ORIGINAL RESEARCH PAPER
Volume - 15 | Issue - 08 | August - 2026 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

EFFECTIVENESS OF A PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING MATERNAL AND CHILD HEALTH SERVICES AMONG REPRODUCTIVE WOMEN IN A SELECTED RURAL AREA

Health Science (Nursing)

Ms. Priya Subhash Borde M.Sc. Nursing, Department Of Community Health Nursing Pooja Nursing College, Bhandara

Mrs. Ratnamala Muneshwar Professor, (Research Guide) Department Of Community Health Nursing Pooja Nursing College, Bhandara

Ms. Jyotashri S. Atre* Assistant Professor (Co-Guide) Department Of Community Health Nursing Pooja Nursing College, Bhandara*Corresponding Author

ABSTRACT

Background: Maternal and Child Health (MCH) services play a pivotal role in reducing maternal and child morbidity and mortality by ensuring safe pregnancy, childbirth, and child survival. Adequate knowledge among reproductive women regarding available MCH services is essential for improving maternal and neonatal health outcomes. However, awareness regarding these services remains inadequate in many rural communities. **Aim:** To assess the effectiveness of planned teaching on knowledge regarding maternal and child health services among reproductive women residing in a selected rural area. **Methods:** A quantitative pre-experimental one-group pre-test–post-test design was adopted. Eighty reproductive women were selected using a non-probability convenience sampling technique. Baseline knowledge was assessed using a structured knowledge questionnaire, followed by a planned teaching programme on maternal and child health services. A post-test was conducted after the intervention to evaluate the effectiveness of the teaching programme. Data were analysed using descriptive statistics and inferential statistics, including paired t-test and Chi-square test. **Results:** The pre-test revealed that 64 (80%) participants had good knowledge, 14 (17.5%) had average knowledge, and 2 (2.5%) had poor knowledge. Following the intervention, 62 (77.5%) participants demonstrated excellent knowledge and 18 (22.5%) demonstrated very good knowledge. The mean knowledge score increased significantly from 3.90 ± 1.86 in the pre-test to 15.83 ± 1.12 in the post-test ($t = 74.350$, $p = 0.0001$). A statistically significant association was observed between post-test knowledge scores and age, education, and occupation ($p < 0.05$). **Conclusion:** Planned teaching was effective in significantly improving the knowledge of reproductive women regarding maternal and child health services. Community-based educational interventions should be incorporated into routine maternal health programmes to enhance awareness and promote the utilization of essential maternal and child health services in rural communities.

KEYWORDS

Maternal And Child Health, Planned Teaching Programme, Knowledge, Reproductive Women, Rural Community, Health Education.

INTRODUCTION

"The song of the mother to the baby at the cradle rings down to the body in the coffin."

Maternal and Child Health (MCH) is an essential component of public health that aims to improve the health of women during pregnancy, childbirth, and the postnatal period, as well as the health of children under five years of age. In India, women of reproductive age (15–44 years) and children below five years constitute a significant proportion of the population and represent a vulnerable group requiring comprehensive healthcare services. The health of a mother during pregnancy directly influences the health and survival of her child.[1]

Maternal and Child Health services in India have been strengthened through the integration of family planning and MCH programmes, with emphasis on community participation and health education to improve awareness and utilization of available services.[2] [3] Government initiatives and international support have contributed to the expansion of promotive, preventive, curative, and rehabilitative maternal and child health services.[4] [5]

Despite considerable progress, maternal and neonatal morbidity and mortality remain important public health concerns. The COVID-19 pandemic further emphasized the need to strengthen maternal and child healthcare services and community awareness.[6] Monitoring maternal and newborn health during the postpartum period and promoting essential maternal and child health practices remain key strategies for improving health outcomes.[7]

Therefore, the present study was undertaken to assess the effectiveness of planned teaching on knowledge regarding maternal and child health services among reproductive women residing in a selected rural area.

BACKGROUND OF THE STUDY

Maternal and Child Health (MCH) remains a major public health priority worldwide as preventable maternal and child deaths continue to occur, particularly in developing countries. Every day, approximately 800 women die from pregnancy- and childbirth-related causes, while millions of children die before the age of five due to preventable conditions, making improvement in MCH a key global health goal.[8] In India, MCH services have evolved through the integration of maternal health, child welfare, and family planning programmes with support from the Government, WHO, and UNICEF to improve maternal and child health outcomes through community-based services and health education.[9] Although maternal and neonatal mortality has declined considerably over the years, disparities persist because of inadequate awareness and utilization of available health services.[10] [11] The Reproductive and Child Health Programme emphasizes safe pregnancy, safe childbirth, reproductive health, and healthy child development as essential components of quality healthcare.[12] Previous research among antenatal women reported that the majority had only average knowledge regarding maternal and child health services, indicating the need for effective educational interventions to improve awareness and utilization of these services.[13].

