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A Study to Evaluate the Efficacy of Need Based Strategies of Kangaroo Mother Care among Parents of Low-Birth-Weight Babies at Selected Hospital, Coimbatore

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Abstract: ***In developing countries 20 million low birth weight born each year Low birth weight contributes 60 to 80 % of all neonatal death. In India twenty-five million babies born every year and more than four million newborns died in 1st month of life due to inadequate care. According to UNICEF in 2018 6.4lac neonatal deaths occur. India reports the largest number of neonatal deaths. Thirty five percent of neonatal death related to low birth weight. the prevalence of low birth weight is 30-40% in India.The research approach for the study was a Quantitative research study, the research design used was Quasi-experimental one group pre-test post-test design and the population of study was parents of low-birth-weight babies of AHM district hospital Kanpur. The sample consist 300 sample using Non probability convenient sampling technique. The four tools used to assess the knowledge, practice and attitude regarding kangaroo mother care, questionnaire for knowledge, checklist for identification of barriers, checklist regarding evaluation of practice and likert scale regarding attitude of parents of low birth weight related to kangaroo mother care.***

Keywords: low birth weight, neonatal mortality, kangaroo mother care, parental knowledge and practice, quasi experimental study

1. Introduction

Concept of newborn baby-a healthy kid delivered at term among 38-42 weeks ought to have a normal weight for the country, cries instantly following delivery established independent rhythmic respiration and immediately adopts to modified surroundings. Newborn weight varies from nation to nation however typically exceed 2500gm. In India the neonate weights at the time of delivery differ within 2.7 to 3.1 kg the length is 50-52 cm. Head circumference 35 cm and biparietal diameter about 9.5 cm. Most babies are plump and have a prominent abdomen. The normal neonates continue to adopt to extrauterine life in the first week after birth, remaining vulnerable to airway obstruction, hypothermia, hypoglycemia and infection. That is optimal for physiological needs. The mother takes responsibility for this by continuing to develop and nurturing the mother-baby relationship. The father should also play his part and become involved in the care of his baby. Extrauterine life presents a challenge to the newborn baby. The most important changes in the heart and lungs, continued adaptations are necessary in the first week of life as the baby assumes independence from the maternal and placental nurturing which was enjoyed before birth. The baby totally dependent on the mother or other care giver for nutrition and protection but is responsible for maintaining metabolism and hemostasis among other functions essential for survival. Newborn wellness is the basic stone of families and for the country. Neonates are most essential person for all family members and home.

The prevalences of less weight at the time of birth are usually higher in those nations where the standard weight is low. In India every third of infant weight less than 2500gm (Dutta). Raman, T.R, Devgan A, Sood S, (2017) LBWs babies' prevalence and hazards, concluded that out of 1000 live newborn, 815 are small for pregnancy age newborn in addition one hundred ninety-nine were premature neonate, Mother's age category of 19-25 years born the most quantity of LBW (618/1014), forty-eight newborn with less weight delivered to women under the age of eighteen years. Primi woman provides higher variety of LBW. 262 infants were delivered to mother with obstetrical sickness like hypertension, preeclampsia, eclampsia, rupture of membrane before time and dreadful history of previous pregnancies. According to Paul findings focused that seventy percent of Peri natal death, Ninety percent neonatal deaths and fifty percent infant death occur among low-birth-weight children. Other research indicated that reason of low birth weight was low Pre-pregnancy weight.

Statement of the Problem

A study to evaluate the efficacy of need-based strategies of kangaroo mother care among parents of low-birth-Weight babies in selected hospital Coimbatore

Objectives of the Study

1) To assess the level of knowledge, Attitude and Practice of kangaroo mother care among parents of low-birth-weight babies by giving post-test.
2) To compare the posttest score with the pretest score of knowledge, Practice and attitude related to KMC among parents of LBW infants.
3) To determine the association of customized awareness program on KMC care among parents of LBW infants on knowledge, attitude and practice with their selected sociodemographic variables.
4) To make recommendation on the basis of result for effective implementation of customized awareness program

Hypothesis

H1-There is significant difference between pretest and post-test knowledge of parents regarding care of low-birth-weight babies.

