

Effectiveness of Video Assisted Teaching Program (VATP) on Knowledge Regarding Essential Newborn Care (ENC) Among Primipara Mothers

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Abstract

A. Background: The divine gifts of newborns are at higher risk of mortality and severe morbidity than the infant and childhood period. The essential of newborn care combined with the identification and appropriate management of newborn complications is crucial to ensure optimal neonatal health outcomes. The primary aim of the study was to assess the effectiveness of a video-assisted teaching program (VATP) on knowledge regarding Essential Newborn Care (ENC) among primipara mothers.

B. Material and Methods: A quantitative, pre-experimental design was adopted for this study. Through a non-randomized convenient sampling technique, sixty primipara mothers were selected. The pre and post-test data were collected through a structured interview method with multiple-choice questionnaires. The collected data were analyzed by using descriptive and inferential statistics.

C. Results: Out of the 60 mothers in the pretest, 88 % had inadequate knowledge, and 12 % had moderate knowledge, whereas in post-test, 87 % had adequate knowledge, the remaining 13 % had moderate knowledge, and none of them had inadequate knowledge. The paired 't' test value between the overall pre and post-test was 33.65 shows a significant difference between the knowledge score at $p > 0.05^*$. The chi-square value reveals that the mother's age, education, type of family, and residence had a significant association with knowledge score.

D. Conclusion: The findings of the study show that the mean post-test knowledge score of 34.46 ± 3.44 was higher than the mean pretest knowledge score of 9.0 ± 2.85 . It depicts that, VATP was an effective method to increase the knowledge among primipara mothers regarding ENC.

Keywords - Video-Assisted Teaching Program (VATP), Knowledge, Newborn, Primi para mothers.

I. INTRODUCTION

The newborn arrival is one of the most fabulous moments of life for the parents and family. Principally the mother is the primary person to take more responsibility to care for the precious gift of the newborn in order to reduce mortality and morbidity.¹

The global issue of Neonatal Mortality Rate (NMR) is approximately more than 3.3 million in the world. According to WHO, only five countries account for more than half of newborn deaths, viz., India, Nigeria, Pakistan, China, and the Democratic Republic of Congo. 98% of neonatal mortalities occur in developing regions, 28% in the least developed countries. In India, out of 26 million babies born, around 0.75 million newborns died every year; it's the highest for any country in the world. Among this, 56 % occur mainly in Uttar Pradesh, Madhya Pradesh, Bihar, Rajasthan, Andhra Pradesh, and Telangana.²

According to World Bank, the IMR (per 1,000 live births) in India was 27.70 in 2015. The highest Neonatal Mortality Rate (NMR) in South India includes Telangana, and Andhra Pradesh, i.e., roughly 25 and 29 infants die for every 1,000 live births, respectively. In Kerala, the NMR is below 10; in Tamil Nadu, it's between 10 and 15; and in Karnataka, the number of deaths is 15 to 20 for 1,000 live births.³

The precious gift of all newborns requires certain ENC in order to minimize the risk of illness and maximize their growth and development. The components of ENC include; thermoregulation, Exclusive Breast Feeding (EBM), Umbilical cord care, Eyecare, and immunization aids to maintain warmth, reduce infections, promote immunity, increase weight gain and improve the overall health of the newborn. The chances of survival and well-being of a newborn began well before birth and continued through the postpartum period. Good care facilities, combined with



the identification and appropriate management of newborn complications, are necessary to ensure optimal neonatal health outcomes.⁴

A. Need for the study

According to WHO (2012) reported that preterm with low birth weight (35%), birth asphyxia (20%), sepsis (15%), pneumonia (6%), congenital malformations (9%), and other causes include diarrhea (5%) are major contributors to morbidity and mortality in survivors of the newborn. So, the WHO stressed that basic care like warmth, EBM, and prevention of infections is necessary to prevent neonatal mortality and morbidity.⁵

