

Effectiveness of Planned Teaching Programme on Knowledge of Post-natal Mothers towards Kangaroo Mother Care

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Abstract

A pre-experimental one group pre-test post-test design was undertaken to assess the effectiveness of planned teaching programme on knowledge of post-natal mothers regarding Kangaroo Mother Care (KMC). The conceptual framework adopted for this study was based on the Von Ludwig Bertalanfy General System theory. Convenient sampling technique was used to select 50 post-natal mothers who were meeting the sampling criteria. Structured knowledge questionnaire was used during data collection. Pre-test was conducted on day 1 followed by teaching programme among the same post-natal mothers admitted in maternity ward of a hospital in Bhubaneswar (Odisha). Post-test was conducted on day 8. Descriptive and inferential statistics were used to analyse data. The findings of the study revealed that mean post-test knowledge scores were significantly higher than the mean pre-test knowledge scores. The study revealed that the planned teaching programme was effective in enhancing the knowledge of post-natal mothers regarding KMC.

Kangaroo care is a technique of direct skin-to-skin contact between mothers (or fathers) and their infants. It has shown to improve the mother's psychological state, strengthen mother and infant bonding and stimulate maternal lactation.

Dr Nils Bergman, Medical Superintendent at Mowbray Maternity Hospital, Cape Town, South Africa, has been researching KMC for 12 years. He believes that restoring the original model of the infant-mother early care rather than our present incubator, bottle and feeding formula model can result in happier and healthier babies.

One of the problems with our present attitude of unnecessarily separating mother from infant is that the newborn exhibits the protest-despair response as soon as it is removed from her. This sorrowful and despairing wailing is the survival mechanism of an infant in pain trying to bring its mother back. Sadly, if this does not work, and the mother does not appear, the baby becomes too tired to cry any more gives up in despair. I believe that it is not only an automated reflex as the baby consciously wants to be with its mother.

Objectives

The study was undertaken with two objectives:

1. To assess the knowledge of the post-natal mothers before and after planned teaching regarding KMC.
2. To determine the effectiveness of planned teaching programme on knowledge of post-natal mothers.

Hypothesis

H1: The mean post-test knowledge score of post-natal mothers is significantly higher than mean pre-test knowledge scores regarding KMC as evident from structured knowledge questionnaire.

Review of Literature

Related to knowledge: James E Alphona in 2013 conducted a quasi experimental study to assess the effectiveness of video-assisted teaching on knowledge of IIIrd year BSc students in Ahmedabad. A structured knowledge questionnaire and systemic sampling technique were used. The sample size was 30 nursing students. The result revealed that pre-test score of students below average level was about 70 percent and at average level it was about 30 percent. At post-test students at average level it was about 36.66 percent and above average was 63.33 percent. The study concluded that video-assisted teaching on kangaroo mother care shows highly significant results and more educational programmes need to be carried out.

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Table 1: Mean and standard deviation of pre-test and post-test knowledge score of post-natal mothers regarding KMC

Criteria	Total score	Mean	SD
Pre-test	427	8.54	2.1872
Post-test	595	11.9	1.95

Related to confidence building on kangaroo mother care: Araythi M Rensis in 2011 conducted a randomised control trial to determine the benefits of KMC in low birth weight babies (< 2.2 kg) with respect to promotion of breastfeeding and confidence building in the mother in Bengaluru, India. The 40 low birth weight babies of weight less than 2200 gm were assigned randomly to KMC group and control group. The tool used to assess the confidence was a questionnaire and evaluation on Likert's scale. The kangaroo group was subjected to KMC for at least 13-14 hours/day. A significant increase in the ability to handle the baby was seen with KMC mothers at $p=0.00$ and in control there was no significant change over a period of 7 days ($p=0.083$). The results revealed that KMC promotes breast feeding in low birth weight babies and builds confidence in mothers with respect to taking care of such babies.

