

Effectiveness of Video Assisted Teaching on Breastfeeding Knowledge and Practice of Mothers of Preterm Baby

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ABSTRACT

INTRODUCTION: Preterm birth is defined as childbirth occurring at less than 37 completed weeks. Breast feeding is feeding the baby directly at breast or expressed breast milk by pallada or spoon. Many preterm infants are not capable of exclusive breastfeeding from birth. Mothers of preterm infants continue to experience greater difficulty in feeding their babies

OBJECTIVE: To assess and compare the effectiveness Video Assisted Teaching on Breastfeeding on knowledge and practice of mothers of preterm baby in control and experimental group.

METHODS: A Quasi experimental two group pre-test post-test design was used for the study. The study was conducted in NICU of RL Jallapa Hospital and Research centre at Kolar. Total of 150 mothers, 75 each in experimental and control group were selected by purposive sampling technique.

RESULTS: Video assisted teaching had enhanced the knowledge of mothers regarding breast feeding in experimental group. The Teaching also improved the breast feeding practice among mothers of preterm baby in experimental group

CONCLUSION: The study highlights the importance of breastfeeding support to mothers of preterm baby.

KEY WORDS: Breastfeeding, Preterm baby, Video assisted teaching(VAT) and Knowledge, Practice

INTRODUCTION

Breast feeding provides complete nutrition for infants and helps protect against certain childhood diseases.¹ Breast milk is the best optimal nutrition for preterm infants as it consists of unique amounts of types of proteins, enzymes, micronutrients, vitamins and particularly long chain fatty acids, which are very essential for growth and development. Breast feeding is significantly associated with

higher scores of cognitive ability.² Large amount of evidence have proved the benefit of breastfeeding for preterm infants.³ The health benefits of mother's milk are especially significant for the immunocompromised preterm infant.⁴ Breast feeding preterm infants helps in better sucking ability, less ventilator disruption and maintaining warmth. However breastfeeding a very low birth weight baby or preterm baby is challenging

and exhausting experience for the mother. A better teaching protocol for breastfeeding and an improved breastfeeding support need to be implemented in the neonatal intensive care unit. Research also indicates that feeding preterm infants at the breast is physiologically less stressful than bottle-feeding.⁵ Poor sucking reflexes make it difficult to initiate breastfeeding for these high-risk infants. Mothers of preterm baby also reported the need of support for breastfeeding their babies by health care professionals.⁶ Mothers need to understand the difficulties of breastfeeding, as well as the advantages for herself and her baby as they lack knowledge which may affect their child growth. A mother will need continual support, encouragement, and advice from the nurse, while teaching her baby how to breastfeed.

OBJECTIVES

1. To assess the pretest and posttest knowledge regarding breast feeding among mothers of preterm baby in control and experimental group
2. To assess the pretest and posttest practice regarding breast feeding among mothers of preterm baby in control and experimental group
3. To find the effectiveness of video assisted teaching information on breastfeeding on knowledge and practice score of mothers of preterm baby.
4. Find out the association between selected demographic variables with post test knowledge score of mothers of preterm baby.
5. To find the association between selected demographic variables and post-test practice score of mothers of Preterm baby

MATERIALS AND METHODS

A Quasi experimental two group pre-test post-test design was used for the study. The study was conducted in NICU of RL Jallapa Hospital and Research centre at Kolar. The total bed strength

of the hospital is 800. There are 20 beds in NICU where inborn babies from labour room and OT are admitted. Average admission of preterm babies is 12-18 per month. Preterm babies and their mothers who met the inclusion criteria in NICU were chosen as sample. A total of 150 mothers with preterm babies were selected by purposive sampling technique. (75 each in experimental and control group).

Ethical clearance was obtained from ethics committee of Sri Devaraj Urs of Academy of Higher education and Research centre. Permission was obtained from hospital authorities before conducting of the study. Patient information sheet and informed consent was taken from the mothers of preterm baby before conducting the study. Content validity for structured knowledge questionnaire on breast feeding and observational checklist was established by giving all the prepared tools to faculty of medical and nursing of Paediatric Department. The content validity index (CVI) was 0.92. The Video assisted Teaching was also validated by the same experts. Item analysis was done, difficulty level and discrimination index were calculated for all items. The split half reliability ($r=0.82$) and test retest reliability was done within a gap of 07 days to assess the stability of the tool ($r=0.86$). The structured knowledge questionnaire was found to be reliable. Inter-rater reliability was done for observational checklist (10 items) of Breastfeeding ($r=0.98$). The structured knowledge questionnaire consisted of 30 items with multiple choice questions. Correct answer was scored 01 and wrong answer was scored 0.

