



A study to assess the effectiveness of structured teaching program on knowledge regarding kangaroo mother care on low-birth weight infants among post-natal mothers in a selected Hospital at Dehradun

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Abstract

The aim of the study to assess the effectiveness of structured teaching program on knowledge regarding kangaroo mother care on low-birth weight infants among post-natal mothers in a selected hospital at Dehradun. Convenient sampling technique was used to collect data from 50 postnatal mothers who were admitted in SMI Hospital. One group test pre-test and post-test design was used to evaluate the effectiveness of structure. Pre-test shows that most 32% mothers had inadequate knowledge, 64% had moderate level of knowledge and 4% had adequate knowledge. Post-test shows that all the postnatal mothers 50 (100%) attained moderate knowledge after the structured teaching program teaching program. Therefore, the study concluded that there was significant improvement in the knowledge of postnatal mothers which was due to the structured teaching program on KMC among postnatal mothers.

Keywords: Effectiveness, kangaroo mother care, low-birth weight infants, structured teaching program, postnatal mothers

Introduction

Kangaroo mother care is the initiative method of taking care of low birth infants. Birth weight is the single most important marker of adverse prenatal, neonatal and infantile outcomes. The WHO defines low birth weight infants (irrespective of gestational age) as neonates born less than 2500 grams (5 pounds) and extremely low birth weight as less than 1500 grams. Of the babies, approximately one third dies before stabilization or in the first 12 hours. Prolonged skin-to-skin contact between the mother and her preterm low birth weight infants provides effective thermal control and are associated with a reduced risk of hypothermia. KMC has many advantages over the conventional incubator care and it's improved the health of newborn. This care is the cheapest method and can give even for the babies below poverty line. Kangaroo mother care does not need a sophisticated equipment, can be applied almost anywhere and could contribute to humanization of the neonatal care containing no cost.

Benefits of the baby is offered as prolonged skin-to-skin contact between the mother. KMC facilitates physiological stability in baby. KMC help in early discharge of baby from NICU. KMC reduces apnoea, oxygen requirement and risks of infection to the baby. Benefits to the family include economic factors, also promotes early discharge of the baby and facilitates bonding between baby, mother and family. Benefits of mother is that mother has more confident and bonding to the infant, mother feels less stressed, breastfeeding is promoted and is able to choose

breastfeeding above formal feeding, less neglected and abandonment.

KMC is simple, easy applicable, cost effective. KMC result in healthier and more intelligent babies.

Objectives of the study

1. To assess the level of knowledge regarding KMC on low-birth-weight infants among post-natal mothers in a selected hospital at Dehradun.
2. To assess the effectiveness of structured teaching program regarding kangaroo mother care on low-birth-weight infants among post-natal mothers in a selected hospital at Dehradun.
3. To find out the association between the pre-test knowledge scores with the selected demographic variables.

Hypothesis

H₀: There will be no significant difference between pre-test and post-test knowledge scores of postnatal mothers after the structured teaching program on knowledge regarding kangaroo mother care among low-birth-weight infants.

H₁: There will be a significant association between pre-test knowledge of postnatal mothers with selected demographic variables.

Assumptions

The study assumes that

- Post-natal mothers may have some knowledge regarding kangaroo mother care.
- The structured teaching program will increase the knowledge of post-natal mothers regarding kangaroo mother care.

Materials and Methods

Research Approach

Quantitative research is an applied form of research that involves finding out how well a program, procedure or policy is working. A quantitative research approach is used for this study.

Research Design

A research design is the specification of methods and procedures acquiring the information needed. The research design selected for this study was one group pre-test post-test design.

Variables

- **Dependent variable:** In this study, knowledge of postnatal mothers is dependent variables.
- **Independent variable:** In this study independent variable is structured teaching program.

Setting of the study

The study was conducted at Obstetrics and Gynaecology ward, 2nd floor, at Shri Mahant Indires Hospital, Patel Nagar, Dehradun, Uttarakhand.

Population

The population for this study was all postnatal mothers who were admitted in Obstetrics and Gynaecology ward, 2nd floor, at Shri Mahant Indires Hospital, Patel Nagar, Dehradun, Uttarakhand.

Sample

The sample for this study was Post natal mother who fulfilled the inclusion criteria.

Sample Size

In this study, the sample size comprised of 50 postnatal mothers in a selected hospital in Dehradun.

Sampling Technique

The sampling technique adopted for this study was non-probability convenient sampling technique.

Criteria for Sample Selection:

Inclusion Criteria:

Post natal mothers who:

- Can cooperate and follow instructions.
- Can understand Hindi and English.

Exclusion Criteria

- Post natal mothers who are not willing to participate

consulted during the preparation of tool.

Description of Research Tools and Techniques

Data collection tool was the structured questionnaire, which contained items on the following aspects:

Part I: This part consisted of six items related to demographic variables such as age, education of mother, occupation, type of family and source of previous information.

Part II: This part consisted of 25 questions related to the knowledge level of the post-natal mothers.

