: Knowledge, attitude, antenatal care, structured teaching program.

Introduction:

Pregnancy, labor, and childbirth are important milestones in an exceedingly Couple's life. Knowledge and attitude about the unknown events during pregnancy can make childbirth an extremely enriching and joyful event. Pregnancy, including, childbirth, perhaps is the most emotional and dramatic experience in a woman's life. Complications related to pregnancy and childbirth are the leading causes of mortality for women of reproductive age in many parts of the developing world especially in India. The maternal mortality ratio in India is 130 per 100,000 live births according to the Sample Registration System (SRS) report for 2014-2016. The primary target within the third SDG is to scale back the global mortality ratio to less than 70 deaths per 100,000 live births in 2030. Child mortality is a sensitive indicator of a country's development. In 2016,

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the IMR was 34/1,000 live birth. (1)

Husband's involvement in seeking timely antenatal care is important. Their support can have a positive impact on health care of pregnant women, which successively depends on their knowledge and attitude regarding the importance of antenatal care and studies have shown that women are more likely to use antenatal services when their husbands accompany them for ANC visits.

Effective antenatal care can improve the health of the mother and provides her an opportunity to deliver a healthy baby. Regular monitoring during pregnancy can help detect the complication at an early stage before they become life-threatening emergencies. However, one must realize that even with the foremost effective scanning tools currently available, one cannot predict which is in a position to develop pregnancy-related complication. Hence, every pregnant woman needs special care. (6)

Reproductive health of both men and women is influenced by men's behavior but involvement of men in this area seems to be slow in developing countries even though efforts have been made to engage men in reproductive, maternal and child health programs. Men hold social and economic power and have strong control over their families, especially in developing countries. The husband decides the family size, the timing and conditions of sexual relations and whether their spouses will utilize the available health care services or not but it's unthinkable to seek out men accompanying with their partners during antenatal check-up and delivery (Bhatta, 2013). (7)

Objectives:

1. To identify the knowledge and attitude of the spouses of primigravida in experimental and control group.
2. To determine the association of knowledge and attitude of the spouses of primigravida with selected demographic variables.
3. To evaluate the effect of structured teaching programme by the differences of knowledge and attitude scores of the spouses in experimental group and control group.

Methods:

A quantitative research approach was selected to accomplish the objectives of the study. Researcher used Non-equivalent control group pre- test post-test design. Pretesting was conducted in the antenatal OPD of Medical College and Hospital, Kolkata, and the final study was conducted in the antenatal OPD of Sonarpur Rural hospital, South 24 Pgs. West Bengal, in January 06.01.2020 to 01.02.2020. The population of the study comprised of spouses of primigravida. The sample consists of spouses of a primigravida who attend the antenatal OPD with their wife that was selected for a particular study. The sample size consists of 80 spouses of primigravida, (40) in the experimental group, and (40) in the control group. The spouses of primigravida attending antenatal clinics with their wives, and who have read at least up to class VIII, and willing to participate in the study were included and who were not willing to come and attend the post-test session conducted one week after the teaching program and who were not interested to participate exclude from the study. Non-probability convenient sampling technique was adopted. For demographic information researcher administered a semi structured questionnaire (Age, educational status, occupation, type of family, income per month, habitation). A structured knowledge questionnaire in the form of MCQs was administered to obtain data from each area based on antenatal care to assess the pre-test and post-test knowledge score of the spouses in the experimental group and control group. It had a total of 30 questions with full marks 30. For each right

answer, score of (1) was allotted and for every wrong answer, a score of (0) was decided. Overall score range from 0 to 30. Five point Likert scale was administered to collect data from each area based on antenatal care to assess the pre-test and post-test attitude score of the spouses in the both group. It had a total of 30 questions with full marks 150. Every question had five statements (strongly agree-5, agree-4, neutral-3, disagree-2, strongly disagree-1). Thus the maximum score was (150) with a minimum of (30). Total scoring was divide the spouses into three grades (Favorable, unfavorable, and Neutral attitude).

All of tools were checked by English language expert, tested for reliability and content validity was assessed by 7 (seven)

experts from various fields. Ethical clearance was obtained from the ethical committee of ID & BG. Hospital, Kolkata. Data collection was done from 06.01.20 to 01.02.20, at Sonarpur Rural Hospital, South 24 (Pgs). Spouses of primigravida were explained with the objectives of the study, informed consent was taken and confidentiality was assured.

The average time taken for each subject for completion of the knowledge and attitude questionnaire varied from 40 to 45 minutes. On the same day (Day-I), a structured teaching program regarding antenatal care was administered, and post-test was taken by the same questionnaire on the 8th day for each sample to assess the knowledge and attitude on antenatal care.

The data were tabulated, analyzed, and interpreted by descriptive inferential statistics. To measure knowledge and attitude regarding antenatal care mean & SD calculated in experimental and control group. Association between pre-test knowledge and demographic characteristics was computed by chi square test. The effect of structured teaching programme was shown by computing paired t -test to depict the statistical significant mean differences between pre-test and post-test knowledge and attitude score.

