



EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING PROLONGED LABOUR AND ITS MANAGEMENT AMONG B.SC. NURSING STUDENTS IN SELECTED NURSING INSTITUTES: A QUASI-EXPERIMENTAL

Nursing

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ABSTRACT

Childbirth is a critical event in a woman's life, marking the transition to motherhood. While labour is a natural physiological process, complications such as prolonged labour can pose significant risks to both the mother and the new-born. **Aim of the study:** the study aims to find the Effectiveness of structured teaching program on knowledge regarding prolonged labour and its management among B.Sc. nursing students in selected nursing institutes. **Objectives of the study: Primary Objective:** To evaluate the effectiveness structured teaching program on knowledge regarding prolonged labour and its management among B.Sc. Nursing students in a selected Nursing Institute. **Secondary Objective:** To assess the existing knowledge of B.sc nursing students regarding prolonged labour and its management. To determine the association of post-test knowledge score with selected demographic variables. **Method:** one-group pre-test post-test design and based on quantitative approaches 90 B.Sc. Nursing students selected using non-probability convenience sampling from a selected nursing institute. **Result:** The paired t-test analysis confirmed a statistically significant increase in knowledge scores, with the mean pre-test score of 9.01 ± 2.479 rising to 21.72 ± 2.673 in the post-test. The calculated t-value was 50.449 ($p = 0.000$), indicating a highly significant improvement and leading to the rejection of the null hypothesis. The p-value was < 0.001 , indicating a statistically significant improvement in knowledge after the structured teaching program. Thus, the null hypothesis (H_0) was rejected, and the alternative hypothesis (H_1) was accepted. However, there was no significant association found between demographic variables and post-test knowledge scores. **Interpretation and conclusion:** The study concluded that the structured teaching program was highly effective in enhancing the knowledge of B.Sc. Nursing students regarding prolonged labour and its management. Integrating such targeted educational interventions into nursing curricula can empower future nurses with the necessary knowledge and confidence to manage prolonged labour effectively, ultimately improving maternal and neonatal outcomes.

KEYWORDS

Effectiveness, Structured Teaching Program, Knowledge, Prolonged Labour, Management, B.SC. Nursing Students, Nursing Institutes

INTRODUCTION

"Safe motherhood begins with informed care -and informed care begins with trained hands and educated minds."

- World Health Organization

Childbirth is a critical event in a woman's life, marking the transition to motherhood. While labour is a natural physiological process, complications such as prolonged labour can pose significant risks to both the mother and the new-born. The World Health Organization (WHO) defines prolonged labour as labour that exceeds 12–18 hours in primigravida and 8–12 hours in multigravida, depending on various factors such as cervical dilation, uterine contractions, and fetal descent. If left unmanaged, prolonged labour can result in severe complications, including maternal exhaustion, obstructed labour, postpartum haemorrhage, uterine rupture, fetal distress, and even perinatal mortality.^[1] Globally, prolonged labour remains a major public health concern, especially in low- and middle-income countries where access to timely medical intervention and skilled birth attendance is limited. According to WHO estimates, obstructed and prolonged labour contribute to approximately 8–10% of maternal deaths worldwide.^[2] The burden of prolonged labour-related complications highlights the critical need for healthcare professionals, especially nurses, to be well-equipped with knowledge and skills for early recognition and effective management.^[3]

NEED OF THE STUDY:

Maternal and neonatal health remains a pressing concern globally and within India, with complications during labour, such as prolonged labour, significantly contributing to morbidity and mortality rates. Prolonged labour, characterized by an abnormally extended duration of labour, poses severe risks to both mother and child. According to the World Health Organization (WHO), approximately 260,000 women died during and following pregnancy and childbirth in 2023, with about 92% of these deaths occurring in low- and lower-middle-income countries. Sub-Saharan Africa and Southern Asia accounted for around 87% of the estimated global maternal deaths in 2023.^[4] India has made commendable progress in reducing maternal mortality, with the Maternal Mortality Ratio (MMR) declining from 130 per 100,000 live births in 2014-16 to 97 per 100,000 live births in 2018-20. However, complications like prolonged labour continue to be significant contributors to maternal and neonatal mortality.^[5] In Maharashtra, cultural barriers and low awareness have led to many women not

seeking early antenatal care services, resulting in high-risk pregnancies and associated complications.^[6] Specifically, in the Vidarbha region, data indicates that neonatal deaths are mainly concentrated in rural areas, with the highest numbers reported from health facilities, particularly in districts like Amravati and Yavatmal.^[7] Nurses play a crucial role in ensuring safe deliveries by monitoring labour progression, identifying early warning signs, and initiating timely interventions. However, studies have indicated gaps in knowledge and preparedness among nursing students regarding the recognition and management of prolonged labour.^[8]

