

A Study to Assess the Effectiveness of Educational Programme Regarding Birth Preparedness Among Primi Antenatal Mothers Attending Anganwadi Selected Area of Bhilai-3

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Abstract: Every pregnancy is a joyful moment for all mothers who dream of a safe pregnancy and a healthy baby. Birth preparedness can be categorized in three areas- Antenatal preparedness, intranatal preparedness, postnatal preparedness. **Material and Methods:** In present study using quantitative (experimental) approach is a study that combines both pretest and posttest studies by testing a single group before and after administering the treatment on 60 primi antenatal mothers attending of Anganwadi at Bhilai-3. Purposive sampling technique was used to assess the educational programme regarding birth preparedness among primi antenatal mothers. The self-structure questionnaire (for assessment of knowledge) was used for data collection. During the educational teaching, the educative material PowerPoint was used. The data collected were carried out in three phases: the pre-test was carried out before educative programme, followed by educative programme was given. After 15 days, the posttest was carried out. **Results:** In relation to overall in pre-test 54% have good knowledge, 33% have average knowledge, and 17.5% have poor knowledge, regarding birth preparedness. However, in post test 63.3% have good knowledge and 81.6% have excellent knowledge regarding birth preparedness. This data signifies the teaching programme was very effective in terms of gain in knowledge score regarding birth preparedness among primi antenatal mother, respectively. The findings related to knowledge score regarding Birth preparedness among antenatal mothers. The posttest knowledge score Mean (48), SD(7.5) is higher than the pre test knowledge score Mean(18.4), SD(4.8) and t value =3.16 obtained, which is higher significant at degree of freedom 59 is 2.0 at p=0.05 Significance level i.e. calculated “t” value is greater than the table value. Karl Pearson coefficient of correlation was find out between pre test and post test awareness (r = 0.9) shows that effectiveness of educational programme positively correlated with pre test and post test knowledge of primi antenatal mothers. **Conclusion:** The study outcomes reveals that the educational programme was effective in improving the educational programme with educative materials improved the knowledge birth preparedness among primi antenatal mothers.

Keywords: Birth preparedness, educational programme, effectiveness, primi antenatal.

1. Introduction

Every pregnant woman faces the risk of sudden unpredictable complications that can lead the morbidity and mortality to herself and to her infant. Birth Preparedness is globally accepted. It helps pregnant women to identify the complications, reach the health facility in time and seek proper professional care in time by reducing morbidities and mortalities due to Readiness is an intervention introduced by WHO to plan for births and deal with emergencies during pregnancy, labor and postpartum period. Birth preparedness strategy is aimed at reducing delays in seeking, reaching, and receiving care. Counseling on birth preparedness is provided during antenatal care visits.

Promotion of maternal health should be an integrated approach comprising adequate planning of pregnancy coupled with the awareness of the available maternal and child health services and its utilization. Globally, while 87 per cent of pregnant women access antenatal care with skilled health personnel at least once, only two in three (66 per cent) receive at least four antenatal care visits.

as per maternal mortality ratio (mmr) for India is 122 per 1,00,000 live births and for Chhattisgarh is 141 per 1,00,000 live births (srs-2015-17). in India, the proportion of pregnant women age 15-49 receiving the minimum 4 antenatal visits, in india raised from 77 percent to 84 percent and 79 percent received and from a skilled provider. Birth preparedness can be categorized in three areas-

- Antenatal preparedness
- Intranatal preparedness
- Postnatal preparedness

Antenatal care is a branch of therapeutic and preventive medicine, involving the systematic supervision and education of women throughout pregnancy, with provision of medical dietary and social care for early detection of problems and prevention and treatment of complications. Intranatal care means care taken during delivery both mother and newborn at

the time of delivery. Postpartum period begins within 6 weeks after child birth as the mother's body. post natal preparedness women and newborn require support, careful monitoring after birth, provision of quality maternal and newborn.

A. Problem Statement

A study to assess the effectiveness of educational programme regarding birth preparedness among primi antenatal mothers attending Anganwadi selected area of Bhilai 3.

