Effectiveness of childbirth education on knowledge and childbirth experience among Primigravida Women: A quasi-experimental study

Rohini Rajpoot
rohinirajpoot123@gmail.com
Eternal University, Akal College of Nursing, Sirmour, Himachal Pradesh

Jaswinder Kaur
jkaur4883@gmail.com
Eternal University, Akal College of Nursing, Sirmour, Himachal Pradesh

ABSTRACT

Introduction: Pregnancy is the term used to describe the period in which a foetus develops inside a woman's womb or uterus. Pregnancy usually lasts about 40 weeks or just over 9 months as measured from the last menstrual period to delivery. Experience of child birth is always linked with the emotional feelings and expectations .Objective: The aimed of the study was to assess the effectiveness of childbirth education on knowledge and childbirth experience among primigravida women Methods: A quasi- experimental design was used to assess the effectiveness of childbirth education on knowledge and childbirth experience among primigravida women in Kamla Nehru Hospital, Shimla. In this study Pre-test and Post-test control group design, 50 primigravida women (25 in experimental group and 25 in control group), gestational age of 36- 38 weeks. Self-Structured knowledge questionnaire to assess the knowledge and childbirth expectancy was measured by using Wijma Delivery expectancy questionnaire (scale-A) before the intervention in both group and childbirth experience was measured by using Wijma delivery experience questionnaire (scale-B) was used for data collection. Data was collected by structure interview schedule and analysed by using descriptive and inferential statistics. In experimental group pre-test Mean±SD knowledge score was (8.60±1.38) and post-test Mean±SD knowledge score was (14.12±1.81). The difference between pre-test and post-test Mean±SD knowledge score were highly significant p=0.001. In control group pre-test Mean±SD knowledge score was (9.00±1.38) and post-test Mean±SD knowledge score was (9.24±1.39). The difference between pre-test and post-test mean knowledge score was statistically non-significant. childbirth expectancy score of experimental groups was found to be (75.00±7.11) and childbirth expectancy score of control group was found to be (81.12±3.27). Whereas childbirth experience score of experimental groups was found to be (60.40±2.87) and childbirth experience score of control group was found to be (80.68±2.97) which was statistically significant at the level of 0.001. It was concluded that Childbirth education had impact on knowledge and childbirth experience among primigravida women. Conclusion: The study findings implied that implementation of childbirth education has essential role to increase knowledge and improved childbirth experience of Primigravida women.

Keywords— *Knowledge, Childbirth Education, Primigravida Women*

1. INTRODUCTION AND BACKGROUND

Pregnancy is the term used to described the period in which a foetus develops inside a women's womb**.** Health care providers refers to three segments of pregnancy called trimester. [1] Child birth is a normal physiological process, it is a life changing experience for the woman becoming pregnant for the first time. Experience of child birth is always linked with the emotional feelings and expectations.[2] Labour and birth are natural process and intervention is the part of intra-partum nursing practice. Most mother and foetus in labour are healthy but emergencies can occur during intra-partum period. An adequate knowledge of what to do during an emergency is a requisite for mothers during labour**.** [3]

2. NEED FOR THE STUDY

Every day approximately 830 women die from preventable causes that are related to pregnancy and childbirth. The maternal mortality ratio in developing countries in 2015 is 239 per 100 000 live births versus 12 per 100 000 live births in developed countries.[4] According to the Global Health body Nearly 45,000 mothers die due to causes related to childbirth every year in India which accounts for 17% of such deaths globally.[5]

3. STATEMENT OF THE PROBLEM

A Quasi-Experimental study to assess the effectiveness of childbirth education on knowledge and childbirth experience among Primigravida women in Kamla Nehru Hospital, Shimla.

4. OBJECTIVES OF THE STUDY

(a) To assess the knowledge regarding childbirth among primigravida women of experimental and control group.
(b) To develop and administer childbirth education for the primigravida women of experimental group.
(c) To evaluate the effectiveness of childbirth education on knowledge and childbirth experience among primigravida women of experimental group and control group.
(d) To determine the association between the knowledge and childbirth experience among primigravida women of experimental and control group with selected demographic variables.

5. MATERIAL AND METHOD

- **Research approach:** Quantitative research approach
- **Research Design:** Quasi –experimental research design
- **Research Setting**: Kamla Nehru Hospital, Shimla.
- **Population:** Target population: Primigravida women (36-38 weeks)
- **Accessible population:** Primigravida Women (36-38 weeks) available at the time of data collection in Kamla Nehru Hospital, Shimla.
- **Sample:** 50 Primigravida women (36-38 weeks) admitted in Kamla Nehru Hospital, Shimla at the time of data collection who meet inclusion criteria.
- **Sample size:** 50 Primigravida women were selected which were allocated as experimental group 25 primigravida women and control group 25 primigravida women.
- **Sampling technique**: Purposive Sampling technique.

