

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge and Attitude Regarding the Importance of Institutional Delivery Among Women in a Selected Community Area of Bareilly, U.P.

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ABSTRACT

Background: : Institutional delivery is childbirth in a health facility with access to skilled birth attendants and the ability to identify and manage complications promptly. Knowledge and attitude may influence a woman's preparation for childbirth and choice of delivery setting [1,2]. **Objective:** To assess knowledge and attitude regarding the importance of institutional delivery among women, evaluate the effectiveness of a structured teaching programme, and examine associations between pre-test knowledge and selected socio-demographic variables. **Materials and Methods:** : A quantitative, pre-experimental one-group pre-test–post-test design was used. The study was conducted among 50 women in Abdullahpur Mafi, Bareilly, Uttar Pradesh, selected by non-probability sampling. Data were collected using a demographic proforma, structured knowledge questionnaire and attitude checklist. Descriptive statistics and paired t-tests were reported. **Results:** : In the pre-test, 60% of women had inadequate knowledge, 30% moderate knowledge and 10% adequate knowledge. In the post-test, 70% had adequate knowledge, 26% moderate knowledge and 4% inadequate knowledge. Mean knowledge score increased from 12.0 (SD 4.40) to 22.3 (SD 2.37; $t=20.13$, $p<0.001$). Adequate attitude increased from 30% to 80%; mean attitude score increased from 10.0 (SD 4.28) to 20.1 (SD 2.20; $t=20.00$, $p<0.001$). The thesis reports associations between baseline knowledge and age, education, occupation and monthly family income. **Conclusion:** : The reported pre-test and post-test findings indicate improvement in knowledge and attitude following the structured teaching programme in this sample. Findings should be interpreted cautiously because the study had a small non-random sample and no control group.

Keywords: Institutional delivery, structured teaching programme, knowledge, attitude, women, pre-test, post-test

INTRODUCTION:

Institutional delivery refers to childbirth that takes place in a health facility where skilled health personnel can provide care during labour, delivery and the immediate postnatal period. Skilled attendance and timely access to appropriate care are important components of strategies to prevent avoidable maternal and newborn illness and death. The World Health Organization has emphasized the need for quality maternal health services and action to end preventable maternal mortality [1].

Pregnancy and childbirth are normal life events, but complications such as haemorrhage, hypertensive disorders, infection and obstructed labour may de-

velop unexpectedly. Facility-based delivery can improve the opportunity for early recognition, referral and management of such complications. Preventive and social medicine literature also emphasizes the importance of maternal health services, antenatal care and skilled attendance during childbirth [2].

Birth preparedness and complication readiness involve planning the place of delivery, arranging transport and support, recognizing danger signs and knowing where to seek skilled care. Studies from India and other settings have examined birth preparedness, complication readiness and factors related to the use of institutional delivery services [3,4]. Access to services may also be influenced by distance, socioeconomic circumstances, education and availability of transport [5].

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In India, public programmes such as Janani Suraksha Yojana were introduced to promote institutional delivery, particularly among eligible pregnant women, and to improve access to maternity services [6]. National survey data are commonly used to monitor maternal and child health indicators and patterns of facility-based childbirth [7]. However, the availability of programmes alone may not ensure that all women understand the benefits of institutional delivery or feel prepared to use these services.

Community health education is one way to explain the benefits of skilled delivery care, the possible risks of unassisted home delivery, the importance of planning for emergencies and the services available at health facilities. The present study therefore assessed women's knowledge and attitude regarding the importance of institutional delivery and examined changes following a structured teaching programme in a selected community area of Bareilly, Uttar Pradesh.

Objective:

1. To assess the level of knowledge and attitude regarding the importance of institutional delivery among women.
2. To evaluate the effectiveness of a structured teaching programme on knowledge and attitude regarding the importance of institutional delivery among women.
3. To determine the association between pre-test knowledge and attitude scores and selected socio-demographic variables.

Hypotheses

H1: There will be a significant difference between pre-test and post-test knowledge scores and attitude regarding the importance of institutional delivery among women.

H2: There will be a significant association between pre-test knowledge scores and attitude regarding the importance of institutional delivery among women and their selected socio-demographic variables.

The paired t-test results demonstrated statistically significant pre-test/post-test differences in knowledge and attitude ($p < 0.001$). The associations with socio-

demographic variables are described in the thesis; the chi-square tables should be checked against the original data before definitive conclusions are drawn.

MATERIALS & METHODS:

Research design and setting

A quantitative approach and pre-experimental one-group pre-test–post-test design were used. The study was conducted in Abdullahpur Mafi, Bareilly, Uttar Pradesh, India.

Sample and sampling technique

The sample comprised 50 women of reproductive age. A non-probability sampling technique was used. The thesis states that participants were available during data collection, willing to participate and able to understand the questionnaire language.

