



A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON SIGNS AND SYMPTOMS OF ONSET OF LABOUR AMONG PRIMIGRAVIDA IN SELECTED COMMUNITY AT BANGALORE, KARNATAKA

Nursing

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ABSTRACT

Introduction: Childbirth is a significant physiological event in a woman's life, often accompanied by anxiety and uncertainty. For primigravidae (women pregnant for the first time), this experience can be particularly overwhelming. Understanding the signs and symptoms of impending labor is crucial for timely intervention and a positive birth experience. However, a lack of knowledge and preparedness can contribute to anxiety, unnecessary hospital visits, and delayed medical attention. This study aims to evaluate the effectiveness of a structured teaching program on the knowledge and preparedness of primigravidae regarding the signs and symptoms of onset of labor in a selected community in Bangalore.

Methodology: This pre-experimental, one-group pre-test post-test study will be conducted in a selected rural community at PHC Thavarekare, Bangalore, South. The target population is primigravidae, with the accessible population being those attending PHC Thavarekare. Using purposive sampling, 30 primigravidae women will be selected. Data will be collected using a structured questionnaire administered as a pre-test to assess baseline knowledge. Following this, a structured teaching programme will be delivered as the intervention. A post-test, also using the structured questionnaire, will be administered to evaluate the effectiveness of the teaching programme. **Results:** The study revealed a significant improvement in the knowledge of primigravidae regarding the signs and symptoms of onset of labor following the structured teaching programme. Pre-test scores showed that the majority of participants had inadequate knowledge (mean percentage: 36.0%), which significantly improved to an adequate level post-intervention (mean percentage: 89.0%). All knowledge aspects, including anatomy and physiological changes, signs and symptoms of labor, management, and complications, showed marked enhancement in scores with paired 't' test values indicating statistical significance ($p < 0.05$). Additionally, demographic variables such as age, religion, type of family, educational status, occupational status, family income, trimester, and source of information had no significant association with pre-test knowledge levels, except for the source of information which showed a significant impact. This highlights the effectiveness of the structured teaching programme in improving awareness and preparedness among primigravidae in the selected community. **Conclusion:** The structured teaching programme significantly enhanced the knowledge of primigravidae regarding the signs and symptoms of the onset of labor. The intervention effectively increased the mean knowledge scores from a pre-test average of 36.0% to a post-test average of 89.0%. This improvement underscores the importance and effectiveness of educational interventions in maternal health. While most demographic variables did not significantly influence pre-test knowledge levels, the source of information did have a significant impact, suggesting the value of reliable information sources. Overall, the study demonstrates that structured educational programmes can play a crucial role in preparing primigravidae for labor, thereby potentially improving maternal and neonatal outcomes.

KEYWORDS

Primigravidae, Structured Teaching Programme, Onset of Labour, Maternal Health, Knowledge

INTRODUCTION

The onset of labor is a critical phase in pregnancy, especially for primigravidae, who are experiencing it for the first time. Adequate knowledge and preparedness can significantly impact maternal and neonatal outcomes. In India, where approximately 27 million births occur annually, maternal education remains a crucial determinant of health outcomes. Studies have shown that well-informed mothers are more likely to seek timely medical assistance, reducing complications during labor. Despite this, many primigravidae lack adequate knowledge about the signs and symptoms of labor onset. This study aims to evaluate the effectiveness of a structured teaching programme in enhancing the knowledge of primigravidae regarding the onset of labor in a selected community in Bangalore, Karnataka. By addressing this gap, the study seeks to empower first-time mothers with the necessary information to improve their preparedness for labor, ultimately contributing to better health outcomes for both mothers and babies.

A study conducted by WHO, UNICEF, and UNFPA estimated that in the year 2000, the majority of the 529,000 maternal deaths globally occurred in just 13 countries. The lack of good information on labor has led to maternal ill-health being relatively neglected by the international health community. Maternal deaths are often solitary and hidden, going unreported due to weak information systems. This study aims to address this gap by evaluating the effectiveness of a structured teaching programme on the signs and symptoms of the onset of labor among primigravidae in a selected community in Bangalore, Karnataka. Improved maternal education and preparedness can significantly enhance maternal and neonatal health outcomes.

Objectives Of The Study:

1. To assess the level of existing knowledge of primigravida regarding the signs and symptoms of onset of labour in the pre test.
2. To evaluate the effectiveness of structured teaching programme of primigravida regarding the signs and symptoms of onset of labour, with pre test and post test scores.
3. To find out association between level of knowledge score with selected demographic variables.

Hypothesis:

- H₁** - There will be significant difference in the post test knowledge scores on signs and symptoms of onset of labor than pre test knowledge scores among the primigravida.
- H₂** - There will be significant association between level of knowledge scores and selected demographic variables.

Research Methodology:

Research Approach: Quantitative research approach.

Research Design: This study employed a pre-experimental one-group pre-test post-test design without a control group. The study took place in a rural community served by PHC Thavarekare in Bangalore South, focusing on primigravida attending the center. A sample of 30 primigravida was selected using purposive sampling. Data was collected using a self-administered structured knowledge questionnaire before and after administering a structured teaching programme.

Variables:

- **Independent Variable:** Structured Teaching Programme.
- **Dependent Variable:** Knowledge of primigravida.
- **Attribute Variables:** Age, sex, area of residence, educational status, occupational experience, history of onset of labor, family history, and sources of health information.

Setting: Three villages in PHC Thavarekare, Bangalore South.

Sample Size: 30 Primigravida mothers

Sampling Technique: Purposive sampling.

