



Evaluate The Effect Of Video Assisted Teaching Programme On Knowledge Of Mothers Regarding Parent Centered Developmental Care -A Pilot Study Report

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Abstract

The birth of preterm infant can turn the parents pleasure into pain. WHO report on preterm birth, half of babies born below 37 weeks die due to lack of cost effective care such as warmth, breast feeding support, basic care to prevent infection etc.. More than three quarters of these death could be prevented with current, cost-effective interventions. Evidence suggesting that parent involvement was beneficial for infant and parent outcome, the Parent centered developmental care was one of the pragmatic approaches to enable parents to become primary care givers in NICU.

Objective-To assess the existing level of Knowledge on Parent Centered Developmental Care among the control and experimental group mothers of preterm neonates admitted in NICU.

Methodology-Quantitative research approach and Quasi experimental design was adopted in this study. Simple random sampling Technique was adopted to select the sample for the study. Total 21 Samples - 10 for experimental group and 11 for control group were selected .

Result and Findings: Regarding demographic variable of Mother and newborn shows that highest number 3(30%) & 3(27.3%) of Women were in the age group of 31-35years. With regards to level of Knowledge of mothers result shows that during pretest mothers 9 (90%) had inadequate knowledge and 1(10%)had moderately adequate knowledge in the experimental group , 10(90%)mothers had inadequate knowledge and 1(10%)had adequate knowledge in the control group .

Whereas in post test 7(70%) mothers had a adequate knowledge and 3(30 %) had moderately adequate knowledge in the experimental group. none of the mothers were in group of inadequate knowledge. In the control group the same result of pretest 10(90%) had inadequate knowledge and 1(10%)had adequate knowledge regarding parent

<p>CC License CC-BY-NC-SA 4.0</p>	<p>centered developmental care.</p> <p>Conclusion</p> <p>This above result of the study clearly indicates that there was significant improvement in the level of Competency after teaching programme and thus the Video assisted teaching programme on PCDC was found effective in improving the level of Competency among mothers of Preterm neonates.</p> <p>“Being born to soon is unrecognized killer”</p>
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Introduction

Newborn is the gift given to a mother. Though child birth is a greatest happiness in life, the birth of preterm infant can turn the parents pleasure into pain. Over a few decades, advances in neonatal care have pushed down the age of viability resulting in survival of more extremely preterm infants. In 2018 Feb: WHO report on preterm birth, half of babies born below 37 weeks die due to lack of cost effective care such as warmth, breast feeding support, basic care to prevent infection etc.. More than three quarters of these death could be prevented with current, cost-effective interventions. Evidence suggesting that parent involvement was beneficial for infant and parent outcome, the Parent centered developmental care was one of the pragmatic approaches to enable parents to become primary care givers in NICU. [1-5]

Neonatal morbidity and mortality are recognized as a global public health challenge in developing countries. Globally, prematurity is the second leading cause of death in children under the age of 5 years. Every year, an estimated 15 million babies are born preterm and over 1 million infants die annually. Across 184 countries, the rate of preterm birth ranges from 5% to 18 % of babies born. Having a premature baby is claimed to be a challenging task for parents and family members of the child. Diagnosis of premature baby carries a wide range of reactions and feelings, especially for the mother, and it is closely connected to the entire family's life.[6-8] The situation creates emotional connection behaviour between caregiver and neonate admitted in NICU. Since the neonatal units focused upon technology-driven, parental participation in caring and decision making is limited. In the highly technological environment managed by trained health care professionals' parents are separated from their neonates. Separation leads to negative effects such as: Physiological instability, Developmental and behavioral problems. Parental mental health issues etc. [9-14]

PCDC is a low-cost innovation & an integral part of high quality neonatal care. (WHO-Recommendation). Parents with premature babies always require additional emotional support, clear and honest communication, and adequate resources to cope with their stress in facing the situation. Parental confidence in the care of the premature baby is vital in minimizing the hospital stay, reducing rate of readmission, reducing rate of unplanned visits to the emergency department. [15-18]

Objectives

- ❖ To assess the existing level of Knowledge on Parent Centered Developmental Care among the control and experimental group mothers of preterm neonates admitted in NICU.
- ❖ To evaluate the effectiveness of the Video Assisted Teaching programme regarding Parent Centered Developmental Care on Level of Knowledge in the experimental group compare to the control group mothers of preterm neonates admitted in NICU.
- ❖ To associate the posttest level of knowledge with their selected demographic and obstetric variables in the experimental group.