Research tools and reliability

The tools comprised a demographic proforma, a structured knowledge questionnaire and an attitude checklist. Knowledge scores were categorized as inadequate (0–10), moderate (11–20) and adequate (21–30). The thesis reports content review by five Community Health Nursing experts and test–retest reliability of $r = 0.89$.

Data collection and analysis

The thesis reports that formal permission was obtained from the Gram Pradhan and that informed consent, anonymity and confidentiality were maintained. The main data collection was reported as beginning on 12 August 2026. Frequencies, percentages, means and standard deviations were used for descriptive analysis; paired t-tests and chi-square tests were reported for inferential analysis.

Ethical considerations

The thesis describes informed consent and maintenance of confidentiality. An institutional ethics committee approval number was not identified in the source text available for this article.

Analysis and Interpretation:

A total of 50 women participated. The main outcome findings reported in the thesis are summarized below.

Table 1: Frequency and Percentage Distribution of Socio-Demographic Variables Among Women (N = 50)

SOCIO-DEMOGRAPHIC VARIABLES / CATEGORIES	FREQUENCY	PERCENTAGE
AGE (IN YEARS)	AGE (IN YEARS)	AGE (IN YEARS)
21–25	7	14%
26–30	17	34%
31–35	6	12%
36–40	12	24%
Above 40	8	16%
RELIGION	RELIGION	RELIGION
Hindu	17	34%
Muslim	13	26%
Sikh	9	18%
Christian	11	22%
EDUCATIONAL STATUS	EDUCATIONAL STATUS	EDUCATIONAL STATUS
No formal education	8	16%
10th passed	11	22%
12th passed	12	24%
Graduate and above	19	38%
OCCUPATION	OCCUPATION	OCCUPATION
Housewife	10	20%
Private job	5	10%
Government job	6	12%
Self-employed	9	18%
Labourer	20	40%
MONTHLY FAMILY INCOME	MONTHLY FAMILY INCOME	MONTHLY FAMILY INCOME
Below ₹5,000	20	40%
₹5,001–₹10,000	8	16%
₹10,001–₹15,000	9	18%
₹15,001–₹20,000	3	6%
Above ₹20,000	10	20%
TYPE OF FAMILY	TYPE OF FAMILY	TYPE OF FAMILY
Nuclear	30	60%
Joint	13	26%
Extended	7	14%
NUMBER OF CHILDREN	NUMBER OF CHILDREN	NUMBER OF CHILDREN
1	8	16%
2	14	28%
3	12	24%
More than 3	16	32%
GRAVIDA / NUMBER OF PREGNANCIES	GRAVIDA / NUMBER OF PREGNANCIES	GRAVIDA / NUMBER OF PREGNANCIES
1	12	24%
2	7	14%
3	11	22%
More than 3	20	40%
PLACE OF PREVIOUS DELIVERY	PLACE OF PREVIOUS DELIVERY	PLACE OF PREVIOUS DELIVERY
Home	20	40%
Government hospital	17	34%

SOCIO-DEMOGRAPHIC VARIABLES / CATEGORIES	FREQUENCY	PERCENTAGE
Private hospital	13	26%
SOURCE OF INFORMATION	SOURCE OF INFORMATION	SOURCE OF INFORMATION
Books and magazines	10	20%
Family and friends	15	30%
Internet	6	12%
Health workers	19	38%

Interpretation: The socio-demographic table presents the participants by age, religion, educational qualification, occupation, monthly family income, type of family, number of children, gravida, place of previous

delivery and source of information. The largest age group was 26–30 years (34%). The frequencies and percentages are reported as recorded in the thesis.

Table 2: Frequency and Percentage Distribution of Pre-Test and Post-Test Knowledge Levels Among Women (N = 50)

Knowledge level	Pre-test n (%)	Post-test n (%)
Adequate	5 (10%)	35 (70%)
Moderate	15 (30%)	13 (26%)
Inadequate	30 (60%)	2 (4%)

Interpretation: Before the teaching programme, 30 women (60%) had inadequate knowledge, 15 (30%) had moderate knowledge and 5 (10%) had adequate knowledge. After the programme, 35 women (70%) had adequate knowledge, 13 (26%) had moderate

knowledge and 2 (4%) had inadequate knowledge. The distribution indicates an improvement in knowledge category after the structured teaching programme.

Table 3: Frequency and Percentage Distribution of Pre-Test and Post-Test Attitude Levels Among Women (N = 50)

Attitude level	Pre-test n (%)	Post-test n (%)
Adequate	15 (30%)	40 (80%)
Moderate	10 (20%)	7 (14%)
Inadequate	25 (50%)	3 (6%)

Interpretation: At pre-test, 25 women (50%) were in the inadequate attitude category, 10 (20%) in the moderate category and 15 (30%) in the adequate category. At post-test, 40 women (80%) were in the

adequate category, 7 (14%) in the moderate category and 3 (6%) in the inadequate category. The distribution indicates a shift towards a more adequate attitude after the programme.