REVIEW OF LITERATURE:

studied Time-out in prolonged labour, development of a care model to prevent secondary fear of childbirth. During qualitative improvement work, the statistics at the hospital reveal prolonged labour as one of the major causes of secondary fear of childbirth (FOC). The aim of this improvement work was to develop and implement a care process for prolonged labour to prevent secondary FOC. To explore the factors behind secondary FOC among multiparous women, a follow-up of referral reasons for 600 women with severe FOC was made between 2015 and 2017 at a Swedish University Hospital. In the group with the most common factor, namely prolonged labour, 41 women were interviewed. From their answers, further research and existing professional knowledge, a care process to prevent secondary FOC was designed, 'Time-out in prolonged labour' (the Time-out). To improve the quality of the care process, the functional resonance analysis method was used. The findings from the interviews were categorised into three themes: lack of involvement; lack of communication and information; and lack of care plan. The women explained that if these areas had been fulfilled, it may have reduced their FOC. To prevent the above-mentioned themes, 'Time-out in prolonged labour' was developed with supporting factors such as gathering the interprofessional team, collecting information, dialogue within the team and the involvement of the women when deciding the care plan. Result after implementation shows a reduction of referral reason due to prolonged labour for women with severe FOC from 28% in 2016 to 8.5% in 2020. They concluded that the Time-out is a good model to prevent secondary FOC. Central aspects of the model are to ensure women's involvement, good communication and a documented care plan for women in prolonged labour. The supporting factor of interprofessional teamwork is of importance when using the Time-out in practice.^[9]

HYPOTHESIS

Will be tested at 0.05 level of significance.

H₀: There will be no significant difference between effectiveness of structured teaching program on knowledge score regarding prolonged labour and its managements among B.Sc. Nursing students in selected nursing institutes after pre-test and post-test.

H₁: There will be significant difference between effectiveness of structured teaching program on knowledge score regarding prolonged labour and its managements among BSc Nursing students in selected nursing institutes after pre-test and post-test.

OBJECTIVE OF THE STUDY

Primary Objective

1. To evaluate the effectiveness structured teaching program on knowledge regarding prolonged labour and its management among B.Sc. Nursing students in a selected Nursing Institutes.

Secondary Objective

1. To assess the existing knowledge of B.sc nursing students regarding prolonged labour and its management.
2. To determine the association the post-test knowledge score with selected demographic variables

METHODOLOGY

Research Approach

A quantitative research approach was adopted to evaluate the effectiveness of the planned teaching program on knowledge regarding care of baby in incubator among nursing students.

Research Design

A quasi-experimental one-group pre-test post-test research design was used. This design was chosen to assess the effectiveness of the Structured Teaching Program on nursing students' knowledge regarding prolonged labour and its management.

Setting of the Study

The study was conducted in selected Nursing Institutes.

Population

The target population comprised B. Sc. Nursing 6th Semester Students studying in selected Nursing Institutes.

Accessible Population

B.Sc. Nursing 6th Semester Students studying in selected Nursing Institutes & Available at the time of data collection.

Sample Size and Sampling Technique

A sample of 90 B. Sc. Nursing 6th Semester Students was selected using Non-probability Convenient Sampling.

Inclusion Criteria

1. B.Sc. Nursing students enrolled in selected nursing institutes.
2. Students who are willing to participate in the study.
3. Students who have not participated any kind of structured teaching on prolonged labour and its management.

Exclusion Criteria

1. Nursing students who are not present during data collection.
2. Students who are attending ANM, GNM, M.sc nursing.

TOOL FOR DATA COLLECTION

The research tool was developed based on extensive literature review, expert guidance, personal experience, and updated theoretical knowledge regarding prolonged labour and its management. The tool was designed to assess the knowledge level of B.Sc. Nursing students before and after the Structured Teaching Program (STP). The structured questionnaire consists of two sections:

Section I: Demographic Variables

This section includes baseline information about the participants, such as: Age, Gender, Any clinical experience in obstetrics and gynecology, Attended any workshop/seminar on prolonged labour

Section II: Knowledge Assessment

This section consists of 30 structured multiple-choice questions designed to evaluate students' knowledge regarding prolonged labour and its management.

