NURSING PRACTICE

Effectiveness of Planned Teaching Program on Knowledge and Reducing Anxiety about Labor among Primigravidae in Selected Hospitals of Belgaum, Karnataka

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Abstract

Objectives: To assess the knowledge and anxiety level of primigravidae about labor in both experimental and control group, evaluate the effectiveness of the planned teaching program on knowledge and reducing anxiety about labor among primigravidae in the experimental group as compared to the control group.

Methods: The research approach used for the study was the evaluative approach. The study was conducted using pre-test post-test, control group, a quasi experimental design. The study was conducted on 60 primigravidae (30 experimental and 30 control group) attending antenatal OPD'S at KLE'S Dr Prabhakar Kore Hospital and MRC, Belgaum using purposive sampling technique. Data was collected by using a structured knowledge questionnaire and standardized Zung self-rating scale. The data was tabulated and analyzed in terms of objectives of the study, using descriptive and inferential statistics.

Results: The results showed that knowledge score mean difference (MD) in experimental group was 16.8 and in control group it was 0.6. Therefore planned teaching program was effective method to gain knowledge about labor among primigravidae. The anxiety score MD was 37.6 in experimental group and in control group it was 0.16. Hence planned teaching program helped in reducing anxiety about labor and study findings showed that there was positive correlation between knowledge and reducing anxiety in experimental group (r_{xy} = 0.1). Therefore planned teaching program helped to gain knowledge and reduce anxiety about labor in primigravidae.

Conclusion: Anxiety is common in life. It is more among primigravida mothers during labor and delivery. Mothers experience anxiety during their labor and delivery in hospitalization. Identification of anxiety and stress, helps nurses to plan provide holistic care which helps mothers to have smooth hospitalization and minimizes anxiety. Providing psychological support is one of the most important needs during their labor and delivery on the labor table. The study suggests the need for education, guidance and counseling which are essential for the primigravida mothers when they are under stress and anxiety during pregnancy and labor. It was also found that there is need to improve the awareness and encourage the mothers to participate in anxiety and stress management program to prevent further problems.

Keywords: Primigravidae, anxiety, labor, planned teaching program.

INTRODUCTION

Childbirth is one of the most memorable and rewarding event of a couple's life. No matter how often a woman gives birth, each experience is an intimate and unique celebration of life. Though labor and delivery are not without pain and some degree of anxiety, if mother remains confident, well-informed and fully supported by health workers and partner, she is likely to have no problem handling the awesome task of bringing a child into the world.[1]

Studies have shown that anxiety due to labor in women may lead to obstetrical complications like pre-eclampsia, forceps deliveries, prolonged and precipated labor, postpartum hemorrhage, manual removal of the placenta, fetal distress, preterm labor and child birth abnormalities.[2]

Hence, maternal death is often not a result of technical incompetence or negligence, but also due to lack of health counseling, lack of health education of the mothers and family about labor. Limited knowledge to the primigravidae mothers about labor increases her anxiety. Since it is a first exposure to the mothers, the changes that take place in her body will create anxiety and fear. To overcome this and prevent occurrence of anxiety in primigravidae about labor, she should be educated

about labor and make her to be prepared for childbirth. This helps in reducing anxiety related maternal and fetal complications occurring during labor, which reduces maternal and fetal mortality rate.

The interventions that make motherhood safe are known and the resources needed are obtainable. The necessary services are neither sophisticated nor very expensive, and reducing maternal mortality is one of the most cost effective strategies available in the form of planned teaching program about labor in antenatal period and making awareness about labor to the mothers. The risks that women face in bringing life into the world are not mere misfortunes or unavoidable natural disadvantages but injustices that society have a duty to remedy through their political, health and legal systems.[3]

METHODS

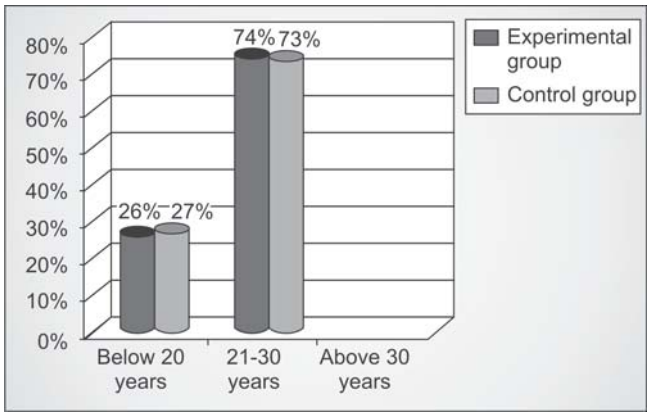
The data was collected from 9th to 21\11\09 after obtaining permission from hospital authorities. Pre-test was conducted using structured knowledge questionnaire and zung self rating scale for 45 minutes to assess knowledge and anxiety about labor. Planned teaching program was administered after the pre-test on labor only in experimental group and methods to reduce anxiety. Post-test was conducted after 7 days of pre-test in both experimental and control group.