B. Objectives

- To assess the pretest knowledge regarding birth preparedness among primi antenatal mothers.
- To assess the posttest knowledge regarding birth preparedness among primi antenatal mothers.
- To assess the effectiveness of educational programme regarding birth preparedness among primi antenatal mothers.
- To assess the association between pretest knowledge regarding birth preparedness among primi antenatal mothers with selected Sociodemographic variables among primi antenatal mothers.

C. Hypothesis

H1: there is significant difference between pre test and post test knowledge regarding birth preparedness among primi antenatal mother.

H2: there is significant effectiveness of educational programme on knowledge regarding birth preparedness among primi antenatal mother.

H3: there is significant the association between pre test knowledge score regarding birth preparedness with selected sociodemographic variable among primi antenatal mothers.

2. Material and Method

Experimental study with True experimental one group pre test – post test design was used for assessing the effectiveness of educational programme regarding birth preparedness among primi antenatal mothers attending Anganwadi selected area of Bhilai-3. In this study sample of primi antenatal mothers comprised 60 mothers. The method of the sample selection of purposive sampling. The tools had two sections. section A was demographic profile and section B was structure questionnaire which consist of three parts, part I antenatal preparedness, part II intranatal preparedness, part III postnatal preparedness. Section C Analysis for effectiveness of effective teaching program of regarding birth preparedness among primi antenatal and Section D Assess the association between Sociodemographic and knowledge regarding birth preparedness among primi antenatal mothers. Knowledge

questions were multiple choice questions. It consists of 54 questions with response provided for each questions, out of which one response was the correct answer, the mark given as one.

3. Data Inferential and Results

A. Sociodemographic Data

1) Assessment of sociodemographic data

With respect to age shows that maximum number 25 (41.6%) belong to 26-29 years of age, 22 (36.6 %) belong to 22-25 years of age, and 8 (13.3%) above 30-33 years of age, 5(8.3%) belong to 18-21years of age.

Findings regarding gender, majority of subjects 43 (71.6%) living with joint family and 17 (28.3%) living in nuclear family.

In relation to religious maximum number of subjects 43(75%) were Hindu , 7(11.6%) were Muslims, 5(8.3%) were Sikh and only 3(5%) were Christian.

Represents the educational status which shows that maximum women's 23(38.3%) have graduate and under 8th class and 7(11.6%) have illiterate and completed post graduate.

Indicates that type of occupation of husband 27(45%) are doing business, 7(35%) are unemployment, 6(10%) are office worker and government employee.

In relation to area of living that majority of women's 48(80%) are living in urban and only 12(20%) living in urban.

Represents the occupation of mothers which shows that maximum women's 38(63.3%) are household 10(16.6%) are business women's, 7(11.6 %) are office worker, and 5(8.3%) are employer and

In relation to marital status 51(85%) women's are married and 7(11.6%) widow and only 2(3.33%) women's are unable to say.

Finding regarding annual income that 36(60%) annual income less than 25,000 and 17(28.3%) annual household income between 25,000-30,000 and 4(6.6%) annual income 31,000-40,000 and only 3(5%) annual income more than 41,000.

In relation to medical disease indicates that 60(100%) women's have no medical disease.

2) Overall analysis as per criteria to assess the pre test and post test knowledge regarding birth preparedness among primi antenatal mothers

The table 1 shows that during pre-test and post-test knowledge score regarding birth preparedness among antenatal women. In pre-test 17.5% have poor knowledge, 33% have average knowledge, and 54% have good knowledge.

In post test 63.3% have good knowledge and 81.6% have excellent knowledge regarding birth preparedness.

Table 1
Overall analysis knowledge

KNOWLEDGE CRITERIA	PRE TEST					POST TEST				
	(f)	f (%)	Mean	Mean score (%)	SD	(f)	f(%)	Mean	Mean score (%)	SD
Poor (0-14)	20	31.6	10.5	17.5	± 2.22	0	0	0	0	0
Average (15-28)	33	56.6	20.2	33.5	± 3.74	0	0	0	0	0
Good (29-42)	7	11.6	32.5	54.1	± 3.9	7	11.6	38	63.3	± 3.11
Excellent (43-56)	0	0	0	0	0	53	88.3	49	81.6	± 3.43
TOTAL	60	100	63.2	105	9.86	60	100	87	144.9	6.54