Hypothesis:

- H1: There is a significant difference between the pre and post test level of knowledge among mothers in the experimental and control group.
- H2: There is a significant association between the post test level of knowledge with their selected demographic and obstetric variables in the experimental group.

Methodology

Quantitative research approach and Quasi experimental design was adopted in this study. Simple random sampling Technique was adopted to select the sample for the study. Total 21 Samples - 10 for experimental group and 11 for control group were selected .

Criteria for the Selection of the Sample

Inclusion Criteria: -

Newborns:

- ✓ born after 33 weeks before 37 weeks.
- ✓ birth weight >1.5 kg to 2.5 kg.
- ✓ with non-invasive oxygen support.
- mothers who are willing to participate in the study.
- Present during the period of data collection.

Exclusion Criteria: -

Newborns:

- ✓ with life threatening congenital anomalies.
- ✓ are expected discharge less than 3 days.

Mothers with:

- viral respiratory infections, group A streptococcal infection.
- associated Complications like PIH, Bleeding, Sepsis, Seizure, Coma, etc

Development and Description of the Tool

The tool is prepared on the basis of objectives of the study and extended review of literature. Validity of the tool was established by consulting ten experts. The experts were requested to give their opinions and suggestions regarding the relevance of tool for further modification to improve the clarity and content of the terms.

Description of the tool- The tool consists of three section

Section A: Demographic and Obstetric data of mothers of Preterm neonates. The demographic data consists of totally 4 items which includes age, educational qualification, Occupation, Nationality, and the Obstetric variables includes 6 items which contains parity, type of delivery, Last child birth, previous H/O of low birth weight, previous H/o Preterm and H/o secondary diagnosis.

Section-B:

1) Self-administered Semi Structured Knowledge Questionnaire consists of 30 items of multiple-choice questions. Each question has three to four options. Out of 30 questions, 15 questions are with one most correct answer, and the remaining 15 questions are with multiple correct answers. The correct response carries 'one' score and for the wrong responses 'zero'. Total score is 61. The knowledge level of mother was categorized into adequate, moderately adequate and inadequate.

Interpretation for score:

Level of knowledge	score	Percentage %
Adequate	41-61	70-100
Moderately adequate	21-40	35- 69
Inadequate	0-20	0-34%

Data Collection Procedure

After obtaining formal permission from concerned authorities to conduct study, the investigator was introduced herself to the mothers of preterm neonates. The purpose of the study was clearly explained to the mothers and assured that the data will be kept confidentially. Informed and verbal consent was obtained from the individual mothers prior to data collection. The mothers had the right to withdraw from the study at any time.

Demographic and Obstetric Variables were collected by using questionnaire. The pretest for the level of knowledge of mothers were assessed on the first day after delivery for both experimental and control groups. Data regarding level of knowledge on parent centered developmental care, were collected by using self-administered semi structured questionnaire. It was given and collected back from mother once she has completed. Approximately 20- 30 minutes of time was spent with mother to collect the data.

After the pretest on the same day video assisted teaching program regarding parent centered developmental care given to the experimental group of mothers which includes Hand hygiene, Direct basic care, Kangaroo care, Neonatal contact, Feeding and communication, Posture and support position NICU environment (Low light and noise) were given to mothers for 30-45 minutes.

The post-test for level of knowledge was carried out with the same tool on the 8th day after pretest for both experimental & control group mothers.

Result and Findings:

Regarding demographic variable of Mother and newborn shows that highest number 3(30%) & 3(27.3%) of Women were in the age group of 31-35years. Around 30% & 27.3% of mother of experimental and control group had education upto graduation and professional course, 50% and 45.4% mothers from experimental and control group were home makers respectively. [tab-1]

With regards to Obstetric Variable majority 60% and 45.4% mothers had Caesarean section, 40% and 27.3% mother had previous history of LBW baby, 50% and 45.4% mothers had history of preterm birth respectively. [tab-1]

Table 1: Frequency and Percentage Distribution of Demographic and Obstetrical Variables of Mothers in the Experimental and Control Group.

n = 21(10+11)

