



A Study To Assess The Effectiveness Of Planned Teaching Programme On Knowledge And Practice Regarding Kangaroo Mother Care Among Delivered Mothers In Selected Hospitals Of Ahmedabad, Gujarat

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ABSTRACT

Background

Kangaroo Mother Care (KMC) is a simple, evidence-based intervention that improves survival and health outcomes among preterm and low birth weight infants. However, lack of awareness and improper practices among mothers hinder its effective utilization.

Objectives

1. To assess pre-test knowledge and practice regarding KMC
2. To evaluate the effectiveness of a planned teaching programme
3. To determine the association between post-test scores and demographic variables

Methods

A quantitative pre-experimental one-group pre-test post-test design was used among 100 delivered mothers in selected hospitals of Ahmedabad, Gujarat. Data were collected using a structured questionnaire and observational checklist. A planned teaching programme was administered, followed by post-test after 7 days. Data were analyzed using descriptive and inferential statistics.

Results

Post-test scores showed significant improvement in knowledge (9.8 ± 3.2 to 18.6 ± 2.4 ; $t = 15.42$) and practice (6.5 ± 2.8 to 15.2 ± 2.1 ; $t = 16.10$), significant at $p < 0.05$.

Conclusion

The planned teaching programme was highly effective in improving knowledge and practice regarding KMC.

Keywords

Kangaroo Mother Care, Knowledge, Practice, Teaching Programme, Postnatal Mothers

INTRODUCTION

Kangaroo Mother Care (KMC) is a globally recognized, evidence-based approach for the care of preterm and low birth weight (LBW) infants. It primarily includes continuous skin-to-skin contact between the mother and the newborn, exclusive breastfeeding, early discharge from healthcare facilities, and appropriate follow-up care. First introduced in Colombia during the late 1970s as an alternative to conventional neonatal care in resource-constrained settings, KMC has since evolved into a widely accepted and recommended practice in neonatal healthcare.

Globally, preterm birth remains a major public health concern, with an estimated 15 million babies born prematurely each year. These infants are at increased risk of morbidity and mortality due to complications such as hypothermia, infections, and feeding difficulties. In developing countries like India, where access to advanced neonatal intensive care units (NICUs) may be limited, KMC offers a practical, low-cost, and effective strategy to improve neonatal outcomes. The World Health Organization recommends KMC as a key intervention to reduce neonatal mortality, enhance thermal regulation, promote exclusive breastfeeding, and strengthen mother–infant bonding.

Despite strong evidence supporting its effectiveness, the implementation of KMC remains suboptimal in many healthcare settings. Factors such as lack of awareness among mothers, cultural beliefs, inadequate counseling by healthcare providers, and limited support systems contribute to poor adoption and practice. Primiparous mothers, in particular, may experience anxiety and lack confidence in handling their newborns, especially when the infant is preterm or of low birth weight.

Nurses play a pivotal role in bridging this gap between knowledge and practice. As primary caregivers and educators in postnatal settings, they are uniquely positioned to provide structured education, demonstration, and continuous support to mothers. Planned teaching programmes can significantly enhance maternal understanding, develop practical skills, and promote confidence in performing KMC effectively.

In this context, there is a critical need to implement and evaluate structured educational interventions aimed at improving knowledge and practice regarding Kangaroo Mother Care. Therefore, the present study was undertaken to assess the effectiveness of a planned teaching programme among delivered mothers in selected hospitals of Ahmedabad, Gujarat.

NEED FOR THE STUDY

Prematurity and low birth weight (LBW) continue to be significant public health challenges worldwide, particularly in developing countries like India. These conditions are among the leading causes of neonatal morbidity and mortality, contributing substantially to under-five mortality rates. A large proportion of these deaths are preventable through simple, cost-effective, and evidence-based interventions such as Kangaroo Mother Care (KMC).

KMC has been widely recognized for its effectiveness in improving neonatal outcomes. Evidence indicates that KMC can reduce neonatal mortality by up to 40%, improve thermal regulation, promote exclusive breastfeeding, enhance weight gain, and reduce the risk of infections. In addition to its physiological

benefits for the newborn, KMC also strengthens mother–infant bonding, increases maternal confidence, and supports early discharge from healthcare facilities, thereby reducing the burden on healthcare systems.

Despite these well-documented advantages, the implementation and practice of KMC remain suboptimal in many healthcare settings. One of the primary barriers is the lack of adequate knowledge and awareness among postnatal mothers regarding the importance and correct technique of KMC. Many mothers are unfamiliar with appropriate positioning, duration, and frequency of KMC, which limits its effective utilization. Cultural beliefs, misconceptions, and insufficient guidance from healthcare providers further contribute to poor adoption.

