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## Original Research Article

# A study to assess the knowledge regarding kangaroo mother care among primigravida postnatal mother at Era Hospital, Lucknow

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## ABSTRACT

**Introduction:** The Kangaroo Mother Care is Skin-to-Skin contact provided to the baby for maintain the degree of heat and prevent the child from Hypothermia. The students need the awareness about Kangaroo Mother Care. The aim of this study is to assess the knowledge regarding Kangaroo Mother Care among students of B.SC Nursing 3rd year of Royal Institute of Nursing district Gurdaspur.

**Research Statement:** "A study to assess the knowledge regarding kangaroo mother care among primigravidapost-natal mother admitted in Era Hospital Lucknow"

**Aim of the Study:** assess the knowledge of kangaroo mother care.

**Objectives of the Study:** To assess the knowledge regarding kangaroo mother care among postnatal mother. To determine association between level of knowledge regarding Kangaroo Mother Care with selected demographic variables.

**Need of the Study:** Kangaroo Mother Care is associated with reduced incidence of severe illness including pneumonia during infancy

**Population:** The population for the study is the postnatal mothers admitted in Era's Hospital Lucknow.

**Sample Size:** Sample size was 50 postnatal mother come to Era's Hospital Lucknow.

**Results:** assessment of knowledge in kangaroo mother care among nursing students were category poor were 2(04%), good knowledge were 8(16%), very good knowledge were 28(56%). Excellent knowledge were 12(24%).

**Conclusion:** The study finding revealed the majority of primigravida postnatal mother has very good knowledge regarding kangaroo mother care.

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## 1. Introduction

Randomized clinical trials have shown that Kangaroo Mother Care (KMC) can Decrease morbidity and mortality due to low birth weight. Between 1994 and 2004, 44 teams in 25 developing countries were trained in KMC in Bogotá, Colombia; however, not all the teams were successful in initiating their own programs and, of those that started, not all replicated the validated model.<sup>1</sup> In developing countries, one out of six women in the age group of 15-45 years

dies due to maternal disorders. Globally, of an estimated 515,000 maternal deaths in 1995 only 206(0.4%) reported from developed region.<sup>2</sup>

The practice of Kangaroo Mother Care (KMC) is life saving in babies weighing less than 2000 g. Little is known about mothers' continued unsupervised practice after discharge from hospitals. This study aimed to evaluate its in-hospital and continued practice in the community among mothers of low birth weight (LBW) infants discharged from two hospitals in Kumasi, Ghana.<sup>3</sup>

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## 2. Need of the Study

A study has shown that the babies receiving Kangaroo Mother Care have more regular breathing and fewer predispositions to apnea and it protects against nosocomial infections. Even after discharge from the hospital, the morbidity amongst babies managed by Kangaroo Mother Care is less. Kangaroo Mother Care is associated with reduced incidence of severe illness including pneumonia during infancy.

A randomized controlled trial was performed over one year period in which 89 neonates were randomized into two groups kangaroo mother care and conventional method of care. The result of the study was forty four babies were randomized in to Kangaroo Mother Care group and forty five to CMC. There was significant reduction in Kangaroo Mother Care vs. Conventional Method Care group of hypothermia (10/44 vs. 21/45, p-value<0.01), higher oxygen saturation (95.7 vs. 94.8, p-<0.01) and decrease in respiratory rates (36.2 vs. 40.7, p-<0.01). 79% of mothers felt comfortable during the Kangaroo Mother Care and 73% felt they would be able to give Kangaroo Mother Care at home. Kangaroo Mother Care is feasible, as mothers are already admitted in hospital and are involved in the care of new born.<sup>4</sup>

### 2.1. Research statement

"A study to assess the knowledge regarding kangaroo mother care among primigravida post-natal mother admitted in Era Hospital Lucknow"

### 2.2. Objective of the study

1. To assess the knowledge regarding kangaroo mother care among postnatal mother.
2. To determine association between level of knowledge regarding Kangaroo Mother Care with selected demographic variables.

### 2.3. Operational definition

Assess- Evaluate or estimate the nature ability or quality.

1. *Knowledge*: Knowledge is information put into action.
2. *Kangaroo mother care*: Kangaroo mother care define as a skin to skin contact between mother and baby.
3. *Post natal Mother*: A women in relation to after giving birth her child or children.
4. (According to Oxford Dictionary)
5. *Postnatal ward*: A ward in a hospital where women and there babies are provided with medical care immediately after the birth of baby Midwives on the postnatal ward.
6. (According to Collins English Dictionary).