RESULTS

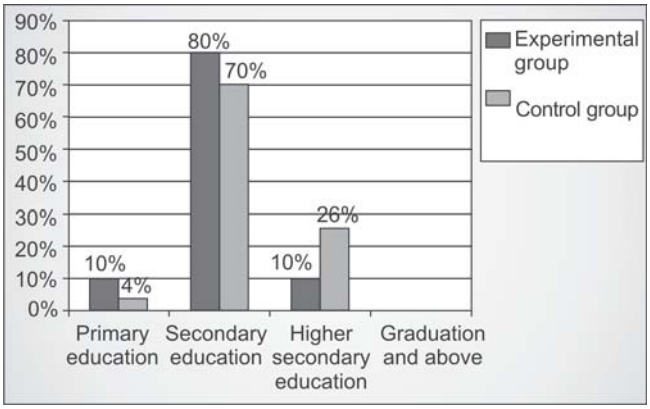
The findings of the study showed that in experimental group majority of primigravidae 23(74%) belonged to the age group of 21 to 30 years (Graph 1). Majority 24(80%) of primigravidae had secondard education (Graph 2), maximum 27(90%) of primigravidae were housewives (Graph 3), majority 29(97%) of primigravidae family income ranged between Rs. 5001 to Rs. 10,000 (Graph 4), majority of the primigravidae 21(70%) belonged to hindu religion (Graph 5), majority of primigravidae 19(63%) resided in urban area (Graph 6), majority of primigravidae 23(74%) belonged to nuclear family (Graph 7) and majority 26(87%) of primigravidae had not got any information about labor (Graph 8). In control group majority of primigravidae 22(73%) belonged to age group of 21 to 30 years (Graph 1), maximum 21(70%) of primigravidae had secondary education (Graph 2), maximum primigravidae 22(74%) were housewives (Graph 3), majority of primigravidae 29(97%) had Rs. 5001 to Rs. 10,000 range of income (Graph 4), majority of primigravidae 26(87%) belonged to hindu religion (Graph 5), majority 16(53%) of primigravidae resided in rural area (Graph 6), maximum primigravidae 18(60%) belonged to nuclear family (Graph 7), maximum primigravidae 25(83%) had not got any information about labor (Graph 8).

Knowledge score in experimental group revealed that, in pre-test majority of the primigravidae 17(57%) had average knowledge, 7(23%) had good knowledge and 6(20%) had poor knowledge. In post-test all primigravidae 30(100%) had good knowledge (Graph 9).

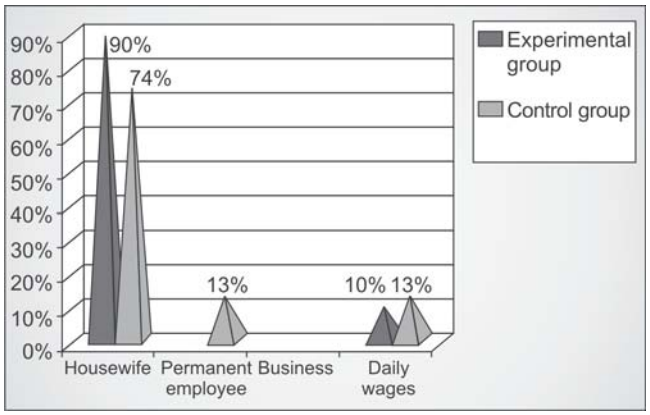
In control group findings showed that, in pre-test majority of the primigravidae 13(43%) had average knowledge, 11(37%) had poor knowledge and 6(20%) had good knowledge. In post-test majority 13(43%) had average knowledge, 9(30%) had poor knowledge and 8(27%) had good knowledge (Graph 10). Anxiety score in experimental group showed that, in pre-test majority of primigravidae 29(97%) had extreme anxiety and



Graph 1: Cylindrical graph showing percentage distribution of primigravidae according to age in experimental and control group