First-time mothers, in particular, may experience fear, anxiety, and lack of confidence in handling their newborns, especially when the infant is preterm or of low birth weight. Without proper education and demonstration, these mothers may be unable to practice KMC effectively. Healthcare professionals, especially nurses, play a crucial role in addressing these gaps through education and supportive care.

Structured teaching programmes are an effective strategy to enhance maternal knowledge and translate it into appropriate practice. Such interventions provide systematic information, practical demonstrations, and continuous reinforcement, thereby improving both understanding and skill performance.

Although several studies have highlighted the benefits of KMC, there is limited research conducted in selected hospitals of Ahmedabad, Gujarat, focusing on the effectiveness of planned teaching programmes on both knowledge and practice among delivered mothers. Therefore, the present study was undertaken to assess the effectiveness of a planned teaching programme in improving knowledge and practice regarding Kangaroo Mother Care, with the aim of promoting better neonatal health outcomes and reducing preventable neonatal mortality.

OBJECTIVES

1. To assess pre-test knowledge and practice regarding KMC
2. To evaluate effectiveness of planned teaching programme
3. To find association between post-test scores and demographic variables

HYPOTHESES

- **H1:** Significant difference between pre-test and post-test knowledge scores
- **H2:** Significant difference between pre-test and post-test practice scores
- **H3:** Significant association between post-test scores and demographic variables

METHODOLOGY

Research Approach

A **quantitative research approach** was adopted for the present study to objectively assess and measure the knowledge and practice regarding Kangaroo Mother Care (KMC) among delivered mothers and to evaluate the effectiveness of the intervention.

Research Design

The study employed a **pre-experimental one-group pre-test post-test design**. This design enabled the researcher to measure the level of knowledge and practice before and after the implementation of the planned teaching programme without the use of a control group.

Setting of the Study

The study was conducted in **selected hospitals of Ahmedabad, Gujarat**, which provide maternity and postnatal care services. These settings were chosen based on feasibility, accessibility, and availability of adequate participants.

Population

The target population comprised **delivered mothers admitted in postnatal wards** of selected hospitals.

Sample Size

A total of **100 delivered mothers** were included in the study.

Sampling Technique

A **non-probability purposive sampling technique** was used to select participants who met the inclusion criteria and were available during the data collection period.

Inclusion Criteria

- Mothers who had delivered (normal or cesarean section)
- Mothers who were willing to participate in the study
- Mothers available during the data collection period

Exclusion Criteria

- Mothers with critically ill newborns
- Mothers suffering from severe medical or psychological conditions
- Mothers who had prior formal training on Kangaroo Mother Care

DATA COLLECTION TOOLS

Data were collected using structured and validated instruments divided into three sections:

Section A: Demographic Variables

This section included baseline characteristics such as:

- Age
- Education
- Occupation
- Type of family
- Parity
- Type of delivery
- Previous knowledge of KMC

Section B: Structured Knowledge Questionnaire

- Consisted of **20 multiple-choice questions (MCQs)**
- Each correct answer was awarded **1 mark**, and incorrect answers received **0 marks**
- Total score ranged from **0 to 20**

Interpretation of Scores

- Poor knowledge: 0–7
- Average knowledge: 8–14
- Good knowledge: 15–20

Section C: Observational Checklist for Practice

- Included **15 steps related to KMC procedure**
- Scoring:
 - Done = 1
 - Not done = 0
- Total score ranged from **0 to 15**

Interpretation of Scores

- Poor practice: 0–5
- Average practice: 6–10
- Good practice: 11–15

VALIDITY AND RELIABILITY

- The tool was **validated by experts** in the fields of nursing, pediatrics, and obstetrics to ensure content validity.
- Reliability of the tool was established using **Cronbach's alpha**, which yielded a value of approximately **0.8**, indicating good internal consistency.

DATA COLLECTION PROCEDURE

The data collection was carried out in a systematic manner:

- Ethical clearance was obtained from the Institutional Ethics Committee
- Formal permission was obtained from hospital authorities
- Informed consent was secured from all participants
- A **pre-test** was conducted using the structured knowledge questionnaire and practice checklist
- The **planned teaching programme** was administered
- A **post-test** was conducted after **7 days** using the same tools to assess improvement

INTERVENTION: PLANNED TEACHING PROGRAMME

The structured teaching programme was designed to improve knowledge and practice regarding KMC and included the following components:

- Introduction to Kangaroo Mother Care
- Benefits of KMC
- Procedure and correct positioning
- Breastfeeding during KMC
- Precautions and follow-up care

Teaching Methods

- Lecture method

- Demonstration
- Use of charts and audiovisual aids

Duration

- Approximately **30–45 minutes per session**

PLAN FOR DATA ANALYSIS

Data were analyzed using both descriptive and inferential statistics:

Descriptive Statistics

- Frequency and percentage
- Mean and standard deviation

Inferential Statistics

- **Paired t-test** to evaluate the effectiveness of the teaching programme (pre-test vs post-test comparison)
- **Chi-square test** to determine the association between post-test scores and selected demographic variables

RESULTS

The findings of the present study are presented in terms of comparison between pre-test and post-test knowledge and practice scores to evaluate the effectiveness of the planned teaching programme on Kangaroo Mother Care (KMC) among delivered mothers.