The respondents were instructed to tick the most appropriate answer, which were provided in the questionnaire. It consisted of twenty-five multiple choice questions, all of which were scored. Each correct answer was given a score of one and wrong answers a score of zero. The total possible score of the structured questionnaire was twenty-five

Data collection procedure

On 17/06/2022 the pre-test was conducted and on the same day the structured teaching program was administered. The duration of the session was forty-five minutes. Post-test was conducted on 20/06/2022 which is three days after the administration of the structured teaching program. After three days, post-test knowledge score was measured by using the same questionnaire to find out the effectiveness of the structured teaching program on level of knowledge regarding kangaroo mother care on low-birth-weight infants among post-natal mothers

Plan for Data Analysis

The data was analysed by both descriptive and inferential statistics on the basis of objectives and hypothesis of the study. The plan for data analysis is as follows: -

- Demographic variable was analysed using frequency and percentage.
- The level of knowledge of post-natal mothers regarding postnatal complications was analysed in terms of mean and standard deviation.
- Effectiveness of structured teaching program on knowledge regarding post-natal complications was analysed using paired "t" test.
- Association between pre-test knowledge score of post-natal mothers regarding kangaroo mother care on low-birth weight infants and selected demographic variables was analysed using Chi-square test.

Results

The data collected from the subjects were organized and presented under the following sections.

Section-A: Frequency and percentage wise distribution of demographic variables of participants

Table 1: Frequency and percentage wise distribution of demographic variables of participants. N=50

S. No.	Demographic Variables	Frequency (F)	Percentage (%)
1.	Age		
a.	Below 30	00	00
b.	21-30	41	82
c.	31-40	09	18
d.	Above 41	00	00
2.	Religion		
a	Hindu	42	84
b	Muslim	07	14
c	Christian	00	00
d	Sikh	00	00
e	Any others	01	00
3.	Educational Status		
a	Illiterate	5	10
b	Primary School	4	8
c	Middle High School	10	20
d	Graduate	31	62
4	Family Residence		
a	Urban	3	62
b	Rural	19	38
5	Occupation of the mother		
a	Housewife	41	82
b	Daily wage mother	4	6
c	Private job	3	8
d	Government job	2	4
6	Types of family		
a	Nuclear family	18	36
b	Joint Family	32	64
c	Extended family	00	00
d	Others	00	00

Section B: Effectiveness of Structured Teaching Program Regarding Kangaroo Mother Care on Low-Birth Weight Infant Among Postnatal Mothers.

Table 2: Shows effectiveness of structured teaching program regarding kangaroo mother care on low birth weight infants among postnatal mothers, N=50

Knowledge Score	Mean ± S.D	T _{cal} Value	Level of significance
Pre-Test	10±1.59	3	#
Post-Test	16±2.03		

Paired t-test
 $t_{tab}=2.00, df=49, \#p<0.05$

Data shown in table 3 revealed that the mean post-test knowledge score value among postnatal mothers was significantly higher than the score in pre-test value. The calculated “t” value (3) is more than the table value (2.00) at $p<0.05$ level of significance. Hence, the null hypothesis is rejected. There was significant increase in post-test knowledge after administration of STP. Therefore, it can be concluded that structured teaching program was effective in increasing knowledge of postnatal mothers.

Section C: Association between the pre-test level of knowledge score among postnatal mothers with selected demographic variables.

Table 3: The association between the pre-test knowledge score and selected demographic variables were analysed by using chi square test, N=50

S. No.	Demographic Variables	Inadequate knowledge	Moderate knowledge	DF	Chi Square	Level of Association
1	Age					
a)	Below 30	0	0	3	6.59	#
b)	21-30	0	43			
c)	31-40	0	7			
d)	Above 41	0	0			
2	Religion					
a)	Hindu	0	42	4	8.3	#
b)	Muslim	0	3			
c)	Christian	0	3			
d)	Sikh	0	0			
e)	Any other	0	1			
3)	Educational status					
a)	Illiterate	0	5	3	6.94	#
b)	Primary School	0	4			
c)	Middle/High School	0	12			

d)	Graduate	1	29			
4)	Family Residence					
a)	Urban	1	31	1	2.7	#
b)	Rural	0	19			
5)	Occupation of the mother					
a)	Housewife	1	42	3	7.6	#
b)	Daily wage Worker	0	2			
c)	Private job	0	3			
d)	Government job	1	3			
6	Types of Family					
a)	Nuclear Family	0	19	3	6.3	#
b)	Joint Family	1	30			
c)	Extended Family	0	1			
d)	Others	0	0			

It can be concluded that there is no significant association between the pre-test knowledge score and selected demographic variables.

Discussion

The study showed that the mean post-knowledge scores were higher than the mean pre-test scores). There was a significant improvement in the knowledge of post-natal complications among post-natal mothers after the administration of structured teaching program. The calculated “t” value (3) is more than the table value (2.00) at $p < 0.05$ level of significance. Hence, the null hypothesis is rejected. There was significant increase in post-test knowledge after administration of STP.

Conclusion

Overall pre-test knowledge about kangaroo mother care on low -birth weight infants was poor and there was a need for structured teaching program on kangaroo mother care. In this study structured teaching program was found to be effective in improving the post-test knowledge score on kangaroo mother care. The mean pre-test score of the subjects were lower than the mean post-test knowledge scores. It was shown that 32% had inadequate knowledge, 64% had moderate level of knowledge an 4% had adequate knowledge regarding kangaroo mother care on low birth weight in selected hospital at Dehradun. There was no significant association found between the knowledge of post-natal mothers with selected demographic variables such as age, occupation of the mother, type of family, gravida, monthly income and source of previous information.

Recommendations

On the basis of present study, the following recommendations are formed for future study

- The study can be replicated with a large number of samples for better generalization.
- The similar study can be carried out to assess the knowledge of kangaroo mother care among antenatal age groups.
- Experimental study can be conducted with structured learning program on knowledge, attitude and practice.

Conflict of Interest

Not available

Financial Support

Not available

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