### 2.4. Assumptions

Assumption that postnatal mother's were not having knowledge about Kangaroo Mother Care.

### 2.5. Delimitation

1. Those who are willing to participate.
2. The sample is 50.
3. Mother who could able to read are write in hindi.
4. Those who are available during data collection.

### 2.6. Conceptual framework

Conceptual model and conceptual framework based on health belief model.

### 2.7. Conceptual model

A model is a symbolic representation of some phenomena. It is a representation or a systematic description of an object or phenomenon that shares important characteristics with another object. Conceptual model are made up of concepts and prepositions that state the relationship between the concepts (Suresh K Sharma)

### 2.8. Conceptual framework

A conceptual framework is a structure which the researcher believes can be best explain the natural progression of the phenomenon to be studied.(Camp,2001)

The Conceptual Frame work describe the relationship between the main concept of study. It is arranged in a logical structure to aid provide a picture or visual display of how ideas in a study relates to one another. (Grant and Osanloo 2014)

The Conceptual Framework of the present study is based on Irwin M. Rosasstuck's and Baker's Health Belief Model (1950). The Health Belief Model in this study state that a child health related behaviour depends on the postnatal mother's perception of four critical areas:-

1. The severity of the potential illness
2. The person's susceptibility to that illness
3. The benefits of taking a preventive action
4. The barriers of taking that action.

### 2.9. Components

1. **Perceived Susceptibility**: In our study, it refers to the sample's perception regarding neonatal infection.
2. **Perceived Severity**: In this study, samples perceive that neonate infection and hypothermia are serious condition in an low birth weight baby.
3. **Perceived Benefits**: In this study, perceived benefits refers to a compliance in KMC practice maximise low birth weight baby arrival.

4. **Perceived Barriers:** In this study it refers to barrier that will create obstacles to behaviour change like fear of neonatal mortality rate, embarrassment, knowledge, etc.
5. **Cues to action:** In this study, it refers to a trigger which is engaging the women in health promoting behaviour. The triggers can be mass media, health care providers, information from closed ones.
6. **Likelihood of action:** In this study, it refers to the sample competence to successfully perform a KMC practise.

### 3. Review of Literature

*Ruth Feldman et al. Pediatrics. (2002) Jul.*<sup>1</sup> The study was conducted to examine the kangaroo mother care (kmc) intervention in premature infants affect parent child interventions. Comparative method are used in this study. Seventy-three preterm infants who received kangaroo care in the neonatal intensive care unit were matched with 73 control infants who received standard incubator care for birth weight, gestational age (GA), medical severity, and demographics. That study revealed that After Kangaroo mother care, interactions were more positive, mothers showed more positive affect, touch, and adaptation to infant. That study concluded that Kangaroo care had a significant positive impact on the infant's perceptual –cognitive and motor development and on the parenting process.

*Mary MS. Et al (2002)*<sup>2</sup>, A descriptive study was conducted to assess practice, knowledge, barriers and perception regarding kangaroo care by parent. Kangaroo care questionnaire were send to all hospital in United State that were identified as providing neonatal intensive care services ( N= 1,133) & questionnaire send to non respondents. The finding suggest to overcome barrier to practice of kangaroo care this study concluded that overcome the barrier during providing knowledge.

*Kadam S, Binay S, Kanbur W, Mondkar JA, Fernandez A. (2005)*<sup>3</sup> Conducted randomized controlled trial to determine the acceptability of kangaroo care in a tertiary care hospital in India. Over one year period in which 89 neonates were randomized into two groups (Kangaroo Mother Care) KMC and conventional method of care group. 45 babies were randomized into KMC group and 45 to CMC group. Findings of study revealed that 70% of mothers felt comfortable during the Kangaroo Mother Care. 73% felt they would able to give Kangaroo Mother Care. Kangaroo Mother Care is a easy and powerful way to improve the attachment between mother and her low birth weight baby. It also plays a very important role in reducing the incidences of hypothermia in low birth weight babies.

### 4. Research and Methodology

Methodology is the major phase of research in which the investigator makes a number of decision about the materials to be used to study the research problems basically through the collection of data.

#### 4.1. Research approach

Research approach involves the description of plan investigate the phenomena under study in a structured (quantitative) unstructured (qualitative) or a combination of two methods (quantitative qualitative integrated approach). (S K SHARMA 2011).