NEED OF THE STUDY:

Improving maternal and child health remains a global and national priority as reflected in the Sustainable Development Goals and the World Health Organization's strategy to promote the health and well-being of women, children, and adolescents.[14] Despite significant progress, maternal and neonatal mortality continue to be major public health concerns, with many deaths remaining preventable through timely and quality healthcare services.[15] [16] Global and national initiatives have emphasized strengthening maternal healthcare, institutional delivery, antenatal and postnatal care, and community-based interventions to improve maternal and child health outcomes.[17–19] The Government of India has implemented several programmes to promote safe motherhood and child health; however, awareness and utilization of these services remain inadequate among many women.[20] Previous studies have reported gaps in the utilization of maternal and child health services and demonstrated that planned teaching programmes significantly improve knowledge regarding maternal healthcare.[21] [22] Therefore, the researcher felt the need to assess the effectiveness of planned teaching on knowledge regarding maternal and child health services among reproductive women residing in a selected rural area.

A cross-sectional study conducted in China (2023) assessed disparities and determinants of maternal health service utilization among 996 women residing in poverty-stricken rural areas. The study reported that maternal health service utilization was significantly influenced by place of residence, age, education level, annual income, health education during antenatal care, conditional cash transfer participation, distance to health facilities, number of children, and self-rated health status. The authors concluded that inequalities in maternal health service utilization persist and recommended strengthening health education, improving financial support, and increasing healthcare resources in underserved areas to enhance maternal service utilization.[23]

A qualitative study conducted in Ethiopia (2023) explored the influence of gender intersectionality on access to reproductive, maternal, newborn, and child health/family planning services. The study found that sociocultural, structural, religious, and programmatic factors influenced women's access to maternal health services. Men's dominance in household decision-making and resource control, together with limited male involvement in maternal health programmes, were identified as major barriers to service utilization. The authors concluded that gender-responsive strategies and greater male participation are essential to improve the uptake of reproductive, maternal, newborn, and child health services.[24]

HYPOTHESIS

Will be tested at 0.05 level of significance.

H0 - There will be no significant difference between pre-test and post-test knowledge scores on maternal and child health services among reproductive women residing at selected rural area

H1 - There will be a significant difference between pre-test and post-test knowledge scores regarding maternal and child health services among reproductive women residing in a selected rural area.

OBJECTIVE OF THE STUDY

Primary Objective

1. To assess the effectiveness of planned teaching on knowledge regarding maternal & child health services among reproductive women residing at selected rural area.

Secondary Objectives

1. To assess the existing knowledge regarding maternal and child health services among reproductive women residing in a selected rural area.

2. To assess the effectiveness of the planned teaching programme on knowledge regarding maternal and child health services among reproductive women residing in a selected rural area.

3. To find out the association between post test knowledge score regarding maternal & child health services among reproductive women with their selected demographic variable.

METHODOLOGY

Research Approach

The present study adopted a quantitative research approach to assess the effectiveness of planned teaching on knowledge regarding maternal and child health services among reproductive women residing in a selected rural area. The quantitative approach was considered appropriate to evaluate the participants' knowledge before and after the planned teaching programme.

Research Design

The study employed a pre-experimental one-group pre-test–post-test research design to assess the effectiveness of planned teaching on knowledge regarding maternal and child health services among reproductive women residing in a selected rural area. A pre-test (O_1) was conducted on Day 1 using a structured knowledge questionnaire, followed by the planned teaching programme (X). A post-test (O_2) was conducted on Day 7 using the same questionnaire to assess the effectiveness of the intervention.

Research Design: $O_1 \rightarrow X \rightarrow O_2$

Where:

- **O_1** = Pre-test assessment of knowledge
- **X** = Planned teaching programme
- **O_2** = Post-test assessment of knowledge.

Setting of the Study

The study was conducted in a selected rural area.

Population

- **Target Population:** The target population included all reproductive women residing in the selected rural area.
- **Accessible Population:** The accessible population consisted of reproductive women residing in the selected rural area who met the inclusion and exclusion criteria and were available during the period of data collection.

Sample Size and Sampling Technique

The study sample comprised 80 reproductive women residing in a selected rural area who fulfilled the inclusion and exclusion criteria. Participants were selected using a non-probability convenience sampling technique based on their availability during the period of data collection. The sample size was determined using Cochran's formula, which yielded an estimated sample size of 74. After adding 5% to compensate for possible non-response and non-compliance, the final sample size was 80 participants.

Inclusion Criteria

- Reproductive women who were willing to participate in the study.
- Reproductive women who were available during the period of data collection.
- Reproductive women who could understand English or Marathi.

Exclusion Criteria

- Reproductive women who had previously attended the same educational programme.

TOOL FOR DATA COLLECTION

Data were collected using a self-administered structured questionnaire developed by the investigator based on an extensive review of literature, textbooks, journals, online resources, and expert guidance. The tool consisted of two sections:

Section A: Demographic characteristics comprising six items, including age, marital status, education, occupation, and source of information.