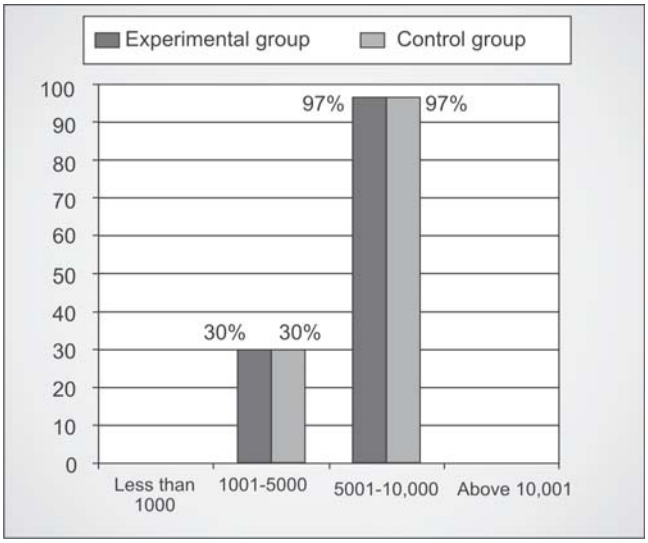


Graph 2: Bar graph showing percentage distribution of primigravidae according to educational status in experimental group and control group

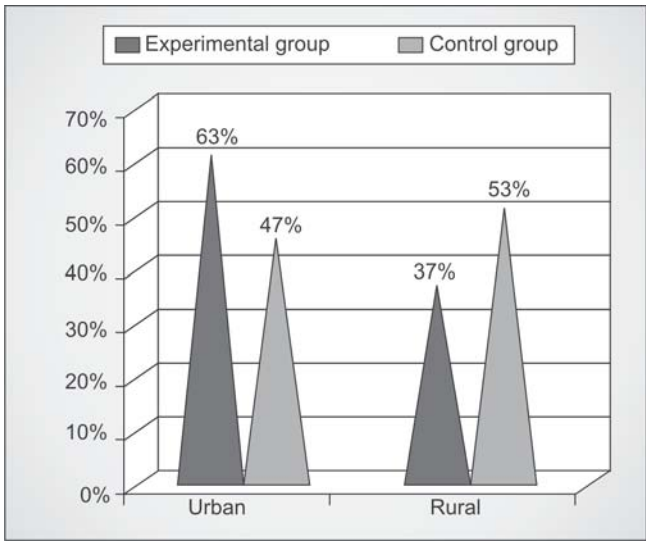


Graph 3: Pyramid graph showing percentage distribution of primigravidae according to occupational status in experimental group and control group

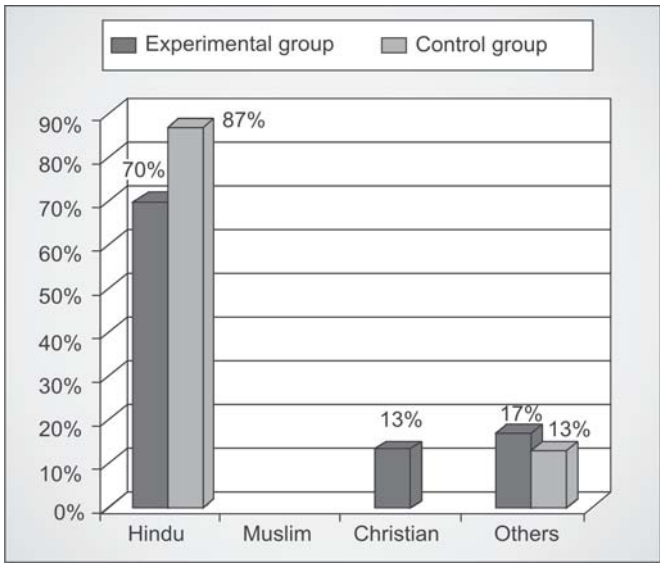
1(3%) had marked to severe anxiety. In post-test majority 6(20%) had minimal to moderate anxiety and 24(80%) were normal (Table 1). In control group the findings showed that, in pre-test all primigravidae 30(100%) had extreme anxiety and in post-test also all primigravidae 30(100%) had extreme anxiety (Table 1). Analysis of knowledge scores using unpaired 't' test between experimental and control group showed that calculated 't' value (27) was greater than tabulated 't' value (2.37) indicating gain in knowledge score in experimental was statistically significant at ($p < 0.05$) compared to control group (Table 2). Analysis of anxiety score using unpaired 't' test between experimental and control group showed that calculated 't' value (37.44) was greater than tabulated 't' value (2.3) indicating gain in knowledge reduced anxiety in experimental group which was statistically significant at ($p < 0.05$) compared to control group (Table 3). Therefore planned teaching program was effective to increase knowledge and reduce anxiety among primigravidae. The variables type of family in experimental group and source of information in control group showed an association with pre-test knowledge score at 0.05 level of significance. No association was found between the variables and pre-test knowledge score in experimental and control group at 0.05 level of significance. Karl Pearson's coefficient of correlation was used to compute the correlation between knowledge and anxiety and was found to have a positive correlation ($r_{xy} = 0.1$) in experimental group compared to control group ($r_{xy} = -0.02$).