#### 4.2. Research design

The research design refers to the researcher 'overall plan for obtaining answer to the researcher question and for testing the research hypothesis'. The research design spell out the strategies that the researcher adopt to develop information that is accurate objective and interpretable. (Polit D F Hungler B P 2002)

#### 4.3. Research setting

Study setting is a general physical location in which data collection takes place. (Polit and Beck 2004)

The study was conducted in Era's Hospital Lucknow.

#### 4.4. Population

Population refers to the entire aggregation of cases that meets designed criteria.

(Polit and Hungler 2002)

The population for the study is the postnatal mothers admitted in Era's Hospital Lucknow.

#### 4.5. Sample size

Sample size was 50 postnatal mother come to Era's Hospital Lucknow.

#### 4.6. Sample and sample techniques

Sampling refers to the process of selecting the portion of population.

(Polit and Hungler 2002).

In this study non probability sampling techniques was used in that purposive sampling was done.

#### 4.7. Criteria for sampling selection

The samples were selected with the following predetermine set of criteria during the period of study.

#### 4.8. Inclusion criteria

All postnatal mother admitted in postnatal ward in Era's Hospital Lucknow.

#### 4.9. Exclusion criteria

Mother's who are not willing to participate.  
Mother's who gave still birth.

#### 4.10. Development of tool

Demographic and self structured questionnaire was prepared with the help of a review of literature.

#### 4.11. Description of the tool

The tools contain two section.

1. *Section A:* Demographic Variables: ( age in years, educational status, type of delivery, type of family, weight of baby, availability of health service centre, no. of children, religion, family. income, occupation of mother).
2. *Section B:* This section consist of a self structured questionnaire and is used to assess the knowledge regarding kangaroo mother care among postnatal mother at era hospital, lucknow.

#### 4.12. Validity of research tool

Validity of the instruments refers to the degree in which the instruments measure what it suppose to measure. In this study the content validity of research tool was done by the 4 expert qualified and experienced in various speciality area of nursing,

#### 4.13. Reliability of the research tool

Reliability is the degree of consistency and accuracy with which instrument measures the attribute for which it is designed to measure.

In this study, Chronbach alpha method is used to test the reliability of the research tool. The reliability score of the tool was 0.73. So the tools are good and acceptable.

#### 4.14. Ethical consideration

1. Dean/principal of Era College of nursing for pilot study.
2. Dean /principal of Era College of nursing for conducting the main study.
3. Participatory consent from each participant under the study.

#### 4.15. Pilot study

The pilot study can be defined as a small study to test research protocols, data collection, instruments, sample

recruitment strategies, and other research techniques in preparation for a larger study.

In this study, pilot study was conducted on 5 patient at era hospital Sarfarazganj, Lucknow on date 12/09/22 to know the effectiveness of the tools with following objective:

1. To assess the knowledge regarding kangaroo mother care among primigravida postnatal mother.
2. To find out the association between knowledge of mothers with selected demographic variables.

#### 4.16. Findings of the pilot study

1. The study was found feasible to be conducted.
2. Tools were feasible
3. The methodology was found appropriate for study
4. The maximum time given to each subject was 15 minutes.
5. The tools are reliable.

#### 4.17. Results of the pilot study

The sample was feasible. Sample are willing to participate in the process of data collection and had fulfill our inclusion criteria. Primi gravida postnatal mother were able to fill the questionnaire. After the pilot study reliability was checked by chronbach alpha method, and the total score of reliability was 0.73. This signified the feasibility and practicability to conduct the main study.<sup>5-8</sup>

#### 4.18. Data collection procedures

The data includes the following phase:-

1. *Phase 1:* The formal written permission was received from the principal of Era College of Nursing on 22/08/22
2. *Phase 2:* The data was collected at Era hospital. A comfortable hospital ward was selected for the primi gravida postnatal mother to collect their respond. The researcher obtain verbal consent from participants, after explaining the benefit of the study, using non probability sampling technique used. The data was collected from 50 (primi gravida postnatal mother) for the main study on date 17/09/22 to 26/09/22 according to the inclusion exclusion criteria of this study data analysis was done by using chronbach alpha method.

#### 4.19. Plan for data ananlysis

Data analysis was done to organized and give meaning to the data. It was performed on the basis of objectives of the study using descriptive and inferential statistics. Descriptive statistics was used to elaborate the baseline details with the help of frequency and percentage knowledge regarding kangaroo mother care of the primri gravida postnatal mother was calculated and there co-relation was computed for the

calculation of demographic variables of the subjects, data was analysed by using statistical package SPSS.