5.1 Inclusion Criteria

- Primigravida women who were attending antenatal O.P.D and those who were admitted in the hospital.
- Who were willing to participate in the study.
- Primigravida women with 36-38 weeks of gestation.

5.2 Exclusion criteria

- Primigravida women with less than 36 weeks of gestation and greater than 38 weeks of gestational.
- Primigravida women who were at high risk during pregnancy.

6. DATA COLLECTION TOOL

TOOL I
Section A: Socio demographic data
Section B: Self Structured Questionnaire

TOOL II
Wijma Delivery Expectancy/Experience Questionnaire. (i.e. Scale A and Scale B).

7. PROCEDURE FOR DATA COLLECTION

The data collection for the main study was collected in the month of February-March, 2019.

Step-I:
- The investigator obtained written permission from the Principal of the Akal College of Nursing to conduct the study.
- The investigator obtained written permission from the Principal of IGMC, Shimla and Medical Superintendent of Kamla Nehru Hospital, Shimla.
- Informed written consent was taken from the samples after giving explanation about the purpose of the study, assuming their anonymity and confidentiality.

Step-II
The baseline data was collected from the primigravida women by using Socio-demographic data sheet and Self structured knowledge questionnaire was used to assess the knowledge regarding childbirth and Wijma expectancy questionnaire (Scale-A) was used to check childbirth expectancy before the delivery from experimental and control group.

Step-III
Childbirth education was administered to experimental group and Post interventional data was collected from the primigravida women.

Step-IV
Childbirth experience was Measured by using Wijma delivery experience questionnaire (Scale-B) among primigravida women after delivery from both group experimental and control group.

8. DATA ANALYSIS

The data analysis was done according to the objective of the study. Both descriptive and inferential statistics was used.
- **Descriptive statistics:** Frequency, mean percentage and standard deviation
- **Inferential statistics:** Paired 't' test to compare the pre and post-test knowledge regarding childbirth education among primigravida women.

9. FINDING OF THE STUDY

Table 1: Frequency and percentage distribution of Primigravida women based on their socio-demographic variables in experimental and control group, N=50

Variables	Experimental f(%), n=25	Control f(%), n=25	Chi-square value
Age in Year			
a)18-21yrs	4(16)	12(48)	6.664
b)22-25yrs	13(52)	10(40)	df=2
c)26-29yrs	08(32)	03(12)	p=0.036*
Religion			
a) Hindu	20(80)	21(84)	0.136
b) Muslim	05(20)	04(16)	df= 1 p=0.713[NS]
Education			
a) Primary Education	02(8)	01(4)	1.607
b) Secondary Education	11(44)	8(32)	df=3
c) Higher Secondary	08(32)	12(48)	p=0.658[NS]
d) Graduate and Above	04(16)	04(16)	
Occupation			
a) Private Employee	06(24)	7(28)	0.11
b) Homemaker	15(60)	14(56)	df=2
c) Self Employed	04(16)	04(16)	p=0.254[NS]
Marital status			
a) Married	25(100)	25(100)	NA
Residential area			
a) Urban	09(36)	13(52)	1.299
b) Rural	16(64)	12(48)	df=1 P=0.254[NS]
Monthly Family income			
a) Family<5000	2(8%)	2(8%)	5.749
b) 5001-10,000	8(32%)	16(64%)	df=3
c) 10,001-20,000	12(48)	05(20)	P=0.124[NS]
d) >20,000	03(12)	02(8)	
Type of family			
a) Nuclear	11(44)	12(48)	0.186
b) Joint	10(40)	10(40)	df=2
c) Extended	4(16)	3(12)	P=0.911[NS]
Gestational weeks			
a) 36 Weeks	03(12)	2(8)	0.828
b) 37 Weeks	08(32)	11(44)	df= 2
c) 38 Weeks	14(56)	12(48)	P=0.661[NS]
Information regarding Labour			
a) Mass Media	09(36)	09(36)	3.310
b) From Mother	16(64)	13(52)	df=3
c) Health Personnel's	-	02(8)	P=0.346[NS]
d) From Relative/Friend	-	01(4)	

Table 1 Shows that 13(52%) of primigravida women were in age group of 22-25 years in experimental group while 10(40%) women of control group were in 18-21 years of age. Almost 20(80%) of primigravida women in experimental group and 21(84%) in the control group belonged to Hindu religion. 11(44%) in experimental group had secondary education and 12(48%) in control group had high secondary education. Majority were homemaker 15(60%) in the experimental group and 14(56%) in control group. In experimental group 25(100%) and 25(100%) in control group were married. 12(64%) women of experimental group were residing in rural area and 13(52%) women of control group were residing in urban area.

12(48%) women in experimental group were having Monthly family income between 10.001-20,000 and 16(64%) in control group most of the women were having family income 50001-10000. 11(44%) women of experimental group and 12(48%) women of control group belongs to nuclear family. In experimental group 14(56%) primigravida women and in control group 12(48%) were having 38 weeks of gestation. As per source of information regarding labour most of the women were informed by their mothers in experimental group 16(64%) and in control group 13(52%).

