



Original Article

Study to Assess the Effectiveness of Video Assisted Teaching Programme on Knowledge and Practice Regarding Kangaroo Mother Care among Primi Postnatal Mothers

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Abstract

Introduction: Around 70% neonatal deaths occur in low birth weight and preterm babies. Most studies demonstrated kangaroo mother care to be more effective than incubator care for these neonates but there are limited studies and practices in India. Therefore, the main aim of the study was to assess the acceptability, knowledge, attitude and practice of kangaroo mother care in public health.

Objectives of the Study: To assess the Pre and post test knowledge and practice level of experimental group Primi postnatal mothers regarding kangaroo mother care. To evaluate the effectiveness of video assisted teaching programme on knowledge and practice regarding kangaroo mother care.

Methodology: The conceptual frame work adopted this studies based on Kurt Lewin's theory. A quasi experimental non randomized control group design was adopted for this study. A quantitative research approach is used. The tool was valid and reliable. Pilot and main study was conducted by using knowledge questionnaire and observation checklist for assessing the practice .the sample size was 30 primi postnatal mothers, the data was collected before and after administration of video assisted teaching programme related to Kangaroo Mother Care . The tool used for data collection consisted of self structured multiple choice questionnaire. Data collection was analyzed by using descriptive and inferential statistics, significance of association was calculated by chi-square test and difference of mean knowledge score was calculated by Paired t- test.

Result: The study reveals that the video assisted teaching Programme is highly effective in improving the Knowledge and practice regarding Kangaroo Mother Care among Primi postnatal Mothers. The mean post test knowledge score was 25.8 was higher than mean pretest knowledge score 14.3, and the mean post test practice score was 18.7 which was higher than the mean post test practice score 16.7. The calculated

'p' value for knowledge is 19.82 and for practice is 4.6 which is greater than tabulated value at ($p > 0.05$) level. So it is found to be significant at ($p = 0.05$) level. This indicates that the video assisted teaching Programme was highly effective in increasing the level of knowledge and practice in post test on KMC among Primi mothers in selected hospitals at Raipur.

Conclusion: The present study to assess the effectiveness of video assisted teaching Programme on knowledge and practice regarding Kangaroo Mother Care among Primi Mothers. The result of the study concluded that the video assisted teaching Programme was effective in improving the knowledge and practice of Kangaroo Mother Care among primi postnatal mothers.

Keyword: Knowledge, Practice, Video Assisted Teaching Programme, Kangaroo Mother Care.

Introduction

Kangaroo mother care has often been used as a treatment for premature or preterm babies. As the 21st century is in the threshold of challenging preventive healthy interventions, the evidence based practice of newborn care must be efficiently adopted for applying in the operational milieu of rural care facilities and the awareness on KMC should be taught, among the expected mothers in all country wide, perinatal-neonatal care units^[1,2].

In 1979, Dr. Martinoz and Rey of the maternal and child institute in Bogota, Colombia developed a simple method for care of Low Birth Weight infants called "The Kangaroo Mother Care (KMC)" to overcome the inadequacies of the neonatal care in developing countries^[3]. Kangaroo mother care (KMC) is an evidence-based approach to reducing mortality and morbidity in preterm infants. It is a method of care of preterm and low birth weight infants. It is defined as a method of holding a small nappy neonate in skin-to skin contact (STS), prone and upright on the maternal chest. The neonate is enclosed in maternal clothing in order to maintain temperature stability (Charpak, Ruiz, Zupan, Cattaneo, Figueroa, et al. 2005)^[4]. Although it was initially developed for use with preterm and low birth weight babies, it is beneficial for all babies as constant contact with their mothers and her warmth, breast milk, love and protection are the entire basic requirement needed for their wellbeing and survival (W.H.O, 2003)^[5]. There is evidence that Kangaroo Mother Care (KMC), when compared to conventional neonatal care in resource-limited settings, significantly reduces the risk of mortality in infants weighing less than

2000g. KMC also reduces the risk of hypothermia, severe illness, nosocomial infection and length of hospital stay (Lawn, 2010)^[6]. Low birth weight and prematurity are strongly associated with neonatal morbidities and mortality (UNICEF 2017)^[7]. Many Mothers in India does not know how to practice Kangaroo Mother Care on their low birth weight babies and hence they do not practice also.