#### 4.20. Data analysis and interpretation

The data was obtained from 50 samples and completed in master sheet then it was analysed. Data collected during the course of the study was analysed by using descriptive and inferential statistics. In descriptive statistics percentage range mean and standard deviation were used to analyse the data. In inferential statistics, chi square test was employed to determine the association between knowledge and demographic variable. Significant finding of the study were presented in tables, pie and bar graph.

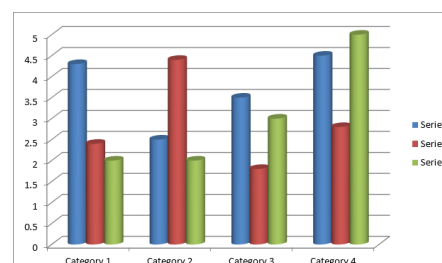
### 5. Objective

1. To assess the knowledge regarding kangaroo mother care among postnatal mother.
2. To associate knowledge of postnatal mother with their selected demographic variables that is age, educational status, occupational status, type of delivery, type of family, weight of baby etc.

Descriptive and inferential statistics were used for analyzing the data on the basis of objective of the study. The interpretation has been tabulated and organized as follows.

1. *Section:-* Demographic variables.
  2. *Section:-* Assessment of knowledge on kangaroo mother care among postnatal mother.
  3. *Section:-* Association between level of knowledge on kangaroo mother care and demographic variables.
1. About (50%) of sample were age group of below 25years, (46%) of sample belongs to age group of 26-30years and only (4%) belongs to age group of 31-40 years.
  2. Majority of educational status of mother is primary school (50%), 22% are illiterate,18% are high school and only 10 % are secondary school and above
  3. Majority of mother belongs to joint family (56%) and (44%) belong to the nuclear family.
  4. Majority of the mother have undergone normal delivery (62%), 34% of mother undergone LSCS and only 2% have undergone vacuum delivery.
  5. Majority of weight of baby delivered by baby is 1-2.5kg (68%), 22% belong to less than 1 kg and Only 10% belong to 3.6kg and above.
  6. Majority of women had availability of health service (70%) and 15% of mother do not have availability of health service.
  7. All mothers are primigravida (100%)
  8. Majority of women have 1000-2000 family income per month (21%), 32% are 2500 and above , 22% are 2000- 2500, and only 4% have below 1000.

9. Majority of mother are homemaker (72%), 22% are of private job and 6% belong to government job.



### 6. Discussion

This chapter deals with the finding of present stud, “A descriptive study to assess the knowledge regarding breast cancer among kangaroo mother care among primigravida postnatal mother at Era hospital Lucknow”. In this chapter, an attempt has been made to discuss the findings of the study. The present study was conducted in Era hospital Lucknow. Total sample was 50 with age group of below 25-above 40 years. Non probability purposive sampling technique use to select the sample. Before collecting the data, the investigator introduce herself, explain the purpose of the study and obtain written consent. Socio demographic sheet was used to collect personal information of the subject.

#### 6.1. Objective 1:- To assess the knowledge regarding kangaroo mother care among primigravida postnatal mother

The finding of present study revealed that out of 50 participant where 50% in age group of below 25,46% in age group 26-30,4% in age group of 31-40. Knowledge of primigravida postnatal mother care average knowledge was significant poor knowledge 2 (4%), good knowledge 8 (16%),very good knowledge 28 (56%) ,excellent knowledge 12 (24%)

#### 6.2. Objective 2:- To find out the association between knowledge with selected demographic variables

In the present study, chi square formula is used to find out the association between knowledge with selected demographic variables, the study reveals that there is significant association between knowledge with source of information and there is no significant association between knowledge level with Age, Religion, Type of family, Educational status, Type of delivery, Weight of baby, Availability of health service centre, No. of children, Family income, occupation of mother.