Inclusion Criteria:

- Primigravidae aged 18-35 years.
- In second and third trimesters.
- Willing to participate.
- Able to read and write Kannada.

Exclusion Criteria:

- High-risk pregnancy.
- In true labor pain.
- In the first trimester.

Tool: A self-administered structured knowledge questionnaire with 40 items covering anatomy, signs and symptoms, management, and complications of labor. Reliability was established using the Split-half method with a correlation coefficient of $r = 0.9879$.

Procedure Of Data Collection:

1. Permission was obtained from the Medical Officer of PHC Thavarekare.
2. Primigravida were identified from the register and informed consent was obtained.
3. A pre-test was conducted on day one, followed by a 45-minute structured teaching programme.
4. A post-test was conducted using the same questionnaire after seven days.

Data Analysis Plan:

The data analysis was planned to align with the study's objectives, utilizing both descriptive and inferential statistics. Data was organized in a master sheet or computer, and personal data was analyzed in terms of frequencies and percentages. The knowledge of primigravida regarding signs and symptoms of the onset of labor before and after the STP was analyzed using frequencies, percentages, means, mean percentages, and standard deviations, with results presented through bar and cone diagrams. The significant difference between pre-test and post-test scores was determined using the paired t-test, while the χ^2 test was employed to assess the association between the mean knowledge scores of pre-test, post-test, and enhancement scores with selected demographic variables.

Ethical Considerations: The study followed ethical guidelines, ensuring informed consent and confidentiality of the participants. Written informed consent obtained from all participants.

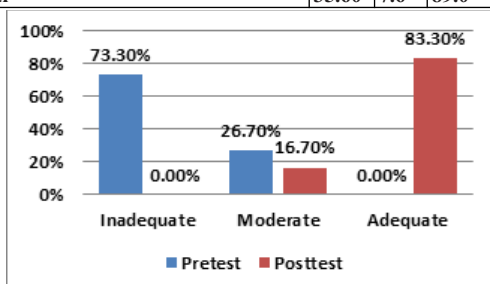
RESULTS:

Demographic key findings of the study:

The demographic profile of the mothers in this study The majority of primigravidae were aged 18-20 years (43.3%), followed by 21-23 years (26.7%), and 24-27 years (30%). Most had educational levels of middle school (40%) and high school (36.7%), with a smaller percentage at primary school (13.3%). Regarding occupation, 60.1% were housewives, with daily wage earners, self-employed, and privately employed each constituting 13.3%. Most were Hindu (70%), with Muslims making up 30%. A significant majority (76.7%) belonged to joint families, while 23.3% were from nuclear families. Family income varied, with 36.7% earning Rs1001-2000, 26.7% below Rs1000, 20% Rs2001-3000, and 16.6% Rs3001-4000. In terms of pregnancy, 60% were in the third trimester, 40% in the second, with 90% having no history of abortion. Information on the onset of labor was primarily sourced from health professionals (56.7%), with additional sources being family, friends, television, radio (23.3%), and minimal input from print media (3.3%).

Table 1: Aspect wise Pretest and Posttest Mean Knowledge level of primigravida on Signs and symptoms of onset of labour

Knowledge Aspects	Pretest		Posttest	
	Mean	SD	Mean	SD
Anatomy & Physiology of female reproductive system during pregnancy.	4.83	9.2	96.7	9.2
Signs and symptoms of onset of Labour	22.02	8.6	88.1	8.6
Management of onset of Labour	4.37	17	87.3	17
Complication of onset of Labor	4.37	13.4	87.3	13.4
Total	35.60	7.6	89.0	7.6



Graph 1 Level of Knowledge in pretest and posttest.

Pretest showed 73.30% inadequate knowledge; posttest revealed

83.30% adequate knowledge, demonstrating the educational intervention's significant effectiveness.

Table 2 Pre test and Post test Mean Knowledge on Signs and symptoms of onset of labour. (Paired t-Test)

Observation	Mean	SD	Mean difference	Paired t test
Pre-test	14.40	11.9	21.20	18.61*
Post-test	35.60	7.6		

The pre-test mean score was 14.40 with a standard deviation of 11.9, while the post-test mean score increased to 35.60 with a standard deviation of 7.6. The mean difference between the pre-test and post-test scores was 21.20. The paired t-test value was found to be 18.61, indicating a significant improvement in the knowledge scores after the intervention ($P < 0.05$).

Regarding the association between selected demographic variables and the level of knowledge

The association between source of information and pre-test knowledge on onset of labor among primigravidae is significant ($\chi^2 = 8.39$, $p < 0.05$). Other variables (age, religion, family type, education, occupation, income, trimester) showed no significant association. Post-test knowledge was significantly associated with age ($\chi^2 = 7.85$, $p < 0.05$) and occupation ($\chi^2 = 9.00$, $p < 0.05$), but not with other variables. H2 is rejected.

CONCLUSION:

The study demonstrated that the structured teaching programme on signs and symptoms of onset of labor among primigravida was effective. The significant association between the source of information and pre-test knowledge ($\chi^2 = 8.39$, $p < 0.05$) indicates the importance of information sources in enhancing understanding. Post-test results showed significant improvement, with age ($\chi^2 = 7.85$, $p < 0.05$) and occupational status ($\chi^2 = 9.00$, $p < 0.05$) influencing knowledge levels. Other demographic variables, such as religion, family type, education, family income, and trimester, did not show a significant association. These findings suggest that targeted educational interventions can effectively increase knowledge on labor onset signs and symptoms among primigravida.

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