

Effectiveness of Structured Teaching Programme on Knowledge Regarding Kangaroo Mother Care among Post Natal Mothers in a Selected Hospital at Tirunelveli District

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Abstract: Background: Kangaroo mother care (KMC) is the practice of skin-to-skin contact between infant and parent. In developing countries, KMC for preterm infants has been shown to reduce mortality, severe illness, infection and length of hospital stay. KMC is also beneficial for cardiorespiratory and temperature stability, sleep organization and duration of quiet sleep, neurodevelopmental outcomes, breastfeeding and modulation of pain responses appear to be improved for preterm infants who have received KMC during their hospital stay. No detrimental effects on physiological stability have been demonstrated for infants as young as 26 weeks' gestational age, including those on assisted ventilation. Mothers show enhanced attachment behaviours and describe an increased sense of their role as a mother. The practice of KMC should be encouraged in nurseries that care for preterm infants. Methods and Materials: One group pre-post test research design was adopted. The total number of samples selected was 30 by Non Probability Purposive sampling technique following inclusion and exclusion criteria. The tool selected for the study consists of three sections which includes Demographic variables, Obstetrical variables and structured knowledge questionnaire. The data was collected, tabulated, analyzed and interpreted by using descriptive statistics. The study concluded that majority of postnatal mothers had adequate knowledge in the post test, therefore it is inferred that postnatal mothers gained adequate knowledge regarding kangaroo mother care after structured teaching program. Conclusion: Kangaroo mother care is the simple and cheapest method with lots of benefits. The findings of the study revealed that, there was significant improvement in the level of knowledge on Kangaroo mother care among postnatal mothers after administering Structured teaching program. Hence continuous awareness is very vital and mothers can be motivated to practice it continuously to achieve the full benefits.

Keywords: Premature infants, Effectiveness, Kangaroo mother care, Structured teaching programme, Knowledge, Postnatal mothers

1. Introduction

"You can never know how strong you can be until the premature baby wrap around your own"

-Pebbles of Hope



Premature birth imposes a tremendous stress for both the baby and the mother. To save the baby life, infant is monitored under the incubator and warmer surrounded by unfamiliar sounds like buzzers, bells but lies all by himself in warmer. The treatment and routine care giving procedures cause pain and discomfort making it difficult for very low birth weight infants to experience restful and undisturbed periods of sleep. An alternative method, which is easy and cheap to practice, having more advantage is kangaroo care provided for the satisfactory improvement in infant health.

In the year 1978, a team of pediatricians started Kangaroo

Mother Care (KMC) in Instituto Materno Infantil Bogota, Colombia. In 2003, World Health Organisation (WHO) formally endorsed the KMC and published the KMC practice guidelines. KMC is a very simple method for caring the premature newborn babies, where the mothers use their own body temperature to keep their baby warm. KMC stimulates all the five senses of the neonate. The baby feels the mother's warmth through skin-to-skin contact (touch), listens to mother's voice and her heartbeat (hearing), sucks the breast milk (taste), has eye-to eye contact with mother (vision) and smells mother's body odour (olfaction). Though the advantages of KMC are well known, there is lack of interest and resistance to its implementation at various levels in the healthcare system like medical care professionals, mothers and their family members. KMC has been described to have two components. The first component is the kangaroo position. After the premature neonate has become stable to lead an extrauterine life, the neonate is positioned on the mother's chest, in upright position and with direct skin-to-skin contact between the mother and her neonate. The second component described is kangaroo nutrition which involves exclusive breastfeeding for the neonate. KMC has been associated with improved weight gain and better thermoregulation in preterm neonates. It has also been demonstrated to offer benefits to the mother. KMC has also been shown to increase lactation in mother, improve the psychological bonding with the baby and improves sleep cycle and oxygenation in the preterm babies and also reduces the apneic spells. The knowledge about the child rearing

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practices among the mothers will be a major determinant in reducing the neonatal mortality and morbidity. Hence, the aim of this study was to estimate the level of knowledge about the KMC in the mothers.

Statement of the problem

A study to evaluate the effectiveness of structured teaching programme on Kangaroo mother care among postnatal mothers in a selected hospital at Tirunelveli district.

Objectives

- To assess the level of knowledge regarding Kangaroo mother care among postnatal mothers.
- To evaluate the effectiveness of self instructional module on Kangaroo mother care among postnatal mothers.
- To associate the post-test knowledge scores of postnatal mothers regarding Kangaroo mother care with selected demographic variables.

Hypotheses

H1 - There will be significant difference between pre and post test level of knowledge regarding Kangaroo mother care among postnatal mothers..

H2 - There will be significant association between the post-test knowledge scores with selected demographic among postnatal mothers.

2. Methodology

Research approach

The research approach adopted for this study was Quantitative research approach.

Research design

One group pre test-post test research design was adopted

Group	Pre-Assessment	Intervention	Post Assessment
Experimental	O 1	X	O 2

O1= Pre assessment of knowledge regarding kangaroo mother care. X = Structured teaching programme regarding kangaroo mother care.

