A STUDY TO ASSESS THE EFFECTIVENESS OF SKILL-BASED EDUCATION ON CLUTCH-HOLD METHOD OF BREASTFEEDING ON COMFORT LEVEL AMONG PRIMI POST-CAESAREAN MOTHERS .

ABSTRACT

Background: Breastfeeding after caesarean section may be difficult because of postoperative pain, fatigue and difficulty positioning the infant. The clutch-hold position keeps the baby away from the abdominal incision and may improve maternal comfort. Objective: To assess the pre-test and post-test comfort level, determine the effectiveness of skill-based education on the clutch-hold method, and examine associations between comfort level and selected socio-demographic variables among primi post-caesarean mothers.

Methods: A quantitative, pre-experimental one-group pre-test post-test study was conducted among 60 primi post-caesarean mothers at Government SMGS Hospital, Jammu, using non-probability purposive sampling. Data were collected using a demographic profile and a self-structured 10-item, five-point Likert comfort assessment scale. Skill-based education was delivered through demonstration, followed by reinforcement and post-test assessment. Descriptive statistics, paired t-test and chi-square test were used.

Results: Before the intervention, 47 (78.33%) mothers experienced discomfort and 13 (21.67%) were mildly comfortable. After the intervention, 30 (50%) were moderately comfortable, 25 (41.68%) highly comfortable, 4 (6.66%) mildly comfortable and 1 (1.66%) experienced discomfort. The mean comfort score increased from 17.63 ± 3.10 to 39.33 ± 5.41. The paired t-test was 28.3 with 59 degrees of freedom and a reported p-value of 0.000 ($p<0.001$). Pre-test comfort was reported to be significantly associated with age; post-test comfort was reported to be significantly associated with age and educational status.

Conclusion: Skill-based education on the clutch-hold method was associated with a marked improvement in comfort scores among the participating primi post-caesarean mothers.

Keywords: breastfeeding, clutch-hold position, caesarean section, maternal comfort, skill-based education.

INTRODUCTION

Breastfeeding is a natural and important component of infant nutrition and mother–infant bonding. Breast milk provides nutrients and protective factors required for infant growth and development. Early initiation and continued breastfeeding are recommended to support infant health. However, breastfeeding may be more challenging after caesarean section because of postoperative pain, fatigue, delayed access to the baby, maternal discomfort and difficulty positioning the infant.

The conventional cradle position may place pressure on the abdominal incision. The clutch-hold or football-hold position places the infant alongside the mother, supported by her arm and a pillow, keeping the infant away from the surgical wound. Teaching the mother how to position and attach the baby correctly may improve confidence and comfort during feeding.

The present study assessed whether skill-based education and demonstration of the clutch-hold method could improve comfort among primi post-caesarean mothers admitted to Government SMGS Hospital, Jammu.

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NEED FOR THE STUDY

Successful breastfeeding depends on appropriate positioning, effective attachment and maternal comfort. Mothers recovering from caesarean section may experience incisional pain and difficulty holding the baby. The dissertation background reports that breastfeeding initiation may be lower among caesarean-delivered mothers and describes positioning-related discomfort as an important barrier. The clutch-hold method may help by keeping the infant away from the abdominal incision. Therefore, the study focused on assessing maternal comfort before and after skill-based education on this method.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of skill-based education on clutch-hold method of breastfeeding on comfort level among primi post-caesarean mothers in Government SMGS Hospital, Jammu.

OBJECTIVES

- To assess the pre-test and post-test comfort level regarding the clutch-hold method of breastfeeding among primi post-caesarean mothers.
- To assess the effectiveness of skill-based education on clutch-hold method of breastfeeding on comfort level among primi post-caesarean mothers.
- To find the association between pre-test and post-test comfort level regarding the clutch-hold method of breastfeeding among primi post-caesarean mothers with selected socio-demographic variables.

HYPOTHESES

H01: There is no significant difference in comfort level before and after skill-based education on the clutch-hold method of breastfeeding among primi post-caesarean mothers.

H1: There is a significant difference in comfort level before and after skill-based education on the clutch-hold method of breastfeeding among primi post-caesarean mothers.

H02: There is no significant association between pre-test and post-test comfort level and selected demographic variables of primi post-caesarean mothers.

H2: There is a significant association between pre-test and post-test comfort level and selected demographic variables of primi post-caesarean mothers.