Section B: A structured knowledge questionnaire consisting of 20 multiple-choice questions on maternal and child health services. Each correct response was awarded one mark, while incorrect or unanswered responses received zero marks. The maximum obtainable score was 20. Knowledge levels were categorized as Poor (1–4), Good (5–8), Average (9–12), Very Good (13–16), and Excellent (17–20).

Feasibility and Pilot Study

The feasibility and pilot study were conducted among 10 reproductive women in a selected rural area from 23/10/2023 to 30/10/2023. The structured questionnaire was found to be clear, feasible, and understandable. The findings indicated that the planned teaching programme was effective in improving knowledge regarding maternal and child health services.

Validity and Reliability

The content validity of the tool was established by 10 experts in the field of Community Health Nursing. The reliability of the structured knowledge questionnaire was established using the Split-half (KR-20) method, with a reliability coefficient of r = 0.84, indicating that the instrument was reliable.

DATA COLLECTION PROCEDURE

Data were collected from 06/11/2023 to 25/11/2023 after obtaining written informed consent. A pre-test was conducted using a structured knowledge questionnaire, followed by the planned teaching programme on the same day. The post-test was conducted on the 7th day using the same questionnaire. Confidentiality of the participants was maintained throughout the study.

Statistical Analysis

Data were analyzed using descriptive and inferential statistics. Frequency, percentage, mean and standard deviation were used for descriptive analysis. The paired t-test was used to compare pre-test and post-test knowledge scores, and ANOVA was used to determine the

association between post-test knowledge scores and selected demographic variables.

RESULT

A total of 80 reproductive women participated in the study. The majority were aged 31 years and above (40 participants), were married (71.3%), had primary education (67.5%), were housewives (56.3%), and reported television (56.3%) as their primary source of information.

The effectiveness of the planned teaching programme was assessed by comparing the pre-test and post-test knowledge level scores. The mean knowledge level score increased from 1.00 ± 0.00 in the pre-test to 4.78 ± 0.42 in the post-test, with a mean difference of 9.93 ± 0.746. The calculated paired t-value was 74.350, which was statistically significant ($p = 0.0001$), indicating that the planned teaching programme was effective in improving knowledge regarding maternal and child health services among reproductive women.

A statistically significant association was observed between post-test knowledge scores and selected demographic variables, including age, education, and occupation ($p < 0.05$), whereas marital status and source of information showed no significant association.

Table 1: Percentage wise distribution of participant according to their demographic variables n=80

Category	Frequency	Percent
Age in years		
Less than 20	0	0.0
20-25	10	12.5
25-30	30	37.5
31 and above	40	50
Marital Status		
Unmarried	23	28.7
Married	57	71.3
Education		
Primary	54	67.5
Secondary	17	21.3
Graduate	6	7.5
Post graduate	3	3.8
Occupation		
Housewife	45	56.3
Labour/Farmer	13	16.3
Private	17	21.3
Government	5	6.3
Source of information		
Television	45	56.3
Newspaper	17	21.3
Books	11	13.8
Other	7	8.8

Table 2: Significance of effectiveness of planned teaching on knowledge regarding maternal and child health services n=80

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-Test	1.0000	0.00000	9.93±0.746	74.350	0.0001 S, p<0.05
Post Test	4.7750	0.42022			

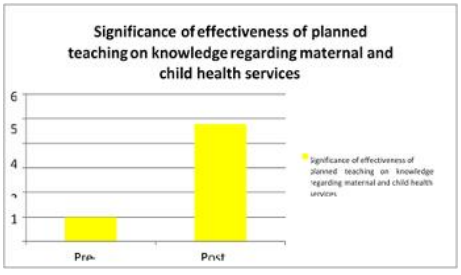

Figure 1: Significance of effectiveness of planned teaching on knowledge regarding maternal and child health services

DISCUSSION

The present study demonstrated that the planned teaching programme was effective in improving the knowledge of reproductive women regarding maternal and child health services. A significant improvement was observed in post-test knowledge scores compared with pre-test scores. Significant associations were found between post-test knowledge scores and selected demographic variables, including age, education, and occupation.

The findings of the present study are consistent with a pre-experimental study conducted in Chennai (2011) among 120 participants, which reported a significant improvement in knowledge and attitude regarding maternal and child health services following the implementation of an MCH care package ($t = 31.404$, $p < 0.001$). The study concluded that educational interventions effectively improved participants' knowledge regarding maternal and child health services. 25 The findings suggest that planned teaching is an effective educational strategy for enhancing knowledge regarding maternal and child health services among reproductive women.

CONCLUSION

The study concluded that the planned teaching programme significantly improved knowledge regarding maternal and child health services among reproductive women. Community-based educational interventions may enhance awareness and utilization of essential maternal and child health services.

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