Objectives

- To assess the pre and post test knowledge and practice level of control group Primi postnatal mothers regarding kangaroo mother care.
- To assess the Pre and post test knowledge and practice level of experimental group Primi postnatal mothers regarding kangaroo mother care.
- To evaluate the effectiveness of video assisted teaching programme on knowledge and practice regarding kangaroo mother care.

Hypothesis

There is a significant enhancement in the post test knowledge and practice level of experimental group Primi Post Natal Mothers regarding kangaroo mother care.

Lewin's Change Theory. ... This theory is his most influential theory. He theorized a three-stage model of change known as unfreezing-change-refreeze model that requires prior learning to be rejected and replaced. Lewin's definition of behavior in this model is "a dynamic balance of forces working in opposing directions.

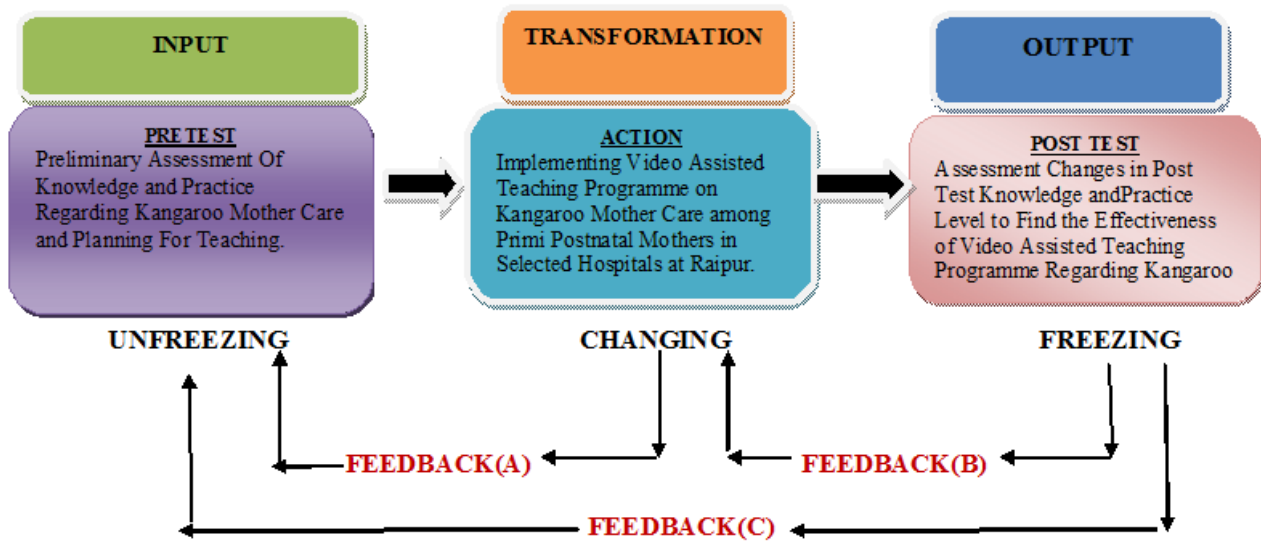


Figure No: 1 Kurt Lewins Procees Of Change Through Action Model(1958)



Figure No: 2 Schematic Diagram of Research Methodology

Sampling Criteria

In sampling criteria the researcher specifies the characteristic of the population under the study by dealing the inclusive and exclusive criteria are characteristics that each sample elements must possess to be including in the sample.

Inclusion Criteria

- Primi postnatal Mothers from selected hospitals of Raipur.
- Primi postnatal Mothers those who have low birth weight newborn babies.
- Primi postnatal Mothers between the age group of 20-40 years

Exclusion Criteria

- Multi Mothers of the Hospitals
- Primi Postnatal mothers not admitted in the selected hospitals at present.
- Primi Postnatal Mothers those who are not willing to participate.

