

**A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE AND PRACTICE REGARDING KANGAROO MOTHER CARE AMONG POST NATAL MOTHERS HAVING LOW BIRTH WEIGHT BABIES ADMITTED IN GOVERNMENT HOSPITAL AT JHUNJHUNU [RAJASTHAN]**

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**ABSTRACT:**

**Introduction:**

*Kangaroo Mother Care is a natural way of caring of newborns especially premature and low birth Weight baby. It is proved that the newborn thrives best in its original "right place" on its be and for prospective mother's and explains why Kangaroo mother care works.*

**Methods:**

*A pre-experimental study was adopted for the present study. A structured Knowledge questionnaire and practice checklist on 'Kangaroo Mother Care among postnatal mothers having low birth babies' was developed to collect the data. The study was conducted in government hospital at Jhunjhunu, Rajasthan. One eighty postnatal mothers were selected by using purposive sampling technique. Collected data was analyzed and interpreted with help descriptive statistics and inferential analysis.*

**Result:**

*The mean difference between pretest and posttest knowledge was 30 and the 't' value was 48.36 and it was found to be highly significant at the level of  $p < 0.05$ , whereas the mean difference between pretest and posttest practice was 27 and the 't' value was 47.0 and it was found to be highly significant at the level of  $p < 0.05$ . Significant relation was found between pretest knowledge and practice scores with  $r$  value of 0.09 at  $p < 0.05$ .*

**Conclusion:**

*The present study was taken up in an effort to evaluate the effectiveness of structured teaching programme on knowledge and practice of kangaroo mother care among postnatal mothers having low birth babies. STP was effective as*

*denoted by t-value of 48.36 in knowledge scores and 47.0 in practice scores at  $P < 0.05$ .*

**Keywords:** Kangaroo mother care, Preterm and low birth weight.

**INTRODUCTION**

Kangaroo mother care is the innovative method of taking care of low birth weight infants. Birth weight is the single most important marker of adverse prenatal, neonatal and infantile outcomes. Over 80% of all neonatal deaths, in both the developed and developing countries, occur among the low birth weight babies.

In 2013, nearly 22 million newborns—an estimated 16 per cent of all babies born globally that year—had low birth weight. Accurate monitoring is challenging, however, since nearly half of the world's infants are not weighed at birth.

**(UNICEF)**

Kangaroo mother care is defined as early, continuous and prolonged skin- to skin contact between a mother and her low birth weight baby, both in hospital and after discharge, until at least the 40th week of postnatal gestational age. Kangaroo mother care does not need a sophisticated equipment, can be applied almost anywhere, could contribute to the humanization of neonatal care contains no cost. Infant mortality rate is 60 per 1000

live births and neonatal mortality rate is 40 per 1000 live births in India and 44 per 1000 live births in Tamil Nadu and 40 per 1000 live births in Karnataka. Data indicates an alarming situation. The Health for All by 2010 aims for 20 Infant Mortality Rate makes it imperative to develop and low cost effective modality while for caring preterm babies.

#### **Need for the study:**

Neo-natal mortality is defined as death during the first 28 days of life. And India reports the highest numbers in the world: As many as 700,000 newborns die in India each year—29 per 1,000 births. This accounts for 26% of neo-natal deaths in the world, according to the United Nations Children's Fund (UNICEF).

Successful kangaroo mother care is highly dependent on the support parents receive, and the role of health professionals is crucial. Caring a premature baby can be very stressful. Staff in the neonatal unit can actively support parents by making them feel welcome, and establishing appropriate procedures and setting which allow parents 24-hour access to their babies. They can also help by performing some components of the baby's care (for example tube and cup feeding, especially during the night), so that parents can get sufficient rest.

Health professionals can provide timely information to parents (both orally and in writing) about the practicalities of kangaroo mother care, including the possibility of sharing the task with others members of their support network, to provide parents with opportunities to rest. In India, most of the population below poverty line, thus restraining them' from sophisticated care for their Low birth weight infants. Thus, Kangaroo Care

ensures people from all economic standards to give the needed care for their preterm babies. The preterm babies gain 6 temperature slowly and prevent hypothermia. Therefore, the preterm baby becomes calm and relaxed. It also helps the baby to conserve energy and bring the organs to normal functioning.