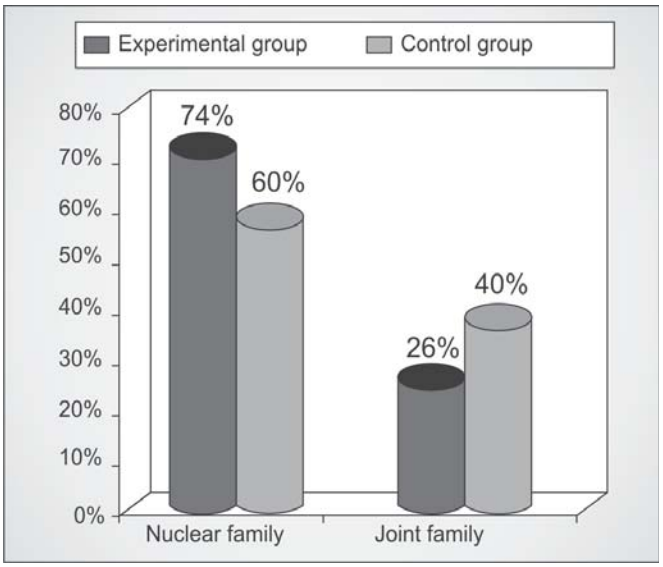
Graph 4: Bar graph showing percentage distribution of primigravidae according to family monthly income in experimental group and control group



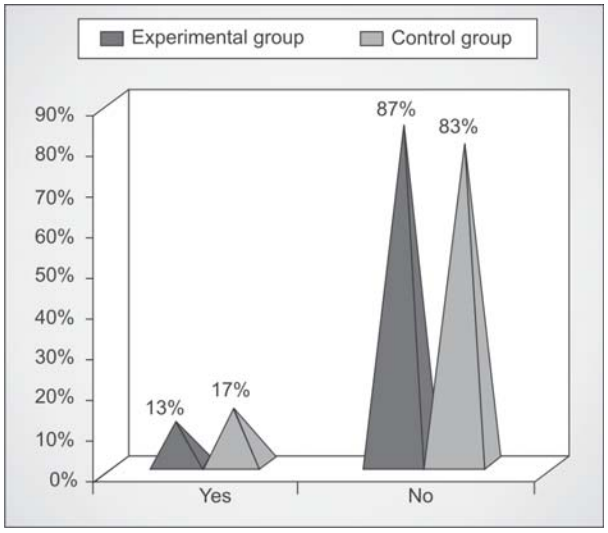
Graph 6: Cone graph showing percentage distribution of primigravidae according to residence in experimental group and control group



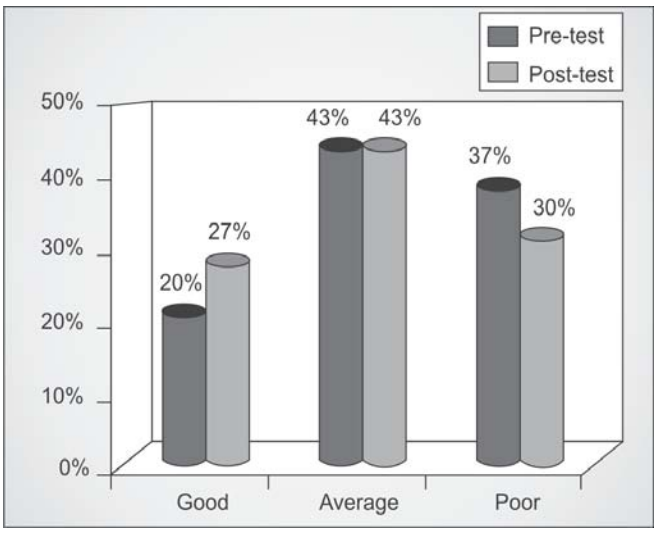
Graph 5: Column graph showing percentage distribution of primigravidae according to religion in experimental group and control group



