



Obstetrics & Gynaecology

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON LOTUS BIRTH IN OBSTETRICS AND GYNAECOLOGICAL NURSING AMONG FINAL-YEAR B.Sc. NURSING STUDENTS IN A SELECTED COLLEGE, RAICHUR

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ABSTRACT **Background:** Lotus birth, also known as umbilical non-severance, is an alternative childbirth practice in which the umbilical cord is not clamped or cut after birth and remains attached to the newborn until it separates naturally. The practice has received attention in discussions of natural childbirth, although its clinical benefits and safety remain uncertain. Nurses have an important responsibility to provide evidence-based maternity care and appropriate health education. Therefore, adequate knowledge among nursing students is important. **Aim:** To assess the effectiveness of a structured teaching programme on knowledge regarding lotus birth among final-year B.Sc. Nursing students in a selected nursing college at Raichur. **Methods:** A quantitative evaluative approach using a pre-experimental one-group pre-test and post-test design was adopted. The study included 80 final-year B.Sc. Nursing students selected by non-probability convenient sampling. Data were collected using a structured questionnaire comprising socio-demographic variables and a knowledge questionnaire on lotus birth. A pre-test was conducted, followed by a structured teaching programme using lecture, discussion and audio-visual aids. A post-test was conducted after seven days. Frequency, percentage, mean, standard deviation, paired t-test and chi-square test were used for analysis. **Results:** The mean pre-test knowledge score was 5.55 ± 3.621 and the mean post-test knowledge score was 17.71 ± 1.624 . The paired t value was 28.019 with 79 degrees of freedom and was statistically significant ($p < 0.001$). In the pre-test, 77.5% had poor knowledge, 20.0% had average knowledge and 2.5% had good knowledge. In the post-test, 93.8% had good knowledge and 6.3% had average knowledge. A statistically significant association was found between previous awareness of lotus birth and pre-test knowledge level ($\chi^2 = 7.177$, $p = 0.028$). **Conclusion:** The structured teaching programme was effective in improving knowledge regarding lotus birth among final-year B.Sc. Nursing students. Planned educational interventions may strengthen students' understanding of emerging and non-conventional maternity care practices.

KEYWORDS : Lotus birth, structured teaching programme, knowledge, B.Sc. Nursing students, obstetric nursing, nursing education.

INTRODUCTION

Lotus birth, or umbilical non-severance, is an alternative childbirth practice in which the umbilical cord is not clamped or cut and the placenta remains attached until natural separation. Although it has attracted interest as a natural childbirth practice, evidence for claimed benefits is limited and concerns regarding infection and newborn safety remain. Nurses and midwives have an important role in newborn assessment, counselling and health education and should provide accurate, evidence-based information when families ask about alternative practices. Nursing students may have limited exposure to lotus birth because it is not routinely included in maternity care. Previous literature has reported inadequate knowledge among nursing students. Therefore, the investigator developed a structured teaching programme to improve knowledge regarding lotus birth among final-year B.Sc. Nursing students in a selected nursing college at Raichur.

Need for the Study

Alternative and emerging childbirth practices are increasingly discussed by pregnant women, families and healthcare professionals. Nurses should therefore be prepared to provide clear and evidence-based information. Inadequate knowledge may lead to uncertainty when students encounter questions about non-conventional practices. A structured teaching programme provides an organized method of presenting essential information and correcting misconceptions. The present study is relevant to nursing education because the knowledge gained during undergraduate training can influence future clinical practice and health education. Improving students' understanding of lotus birth may help them recognize the distinction between parental preferences, available evidence and safe newborn care. It may also encourage students to approach alternative practices critically and professionally.

Statement of the Problem

"A study to assess the effectiveness of structured teaching programme on lotus birth in obstetrics and gynaecological nursing among final-year B.Sc. Nursing students in a selected college, Raichur."

OBJECTIVES

1. To assess the pre-test knowledge of final-year B.Sc. Nursing students regarding lotus birth.

2. To assess the post-test knowledge of final-year B.Sc. Nursing students regarding lotus birth.
3. To evaluate the effectiveness of the structured teaching programme.
4. To determine the association between pre-test knowledge level and selected socio-demographic variables.

HYPOTHESES

- H₁: There will be a significant difference between the pre-test and post-test knowledge scores of students regarding lotus birth.
- H₂: There will be a significant association between pre-test knowledge level regarding lotus birth and selected socio-demographic variables.

MATERIALS AND METHODS

Research approach and design: A quantitative evaluative approach was adopted. A pre-experimental one-group pre-test and post-test design was used. The design enabled comparison of participants' knowledge before and after administration of the structured teaching programme.

Setting and participants: The study was conducted in a selected nursing college at Raichur. The population consisted of final-year B.Sc. Nursing students. A total of 80 students participated in the study. Participants were selected using non-probability convenient sampling.

Inclusion criteria: Final-year B.Sc. Nursing students who were willing to participate and available during the period of data collection were included.

Exclusion criteria: Students who were absent during data collection and students who had previously been exposed to similar teaching were excluded.

Data collection tool: A structured questionnaire was used. Section A collected socio-demographic information. Section B consisted of a structured knowledge questionnaire regarding lotus birth.

Intervention: The structured teaching programme was systematically planned and included lecture and discussion supported by audio-visual aids. The teaching focused on lotus birth and relevant obstetric and neonatal nursing considerations.

Procedure: A pre-test was administered to determine baseline knowledge. The structured teaching programme was then provided to the participants. A post-test was administered after seven days to assess the change in knowledge.

Ethical considerations: Formal permission was obtained from the concerned authority. Informed consent was obtained from participants and confidentiality was maintained throughout the study.