Reliability

Reliability was assessed using appropriate tests from pilot data, and the

tool was found reliable.

Pilot Study

A pilot study was conducted to assess feasibility. No major modifications were required.

DATA COLLECTION PROCEDURE

Data collection was carried out in February after obtaining prior permission from the authorities of the selected nursing institutes. Participants meeting the inclusion criteria were selected, and the purpose of the study was explained to them. Confidentiality was assured, and written informed consent was obtained before data collection.

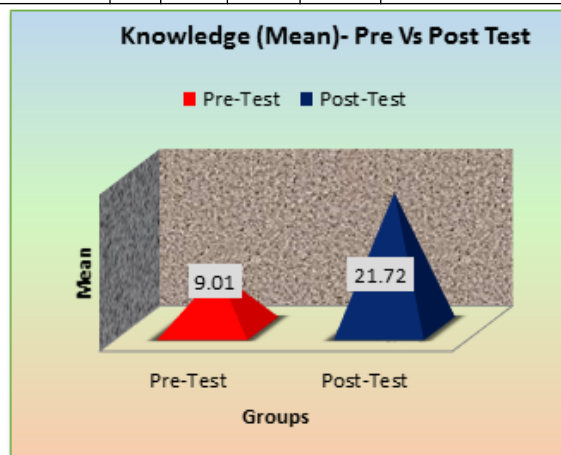
Data were collected using two sections: a demographic questionnaire and a structured multiple-choice questionnaire to assess knowledge regarding prolonged labour and its management. A pre-test was conducted to assess baseline knowledge, followed by the administration of the structured teaching programme. After the intervention, a post-test was conducted using the same tool to evaluate the effectiveness of the programme. Ethical principles were maintained throughout the study, and cooperation from participants and authorities was acknowledged at the end of data collection.

RESULT

The demographic analysis showed that most nursing students were aged 21–25 years (97.78%), with a majority being female (73.33%). All participants reported no prior clinical exposure to obstetrics and gynecology. Pre-test findings revealed that most students had inadequate knowledge regarding prolonged labour and its management, with 71.11% scoring in the average category and 17.78% in the poor category, while only 11.11% demonstrated good knowledge and none achieved very good or excellent scores. Following the Structured Teaching Programme, a significant improvement in knowledge was observed, with the mean score increasing from 9.01 ± 2.479 in the pre-test to 21.72 ± 2.673 in the post-test ($t = 50.449$, $p < 0.001$), leading to rejection of the null hypothesis. No statistically significant association was found between post-test knowledge scores and demographic variables such as age ($p = 0.880$) and gender ($p = 0.209$), indicating that the intervention was equally effective across groups.

Table 1: Comparison of the knowledge score regarding prolonged labour and its management among B.sc nursing students (paired t test) (n=90)

Test	N	Mean	SD	t value	Significance (2 tailed)
Pre-Test	90	9.01	2.479	50.449	0.000



DISCUSSION

The present study assessed the effectiveness of a structured teaching programme on B.Sc. nursing students' knowledge regarding prolonged labour and its management. The findings showed that most students had inadequate baseline knowledge, which improved significantly after the intervention, demonstrating the effectiveness of the structured teaching programme. These results are consistent with the findings of Noorjan KS and D'Souza P (2025), who reported inadequate pre-test knowledge among nursing students irrespective of demographic characteristics. In the present study, post-test findings revealed a clear improvement in knowledge levels, supported by increased mean

scores and mean percentage after the intervention. No significant association was found between pre-test knowledge scores and selected demographic variables, indicating that knowledge deficits were uniformly present across groups and emphasizing the need for structured educational interventions for nursing students.

CONCLUSION

The findings of our study align with existing research, emphasizing that structured teaching programs significantly enhance nursing students' knowledge and awareness regarding prolonged labour and its management. However, challenges such as limited practical exposure and technical difficulties must be addressed through curriculum modifications, hands-on training, and digital literacy programs. By improving nursing students' knowledge, we can ensure better implementation of Prolonged labour and its management in maternal and child healthcare, ultimately leading to improved health outcomes.

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