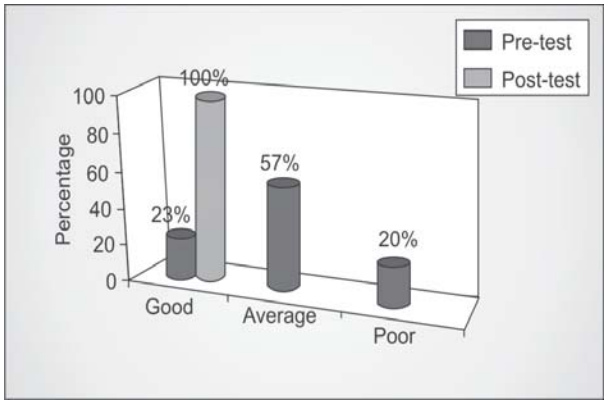
Graph 7: Cylindrical graph showing percentage distribution of primigravidae according to type of family in experimental group and control group



Graph 8: Pyramid graph showing percentage distribution of primigravidae according to source of information in experimental group and control group



Graph 10: Showing percentage distribution of primigravidae according to pre-test and post-test knowledge scores in control group



Graph 9: Showing percentage distribution of primigravidae according to pre-test and post-test knowledge scores in experimental group

DISCUSSION

In the present study a sample of 60 primigravidae (30 experimental and 30 control group) attending antenatal OPD's were taken for the study. Findings showed that in experimental group, 23(74%) belonged to (21 to 30 years), In control group, 22(73%) belonged to age group of 21 to 30 years. Similar findings were found in the study done by Subhasheni G.[4] The results showed that, 54% belonged to age group below 21 to 30 years.

In experimental group 24(80%) had secondary education, in control group 21(70%) had secondary education. Similar findings was found in the study done by Subhasheni G.[4] The findings showed that, 50% had secondary education. In experimental group 27(90%) were housewives, in control group 22(74%) were housewives. A similar finding was found in the study done by

Table 1: Frequency and percentage (%) distribution of anxiety scores among primigravidae about labor in experimental and control group

Scores	*Experimental group*				*Control group*			
	Pre-test		*Post-test*		*Pre-test*		*Post-test*	
	f	*%*	*f*	*%*	*f*	*%*	*f*	*%*
Extreme anxiety (74 and above)	29	97%	0	0	30	100%	30	100%
Marked to severe anxiety (60-74)	1	3%	0	0	0	0	0	0
Minimal to moderate anxiety (45-59)	0	0	6	20%	0	0	0	0
Normal (less than 45)	0	0	24	80%	0	0	0	0

Table 2: Reveals that the calculated un-paired 't' value (t = 27) is greater than tabulated 't' value (t = 2.37)

Standard error	*Un-paired t-test*	
	Calculated	*Tabulated value*
0.6	27	2.37

($p < 0.05$) $t (n_1 + n_2 - 2) = 58$

Table 3: Reveals that the calculated un-paired 't' value (t = 37.44) was greater than tabulated 't' value (t = 2.3)