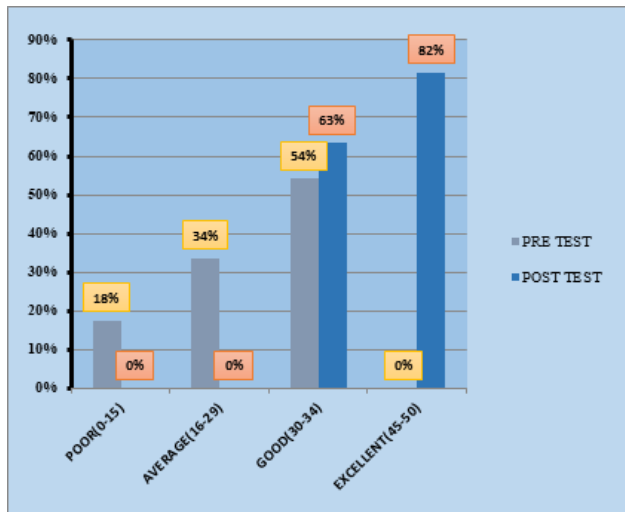


Fig. 1.

Area wise analysis based on pre-test and post test knowledge regarding birth preparedness among primi antenatal mothers.

Fig. 1 reveals the area wise analysis of knowledge related to birth preparedness in area of antenatal preparedness pre-test and post-test mean score percentage is 33.85% and 89.6%, related to intranatal 35.15% and 88.35 %, related to post natal mean score percentage is 33% .

3) *Item wise analysis on knowledge regarding birth preparedness (Antenatal preparedness)*

Analysis for effectiveness of effective teaching program of regarding birth preparedness among primi antenatal. It shows the comparison of overall pretest and posttest knowledge score.

The findings related to knowledge score regarding Birth preparedness among antenatal mothers. The posttest knowledge score Mean (48), SD(7.5) is higher than the pre test knowledge score Mean(18.4), SD(4.8) and t value =3.16 obtained, which is higher significant at degree of freedom 59 is 2.0 at p=0.05 Significance level i.e. calculated “t” value is greater than the table value.

This data is signifies that the teaching programme was effective in improving the knowledge of primi antenatal mothers regarding birth preparedness.

Hence The hypothesis H2 (there is significant effectiveness of teaching programme on knowledge regarding birth preparedness among primi antenatal mother). it is highly significant and very effective, hence H2 hypothesis is accepted.

Assess the association between Sociodemographic and knowledge regarding birth preparedness among primi antenatal mothers.

It shows that there is significant association between annual income (125.2), present medical disease(120), age(62.4), family type (59.11), religion, education(7.82), occupation of husband(7.82), type of occupation of mother (7.82), area of residence(3.84), information of Birth preparedness (3.84), which is higher than tabulated value 5.99, 12.59, 3.84 7.82, 3.84, at the degree of freedom (2), (6), (1), (3) Hence H3 hypothesis (there will be the association between pre test knowledge score regarding birth preparedness with selected Sociodemographic) is accepted.

4. Discussion

Distribution of study subjects according to Sociodemographic variable in frequency and percentage.

The findings of the study is supported by Nilofar loladiya perform an exploratory study was conducted to assess knowledge regarding birth preparedness among primigravida in a selected hospital of a metropolitan city. Select 50 primigravida mothers (n= 50). A structured interview technique was performed for collection of data. The findings showed that majority of the subjects were in the age group of 22–25 years and 26–29 years with a frequency of 36% and 44%, respectively. Minimum of the subjects were in the age group of 18–21 years with a frequency of 20%. Majority of the subjects were Hindu, with a frequency of 64%. About 2% of the subjects were Buddhist. Majority of the subjects were house wives, with a frequency of 74%. Minimum of the subjects were corporate employees, with a frequency of 20%. All the subjects, 100% had yearly income within the range of 10–11 lakhs per annum. Majority of the subjects 38% for graduates whereas 26% had completed secondary education. Maximum of the subject 60%, were of the opinion that birth preparedness encompasses the holistic process of planning for normal birth and anticipating the actions needed in emergency care. Birth preparedness is strategy to promote the timely use of skilled maternal and neonatal care according to 16% of the subjects. About 8% of the subjects opined birth preparedness is the registration of pregnancy and institutional delivery whereas birth preparedness for 8% of subjects is majority of the subjects 98%, opined that exercise and meditation can help the pregnant woman to cope with stress.