#### **Studies related to Kangaroo Mother Care:-**

**Dr.Elwis Elias et al. (2014)** conducted a study with 80 LBW babies born and admitted in NICU, Rajah Muthiah Medical College Hospital, Tamilnadu during a period of 1 year. LBW babies were randomized into two groups. 40 babies were managed with kangaroo mother care, while rest of the 40 babies were managed with Conventional Method Care (CMC). In both groups feeding, axillary temperature of the baby, weight gain, length, head circumference and behavioural effect on mother (bonding and confidence ) were studied. It was observed that the duration of hospital stay was less in kangaroo mother care group when compared to CMC group.

**Nirmala et al. (2006)** conducted a repeated measure design study to assess perceptions of KMC among mothers and healthcare workers. This study included a purposive sample of 50 neonates with birth weight in the range 1070-2460 g. Perceptions of KMC were assessed in a sample of 45 mothers over a 6-week period (attrition rate = 8%) and 33 healthcare workers. A guide was used for interviews with mothers that had been previously validated by nine experts, but this is not provided in the paper and an overview of the questions was not given. No information is provided on interviewer or their relationship with the study

participants. All mothers felt that KMC improve bonding and made them feel good, satisfied and happy to be contributing to the care of their baby; 86.7% found no problems providing KMC to their baby and 30% believed it had increased their milk production. Nevertheless, 88% stated their intention to continue with KMC at home.

#### **Objectives of the Study:-**

- A. To assess knowledge of postnatal mothers having low birth weight babies before and after implementation of structured teaching programme on kangaroo mother care.
- B. To observe practice of postnatal mothers having low birth weight babies before and after implementation of structured teaching programme on kangaroo mother care.
- C. To find out association between pretest knowledge scores regarding kangaroo mother care with selected socio demographic variables
- D. To evaluate the relationship between knowledge and practice pretest scores.
- E. To evaluate the effectiveness of structured teaching programme on knowledge regarding kangaroo mother care among postnatal mothers having low birth weight babies.
- F. To evaluate the effectiveness of structured teaching programme on practice regarding kangaroo mother care among postnatal mothers having low birth weight babies.

#### **Research Hypothesis**

**H<sub>1</sub>**- There is significant association between pretest knowledge scores and selected demographic variables.

**H<sub>2</sub>**- The mean post test knowledge score of postnatal mother is significantly

higher than pre test knowledge score at the level of  $P \leq 0.05$ .

**H<sub>3</sub>**- There is significant difference in pretest and posttest practice score of postnatal mothers regarding kangaroo mother care after administration of structured teaching programme at the level of  $P \leq 0.05$ .

#### **Assumptions**

In this study the investigator assumes that:

- ❖ Postnatal mothers having LBW babies who are admitted at admitted in Government Hospital at Jhunjhunu will have some knowledge about kangaroo mother care.
- ❖ Information provided by the postnatal mothers represents their true level of understanding.
- ❖ Sufficient knowledge of post natal mothers regarding kangaroo mother care will promote adequate growth and wellbeing of the LBW babies.
- ❖ Postnatal mothers will respond truthfully and answer frankly to questions.

#### **Delimitations**

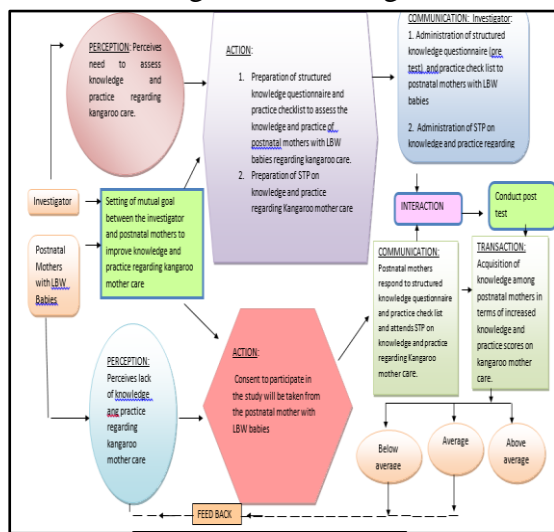
The study is delimited to-

- ✓ Postnatal mothers having babies of birth weight  $>1500$  gms to  $<2500$  gms.
- ✓ Postnatal mothers having stable LBW babies.
- ✓ Postnatal mothers with their LBW babies available in ward and nursery at the time of study.