H2-There is significant difference between pretest and post-test attitude of parents regarding care of low-birth-weight babies.

H3-There is significant difference within pretest and post-test practice of parents regarding care of low-birth-weight babies.

H4-There is significant association between pretest knowledge, attitude and practice with their selected demographic variables.

H5-There is significant association among post-test knowledge, attitude and practice with their selected demographic variables.

2. Research Methodology

Research Approach: Quantitative Approach
Research Design: One group pretest post-test design
Sampling Technique: Convenient sampling technique
Population: Parents of LBW babies of selected hospital, Coimbatore
Sample Size: 30

The demographic variables of that research subjects are analyzed by descriptive and presented in frequencies and percentage

Table 1: Distribution of sample based on demographic variables (N=30)

Variable	Category	No.	%
Age	18-24 yrs	6	20.0
	25-31 yrs	23	76.7
	32-38 yrs	1	3.3
	39-45 yrs	0	0.0
Religion	Hindu	16	53.3
	Muslim	14	46.7
	Christian	0	0.0
	Other	0	0.0
Type of Family	Nuclear	18	60.0
	Joint	11	36.7
	Extended	1	3.3
	Single Parent	0	.0
Education Level	Informal	6	20.0
	Primary	5	16.7
	Secondary	14	46.7
	Graduate	4	13.3
	Post Graduate	1	3.3
Occupation	Unemployed	25	83.3
	Government employed	2	6.7
	Self employed	3	10.0
	Skilled professional	0	0.0
Sources of Information	Radio	5	16.7
	Television	15	50.0
	Newspaper	1	3.3
	Internet	1	3.3
	Family Members	8	26.7
	Friends	0	0.0

Majority 23 (76.7%) of the women have age group within 25-31 years 6 were 18-24 yrs one was 32-38 yrs. Among them 53.3% were Hindus and 46.7% were Muslims Christian and other religion were 0. Single families 18 (60%) the Joint families11 extended 1 and single parents 0. majority of mother 14 (46.7%) have secondary level education, informal 6, primary 5, graduate 4 and post-graduation level only 1, Majority were unemployed 25 (83.3%), self-employed 3 and government employed were 2 the major source of information about KMC was television as told by 15 (50.0%) respondents. Family members 8, radio 5 internet and radio 5 friends were 0 out of 30 participants.

Table 2: Health Profile of Mother

Variable	Category	No.	%
Antenatal Examination	> 4 times	11	36.7
	4 times	5	16.7
	3 times	9	30.0
	2 times	5	16.7
any other medical illness during pregnancy	No	24	80.0
	Yes	6	20.0
any medication during pregnancy	No	14	46.7
	Yes	16	53.3
any kind of infection	No	26	86.7
	Yes	4	13.3
hospitalized during pregnancy	No	25	83.3
	Yes	5	16.7
completed immunization during pregnancy	No	4	13.3
	Yes	26	86.7
	Total	30	100.0

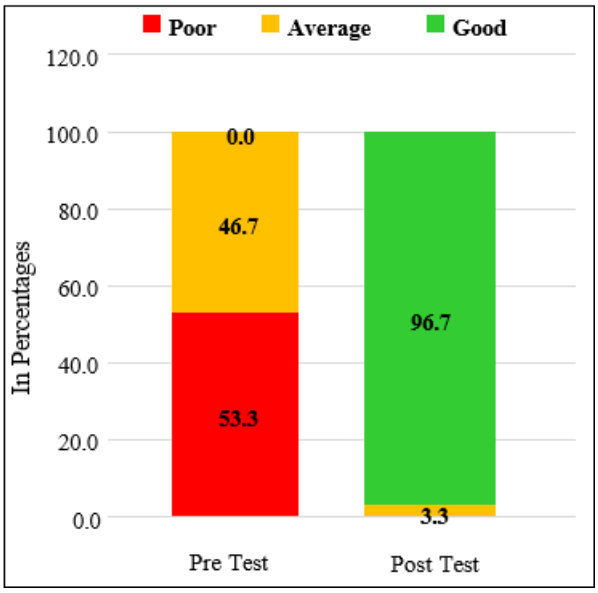
Among the mothers, maximum 11 (36.7%) were examined for antenatal >4 times. 5 were 4 times, 9 were 3 times and 5 were 2 times only. Majorty of mothers 24 (80%) have no any medical illness 6 (20%) suffered from some medical illness during pregnancy, 53.3% took medication during pregnancy,13.3 showed some kind of infection 16.7% were hospitalized during pregnancy and 16.7% were immunized completely 86.7%.