O2= Post assessment of knowledge regarding kangaroo mother care

Study Setting

Study was conducted at Jeyaraj Annapackiam hospital in southern Tamilnadu.

Sampling Method and Sample Size

In this study non-probability purposive sampling technique was used. 30 postnatal mothers were selected.

Sampling criteria

Inclusion Criteria

- Primigravida and Multigravida Mothers
- Postnatal Mothers who were willing to participate in the Study.
- Postnatal Mothers available at the time of data

collection.

- Newborn born < 37 weeks of gestation

Exclusion Criteria

- Newborn with High Risk Conditions.

Data Collection Methods and Procedure

By using purposive sampling technique, 30 samples were selected.

Written consent was taken from the mothers, Investigator assured that all data would be kept strictly confidential and will be used only for study purpose. Socio- demographic data was collected by the investigator. The pre-test was conducted by distributing the structured knowledge questionnaire and instructions were given on answering the questions and doubts were clarified. Each mother took 5 minutes to answer the demographic data and 15 minutes to fill the questionnaire. Structured teaching programme was provided to the postnatal mothers by giving teaching for 30 minutes. Procedure of Kangaroo mother care was demonstrated for the mothers and encouraged them to do. Post-test was conducted on 5th day by administering the same structured knowledge questionnaire; mothers were co-operative during the study.

Data Management and Analyses Descriptive Statistics

- Frequency and percentage distribution of samples was done according to demographic variables.
- Mean and standard deviation was used to assess the level of knowledge regarding the effectiveness of structured teaching programme among postnatal mothers.

Inferential Statistics

- Paired 't' test was used to compare the pre-test and post-test of knowledge among postnatal mothers.
- Chi-square test was used to find out the association between the post-test level of knowledge with selected demographic variables.

3. Results

Table 1: Data pertaining to frequency and percentage distribution of selected demographic variables among postnatal mothers, n = 30

Demographic variables	Frequency	Percentage (%)	
Age	Below 25	18	60
	26 – 30	10	33
	30 – 40	2	7
	Above 40	0	0
Religion	Hindu	25	83
	Muslim	2	7
	Christian	3	10
	Any others	0	0
Educational Status of Mothers	Illiteracy	3	10
	Primary School	6	20
	Middle School	4	13
	Secondary School	6	20
	Higher Secondary School	4	13
Occupation of	Degree	7	23
	House Wife	18	60

the Mothers	Coolie	6	20
	Private Job	4	13
	Government Job	2	7
	Business / Company	0	0
Type of family	Nuclear Family	17	57
	Joint Family	9	30
	Extended Family	3	10
	Others	1	3
Family income per month (Rupee)	Below 1000	11	37
	1500 – 2000	7	23
	2000 – 2500	4	13
	Above 2500	8	27
No. of Children in Family	1 Child	14	47
	2 Children	12	40
	3 Children	4	13
	4 and above children's	0	0
Weight of Pre term baby	1 Kg	4	13
	1.5 Kg	7	23

Health Service Availed	2 Kg	15	50
	< 2 Kg	4	13
	P.H.C	11	37
	Sub centre	1	3
	Nursing Home	5	17
	Hospital	13	43

Table 2: Data pertaining to frequency and percentage distribution of pre-test and post- test level of knowledge among postnatal mothers, n =30

Level of knowledge	Pre-Test		Post-Test	
	f	%	f	%
Inadequate knowledge	27	90	01	3.3
Moderate knowledge	03	10	12	40
Adequate knowledge	00	00	17	56.7

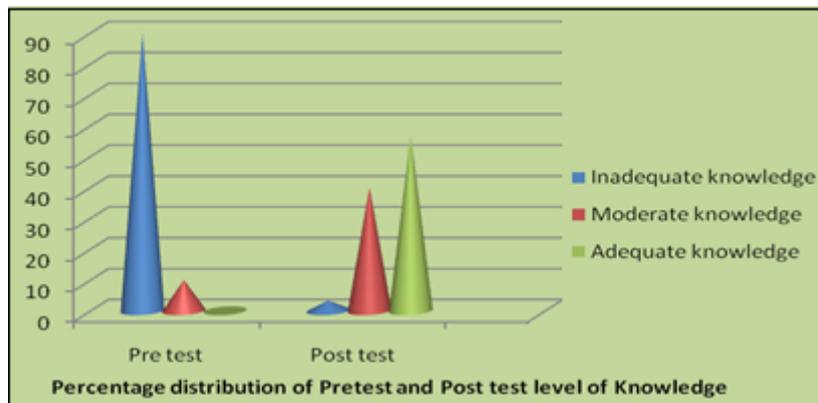


Table 3: Data pertaining to the effectiveness of structured teaching programme among postnatal mothers, n =30

Group	Pre-Test		Post-Test		Mean Difference MD	't' value (p>0.001)
	M	SD	M	SD		
One group	9.27	2.75	22.27	3.05	13	16.12

The above table reveals that, Pre-test mean score was 9.27 ± 2.75 and the post-test mean score was 22.27 ± 3.05. The mean level of knowledge was 13 and the calculated 't' value was 16.12, which was higher than the table value. Hence, it was significant at the level of p>0.001. Therefore, it reveals that structured teaching programme on kangaroo mother care among postnatal mothers has direct influence in the level of knowledge. Hence H1 hypothesis was accepted.