Overall analysis as per criteria to assess the pre test and post test knowledge regarding birth preparedness among primi antenatal mothers.

The findings of the study is supported by Ifeoma F. Ndubuisi (2022) descriptive cross sectional; questionnaire based method was adopted. Multiple stage sampling was used to select 422 pregnant women from 8 selected health care facilities in Enugu state.. Findings revealed that only 20.5% of the respondents had good knowledge of the components of Birth Preparedness and Complication Readiness (BPCR) Most of the respondents 87.6% lacked good knowledge of key danger signs of pregnancy, labour and postpartum, while the majority of the respondents 78.6%, 96.7% and 95.5% knew that vaginal bleeding is a key danger sign of pregnancy, labour and postpartum respectively. Age P=0.000, marital status P=0.001, level of education P=0.000 and occupation P=0.000 of the respondents had significant relationships with their knowledge of BPCR.

Area wise analysis based on pre-test and post test knowledge regarding birth preparedness

Item wise analysis of pre test and post test of knowledge score.

PART I (A) Item wise analysis based on pre-test and post test knowledge regarding antenatal preparedness.

The finding of the study is supported by Afaya A. (2020) did cross-sectional design total of 322 women who gave birth and attended the postnatal clinic were recruited for the study.

Consecutive sampling was employed in recruiting participants. The associations between the dependent variables (ANC service utilisation and knowledge of ANC) and independent variables (socio-demographic characteristics) were examined using ordinary least squares logistic regression at 95% confidence interval in STATA version 14.0. The 322 participants, 69.0% reported utilising at least four or more times ANC services. Determinants of women attending ANC for four or more times was significantly associated with age [OR = 4.36 (95%CI: 2.16–8.80), $p < 0.001$], educational level [OR = 10.18 (95%CI: 3.86–26.87), $p < 0.001$], and insured with National Health Insurance Scheme [OR = 3.42 (95% CI: 1.72–6.82), $p < 0.001$]. Not married [OR = 0.65 (0.39–1.09), $p = 0.011$] or divorced [OR = 0.33 (95%CI: 0.13–0.83), $p = 0.019$] was negatively associated with utilisation of four or more ANC services. The majority (79.0%) of the participants had a good level of knowledge regarding antenatal care.

PART II (B) Item wise analysis based on pre-test and post test knowledge regarding Intranatal preparedness.

The finding of the study is supported by Beatrice Mwilike *et al* (2018) did cross-sectional study. In this study, 150 (24.6%) women had faced obstetric danger signs during their last pregnancy. From those who faced obstetric danger signs, the majority, 150 (24.6%), of them 137 (91.3%) had good practice seeking medical care when they faced obstetric danger signs. study done in Debre Berhan, Ethiopia, from 51 (8.1%) of the respondents who experienced obstetric danger signs, and 44 of them had good practice seeking medical care when they faced problems. In this study, almost all mothers who had good knowledge about obstetric danger signs had good practice seeking health facilities after they faced obstetric danger signs. This indicates that if pregnant women recognize danger signs, they seek care and it can reduce the first delay to seek health care which in turn reduces maternal mortality. The majority, 96.6% (589/610), of the study respondents agreed with the importance of knowing obstetric danger signs.

PART III (C) Item wise analysis based on pre-test and post-test knowledge regarding post natal preparedness.

The finding of the study is supported by Ghirmay Ghebregziabher Beraki *et al* (2020) perform a cross-sectional quantitative study was conducted in postpartum mothers (PpM) who attended all maternal delivery services in Asmara. Data was collected by a structured questionnaire. All ($n = 250$). The majority (96%) of PpM responded the correct answer on where to go if they note any danger signs. In addition, more than nine tenth of PpM correctly identified injectable contraceptives (92.7%) and oral contraceptive (91.5%). The percentages of knowledge in recognizing the necessary nutrients ranged from 87.6% for carbohydrates to 46% for minerals. The percentages of correct knowledge regarding first baby bath, frequency of breast feeding, umbilical care, duration of exclusive breast feeding, need and purpose of vaccine were 40.1, 81.9, 77.4, 94.8, and 99.2% respectively. The mean PNC knowledge score was high.