MATERIALS AND METHODS

Research approach and design

A quantitative research approach and pre-experimental one-group pre-test post-test design were used.

Rerearch variables

The independent variable was skill-based education on the clutch-hold method, and the dependent variable was comfort level among primi post-caesarean mothers.

Setting, population and sample

The study was conducted at Government SMGS Hospital, Jammu. The target population consists of primi post-caesarean mothers . A sample of 60 mothers was selected by non-probability purposive sampling.

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Sampling criteria

Inclusion criteria: Primi post-caesarean mothers who were willing to participate, mothers who delivered an alive baby, and mothers who were in their 1st postnatal week.

Exclusion criteria: mothers who had major complications during or after surgery, including haemorrhage, wound complications, wound hernia, surgical injury or reaction to anaesthesia, mothers with acute psychiatric conditions; and mothers whose babies were not able to breastfeed because of cleft lip/palate, birth weight below 1.5 kg, tracheo-oesophageal fistula or prematurity below 34 weeks.

Research instrument

A self-structured tool was used and consisted of two sections: (A) demographic profile, including age, educational status, occupation, residence and baby's birth weight; and (B) a 10-item comfort assessment scale addressing physical, emotional and procedural comfort while using the clutch-hold method.

Each item used a five-point Likert response: strongly agree (5), agree (4), neutral (3), disagree (2) and strongly disagree (1). The maximum score was 50. Scores were interpreted as: 41–50 highly comfortable; 31–40 moderately comfortable; 21–30 mildly comfortable; and below 20 discomfort.

Validity and reliability

The tool was submitted to 10 nursing experts for content validation; five experts were from obstetrical and gynaecological nursing and five from other nursing fields. Suggestions were incorporated. Reliability was assessed among six primi post-caesarean mothers using Karl Pearson's correlation coefficient, and reliability coefficient was 0.68. The six pilot participants were excluded from the main study.

Data collection procedure

Data collection was done for a period of 4 weeks after obtaining permission from the college and hospital authorities. The purpose and nature was explained to eligible mothers and consent was obtained. On day one, the pre-test was conducted using the comfort assessment scale, followed by 30–45 minutes of skill-based education on clutch-hold method of breastfeeding by demonstration. On day two, a 15–20 minute mother-to-mother demonstration was provided. On day three, the post-test was conducted using the same tool. Privacy and confidentiality were maintained.

Ethical considerations and analysis

Ethical clearance was obtained from the Institutional Ethical Committee of Bee Enn College of Nursing, Jammu, and written permission was obtained from the Medical Superintendent, SMGS Hospital, Jammu. Written informed consent was obtained from participants. Data were analysed using descriptive statistics (frequency, percentage, mean, median, standard deviation and range) and inferential statistics (paired t-test and chi-square test). The dissertation reports use of SPSS version 26 and a significance level of $p<0.05$.

RESULTS

The findings are presented according to the objectives of the study. The results below reproduce the detailed Chapter IV tables and narrative of the dissertation.

Section I: Socio-demographic characteristics

Table 1 presents the distribution of 60 primi post-caesarean mothers according to age, educational status, occupation, residence and baby's birth weight.

Characteristics	Category	Frequency (n)	Percentage (%)
Age (years)	20–30	27	45.00
	31–40	32	53.33
	41–50	1	1.67
Educational status	Professional degree	0	0.00

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	Graduate	14	23.30
	Intermediate/diploma	4	6.60
	High school	16	26.70
	Middle school	10	16.70
	Primary school	10	16.70
	Illiterate	6	10.00
Occupation	Working	15	25.00
	Non-working	45	75.00
Residence	Rural	35	58.30
	Urban	25	41.70
Baby's birth weight (kg)	2.1–2.5	10	16.70
	2.6–3.0	25	41.67
	3.1–3.5	17	28.30
	3.6–4.0	8	13.33

Interpretation: Most mothers were aged 31–40 years (32; 53.33%), followed by 20–30 years (27; 45%) and 41–50 years (1; 1.67%). The largest educational group was high school (16; 26.7%), followed by graduates (14; 23.3%). Most mothers were non-working (45; 75%) and from rural areas (35; 58.3%). The most common baby birth-weight category was 2.6–3.0 kg (25; 41.67%).