After baseline assessment the structured knowledge questionnaire was administered. Individual video assisted teaching was done by investigator for 30 minutes in the morning on the same day for the experimental group and post-test was done after 6 days. For observation of Practice, observational checklist was used by the investigator to assess pre-test breastfeeding practice during direct breast feeding and post-test practice score after 6 days.

RESULTS

I. Description of mean age of mothers, mean gestational age and Birth Weight of Preterm baby
The mean age of mothers was 24.09 years in experimental group and 23.64 in control group, the mean gestational age of preterm baby was 33.37 in experimental group and 33.92 in control group and mean birthweight of preterm baby was 1.49 in experimental group compared to 1.52 in control group.

There was no significant difference among the groups in terms of mothers' age ($p=0.38$) and birth weight ($p=0.28$) of preterm baby by computing independent t test. There was significant difference between the gestational age ($p=0.02$) of preterm baby. Thus the groups were comparable in terms of mean age of mothers and birth weight of preterm baby.

I. Description of demographic variables of mothers of preterm babies

Majority of the mothers in experimental (78.7%) and control (70.7%) group belonged to Hindu religion. More than 50% mothers were from rural area in both the groups, 54.7% in experimental group had joint family and 57.3% in control group had nuclear family. Majority in both groups had completed only primary education, experimental (1.3%), control (57.3%). More than 80% mothers

were housewives in both the groups, 61.3 % mothers family income was less than Rs 5000 in experimental group whereas most (44%) in control group had an income of Rs. 10,000 to 15,000. There was no significant difference among the groups in terms of mothers' religion ($p=0.44$), residence ($p=0.51$), education ($p=0.79$) and occupation ($p=0.86$). There was significant difference in terms of mothers' family income ($p<0.001$) and family type ($p=0.004$).

With regard to obstetric characteristics of mothers it was evident that the groups were comparable in terms of gravida ($p=0.49$), mode of delivery ($p=0.32$) and sex of preterm baby ($p=0.27$). (Table 1)

III. Effectiveness of VAT on Breast feeding knowledge of mothers of preterm Baby between experimental and control group

Table 2 depicts that there was no significant difference between the mean pre-test knowledge scores ($p=0.13$) hence the groups were homogenous in terms of the pre intervention knowledge. There was a significant difference in the mean post-test knowledge scores of mothers of preterm babies and independent t value was found to be significant at 0.001 level ($t=19.63$, $p<0.001$). Hence the VAT was effective in improving the knowledge scores of mothers in the experimental group.

Table 1: Distribution of mothers obstetric characteristics

n = 150

Obstetric characteristics	Experimental Frequency (Percentage)	Control Frequency (Percentage)	Chi-square	p value
Gravida				
Primi	53 (53.3)	44 (58.7)	0.45	0.49
Multi	46 (46.7)	31 (41.3)		
Mode of delivery				
Normal	37 (49.3)	32 (42.7)	0.95	0.32
LSCS	36 (48.7)	43 (57.3)		
Sex				
Male	53 (69.3)	46 (61.3)	1.18	0.27
Female	23 (30.7)	29 (38.7)		

*Significance at $p<0.05$ level, $df=1$

IV. Effectiveness of VAT on Breastfeeding knowledge of mothers of preterm Baby within experimental and control group

Table 3 shows that there was a statistically significant difference between the mean pre and post test scores of mothers in the experimental group and t value was found to be significant ($t=19.68$, $p<0.001$) at 0.0001 level. Hence the VAT was effective in experimental group. In control group there was no significant difference and t value was non-significant, which indicates that there was no gain in knowledge of mothers in the control group

V. Effectiveness of VAT on Breast feeding

practice of mothers of preterm babies between experimental and control group

There was no significant difference between the mean pre-test breast feeding practice scores of mothers ($p=0.45$) hence the groups were homogenous in terms of the pre intervention practice regarding breast feeding. In the post test there was a significant difference in the mean pre and post-test practice scores of mothers of preterm babies and t value was found to be significant at 0.001 level ($t=0.11$, $p=0.001$). Hence the VAT was effective in improving the practice scores of mothers in the experimental group compared to the control group (Table 4)

Table 2 : Mean , SD, independent t value of pre-test and post-test knowledge scores of mothers of preterm babies between the experimental and control group

N=150

Knowledge	Group	Mean±SD	MD	Independent t value	p value
Pre-test	Exp (75)	7.23±2.22	0.54	1.50	0.13
	Control (75)	6.68±2.21			
Post-test	Exp (75)	15.31±3.05	8.68	19.63	<0.001**
	Cont (75)	6.88±2.21			