Description of the Tool

Self structure questionnaire was developed to assess the effectiveness of Video Assisted Teaching Programme on Kangaroo Mother Care among Primi Postnatal Mothers.

Self- structured questionnaire consist of two sections-

Section I: It consists of sample characteristics (Demographic Variables.)

Section II: It consists of structured knowledge questionnaire regarding Kangaroo Mother Care among Primi Postnatal Mothers.

Section III: It consists of structured Practice questionnaire regarding Kangaroo Mother Care among Primi Postnatal Mothers.

Section-I: This section consisted of 09 items obtaining information regarding subjects age in years, occupation, religion, education status, types of family, marital status, no. of children, monthly income, and sources of information.

Section-II: This section consist of 28 multiple choice questions covering of introduction, definition, Indication, aim, benefits for mother and child and importance of Kangaroo Mother care to assess the knowledge of Primi Postnatal Mothers with a maximum score of 28 and the entire question has 4 options where as one will be the correct answer and other three will be the wrong answers. Each correct answer score '1' mark and incorrect answer scores '0' mark

Section-III: This section consist of 22 closed ended questions covering practice regarding Kangaroo Mother Care, with a maximum score of 22 and the entire question has 2 options where as one will be the correct answer and other three will be the wrong answers. Each correct answer score '1' mark and incorrect answer scores '0' mark.

Criterion Measures: The multiple choice question were used to assess the knowledge and practice of Primi Postnatal Mothers regarding Kangaroo Mother Care, the assessment of knowledge and practice will be identified through following scale -

According to arbitrary manner scoring for all knowledge questionnaire have done,

Score interpretation Total 28 Minimum Score: 0, Maximum Score:

Criterion Measures of Knowledge Score

LEVEL OF KNOWLEDGE	KNOWLEDGE %	KNOWLEDGE SCORE
POOR	<_35%	0-10
AVERAGE	36%-60%	11 to 17
GOOD	61%-75%	18 to 21
EXCELLENT	76%-100%	22 to 28

Criterion Measures of Practice Score

LEVEL OF KNOWLEDGE	PRACTICE %	PRACTICE SCORE
POOR	<_35%	0- 8
AVERAGE	36%-60%	9 to 13
GOOD	61%-75%	14 to 17
EXCELLENT	76%-100%	18 to 22

Score interpretation Total 22 Minimum Score: 0, Maximum Score: 1

Data Analysis, Interpretation: Analysis and interpretation was done as per the objectives of the study and the hypothesis formulated. Descriptive and inferential statistics were used for

the analysis of the data. The data and finding have been organized and presented under the following sections.

Table 1: Percentage and Frequency distribution of Primi Postnatal Mothers according to socio demographic variables
N=60(30+30)

S.NO	DEMOGRAPHIC VARIABLE	EXPERIMENTAL GROUP		CONTROL GROUP	
		FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
1	AGE				
	20-25	10	33.3	12	40
	26-30	16	53.3	12	40
	31-35	3	10.0	3	10
	36-40	1	3.3	3	10
2	RELIGION				
	HINDU	13	43.3	11	36.6
	CHRISTIAN	5	16.7	5	16.6
	MUSLIM	6	20.0	8	26.6
	OTHER	6	20.0	6	20
3	EDUCATION				
	PRIMARY	5	16.7	7	23.3
	SECONDARY	14	46.7	11	36.6
	GRADUATE	7	23.3	8	26.6
	POST-GRAD	4	13.3	4	13.3
4	OCCUPATION				
	HOUSE WIFE	19	63.3	17	56.6
	SELF EMPLOYEE	4	13.3	4	13.3
	PRIVATE EMPLOYEE	5	16.7	7	23.3
	GOVT.EMPLOYEE	2	6.7	2	6.6
5	AREA OF RESIDENCE				
	URBAN	16	53.3	18	60
	RURAL	14	46.7	12	40
6	MONTHLY INCOME				
	LESS THAN5000	4	13.3	2	6.6
	5000-7000	4	13.3	2	6.6
	7000-9000	6	20.0	10	33.3
	ABOVE 9000	16	53.3	16	53.3
7	TYPE OF FAMILY				
	JOIN	11	36.7	10	33.3
	NUCLEAR	15	50.0	17	56.6
	EXTENDED	4	13.3	3	10
8	MARITAL DURATION INYEARS				
	1to2	12	40.0	19	63.3
	3 to 4	10	33.3	8	26.6
	5 to6	5	16.7	3	10
	ABOVE 6	3	10.0	0	0
9	SPECIFY SOURCE OF INFORMATION				
	FAMILY MEMBERS	6	20.0	4	13.3
	FRIENDS	7	23.3	9	30
	HEALTH PERSONNEL	11	36.7	12	40
	MASS MEDIA	6	20.0	5	16.6