#### **Conceptual Framework:**

The conceptual framework developed by the investigator is based on IMOGENE KING'S GOAL ATTAINMENT

**THEORY.** This theory focuses on the interpersonal relationship between the Investigator and the Post natal mothers having low birth weight babies. The interaction is influenced by the perception and leads to mutual goal setting which are to be achieved by the Nurse and the Client. In the present study, interaction takes place between the investigator and the Post natal mothers having low birth weight babies



**Materials and Methods:**

Pre-experimental research design was used to conduct the study. The study was conducted at govt hospital, at Jhunjhunu [Rajasthan].

**Setting**

Based on the setting and availability of the sample, the present study was conducted at Government Hospital at Jhunjhunu [Rajasthan]

**Research approach**

Research approach is an overall plan to carry out research study. In the present study an evaluative approach was used to assess the effectiveness of a structured teaching programme on knowledge and practices regarding kangaroo care among postnatal mothers having low birth weight babies.

**Research design**

The research design is the plan, structure and strategy of investigation. Research design is design as ‘A researchers overall for obtaining answers to the research question or for testing the hypothesis. The design adapted for this study by the investigator is pre experimental research.

**Variables**

A variable is an attribute to a person or object that varies that it takes on different values.

**Independent variables:**

In the study the independent variable refers to structured teaching programme knowledge and practices regarding kangaroo care among post natal mothers having LBW babies.

**Dependent variable:**

In the present study it refers to the knowledge and practices regarding kangaroo care among post natal mothers having LBW babies.

**Extraneous variable:**

Extraneous variables in the study are background variables such as age , education qualification, religion, number of children, duration of pregnancy, previous knowledge about kangaroo mother care and source of information.

**Population**

Population is the entire aggregation of cases that meet a designed set of criteria Polit and Hungler (1999). The population again divided into two types. Those are target and accessible population.

**Target population:**

It refers to the elements, people, objects to which the investigator wants to generalize the research finding. In the present study the target population were postnatal mothers having LBW babies.

### **Accessible population**

Accessible population refers to the aggregate of cases which confirm to the designed criteria and which is accessible to the researcher as a pool of subjects or objects. In the present study the accessible population was In the present study population is all postnatal mothers having low birth weight babies admitted in postnatal wards, and neonatal nursery of Government Hospital, Jhunjhunu.

### **Sample and sample size**

#### **Sample:**

Sample may be defined as representative unit of a target population, which is to be worked upon by researchers during their study. For the present study postnatal mothers having low birth weight babies admitted in postnatal wards, and neonatal nursery of Government Hospital, Jhunjhunu were selected.

#### **Sample size:**

According to Polit and Hungler (1999), a sample is a sub set of a population selected to participate in research study. The sample consisted of cancer clients receiving radiation therapy from selected hospitals of Hyderabad were selected . Factors like nature of the study, availability of sample, time, money and material were considered while deciding the sample size.

The sample size of the present study consists of 180 postnatal mothers having LBW babies admitted in postnatal wards, neonatal nurseries of Government Hospital, Jhunjhunu, fulfilling the sampling criteria.

#### **Sampling technique:**

Sampling technique refers to the process of selecting a portion of the population to represent the entire population (Polit

2001). Purposive sampling technique was adopted for the present study.

#### **Criteria for selecting the sample**

In sampling criteria, the researcher specifies the characteristic of the population under the study by detailing the inclusion and exclusion criteria. Inclusion criteria are the characteristic that each sample elements must possess to be included in the sample. Exclusion criteria are characteristic that could confound or contaminate the results of the study therefore such participants are excluded from the study.

#### **Inclusion criteria:**

Postnatal mothers who are,

1. Having low birth weight babies
2. Available during the period of data collection
3. Willing to participate in the study

#### **Exclusion criteria:**

Postnatal mothers who are,

1. Sick at the time of data collection

#### **Development of the tool**

A structured knowledge questionnaire was prepared by the investigator to assess the knowledge of postnatal mothers regarding kangaroo mother care, which included of two parts Part-A: consists of selected background variables .Part-B: consists of 25 knowledge items related to Kangaroo mother care. The questionnaire is prepared to assess knowledge of postnatal mothers having low birth weight babies in selected Hospitals. To assess the practice regarding kangaroo mother care a practice check list was prepared , the tool consists of 15 items the deals with statements related to practices regarding rehabilitation.