Section II: Pre-test and post-test comfort level

Table 2. Pre-test comfort level

Comfort category / score	Frequency	Percentage (%)
Discomfort (<20)	47	78.33
Mildly comfortable (21–30)	13	21.67
Moderately comfortable (31–40)	0	0.00
Highly comfortable (41–50)	0	0.00
Total	60	100.00

Interpretation: In the pre-test, 47 (78.33%) mothers experienced discomfort and 13 (21.67%) were mildly comfortable. No mother was moderately or highly comfortable.

Table 3. Descriptive statistics of pre-test comfort scores

Mean ± SD	Mode	Median	Minimum	Maximum	Range
17.63 ± 3.10	18	17.5	12	26	14

Interpretation: The pre-test mean comfort score was 17.63 with a standard deviation of 3.10. The mode was 18, median 17.5, minimum 12, maximum 26 and range 14.

Table 4. Post-test comfort level

Comfort category / score	Frequency	Percentage (%)
Discomfort (<20)	1	1.66
Mildly comfortable (21–30)	4	6.66
Moderately comfortable (31–40)	30	50.00
Highly comfortable (41–50)	25	41.68
Total	60	100.00

Interpretation: In the post-test, 30 (50%) mothers were moderately comfortable, 25 (41.68%) were highly comfortable, 4 (6.66%) were mildly comfortable and 1 (1.66%) experienced discomfort.

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Table 5. Descriptive statistics of post-test comfort scores

Mean ± SD	Mode	Median	Minimum	Maximum	Range
39.33 ± 5.41	39	40	17	48	31

Interpretation: The post-test mean comfort score was 39.33 with a standard deviation of 5.41. The mode was 39, median 40, minimum 17, maximum 48 and range 31.

Section III: Effectiveness of skill-based education

Table 6. Comparison of pre-test and post-test comfort scores using paired t-test (N=60)

Assessment	Mean ± SD	df	Paired t-value	p-value / interpretation
Pre-test	17.63 ± 3.10	59	28.3	0.000; significant
Post-test	39.33 ± 5.41	59		

Interpretation: The pre-test mean was 17.63 ± 3.10, while the post-test mean increased to 39.33 ± 5.41. The calculated paired t-value was 28.3 with 59 degrees of freedom and the reported p-value was 0.000 (reported as $p<0.05$ in the dissertation; conventionally expressed as $p<0.001$). This indicates a statistically significant improvement in comfort after skill-based education. Hence, H1 was accepted and H01 was rejected.

Section IV: Association with selected socio-demographic variables

The dissertation reports chi-square tests to examine associations between comfort category and selected demographic variables. The full category counts and the chi-square statistics, degrees of freedom, p-values and interpretations recorded in the Chapter IV tables are reproduced below.

Table 7. Association of pre-test comfort level with selected demographic variables

Variable	Category	Discomfort	Mild	Moderate	High	χ^2	df	p-value	Result
Age	20–30	23	4	0	0	9.12	6	0.01	S*
	31–40	24	8	0	0				
	41–50	1	0	0	0				
Educational status	Professional degree	0	0	0	0	7.98	18	0.421	NS
	Graduate	9	5	0	0				
	Intermediate/diploma	2	2	0	0				
	High school	12	4	0	0				
	Middle school	8	2	0	0				
	Primary school	10	0	0	0				
	Illiterate	6	0	0	0				
Occupation	Working	9	6	0	0	4.00	3	0.261	NS
	Non-working	38	7	0	0				
Residence	Rural	26	9	0	0	0.66	3	0.062	NS
	Urban	21	4	0	0				
Baby birth weight (kg)	2.1–2.5	7	3	0	0	0.61	9	0.937	NS
	2.6–3.0	20	5	0	0				
	3.1–3.5	14	3	0	0				
	3.6–4.0	6	2	0	0				

Interpretation: As stated in the dissertation, pre-test comfort level was significantly associated with age ($p<0.05$). No statistically significant association was reported with educational status ($p=0.421$), occupation ($p=0.261$), residence ($p=0.062$) or baby's birth weight ($p=0.937$).