Table 3: Demographic/Health Profile of Infants

Variable	Category	No.	%
Health status	Healthy	23	76.7
	Sick	7	23.3
Gestational age	Full term	16	53.3
	Preterm	5	16.7
	Moderate to late Preterm	8	26.7
	Very preterm	1	3.3
Gender	Male	16	53.3
	Female	14	46.7
	Transgender	0	.0
Type of Delivery	Spontaneous vaginal delivery	19	63.3
	Instrumental/ assisted	1	3.3
	Caesarean section	10	33.3
No of NB at time of delivery	One	28	93.3
	Two	2	6.7
	More than two	0	.0
Weight of newborn	< 1000gm	0	0.0
	1100-1500 gm	7	23.3
	1600-2500 gm	23	76.7
	>2500gm	0	0.0
	Total	30	100.0

Among the infants23 (76.7%) were healthy while remaining 23.3% were found to be sick. 16 (53.3%) of the

infants had Full term pregnancy age moderate to late preterm 8, preterm 5 and very preterm only 1. Among the infants 53.3% were males and 46.7% were females. 19 (63.3%) were the spontaneous vaginal delivery, 10 cesarean and 1 assisted vaginal delivery. There was one NB at time of delivery in 28 (93.3%) cases 2 were Twins. Majority 23 (70%) of Newborn weight 1600-2500 gm, 7 were 1100-1500gm no one have less than 1000gm or more than 2500gm.



Graph 1: Pre and post-test overall knowledge among the parents

Table 4: Pre & Post-test Comparison of Overall Knowledge among the parents

Knowledge	Pre-test		Post-test		chi sq	p-value
	No.	%	No.	%		
Poor	16	53.3	-	-	56.3	<0.001
Average	14	46.7	1	3.3		
Good	0	0	29	96.7		
Total	30	100	30	100		

The overall knowledge on the basis of total knowledge score was found to be average score 46.7% and poor score 53.3% and good 0.0% at pre-test evaluation which increased to 96.7% in post-test evaluation. So, a highly significant improvement was seen at post- test ($p<0.001$)

Research scholar stated that knowledge was improved after implementation of customized awareness program because without knowledge no one had good knowledge but they improved after intervention.so this program was effective for parents of low- b i r t h - w e i g h t babies.

Graph2 Pre & Post-test Comparison of Overall attitude among the parents in post- test evaluation. Though the improvement was insignificant (p=0.313) So, customized awareness program was effective for improvement of knowledge, practice and attitude of parents regarding kangaroo mother care

Table 5: Pre & Post-test Comparison of Overall Practices among the parents

Practice	Pre-test		Post-test		chi sq	p-value
	No.	%	No.	%		
Poor	21	70	-	-	7.8	0.02
Average	7	23.3	1	3.3		
Good	2	6.7	29	96.7		
Total	30	100	30	100		

The overall practice on the basis of total practice score was found average 23.3% poor 70% and good 6.7% cases at pre-test evaluation which increased to 96.7% in post-test evaluation. So, a significant improvement was seen at post-test (p=0.020)

Summary: The study stated that need based strategy was found to be effective through this awareness program improved knowledge, bring positive attitude, and good practice related to kangaroo care with parents of L.B.W infants.

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