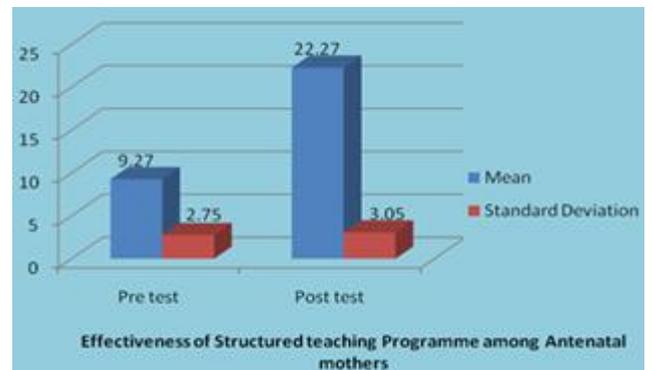


Table 4: Association between the Selected Demographic Variables with the Levels of Knowledge among Postnatal Mothers, n= 30

Demographic variables		Level of Knowledge					Chi Square Value
		Very Poor	Poor	Average	Good	Very Good	
Age	Below 25	0	4	5	7	2	X ² = 13.88 df=12 (21.03) p > 0.05 (NS)
	26 – 30	1	3	4	2	0	
	30 – 40	0	1	0	0	1	
	Above 40	0	0	0	0	0	
Religion	Hindu	1	6	6	9	3	X ² = 14.58 df= 12(21.03) p > 0.05 (NS)
	Muslim	0	1	1	0	0	
	Christian	0	1	2	0	0	
	Any others	0	0	0	0	0	
Educational Status of Mothers	Illiteracy	0	0	0	3	0	X ² = 27.25 df= 20(31.41) p > 0.05 (NS)
	Primary School	0	1	4	1	0	
	Middle School	0	1	2	1	0	

	Secondary School	0	2	0	2	2	
	Higher Secondary School	0	1	1	1	1	
	Degree	1	3	3	0	0	
Occupation of the Mothers	House Wife	0	1	5	9	3	$X^2 = 37.49$ df= 16(26.30) $p > 0.05$ (S)
	Coolie	0	2	3	1	0	
	Private Job	1	2	1	0	0	
	Government Job	0	2	0	0	0	
	Business/ Company	0	0	0	0	0	
Type of family	Nuclear Family	1	2	4	8	2	$X^2 = 23.51$ df= 12(21.51) $p > 0.05$ (S)
	Joint Family	0	3	4	2	0	
	Extended Family	0	2	0	1	0	
	Others	0	1	0	0	0	
Family Income per month (Rupee)	Below 1000	0	2	4	5	0	$X^2 = 18.2$ DF= 12(21.03) $p > 0.05$ (NS)
	1500 –2000	0	3	1	2	1	
	2000 -2500	0	1	2	1	0	
	Above 2500	0	3	2	1	2	
No. of Children in Family	1 Child	0	2	3	7	2	$X^2 = 24.5$ DF=12 (21.03) $p > 0.05$ (S)
	2 Children	1	4	4	2	1	
	3 Children	0	2	2	0	0	
	4 and above children's	0	0	0	0	0	
Weight of preterm baby	1 Kg	0	1	0	3	0	$X^2 = 21.67$ df=12 (21.03) $p > 0.05$ (S)
	1.5 Kg	1	2	1	2	1	
	2 Kg	0	3	6	4	2	
	< 2 Kg	0	2	2	0	0	
Health Service Availed	P.H.C	0	2	4	5	0	$X^2 = 22.59$ df=12 (21.03) $p > 0.05$ (S)
	Sub centre	0	1	0	0	0	
	Nursing Home	0	3	2	0	0	
	Hospital	1	2	3	4	3	

The findings revealed that, there was significant association between post-test level of knowledge and demographic variables like occupation of the mothers, type of family, number of children in the family, weight of preterm baby and health service availed. Therefore occupation of the mothers, type of family, number of children in the family, weight of preterm baby and health service availed were significantly influencing the level of knowledge among antenatal mothers. Hence the research hypothesis H2 was accepted.

4. Conclusion

Kangaroo mother care is the simple and cheapest method with lots of benefits. The findings of the study revealed that, there was significant improvement in the level of knowledge on Kangaroo mother care among postnatal mothers after administering Structured teaching program. Hence continuous awareness is very vital and mothers can be motivated to practice it.

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