Table 1: Comparison of Pre-test and Post-test Knowledge Scores (n = 100)

Test	Mean	SD	Mean Difference	t-value
Pre-test	9.8	3.2		
Post-test	18.6	2.4	8.8	15.42*

*Significant at $p < 0.05$

Interpretation

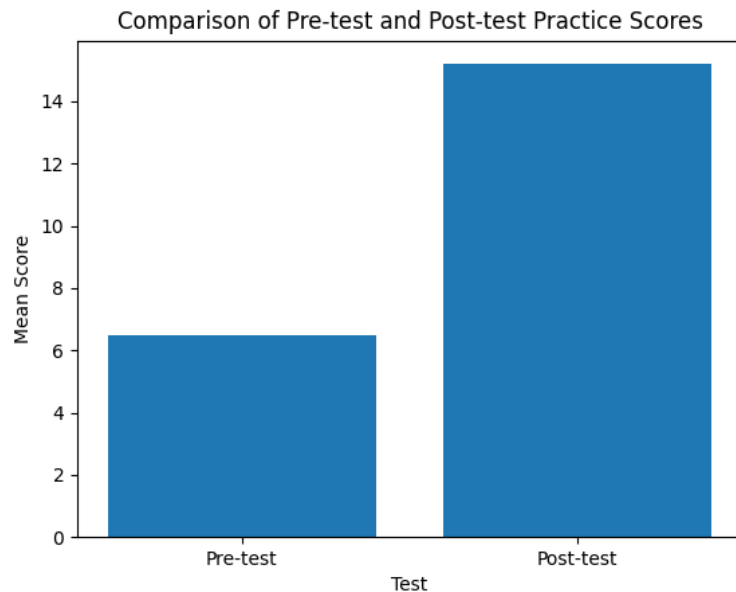
The mean pre-test knowledge score was **9.8 ± 3.2**, indicating inadequate knowledge among the majority of mothers prior to the intervention. Following the planned teaching programme, the mean post-test score increased significantly to **18.6 ± 2.4**.

The calculated **mean difference was 8.8**, and the obtained **t-value (15.42)** was statistically significant at **p < 0.05**, indicating that the improvement in knowledge was not due to chance. This demonstrates that the planned teaching programme was highly effective in enhancing knowledge regarding Kangaroo Mother Care.

Table 2: Comparison of Pre-test and Post-test Practice Scores (n = 100)

Test	Mean	SD	Mean Difference	t-value
Pre-test	6.5	2.8		
Post-test	15.2	2.1	8.7	16.10*

*Significant at $p < 0.05$



Interpretation

The mean pre-test practice score was 6.5 ± 2.8 , reflecting poor practice of KMC among mothers before the intervention. After the teaching programme, the mean post-test score increased significantly to 15.2 ± 2.1 .

The **mean difference of 8.7** and the calculated **t-value (16.10)** were statistically significant at **$p < 0.05$** , confirming that the planned teaching programme had a substantial impact on improving practical skills related to KMC.

Overall Findings

- Majority of mothers had **inadequate knowledge (62%)** in the pre-test
- Majority demonstrated **poor practice (58%)** before intervention
- Post-test results showed **78% of mothers achieved adequate knowledge**
- **82% demonstrated good practice** after the intervention
- There was a **highly significant improvement** in both knowledge and practice scores

Conclusion of Results

The statistical analysis clearly indicates that the **planned teaching programme was highly effective** in improving both knowledge and practice regarding Kangaroo Mother Care among delivered mothers. The significant increase in post-test scores strongly supports the research hypotheses and highlights the importance of structured educational interventions in postnatal care settings.

DISCUSSION

The study findings revealed that most mothers had inadequate knowledge and poor practice regarding KMC before the intervention. This may be due to lack of awareness and insufficient education during antenatal and postnatal periods.

After the teaching programme, there was a significant improvement in both knowledge and practice scores. This indicates that structured educational interventions are highly effective.

These findings are consistent with previous studies that highlight the importance of nurse-led education in improving neonatal care practices. Demonstration and audiovisual aids further enhance learning and retention.

CONCLUSION

- Knowledge and practice were inadequate before intervention
- Planned teaching programme significantly improved outcomes
- Structured education is essential in postnatal care
- KMC promotion can reduce neonatal mortality

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