Table 8. Association of post-test comfort level with selected demographic variables

Variable	Category	Discomfort	Mild	Moderate	High	χ^2	df	p-value	Result
Age	20–30	0	1	14	12	2.01	6	0.01	S*

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	31–40	1	2	15	14				
	41–50	0	0	1	0				
Educational status	Professional degree	0	0	0	0	81.69	18	0.00	S*
	Graduate	1	0	6	7				
	Intermediate/diploma	0	0	2	2				
	High school	0	1	9	6				
	Middle school	0	1	4	5				
	Primary school	0	1	6	3				
	Illiterate	0	0	3	3				
Occupation	Working	1	0	7	7	4.04	3	0.332	NS
	Non-working	0	3	23	19				
Residence	Rural	1	3	2	11	0.66	3	0.6	NS
	Urban	0	0	10	15				
Baby birth weight (kg)	2.1–2.5	0	0	5	5	4.57	12	0.88	NS
	2.6–3.0	0	1	14	10				
	3.1–3.5	1	1	8	7				
	3.6–4.0	0	1	3	4				

Interpretation: The dissertation narrative reports a significant association between post-test comfort level and age and educational status ($p<0.05$). No significant association was reported with occupation ($p=0.332$), residence ($p=0.6$) or baby's birth weight ($p=0.88$).

DISCUSSION

Objective 1: To assess pre-test and post-test comfort level

The pre-test findings showed that 47 (78.33%) mothers experienced discomfort and 13 (21.67%) were mildly comfortable; none were moderately or highly comfortable. The pre-test mean score was 17.63 ± 3.10. Following the intervention, 30 (50%) mothers were moderately comfortable and 25 (41.68%) were highly comfortable, while 4 (6.66%) remained mildly comfortable and 1 (1.66%) experienced discomfort. The post-test mean was 39.33 ± 5.41. These findings demonstrate an improvement in comfort category and mean score after the educational intervention.

Objective 2: To assess the effectiveness of skill-based education

The mean comfort score increased from 17.63 in the pre-test to 39.33 in the post-test. The paired t-test value was 28.3 (df=59), with the source reporting p=0.000. This statistically significant difference supports the effectiveness of skill-based education on the clutch-hold method in improving comfort among the study participants.

Objective 3: Association with socio-demographic variables

For pre-test comfort, the dissertation reports a significant association with age, while educational status, occupation, residence and baby's birth weight were not significantly associated. For post-test comfort, significant associations were reported with age and educational status, while occupation, residence and baby's birth weight were not significantly associated.

IMPLICATIONS FOR NURSING

Nursing education

- Nursing students should be trained in breastfeeding positions, particularly the clutch-hold, through demonstration and re-demonstration.
- Simulation-based teaching can be incorporated into maternal and child health nursing to develop practical skills.

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- Students should be sensitized to the importance of maternal comfort in the postnatal period for better mother-infant bonding.

Nursing practice

- Nurses can support primi post-caesarean mother's in initiating breastfeeding through skill based education on clutch hold method.
- Individualized guidance and hands on assistance to enhance successful breastfeeding practices.

Nursing research

- Research can be carried out to compare the effectiveness of different breastfeeding positions on maternal comfort and neonatal comfort.
- Evidence from the study can contribute to the development of guidelines and protocols for lactations support in post- caesarean mother's.
- Further research can explore the psychological and emotional benefits of comfortable breastfeeding positions.

Nursing administration

- Nursing administrators can organize in-service education and workshops to update staff about breastfeeding techniques for post-caesarean mothers.
- Policies and protocols can be developed to ensure routine skill based breastfeeding education in maternity wards
- Administrative support in terms of manpower, lactation, counselors, and educational aids can strengthen quality maternal care.

RECOMMENDATIONS

- A similar study may be conducted with a larger sample to improve generalizability.
- A comparative study may be conducted to assess the effect of other breastfeeding methods on comfort level.
- The study may be replicated in rural and urban areas.
- A study may be conducted to assess hospital personnel's attitudes towards the policy and practice of the clutch-hold method of breastfeeding.

CONCLUSION

The study assessed the effectiveness of skill-based education on the clutch-hold method of breastfeeding on comfort level among 60 primi post-caesarean mothers at Government SMGS Hospital, Jammu. Before the intervention, 78.33% of mothers experienced discomfort and 21.67% were mildly comfortable. After the intervention, 50% were moderately comfortable and 41.68% were highly comfortable. The mean comfort score increased from 17.63 ± 3.10 to 39.33 ± 5.41, with a paired t-value of 28.3 (df=59; reported p=0.000). The findings indicate that skill-based education was effective in improving comfort among the participating mothers. Pre-test comfort was reported to be associated with age, while post-test comfort was reported to be associated with age and educational status.

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