Table 1: Shows the demographic information of Primi Postnatal Mothers.

Section I

Objective: 1(a). Analysis of the overall pretest and post test knowledge and practice level regarding Kangaroo mother Care among Primi

Postnatal Mothers. Analysis of overall pretest & post test knowledge and practice of experimental group

Table-2 Frequency and percentage distribution of pre and post test knowledge of experimental group. **N=30**

CATEGORY	PRETEST		POST TEST	
	Frequency	Percentage	Frequency	Percentage
EXCELLENT	1	3%	30	100%
GOOD	3	10%	0	0%
AVERAGE	23	77%	0	0%
POOR	3	10%	0	0%

Table-3 Frequency and percentage distribution of overall pre and post test practice of experimental group. **N =30**

S.NO	CATEGORY	PRETEST		POST TEST	
		Frequency	Percentage	Frequency	Percentage
1	EXCELLENT	0	0%	17	57%
2	GOOD	24	80%	11	37%
3	AVERAGE	6	20%	1	3%
4	POOR	0	0%	1	3%

a) Analysis of overall pretest post test knowledge of control group regarding Kangaroo Mother Care.

Table No 4 Difference in Pretest & Post test knowledge score of Control Group regarding Kangaroo Mother Care among Primi Postnatal Mothers. **N=30**

S.NO	CATEGORY	PRETEST		POST TEST	
		Frequency	Percentage	Frequency	Percentage
1	EXCELLENT	1	3%	1	3%
2	GOOD	1	3%	1	3%
3	AVERAGE	21	70%	21	70%
4	POOR	7	24%	7	24%

b) Analysis of overall pretest post test practice of control group regarding Kangaroo Mother Care.

Table No 5 Difference in Pretest & Post test practice score of Control Group regarding Kangaroo Mother Care among Postnatal Primi Mothers **N = 30**

S.NO	Practice level	PRETEST		POST TEST	
		Frequency	Percentage	Frequency	Percentage
1	EXCELLENT	1	3%	1	3%
2	GOOD	10	33%	10	33%
3	AVERAGE	17	57%	17	57%
4	POOR	2	7%	2	7%

Section-II

Analysis of difference in the pre and post test knowledge and practice level of control and experimental group Primi Postnatal Mothers regarding Kangaroo Mother Care.

Table No. 6 Mean score, mean score percentage, and Standard deviation of knowledge level. **N= 60**

GROUP	KNOWLEDGE SCORE	Mean score	Mean percentage	Mean difference	Standard deviation	Paired t value	Inference
CONTROL	Pretest	12.8	42.8%	4.34%	3.39	4.83	P<0.05 Not significant
	Post-test	13.2	47.14%		0.91		
EXPERIMENTAL	Pretest	14.3	51.07%	41.07%	3.23	1.93	p>0.05 significant
	Post-test	25.8	92.14%		1.61		

Table No 7 Mean score, mean score percentage, and Standard deviation of practice level

Group	PRACTICE SCORE	Mean score	Mean percentage	Mean difference	Standard deviation	Paired t value	Inference
Control	Pretest	12.57	57.13%	0.27%	2.41	4.35	P<0.05 Not significant
	Post-test	12.63	57.40%		1.99		
Experimental	Pretest	16.7	75.90%	23.1%	2.23	-0.18	p>0.05 significant
	Post-test	22.7	99%		2.00		

Section III

Analysis of effectiveness of video assisted teaching programme in improving knowledge and practice regarding Kangaroo Mother Care among Primi Postnatal Mothers.