Table 4: Comparison of Mean and Standard Deviation Between Pre-Test and Post-Test Knowledge and Attitude Scores

Outcome	Pre-test mean (SD)	Post-test mean (SD)	Mean increase	Paired t	Reported p-value
Knowledge	12.0 (4.40)	22.3 (2.37)	10.3	20.13	<0.001
Attitude	10.0 (4.28)	20.1 (2.20)	10.1	20.00	<0.001

Interpretation: The mean knowledge score increased from 12.0 (SD 4.40) before the programme to 22.3 (SD 2.37) after the programme, a reported increase of 10.3 points (paired $t = 20.13$, $p < 0.001$). The mean attitude score increased from 10.0 (SD 4.28) to 20.1 (SD 2.20), an arithmetic difference of 10.1 points

(paired $t = 20.00$, $p < 0.001$). Both reported paired t -tests indicate statistically significant pre-test/post-test differences. The thesis narrative gives a different attitude mean difference in one place; the table values are retained as printed.

Table 5: Association Between Pre-Test Knowledge Level and Selected Socio-Demographic Variables (as Reported in the Thesis)

Socio-demographic variable	Reported χ^2	Interpretation stated in thesis
Age	9.16	Significant
Educational qualification	12.47	Significant
Occupation	8.16	Significant
Monthly family income	4.62	Significant
Religion	10.25	Not significant
Type of family	5.25	Not significant
Number of children	7.63	Not significant
Gravida / number of pregnancies	4.62	Not significant
Place of previous delivery	5.53	Not significant
Source of information	8.09	Not significant

Interpretation: The thesis identifies age ($\chi^2 = 9.16$), educational qualification ($\chi^2 = 12.47$), occupation ($\chi^2 = 8.16$) and monthly family income ($\chi^2 = 4.62$) as significantly associated with pre-test knowledge. Religion ($\chi^2 = 10.25$), type of family ($\chi^2 = 5.25$), number of children ($\chi^2 = 7.63$), gravida ($\chi^2 = 4.62$), place of previous delivery ($\chi^2 = 5.53$) and source of information ($\chi^2 = 8.09$) are reported as not significant. These are reproduced from the thesis; some reported chi-square values, degrees of freedom and significance labels appear internally inconsistent and should be checked against the original analysis before publication.

DISCUSSION

The study findings indicate that knowledge regarding institutional delivery improved after the structured teaching programme. Adequate knowledge increased from 10% in the pre-test to 70% in the post-test, while inadequate knowledge declined from 60% to 4%. The mean knowledge score increased by 10.3 points, and the reported paired t-test was statistically significant. These findings suggest that the educational session was associated with improved knowledge among the women who participated.

Attitude showed a similar pattern. The proportion categorized as having an adequate attitude increased from 30% to 80%, while the inadequate category decreased from 50% to 6%. The mean attitude score increased from 10.0 to 20.1. The reported paired t-test was statistically significant, which is consistent with improvement between the two measurements. The discrepancy in the thesis narrative for the attitude mean difference should nevertheless be corrected against the raw data.

The topic is consistent with wider maternal health work that emphasizes skilled attendance, birth preparedness and the importance of reducing practical barriers to facility-based childbirth [1,3–6]. Research on institutional delivery has also identified socioeconomic and access-related factors, including distance and transportation, as relevant to delivery choices [5,8]. A structured teaching programme can provide information, but education alone cannot remove barriers such as transport, cost, distance or service availability.

The thesis reports that age, education, occupation and monthly family income were associated with baseline knowledge. This may suggest that health education should be understandable and accessible to women with varied educational and socioeconomic backgrounds. However, the association findings should not be treated as conclusive until the chi-square calculations and significance labels have been checked against the original data.

Because this was a one-group pre-test–post-test study, the results show change over time in the participating sample but cannot establish with certainty that the teaching programme alone caused the improvement. Repeated exposure to the questionnaire, other sources of information and events during the study period could also have influenced scores.

CONCLUSION:

Among the 50 women studied in Abdullahpur Mafi, Bareilly, the proportion with adequate knowledge regarding institutional delivery increased from 10% to 70% after the structured teaching programme. Adequate attitude increased from 30% to 80%. The thesis

reports statistically significant pre-test/post-test differences for both knowledge and attitude ($p < 0.001$). The findings support the usefulness of focused community education as one component of efforts to promote informed decisions about institutional delivery. Results should be interpreted in light of the small non-probability sample, the lack of a control group and the statistical inconsistencies noted in the source thesis.

Limitations:

- The sample size was limited to 50 women from one selected community area, so generalization should be cautious.
- The non-probability sampling technique may limit representativeness.
- The one-group pre-test–post-test design did not include a control group.
- Long-term retention of knowledge and attitude was not assessed in the reported results.
- Some thesis values and labels require verification, including the post-test knowledge wording, attitude mean difference and chi-square interpretations.

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