#### **Scoring key:**

**Structure knowledge questionnaire:** consists of 25 items each question has four options (a, b, c, d). Correct option was

given a score of one, wrong given a score of zero. The total score was thirty. The score has been categorized into below average, average and above average based on their responses.

Below 50%                      below average  
51-75%                         Average  
Above 75%                     above average

**Practice checklist:** For the present study the practice checklist had 'Yes' or 'No' responses. The scoring for the Yes response is "1" whereas the scoring for No response is "0". The scores were categorized into below average, average and above average based on their responses.

Below average                <50%  
Average                         51-75%  
Above average                >75%

The tool was given for content validity to experts in the field of nursing and medicine. The reliability of the tool was checked by Karl Pearson and Spearman Brown Prophecy formula. The results indicated that that the tool was valid and reliable.

**Data Analysis and Interpretation**

Inferential Statistics & Descriptive Analysis was adopted for the study.

**Table No.1 Distribution of postnatal mothers according to their demographic variables (n=180)**

Socio Demographic Variables	Number	Percentage
<b>Age</b>		
20-30Years	23	13%
31-40 years	137	76%
Less than 20years	16	9%
More than 40	4	2%
<b>Religion</b>		
Hindu	111	62%

Christian	10	6%
Muslim	47	26%
Others	12	7%
<b>Education</b>		
Illiterate	103	57%
10thclass	29	16%
Intermediate	48	27%
<b>Occupation</b>		
House Wife	108	150%
Pvt Employee	18	25%
Business	13	18%
Others	41	57%
<b>Monthly income</b>		
Below Rs. 5000/-	80	44%
Rs. 5000 to 10000	71	39%
Rs. 11001Rs-15000	29	16%
Above 15000	0	0%
<b>No of children</b>		
One	29	16%
Two	48	27%
Three	63	35%
More than Three	40	22%
<b>Previous knowledge about kangaroo mother care</b>		
Yes	162	90%
No	18	10%
<b>Source of Information</b>		
News paper	60	33%
Television	22	12%
Health education in hospital	43	24%
Others	55	31%

**Table.2 Relationship between Pretest Knowledge and Practice Scores Regarding KMC among Postnatal Clients Having Low Birth Babies**

Variables	Mean	SD	r Value
Knowledge	48	8.6	<b>0.09</b>
Practice	47	8.3	

**Table 3: Comparison of pre test and post test knowledge and practice scores among postnatal mothers.**

(n=180)

	Pretest Mean	Posttest Mean	Mean Difference	t-value
Knowledge Scores	48	78	30	48.36
Practice Scores	47	74	37	47.0

### Implications

#### Nursing Practice:

- ✓ Nurses play a very important role in providing kangaroo care. So She should adhere to the standards of practice and strictly follow them.
- ✓ Nurses should be involved in monitoring the practices of kangaroo mother care and improve the quality care with better nursing practices.
- ✓ The nursing professionals can conduct health education programmes in the wards, outpatient departments and in the community regarding care of the newborn .

#### Nursing Education

- ✓ Nursing educators should emphasize and motivate the nursing students to give planned health teaching debates regarding kangaroo mother care.

- ✓ Nursing Education should prepare nurses with the potential for managing the low birth weight babies.

#### Nursing Administration

- ✓ Nursing administrator should provide necessary facilities and opportunities for mothers to equip themselves with knowledge and skill to prevention of Neonatal Hypothermia.
- ✓ Administration of Health services should organize inservice education programme, provide supervision and guidance to the Staff Nurses on kangaroo mother care.
- ✓ Administration of private and government health agency can organize health education programmes, camps and puppet show in the community and in the hospital setup to create awareness to the public on newborn care.

#### Nursing Research

- ✓ This study will be a valuable reference for further references.
- ✓ This study will help the nurse researches to develop indepth into the development of teaching module and set information on newborn care among mothers of Newborn.

#### Limitations

The study has the following limitations:

- The study was limited to postnatal having low birth weight babies at selected hospitals.
- Sample size was limited to 180 only.

## Recommendations

- The same study can be replicated on larger sample for better generalization.
- A descriptive study on knowledge, attitude and practices of postnatal mothers regarding kangaroo mother care can be conducted.

## CONCLUSION

This study will provide Postnatal mother the creditability to influence decision making and policies to meet the needs of the low birth weight babies.

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