Demographic Variables	Experimental Group		Control Group	
	Frequency	Percentage	Frequency	Percentage
Age of the mother				
Below 21 years	1	10.0	1	9.1
21 – 25 years	3	30.0	5	45.5
26 – 30 years	3	30.0	2	18.2
31 – 35 years	3	30.0	3	27.3
Above 35 years	-	-		
Educational status	Frequency	Percentage	Frequency	Percentage
High school	3	30.0	3	27.3
Diploma	2	20.0	3	27.3
Graduate	3	30.0	2	18.1
Professional qualification	2	20.0	3	27.3
Occupation of mother	Frequency	Percentage	Frequency	Percentage
Private sector	2	20.0	1	9.1
Government employee	2	20.0	4	36.4
Student	1	10.0	1	9.1
Home maker	5	50.0	6	45.4
Type of delivery	Frequency	Percentage	Frequency	Percentage
SVD	3	30.0	4	36.4
LSCS	6	60.0	5	45.4
Instrumental	1	10.0	2	18.2
Last child birth	Frequency	Percentage	Frequency	Percentage
Less than a year	-	-	-	-
13 – 24 months	4	40.0	5	45.4
25 – 36 months	3	30.0	3	27.3
More than 3 years	-	-	-	-
Primi	3	30.0	3	27.3
Previous history of LBW	Frequency	Percentage	Frequency	Percentage
Yes	4	40.0	3	27.3
No	3	30.0	5	45.4
Primi	3	30.0	3	27.3
Previous history of preterm	Frequency	Percentage	Frequency	Percentage
Yes	5	50.0	5	45.4
No	2	20.0	3	27.3
Primi	3	30.0	3	27.3
History of secondary diagnosis	Frequency	Percentage	Frequency	Percentage
Yes	7	70.0	9	81.8
No	3	30.0	2	18.2

With regards to level of Knowledge of mothers result shows that during pretest mothers 9 (90%) had inadequate knowledge and 1(10%)had moderately adequate knowledge in the experimental group , 10(90%)mothers had inadequate knowledge and 1(10%)had adequate knowledge in the control group . Whereas in post test 7(70%) mothers had a adequate knowledge and 3(30 %) had moderately adequate knowledge in the experimental group. none of the mothers were in group of inadequate knowledge. In the control group the same result of pretest 10(90%) had inadequate knowledge and 1(10%)had adequate knowledge regarding parent centered developmental care.

The above Result highlights that there is improvement in the knowledge during post test among experimental group is due to the video assisted teaching. Hence it shows that teaching programme is effective.

The control group pretest mean level of knowledge was 9.09 ± 6.43 and the post test mean is 9.09 ± 6.43 .The calculated 't' value -2.003was not significant at $p=0.05$ level.

In the experimental group the pretest mean level of knowledge was 9.30 ± 6.79 and post test mean level is 25.20 ± 3.08 . The calculated paired 't' value of $t=7.496$ was found to be statistically significant at $p=0.0001$ level. [tab-2]

Tab-2 Pretest and post test level of knowledge on parent centered developmental care among within experimental and control group
n= 10+11

Knowledge	Pretest		Post Test		Paired 't' Value
	Mean	S.D	Mean	S.D	
Experimental Group	9.30	6.79	25.20	3.08	$t=7.496$ $p=0.0001, S^{***}$
Control Group	9.09	6.43	9.09	6.43	$t = -2.003$ $p = 0.055, N.S$

*** $p<0.001, N.S$ – Not Significant

Further the comparison posttest level of knowledge between experiemental and control group reveals that there was statistically significant difference between the mean level of knowledge 25.20 ± 3.08 in the experimental group with control group posttest level of knowledge mean is 9.09 ± 6.43 . So, the t value is 7.427 with the p value of 0.0001.

Association of post test level of knowledge of mothers of preterm neonates with their selected demographic and obstetrics variables in the experimental group shows that there was no association between demographic and obstetrics variables. Hence it shows that the teaching programme on PCDC can be applicable to all the mothers of preterm neonates invariably according to their age, education, qualification and occupation to improve the knowledge level and competency level.

Conclusion

This above result of the study clearly indicates that there was significant improvement in the level of knowledge after teaching programme and thus the Video assisted teaching programme on PCDC was found effective in improving the level of knowledge among mothers of Preterm neonates.

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