**Highly Significant at $p<0.001$ level

Table 3 : Mean , SD, paired t value of pre-test and post-test knowledge scores of mothers of preterm babies within the experimental and control group

n=150

Group	Test	Mean±SD	Paired t value	p value	95% Confidence Interval	
					Lower Limit	Upper Limit
Exp	Pre-test (75)	7.23±2.22	-19.68	<.001**	-7.28	-19.68
	Post-test (75)	15.31±3.05				
con	Pre-test (75)	6.63±2.29	0.22	0.82	-.42	-.53
	Post-test (75)	6.88±2.21				

** Highly Significance at $p<0.001$ level

Table 4: Mean, SD, Independent t value of pretest and posttest breast feeding practice score of mothers of preterm baby in experimental and control group

n=150

Test	Group	Mean±SD	MD	t value	p value
Pre test	Exp (75)	3.81±1.68	-0.74	0.27	0.45
	Control (75)	4.01±1.61			
Post test	Exp (75)	7.81±0.73	3.5	0.11	0.001*
	Control (75)	7.40±0.69			

*Significance at $p<0.05$ level

VI. Association of post-test knowledge and practice of mothers regarding breast feeding and selected their demographic variables in experimental group and control group

Chi-square test computed between the mothers post-test knowledge scores on breast feeding and the selected demographic variables of mothers in experimental and control group showed that there was no significant association between the level of knowledge and demographic variables like age, religion, residence, family, education, occupation, mode of delivery, gravida and sex of baby. There was significant association of knowledge with income in experimental group. There was a significant association between the mother's breastfeeding practice score and education of mothers in experimental group.

DISCUSSION

Breastfeeding is important because of the many benefits that it has for babies and mothers.. This study was the first study that assessed breastfeeding knowledge and practice among mothers of Preterm baby in India. There was a significant difference in the mean post-test knowledge scores of mothers of preterm babies in experimental (15.31±3.05) and control group (6.88±2.21) and t value was found to be significant at 0.001 level (t=19.63, p<0.001). With regard to practice there was a significant difference in the mean pre and post- test practice scores of mothers of preterm babies and t value was found to be significant at 0.001 level (t=0.11, p=0.001). Hence the VAT was effective in improving the knowledge and practice scores of mothers in the experimental group. This finding are consistent with other similar studies of Ahmed AH7, Manekar S8, and komal9 et al. Mothers of preterm infants need immediate support starting immediately after birth by highly health professionals.

CONCLUSION

Providing mothers with adequate information about breastfeeding and teaching them how to breastfeed

immediately after delivery is an effective way to encourage breastfeeding. Individual teaching and the use of VAT was effective. Thus, it is important as nurses to initiate and support mothers of preterm baby by providing teaching on breastfeeding.

CONFLICT OF INTEREST: None

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Original Article

Comparison of Lifestyle Pattern between Controlled and Uncontrolled Type- II Diabetes Mellitus Patients

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ABSTRACT

INTRODUCTION: Studies on Diabetes mellitus have shown that proper maintenance of healthy life style can control Type-II DM. Hence the study was undertaken with an objective to compare the lifestyle patterns between Controlled and Uncontrolled Type-II DM Diabetes mellitus patients.

METHODOLOGY: Across sectional descriptive research design was used. Using purposive sampling technique 50 Controlled Type II patients and 50 Uncontrolled Type II Diabetes Mellitus patients were selected. Both groups were assessed for their bio-physiological parameters and life style patterns using checklist through interview schedule.

RESULTS: The mean value of Controlled Type II DM was 11.86 with SD of 1.45, where as in Uncontrolled Type II DM, the mean value was 8.32 with SD of 1.80. The mean difference of lifestyle patterns of Controlled Type II DM patients 11.86 was more than mean difference of Uncontrolled Type II DM patients 8.32.

CONCLUSION: The study concluded that Controlled Type II DM patients following much better lifestyle patterns than Uncontrolled Type II DM patients. The present study recommends that regular counseling is required for Uncontrolled Type II Diabetes Mellitus patients in order to follow healthy lifestyle pattern.

KEY WORDS: Lifestyle patterns, Type-II DM patients, Controlled Type-II DM patients, Uncontrolled Type-II DM patients.

INTRODUCTION

Diabetes mellitus is a serious illness that imposes a tremendous health and social burden worldwide¹ and type-II diabetes mellitus is the leading cause of premature death. India is the diabetic capital of the world.² The high incidence of diabetes in India is mainly because of sedentary lifestyle, lack of

physical activity, obesity, stress and consumption of diets rich in fats, sugar and calories. Diabetes mellitus requires continuous care, as they require to exert some control over the maintenance of their disease, if they want to achieve stable health.³ A study on factors associated with poor glycemic control among patients with Type-II diabetes