Standard error	*Un-paired t-test*	
	Calculated	*Tabulated value*
1.9	37.44	2.3

($p < 0.05$) $t (n_1 \pm n_2 - 2) = 58$

Subhasheni G.[4] The results showed that 64% were housewives. In experimental group 29(97%) had Rs. 5001 to 10,000 range of monthly income, in control group 29(97%) had Rs.5001 to 10,000 income. Similar findings were found in the study done by Subhasheni G.[4] The findings showed that 50% had Rs. 5001 to 7,000 monthly income. In experimental group 21(70%) were hindus, in control group, 26(87%) belonged to hindu religion. Similar findings were found in the study done by Subhasheni G.[4] The results showed that 48% were hindus. In experimental group 19(63%) resided in urban area, in control group 16(53%) resided in urban area. Similar findings were found in the study done by Subhasheni G.[4] The results showed that 50% resided in urban area. In experimental group 23(74%) belonged to nuclear family, in control group 18(60%) belonged to nuclear family. A similar finding was found in the study done by Subhasheni G.[4] The results showed that 78% belonged to nuclear family. In experimental group 26(87%) had not got any information about labor, in control group 25(83%) had not got any information about labor. Similar findings were found in the study done by Subhasheni G.[4] The results showed that 92% had not got any information about childbirth process. The study findings in experimental group showed that in pre-test 7(23%) had good knowledge, 17(57%) had average knowledge, 6(20%) had poor knowledge. In control group the findings showed that 6(20%) had good knowledge, 13(43%) had average knowledge, 11(37%) had poor knowledge. Similar findings was seen in the study done by Jobin L.[5] The findings showed that in pre-test 30(50%) of mothers had poor knowledge, 10(17%) had good knowledge, 20(33%) had average knowledge. Anxiety findings in experimental group showed that 29(97%) had extreme anxiety and 1(3%) had marked to severe anxiety. In control group the findings showed that 30(100%) had extreme anxiety. Similar findings was seen the study done by Subhasheni G.[4] The findings showed that, there was 46.4% overall anxiety of the respondents about labor. The gain in knowledge scores at each level in experimental group showed that there was 50.5% gain in knowledge about changes that takes place in ninth month of pregnancy, 43.5% gain in knowledge regarding labor and 40% gain in knowledge regarding care given to the primigravidae in labor room after admission. Similar findings were seen in the study done by Jobin L.[5] The study showed that there was 83.09% gain in knowledge regarding child birth process and 91.89% gain in knowledge regarding new born care. The anxiety scores in experimental group showed that there was overall 37.5% reduced anxiety and in control group the anxiety score showed that there was 0.2% reduced anxiety level. Similar findings was seen in the study done by Alehagen S.[6] The findings showed that there was reduced anxiety in the nulliparous women who attended antenatal classes about coping strategies. Similar study was conducted by Basatani F,[7] showed that teaching relaxation techniques could serve as a resource for improving maternal psychological health. post-test mean knowledge scores (35.4 ± 1.3) in experimental group is greater than mean pre-test knowledge score (18.5 ± 2.3). Hence planned teaching program helped to gain knowledge regarding labor among primigravidae. There was no difference between mean pre-test knowledge scores (16.4 ± 2.04) and mean post-test knowledge scores (17 ± 2) using paired 't' test. Using unpaired 't' test the findings showed that there is gain in knowledge in experimental group compared to control group at 0.05 level of significance. Similar findings was seen in the study done by Jobin.[5] The findings showed that there was significant gain in knowledge score in post-test than pre-test scores of mothers on child birth process ($t_{59} = 28.75$, $p < 0.05$). post-test mean anxiety scores (42.5 ± 1.8) was lesser than pre-test anxiety scores (80 ± 3.4). In control group there was no difference between post-test mean anxiety scores (81.2 ± 2.9) and pre-test mean anxiety scores (81.4 ± 2.8) at $p < 0.05$. Similar findings was seen in the study done by Alehagen S.[6] The findings showed that there was reduced anxiety in the nulliparous women who attended antenatal classes about coping strategies. A contradict findings was seen in the study conducted by Cheung W.[8] The findings showed that there was no statistical relationship between women's attendance at antenatal classes and feeling of control during labor and negative relationship between maternal anxiety and feelings of control during labor. Karl Pearson coefficient of correlation showed that there was correlation between knowledge and reducing anxiety in experimental group ($r = 0.1$) and there was no correlation between knowledge and reducing anxiety in control group ($r = -0.02$). This implies that increased knowledge reduced anxiety about labor among primigravidae in experimental group as compared to control group. Similar findings was seen in the study done by Holroyd.[9] The findings showed that childbirth education reduced tension and anxiety during labor. A contradict finding was seen in the study conducted by waldenstrom U.[10] The findings showed that counseling about labor increased fear of childbirth which increased rate of elective cesarean sections. The analysis for association between existing knowledge and demographic variables was done using Chi-square test. The study findings in experimental group showed that there was significant association between type of family $df(2) = 9.38$ and knowledge scores. There was no association between age, educational status, occupation, family monthly income, residence, source of information, religion. Findings in control group showed that there was significant association between source of information $df(2) = 13.5$ and knowledge scores. There was no association between age, educational status, family monthly income, religion, occupation, type of family, residence. Similar findings were seen in the study done by Jobin L.[5] The findings showed that there was significant association between pre-test knowledge scores of mothers on childbirth process and selected demographic variables like source of information. But there was no significant association between pre-test knowledge scores and selected demographic variables like age, residence, type of family, occupation, religion, family monthly income, education.

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