Both group were non-homogenous in terms of their socio-demographic characteristics as calculated with chi-square test (p<0.01) as the sample was selected by purposive sampling technique.

Table 2: Pre-test knowledge score of primigravida women in experimental and control group, N=50

Group	Pre-test knowledge	
	Mean ±SD	**Mean % age**
Experimental group	8.60±1.38	43.00
Control group	9.00±1.38	45.00

Table 2 depict the mean pre-test knowledge score of experimental and control group regarding childbirth among primigravida women. The pre-test Mean±SD score was found to be 8.60±1.38 respectively in experimental Group, while it was found to be 9.00±1.38 in control group respectively.

Table 3: Post-test knowledge score of primigravida women in experimental and control Group, N= 50

Group	Post-test knowledge	
	Mean ±SD	**Mean % age**
Experimental group	14.12±1.81	70.60
Control group	9.24±1.39	46.20

Table 3 depict the mean±SD post-test knowledge score of experimental and control group regarding childbirth among primigravida women. The post-test mean± SD score was found to be 14.12±1.81 respectively in experimental group, while it was found to be 9.24 ±1.39 in control group respectively.

Table 4: Comparison of pre-test and post-test knowledge score of primigravida women in experimental and control group, N=50

Group	Pre -test	Post –test	
	Mean ±SD	**Mean ±SD**	**Paired t-test**
Experimental group (N=25)	8.60±1.38	14.12±1.81	12.331 P=0.001**
Control group (N=25)	9.00±1.38	9.24±1.39	0.710[NS]

**Significant at the level of p=0.001
[NS] Non significant

Table 4 Interprets comparison of pre-test and post-test mean knowledge score among primigravida women regarding childbirth in experimental and control group. The post-test mean±SD knowledge score were found to be 8.60±1.38 and 14.12±1.81 respectively in experimental Group, while it was found to be 9.00±1.38 and 9.24±1.39 in control group respectively. The above explained table clearly showed that increase in the knowledge among primigravida women after administration of childbirth education. Thus, H_1 has significant difference in the pre-test and post- test knowledge scores of experimental groups at $p<0.05$ level of significance is accepted.

Table 5: Comparison of child birth experience among primigravida women of experimental group, N=50

Scale	Mean	SD	Mean Diff	t Test	p Value
Scale A (N=25)	75.00	7.11	14.600	9.858	<0.001
Scale B (N=25)	60.40	2.87			

Table 5 interprets that comparison of scale A and scale B mean childbirth experience among primigravida women of experimental group. In scale A Mean±SD childbirth expectancy was found to be 75.00±7.11and in scale B mean±SD childbirth experience score was found to be 60.40±2.87 and which was statistically significant at the level of 0.001. The above explained table clearly showed that childbirth experience was improved among primigravida women after administration of childbirth education. Thus H_2 has significant difference in the pre-test and post- test knowledge scores of experimental group at $p<0.05$ level of significance is accepted.

Table 6: Comparison of child birth experience among primigravida women of control group, N=50

Scale	Mean	SD	Mean Diff	t Test	p Value
Scale A (N=25)	81.12	3.27	0.440	0.693	0.495[NS]
Scale B (N=25)	80.68	2.97			

Table 6 interprets comparison the scale A and scale B mean childbirth experience among primigravida women of control group. In scale A Mean±SD childbirth expectancy score was found to be 81.12±3.27 and in scale B Mean±SD childbirth experience score was found to be 80.68±2.97 and which was not statistically significant at the level of 0.001.

Association of knowledge score and childbirth experience among primigravida women of experimental and control group:
There was no significant association between knowledge and childbirth experiences among primigravida women of experimental and control group with socio-demographic variables.

10. CONCLUSION

The study concludes that implementation of childbirth education has essential role to increase knowledge and improved childbirth experience of primigravida women.

11. REFERENCES

[1] Pregnancy- Available from: https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo

[2] Podder L and Tapati B. Effectiveness of a video assisted child birth education programme on knowledge, intra-partum behaviour, maternal and foetal outcome among primigravida mothers. International journal of Recent Scientific Research. Year 2016; 7(10). Available from: http://www.recentscientific.com

[3] Maulik MS, SalunkheJ ,Salunkhe AH . A Study to Assess Knowledge and Effectiveness of Structured Teaching Programme on Child Birth Process among Primipara Mothers. Year 2014; 4(11). Available from: www.IJHSR.org.

[4] Maternal Mortality: Available from:http://www.who.int/news-room/fact-sheets/detail/maternal-mortality.

[5] Childbirth: Available from: https://indianexpress.com/article/lifestyle/health/5-women-in-india-die-every-hour-during-childbirth-who-2856975/2{globally}