This chapter deals with the summary of the study and conclusion, limitation of the study, implication of nursing research. Recommendation for the future research in the field has been presented

**Table 1:** Section A: Demographic variables

SR. No	Characterstics	No of mothers	Percentage (%)
1	Age		
	Below 25	25	50%
	26 – 30	23	46%
	31- 40	2	4%
2	Educational Status of Mother		
	Illiterate	11	22%
	Primary school	25	50%
	High school	9	18%
	Secondary school and above	5	10%
3	Type of Family		
	Nuclear	22	44%
4	Joint	28	56%
	Type of Delivery		
	Normal	31	62%
	Vacuum	2	4%
5	LSCS	17	34%
	Weight of Baby		
	Less than 1 kg	11	22%
	1-2.5	34	68%
6	2.6- 3.5kg	5	10%
	Availability of Health Service Centre		
	Yes	35	70%
7	No	15	30%
	Number of Children		
8	1	50	100%
	Religion		
	Hindu	13	26%
9	Muslim	37	74%
	Family Income Per Month		
	Below 1000	2	4%
	1000-2000	21	42%
	2000-2500	11	22%
10	2500 and above	16	32%
	Occupation of Mother		
	Homemaker	36	72%
	Private job	11	22%
	Government job	3	6%

Table- Shows the percentage distribution of subject based on socio demographic profile.

**Table 2:** Section B: Assessment of knowledge on kangaroo mother care among postnatal mother.

SR. No	Category	Frequency	Percentage
1	Poor	2	4%
2	Good	8	16%
3	Very Good	28	56%
4	Excellent	12	24%

Table shown: assessment of knowledge ingangaroo mother care among nursing students were category poor were 2(04%), good knowledge were 8(16%), very good knowledge were 28(56%). Excellent knowledge were 12(24%).

**Table 3:** Section C: Association between level of knowledge on breast cancer and demographic variables among BSC nursing 1<sup>st</sup> year Students.

Sr. No.	Characteristics	Poor	Good	Very Good	Excellent	X2	DF	p value
1	Age							
	Below 25	1	3	10	11			
	26-30	1	4	17	1	13.984	9	0.122896
	31-40	0	1	1	0			NS
	Educational Status							
	Lilliterate	1	3	4	4			
	Primary school	1	4	16	3	14.785	9	0.097013
	High school	0	1	5	2			NS
	Secondary school and above	0	0	3	2			
3	Type of Family							
	Nuclear	1	3	14	4			
	Joint	1	5	14	8	11.69	9	0.231355
	Extended	0	0	0	0			NS
	Restituted	0	0	0	0			
4	Type of Delivery							
	Normal	2	6	16	7			
	Vacuum	0	1	1	0	51.036	9	0.00001
	LSCS	0	1	11	5			S
	Instrumental	0	0	0	0			
5	Weight of Baby							
	Less than 1kg	0	2	6	3			
	1-2.5kg	2	5	19	8	3.0985	9	0.960261
	2.6-3.5kg	0	1	3	1			S
	3.6 and above	0	0	0	0			
6.	Availability of health service centre							
	Yes	2	6	19	8			
	No	0	2	9	4	20.03	6	0.002736
	If yes, specify	0	0	0	0			S
7.	Number of children							
	1	2	8	28	12			
	2	0	0	0	0			
	3	0	0	0	0	0	9	1
	4 and above	0	0	0	0			NS
8.	Religion							
	Hindu	1	1	8	3			
	Muslim	1	7	20	9	17.024	9	0.048341
	Christian	0	0	0	0			S
	Any other	0	0	0	0			
9.	Family Income Per Month							
	Below 1000	0	2	0	0			
	1000-2000	2	3	10	6	14.914	9	0.093325
	2000-2500	0	1	7	3			
	2500 and above	0	2	11	3			
10.	Occupation							
	Homemaker	2	7	17	10			
	Private job	0	1	8	2	5.021	9	0.832474
	Government job	0	0	3	0			
	Business	0	0	0	0			

## 7. Summary

The total sample of the study was 50 primigravida postnatal mother at era hospital. The total sample was selected by non probability purposive sampling. The study was based on the review applied in the study. Review of literature helped the investigation to develop necessary tool. The tool consist of two parts:- socio demographic variables and self structured questionnaire. The data was collected from Era hospital.

## 8. Conclusion

The study finding revealed the majority of primigravida postnatal mother has very good knowledge regarding kangaroo mother care.

### 8.1. Limitation

The samples were limited to primigravida postnatal mother.

### 8.2. Nursing implications

The study finding have certain implication for the nursing profession. In general, the nurse act as a educator, organizer, leader, counsellor, motivator and can help in awareness about kangaroo mother care as well as it's prevalence.

### 8.3. Recommendation

On the basis of the study, it is recommended that:

1. The study can be replicated with large number of sample.
2. A experimental study can be done among primigravida postnatal mother.
3. A study can be conducted to assess the prevalence of kangaroo mother care and it's associated factor.

## 9. Source of Funding

None.

## 10. Conflict of Interest

None.

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