Statistical analysis: Frequency and percentage were used to describe categorical variables. Mean and standard deviation were used for knowledge scores. The paired t-test was used to compare pre-test and post-test scores. The chi-square test was used to determine the association between pre-test knowledge level and selected socio-demographic variables.

RESULTS

The study included 80 final-year B.Sc. Nursing students. The socio-demographic and selected exposure characteristics of the participants are presented below.

Variable	Category	N & (%)
Age (years)	20	21 (26.3)
	21	52 (65.0)
	22	5 (6.3)
	23	2 (2.5)
Gender	Male	25 (31.3)
	Female	55 (68.8)
Heard about lotus birth before study	Yes	35 (43.8)
	No	45 (56.3)
Source of information	Books/journals	7 (8.8)
	Classroom teaching	17 (21.3)
	Clinical postings	3 (3.8)
	Friends/relatives	20 (25.0)
	Internet/social media	37 (46.3)
Attended educational programme	Yes	22 (27.5)
	No	58 (72.5)
Observed/assisted in lotus birth	Yes	11 (13.8)
	No	69 (86.3)

The majority of participants were 21 years old (65.0%), while 68.8% were female. Less than half (43.8%) had heard about lotus birth before the study. Internet/social media was the most frequently reported source of information (46.3%), followed by friends/relatives (25.0%) and classroom teaching (21.3%). Most participants had not attended an educational programme (72.5%), and the majority had not observed or assisted in a lotus birth (86.3%).

Knowledge Scores Before and after the Intervention

Assessment	Mean	SD	t value	p value
Pre-test	5.55	3.621	28.019	<0.001
Post-test	17.71	1.624		

The mean pre-test knowledge score was 5.55 ± 3.621 and increased to 17.71 ± 1.624 in the post-test. The mean improvement was 12.16 points. The paired t-test yielded a value of 28.019 with 79 degrees of freedom and the difference was statistically significant ($p < 0.001$). Thus, the findings indicate a significant improvement in knowledge following the structured teaching programme.

Knowledge Level

Knowledge level	Pre-test N & (%)	Post-test N & (%)
Poor	62 (77.5)	—
Average	16 (20.0)	5 (6.3)
Good	2 (2.5)	75 (93.8)
Total	80 (100)	80 (100)

The pre-test showed that 62 participants (77.5%) had poor knowledge, 16 (20.0%) had average knowledge and only 2 (2.5%) had good knowledge. In contrast, after the structured teaching programme, 75 participants (93.8%) had good knowledge and 5 (6.3%) had average knowledge. No participant was classified as poor in the reported post-test distribution.

Association Between Pre-test Knowledge and Selected Socio-demographic Variables

Variable	χ^2 value	p value	Inference
Age group	3.823	0.701	Not significant
Gender	4.514	0.105	Not significant
Previous awareness of lotus birth	7.177	0.028	Significant
Source of information	15.321	0.053	Not significant

A statistically significant association was found between previous awareness of lotus birth and pre-test knowledge level ($\chi^2 = 7.177$, $p = 0.028$). Thus, previous awareness was significantly related to baseline knowledge. No statistically significant association was found between age group and pre-test knowledge ($\chi^2 = 3.823$, $p = 0.701$) or between gender and pre-test knowledge ($\chi^2 = 4.514$, $p = 0.105$). The association between source of information and pre-test knowledge was also not statistically significant ($\chi^2 = 15.321$, $p = 0.053$). Detailed chi-square statistics for attendance at an educational programme and previous observation/assistance in lotus birth were not available in the supplied results; therefore, no numerical conclusion is made for those variables.

DISCUSSION

The study demonstrated a significant improvement in knowledge following the structured teaching programme. The mean score increased from 5.55 ± 3.621 in the pre-test to 17.71 ± 1.624 in the post-test, with a paired t value of 28.019 ($df = 79$, $p < 0.001$). Before the intervention, 77.5% of students had poor knowledge and only 2.5% had good knowledge, indicating an important baseline knowledge gap. After the programme, 93.8% achieved good knowledge and 6.3% had average knowledge. The findings suggest that a focused structured teaching programme can improve knowledge about less commonly discussed maternity practices. Previous awareness of lotus birth was significantly associated with pre-test knowledge ($p = 0.028$), suggesting that prior exposure may influence baseline knowledge. Age, gender and source of information were not significantly associated with pre-test knowledge. Overall, the findings support structured educational interventions in nursing education to improve students' preparedness for evidence-based counselling. The improvement in knowledge should not be interpreted as evidence that lotus birth itself is clinically beneficial or safe.

CONCLUSION

The present study concluded that the structured teaching programme was effective in improving knowledge regarding lotus birth among final-year B.Sc. Nursing students. The mean knowledge score increased substantially from the pre-test to the post-test, and the difference was statistically significant ($p < 0.001$). The proportion of students with good knowledge increased from 2.5% in the pre-test to 93.8% in the post-test. Previous awareness of lotus birth was significantly associated with pre-test knowledge level. These findings support the use of structured teaching programmes to address knowledge gaps regarding emerging and non-conventional maternity practices in nursing education.

LIMITATIONS

1. The study was conducted in a single selected nursing college, limiting generalizability.
2. Non-probability convenient sampling was used.
3. The pre-experimental one-group design did not include a control group.
4. The study assessed knowledge only and did not assess clinical practice, attitudes or competency.
5. The post-test was conducted after seven days; therefore, long-term retention of knowledge was not assessed.

Ethical Approval

Formal permission was obtained from the concerned authority before conducting the study. Informed consent was obtained from all participants, and confidentiality was maintained throughout the study.

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