Related to involvement of mother: Tangerz in 2012 conducted a descriptive study to determine the outcomes of low birth weight babies using an early discharge kangaroo care policy and to identify barriers to their follow-up in Malawi. The sample size was 272. The study revealed that discharge below birth weight did not affect mortality ($RR=0.77$, range 0.40-1.46, $p=0.42$). Barriers identified to seek health care post-discharge included transport problems and late recognition of illnesses. The author concluded that early discharge is safe and feasible but issues regarding access to health care need to be addressed.

Methodology

It was an evaluative research study with one group pre-test post-test design conducted at maternity ward of Prdyumna Bal Memorial Hospital (PBMH), Kalinga Institute of Medical Sciences, Bhubaneswar. The independent variable was planned teaching programme and dependent variables were knowledge of post-natal mothers on kangaroo mother care.

Table 2: Mean, mean difference and 'z' value of pre-test and post-test knowledge score of post-natal mother

Criteria	Pre-test mean	Post-test mean	Mean difference	SEmd	'z' value	p value
Knowledge score	8.54	11.9	3.36	0.171	19.64	0.05

($Z_{0.05}=1.96$) ($p=0.05$)

Fifty post-natal mothers admitted at maternity ward of PBMH, KIMS, Bhubaneswar constituted the sample. Convenient sampling technique was used.

Sample selection criteria: All post-natal mothers; mothers who are willing to participate; mothers who would follow Odia; mothers who were responding and interested.

The tools developed consisted of three sections: Section-I was the demographic profile containing age, educational qualification of the mother, occupation of mother, gestational week of present pregnancy, gravida of the mother, mode of present delivery, family income per month, birth weight of the baby in gm and previous information regarding KMC.

Section-II had 20 items for assessment of knowledge of post-natal mothers regarding KMC through multiple choice structured questionnaire and it focuses on various areas such as concept, benefits, technique, importance, preparation for KMC, duration and time of discontinuation.

The collected data were analysed by using descriptive statistics and inferential statistics.

Results

Majority of mothers 60 percent were primi-gravida, 34 percent were second and only 6 percent were third and above. Out of 50 samples 68 percent were housewives, 20 percent were in private job and only 10 percent were in Government job. Most of the mothers (80%) delivered the baby at >37 weeks of gestational age and 20 percent delivered at <37 weeks of gestational age. Forty percent of mothers belonged to monthly family income of Rs. 15001-20000, 20 percent belonged to Rs. 10001-15000, 20 percent belonged to Rs. 5000-10000 bracket and 20 percent belonged to more than Rs. 20,000 per month family income.

Table 1 reveals that the pre-test knowledge score of mothers provide data like mean 8.54 and standard deviation 2.1872. The post-test knowledge score provides data with mean 11.9 and standard deviation as 1.95. Standard deviation of post-test is less than pre-test which indicates group was more homogenous in post-test.

Table 2 shows that the mean of pre- and post-test knowledge scores were 8.54 and 11.9 respectively. The value of mean difference was 3.36. The calculated 'Z' value was 19.64. To compare the calculated value with the table value by using two tailed probability at the level of significance $p=0.05$ the table value was 1.96, whereas the calculated value was 19.64 which is more than table value.

Delimitations

The present study was limited only to the post-natal mothers

- Who had normal vaginal delivery and LSCS & within 6 weeks of delivery.
- The study included all categories of new born such as normal, preterm and low birth weight babies etc.

Conclusion

The following conclusions were drawn:

- Most of the mothers were between 26-29 years of age (44%), 36 percent were in 22-25 years of age and 18 percent were more than 30 years of age.
- Majority of post-natal mothers (50%) were having higher secondary and above qualification, 36 percent were having secondary and only 10 percent were having primary level qualification.
- There was a significant gain in knowledge of post-natal mothers on KMC after conduction of planned teaching programme.
- The teaching programme arranged by the researcher was found to be effective in enhancing knowledge and attitude of post-natal mothers on KMC.

Recommendations

- The study can be replicated on a large number of samples for wider generalisation of findings.

The study can be conducted by using other strategies like information booklets and video-assisted teaching.

The study can also be carried out on large scale comparing with other socioeconomic variables, urban and rural areas and literate and Illerate.

An experimental study can be conducted with a controlled group.

Similar study can be conducted to the graduate students.

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