Table no 8. Paired t test value shows the Effectiveness of video assisted teaching programme in improving post test knowledge level of experimental group.

Post Test Knowledge Level	Mean score	Mean percentage	Mean difference	Standard deviation	Paired t' value	Inference
Control Group	13.2	47.14%	45%	0.91	1.05	p>0.05 significant
Experimental Group	25.8	92.14%		1.61		

Table no 9 Effectiveness of video assisted teaching programme in improving post test practice level of experimental group.

Post Test Practice Level	Mean score	Mean percentage	Mean difference	Standard deviation	Paired 't'Value	Inference
Control Group	12.63	57.40%	42%	1.99	1.80	p>0.05 significant
Experimental Group	22.7	99%		2.00		

Results and Discussion

Not many studies reported the video assisted teaching programme on knowledge and practice regarding Kangaroo Mother Care among Primi Postnatal Mothers. Occurrence of neonatal problems in new born can be avoided if the mothers who are handling the babies need to have adequate knowledge and practice regarding Kangaroo Mother Care. Table 1 shows that percentage and frequency distribution of primi postnatal mothers according to sociodemographic variables such as age, religion, education, occupation, area of residence, monthly income, type of family, marital duration in years and source of information. Table 2 shows that frequency and percentage distribution of pre and post test knowledge of experimental group was average (77%) in pretest as compared to excellent in (100%) post test group. Table 3 shows that frequency and percentage distribution of overall pre and post test practice of experimental group was excellent in (57%) in post test as compared to only (80%) in pretest mothers were good but

Table 4 and 5 in control group pretest and post test knowledge score as well as practice score had no any changes found. Table 6 and 7 shows that analysis of difference in the pre and post test knowledge and practice level of control was not significant (p<0.05) but in experimental group was significant (p>0.05). Table 8 and 9 shows that the effectiveness of video assisted teaching programme regarding kangaroo mother care among primi post natal mothers were significant (p>0.05%) in both knowledge as well as practice in experimental group. According to a study carried out by Solomon and Rosant (2012)^[8] on 30 Kangaroo mothers in the Eastern Sub-district of Cape-Town, majority of the mothers (83.3%) did not have prior knowledge of KMC, though practiced it, and were satisfied with regard to weight gain of their infants. Another study by Kumar and Williams (2016) on knowledge of postnatal mothers at JSS Hospital showed that, more than half (53%) had poor knowledge regarding Kangaroo Mother Care. Another study by Geetha and Hemavathy (2015)^[9] on

effectiveness of Kangaroo mother care among mothers of hospitalized new born in Chennai, India. Showed that, 80.0% had inadequate knowledge about KMC. In another study by Abdel (2012) in the rural centre of India revealed that, 65% of mothers had inadequate knowledge on KMC. Another research conducted by Herdberg (2011) ^[10] in Sweden among mothers by staff in the neonatal unit showed positive impact of Kangaroo Mother Care in the management of prematurity and low birth weight infants with 62% effectiveness.

Findings revealed that mean post test knowledge score 25.08 was significantly higher than pre Test knowledge score 14.3, and the mean post test practice score 18.7 was significantly higher than pre test practice 16.7 thus the finding reveals there has been significance enhancement in Knowledge and Practice of Primi Mothers, regarding Kangaroo Mother Care, after administrating video assisted teaching Programme of Kangaroo Mother Care in Primi Post natal mothers.

Conclusion

The present study to Assess The Effectiveness Of Video Assisted Teaching Programme On Knowledge And Practice Regarding Kangaroo Mother Care Among Primi Mothers. The result of the study concluded that the video assisted teaching Programme was effective in improving the knowledge and practice of Kangaroo Mother Care among primi postnatal mothers.

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Conflict of interest: None declared.

Ethical approval: The study was approved by the Institutional Ethical Committee.

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