Results: obtained data were tabulated, analyzed, and interpreted by descriptive inferential statistics. Frequency and percentage were computed to describe sample characteristic.

Description of sample characteristics in experimental and control group:

The study was performed among 80 subjects divided equally between experimental and control group were included in final analysis. Most subject in experimental group (16; 40.00%) and control group (15; 37.50%) belonged to the age group of 25 to 27 years, monthly family income more or less same percentage (22; 55%), (21; 52.50%). Habitat more or less same percentage from both group (35; 87.50% and 36; 90.00%), and most of them were from joint families (72.5% and 57.5% respectively). (table-1)

Table 1 Frequency and percentage distribution of the spouses of

primigravida according to their age, education, occupation, types of family,habitat, monthly income.

n= 80 (n_e =40,n_c=40)

Variable	Experimental grp.	Control group	P value
	Frequency(%)	Frequency(%)	
Age (in years)			
22-24	11(27.5)	10(25)	0.788
25-27	16(40)	15(37.5)	
28-30	9(22.5)	10(25)	
31-33	4(10)	5(12.5)	
Education			0.823
Upper primary	8(20)	7(17.50)	
Secondary	13(32.50)	15(37.50)	
Higher secondary	11(27.50)	12(30)	
Graduate	8(20)	6(15)	
Occupation			0.763
Unskilled worker	9(22.5)	13(32.5)	
Private service	10(25)	7(17.5)	
Small business	14(35)	11(27.5)	
Cultivator	7(17.5)	9(22.5)	
Income per month (in Rupees)			0.333
5000-10000	22(55)	21(52.5)	
10001-15000	16(40)	13(32.5)	
Above 15001	2(5)	6(15)	
Habitat			0.749
Rural	35(87.5)	36(90)	
Urban	5(12.5)	4(10)	
Types of family			0.164
Joint family	23(57.50)	29(72.50)	
Nuclear family	17(42.50)	11(27.50)	

Table 2 Comparison of demographics variables between two groups according to their age, education, occupation, types of family, habitat, monthly income.

Continuous data expressed as mean, Standard deviation, unpaired t- test; categorical.

data expressed as absolute values, chi-squared test, There was no statistically significant difference exist in the distribution of any of the variables between the experimental and control groups (all $p > 0.05$). The distribution of demographic characteristics outcome measures was also similar between the two groups without any significant group difference (all $p > 0.005$). (table 2)

n= 80 (n_e =40, n_c=40)

Variable	Experimental group			Control group			P value
	Mean Error Mean	Sd.	Std.	Mean Error Mean	Sd.	Std.	
Age (in years)							
22-24							
25-27	26.65	2.815	0.445	26.83	2.986	0.472	0.788
28-30							
31-33							
Education							
Upper primary							
Secondary	2.48	1.037	0.164	2.43	0.958	0.151	0.823
Higher secondary							
Graduate							
Occupation							
Unskilled worker							
Private service	2.48	1.037	0.164	2.40	1.172	0.185	0.763
Small business							
Cultivator							
Income per month (in Rupees)							
5000-10000							
10001-15000	9725.00	3933.665	621.967	8900.00	3628.943	573.786	0.333

Above 15001

Habitat

1.13 0.335 0.053 1.15 0.362 0.057 0.749

Rural

Urban

Types of family

Joint family 1.43 0.501 0.079 1.28 0.452 0.071 0.164

Nuclear family

Data revealed that the pre-test mean Knowledge and attitude score of spouses were (12.5& 89 . 8) in experimental group and (13.55& 90.15) in control group.

Whereas in post-test mean knowledge & attitude score of spouses were higher (22.2&129.1) in experimental group than(13.75 & 90.5)in control group (table 3).

Table 3 Mean, standard deviation, of the pre-test and post-test Knowledge and attitude scores of the spouses in experimental group and control group

n= 80 (ne =40,nc=40)

Knowledge Score	Range	MeanExp.		Sd		't' value	
		Group	Cont.group	Exp. Group	Cont. Group	Exp. group	Cont.group
Pre-test	0-30	12.5	13.55	2.01	2.53	8.96*	0.262
Post-test	0-30	22.2	13.75	1.92	1.93		
Attitudescore							
Pre-test	30-150	89.8	90.15	6.31	5.00	4.52*	0.466
Post-test	30-150	129.1	90.05	6.27	5.24		

't' (39) = 1.69, p≤0.05

Effect of structured teaching program: we tested the null hypotheses by computing the mean difference between pretest & post-test knowledge and attitudescore of the participants.

H01: After administration of structured teaching programme on antenatal care there is no significant difference between the mean post-test andmean pre-test knowledge and attitude scores of the spouses in experimental group and control group at 0.05 level of significance.