Analysis for effectiveness of effective teaching program regarding birth preparedness among primi antenatal.

The finding of the study is supported by Sofiya Khan, Seeta

Devi *et al* (2020) quasi experimental pre –test post-test design is used sample all primi mother sample size 60 primi mothersampling technique non- probability convenience sampling setting the selection of study setting is on the basis of the feasibility of conducting study and availability of sample. Study will be conducted in Talera and Bhosri hospital, PCMC, Pune. The present study pretest, 20% of the primi antenatal mothers had poor knowledge (Score 0-3), 66.7% of them had average knowledge (score 4-6) and 13.3% of them had good knowledge (score 7-10) regarding birth preparedness. In post-test, 5% of them had average knowledge (score 4-6) and 95% of them had good knowledge (score 7-10) regarding birth preparedness. This study indicates that the knowledge of the women regarding birth preparedness improved remarkably after health intervention Researcher applied paired t-test for the effectiveness of health intervention on Knowledge of woman regarding birth preparedness among antenatal mother.

Assess the association between Sociodemographic and knowledge regarding birth preparedness among primi antenatal mothers. The finding of the study is supported by Yunga Patience Ijang, Pierre Marie *et al* (2016) conducted cross-sectional analytic study. A total of 345 pregnant women of ≥ 32 weeks gestational age seen at the most likely factors that favour birth preparedness and complication readiness were monthly income (Odds Ratio (OR) = 2.94, (1.39, 6.25), $p = 0.005$) and the number of antenatal care visits (OR = 2.16, (1.18, 3.90), $p = 0.013$). In this study the factors associated with BPCR on bivariate analysis were; level of education, occupation, income, number of ANC visits, and knowledge of danger signs in pregnancy. The level of education was statistically associated with birth preparedness on bivariate analysis as revealed in this study. Those in the University were six times more likely to prepare for birth or complications in pregnancy (OR = 6.21, 95% CI: 2.70, 14.28, $p = 0.001$) compared to those with primary level and below.

5. Implication

An implication drawn from the study is a concern to pregnant women's including primi antenatal mothers who have lack of knowledge regarding birth preparedness. Pregnant women's are important, for upbringing the new life. There must be high percentage of communication with the health facilities and health care. To provide knowledge regarding birth preparedness and high-quality care for safe motherhood and child.

A large number of diseases can be prevented with little or no medical intervention if people are adequately informed about the likely complications and encouraged to take necessary precautions in time.

The findings of the study have implications for nursing education, nursing research, nursing practice and nursing administration.

Nursing education:

- The present study focused to increasing the knowledge of primi gravida women regarding birth preparedness.
- The nursing educators have ability to provide

knowledge during pregnancy, so that they would implement self-practice and educate women in different health care settings for health improvement.

- Provided with an opportunity to plan and develop effective educational programme on birth preparedness and educate study to assess the effectiveness of self-instructional module regarding birth preparedness among primi antenatal mothers.

Nursing practice:

The practitioner, nursing officers, community health workers having proper knowledge about birth preparedness. This information shared with women's and it must be applied in institution, hospitals and door to door with help of Mitanni and Asha.

This study focused on the preparedness during antenatal, intranatal. Post natal about family centered care, components, dangers signs, preventive measures, visiting this must be explain by nursing officers.

They should teach about the personal hygiene, diet, early diagnosis, breast feeding, to mothers and also teachers by using various methods like leaflet and pamphlet, distribution, and charts etc.

Nursing administration:

Designing and implementing, programs for birth preparedness to bring changes in awakening pregnancy health problems.

- A periodic supervision and evaluation of the programme by the nursing administrator.
- Maintaining history of pregnant women's in each Anganwadi.
- The administrator can motivate the Anganwadi workers for giving teaching to mothers or their family members regarding the birth preparedness and its complications.

6. Conclusion

Women should start planning for pregnancy as soon as she begins to have thoughts about having a baby. In this regard, health personnel's play a very important role as they have to educate the women about birth preparedness and have a healthy conception. Proper planning may have the women to avoid pregnancy complications, healthy baby, recovery is faster, manage postpartum period and maximize future problems. The findings of the present study indicated that the after giving educational programme regarding birth preparedness were effective in improving the knowledge.

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