Results of paired t-test: The effect of structured teaching program was determined by significant increase in post-test knowledge & attitude score of the spouses in experimental group after administration of STP. The result revealed that significant improvement of knowledge as evident from corresponding 't' value ('t'(39) = 8.96, p≤0.05) & attitude ('t'(39) = 4.52, p ≤0.05) after STP. Hence the null hypothesis (H01) was rejected & research hypothesis was accepted. The researcher concluded that the STP was effective in improving the knowledge and attitude of spouses of primigravida (in table 3).

Findings related to difference in post-test knowledge & attitude score of experimental and control group

H02: There is no significant difference between the mean post-test Knowledge & attitude score of the spouses of primigravida after administration of structured teaching programme on antenatal care in experimental group and without administration of structured teaching programme in control group.

Table 4 Independent ‘t’ test and its significance computed between post-test knowledge & attitude scores of the spouses of primigravida in experimental

group and control group		n=80			
Knowledge					
Post-test	Mean	Mean difference	SD	SE	‘t’-value
Experimental grp.	22.22	8.47	1.92	0.43	3.15*
Control group	13.75		1.93		
Attitude					
Experimental grp.	129.1	39.05	6.27	1.29	4.48*
Control group	90.05		5.24		

‘t’ (78) =1.67, $p \leq 0.05$

Results of independent t-test: the result revealed that in experimental group mean post-test knowledge and attitude scores (22.22 & 129.1) was higher than in control group (13.75 & 90.05) with mean difference of (8.47 & 39.05) which was found to be statistically significant as evident from corresponding ‘t’ value (‘t’ (78)= 3.15, $p \leq 0.05$)& (‘t’ (78) =4.48, $p \leq 0.05$).

Thus showed that the obtained mean difference was a true difference not by chance. Thus the null hypothesis (H02) was rejected. The researcher concluded that the structured teaching program was effective for improving the spouses knowledge and attitude regarding antenatal care (table-4).

Association between pre-test knowledge of spouses (experimental and control group) with selected demographic variables

The chi square value (0.69), (0.05), (0.04) revealed that knowledge of spouses in both group was not influenced

by age, educational qualification, and types of family. So, it can be concluded that no significant association was found between knowledge with selected demographic variables.

Discussion:

The study conducted with the core purpose to investigate the effect of a structured teaching programme on knowledge and attitude regarding antenatal care among spouses of primigravida. Non-equivalent control group pre-test post-test design was used. Based on the objectives of the present study and its findings, a discussion was held in relation to other studies.

The present study also showed that the maximum number of the spouses from both group (16; 40.00% & 15; 37.50%) belonged to the age group of 25-27

years, A similar result was observed in the study by Kola, M (2015) Where she found that maximum number of husband (85; 35.40%) belonged to the age group of 26-30 years.⁷ A similar study was observed by Pruthi N (2015), she found that mean age

of participants was 29 ± 4.9 years.(4)

The present study showed that the pre-test mean knowledge score of spouses was

12.5 ± 2.01 with median 13, in experimental group and the pre-test mean knowledge score of spouses was 13.55 ± 2.53 with median 14, in control group. A study conducted by

Kola, M study findings, as she reported that the mean knowledge score of respondents was

13.55 ± 6.27 and median score was (14). Only (45.40%) of respondents had knowledge score above the mean.(3)

The present study showed that in the experimental group the post-test knowledge & attitude mean percentage was significantly higher than the pre-test knowledge & attitude mean percentages in all the content areas. The computation of the data using paired 't' test ('t'(39)

$= 8.96, p < 0.05$) on knowledge and attitude ('t'(39) = 4.52, $p < 0.05$) depicted that the spouses of primigravida from experimental group gained knowledge & attitude on antenatal care after administering STP. So it was proved that a structured teaching program on antenatal care among spouses of primigravida was effective in improving their knowledge & attitude. A study conducted by Thomas Anu Roji (2013) also similar our findings. The result of the study showed that the difference in pretest and post-test mean was significant indicating the effectiveness of STP. Years.(2)

Regarding the attitude score it was found in present study maximum number (32; 80%) of spouses in the experimental group were neutral towards antenatal care, 8(20%) spouses had unfavorable attitude in pre-test and

35(87.5%) spouses had favorable attitude towards the antenatal care after the implementation of a teaching program. A study conducted by Sultana Farzaneh the findings revealed that the men (34.00%) had a neutral attitude towards their participation in the antenatal care.(5)

Throughout this discussion we have identified similar as well as contradictory findings in regard to both knowledge and attitude from both experimental and control group in various studies on the same topic. With due respect changing demand and reduce the maternal mortality rate the role of spouses increase in antenatal care. The role of education is very much important in this situation to update the knowledge and attitude.

Conclusion:

From the study findings, it can be concluded that the structured teaching program on antenatal care among spouses of primigravida was effective for increasing the knowledge and attitude on antenatal care

So it can be concluded from the study findings that the group was homogeneous as per their demographic characteristics. The statistically significant differences observed between pre-test and post-test knowledge and pre-test and post-test attitudes were due to intervention undertaken by the researcher.

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