Before discharging newborns, instructions are given by nurses regarding bathing, feeding, and prevention of infections; but no video teaching cum demonstration is scheduled to impart knowledge to the mothers. So the investigator felt the need to conduct the study on knowledge among primipara mothers on newborn care by a video teaching method. This study aids in improving the knowledge, increase awareness, develop the self-confidence of mothers, and promotes increase health and survival of the newborns. This study also aims to achieve the India newborn Action plan target of single-digit NMR by 2030⁶

II. MATERIAL AND METHOD

The present study was conducted to evaluate the effectiveness of VATP on knowledge regarding ENC among primipara mothers who had caesarean section and were admitted in the postnatal ward of selected hospitals in Vellore, Tamilnadu. The pre-experimental design of one-group pretest and post-test design was adopted. The non-randomized convenient sampling technique was used to select the samples of sixty primipara mothers who were having newborns with an average weight of 2.6 to 3.5 kg are included. The exclusion criterion includes newborns with preterm, low birth weight, congenital anomalies, sick, and ventilator-supported babies.

After getting the informed consent, a pretest was conducted, and the same day investigator implemented a video-assisted teaching program followed by a demonstration. At the end of the program, 5-10 minutes were allotted for discussion. After 7 days, a post-test was conducted. The study is based on the concept of helping mothers to have adequate knowledge of ENC. So, the investigator adopted ‘Widenbach’s theory- Helping art of clinical nursing’ for the conceptual framework. It includes the stages of Identification, Ministration, and Validation stages.

A. Description of the Instrument

The structured interview questionnaires were prepared by the investigator based on the extensive review of kinds of literature, expert’s opinions, and the investigator’s personal experience. It consists of two sections. Section-I: Deals with the demographic variables of the subject. Section -II: It consists of 40 multiple choice questions with 6 sub-divisions.

The scores given for ENC questionnaires are as follows, for correct answer awarded for ‘1’ score and for wrong answer ‘0’ score. Based on the scores, the level of knowledge on ENC is inadequate knowledge less than 40%, moderate knowledge 40 – 60%, and adequate knowledge more than 60% of the score. The collected data were analyzed by using descriptive and inferential statistics and based on the objectives, and the results were interpreted.

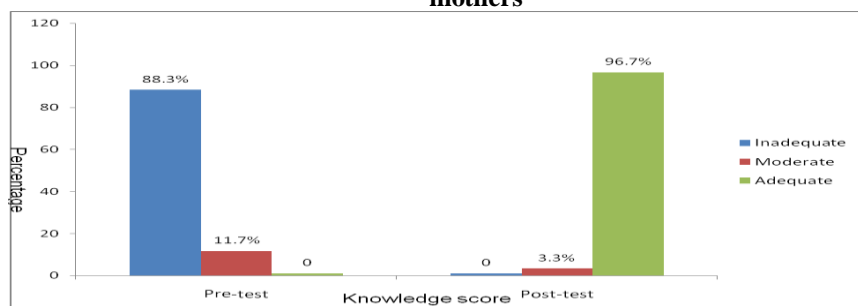
III. RESULTS

A. The pre and a post-test score of knowledge on ENC among primipara mothers,

✓ In the pretest, none of the mothers had adequate knowledge. Around twelve percent had moderate knowledge, and the remaining eighty-eight percent had inadequate knowledge regarding ENC.

✓ In the post-test ninety, seven percent of the mothers had adequate knowledge, the remaining 3% mothers had moderate knowledge, and none of the mothers have inadequate knowledge regarding ENC

Fig 1: The bar diagram shows the pre and post-test scores on knowledge regarding ENC among primipara mothers



B. The effectiveness of VATP on knowledge regarding ENC among primipara mothers,

In this study, the paired 't' test value between the overall pre and post-test was 33.65 shows the significant difference between the knowledge score in the pre and post-test at $P > 0.05^*$.

Table1: Shows the effectiveness of VATP and pre and the post-test mean score of specific aspects of ENC

S. No.	Aspects	Pre Test		Post Test		Improvement mean score	Paired 't' test
		Mean	S.D	Mean	S.D		
1	Knowledge about Newborn	1.30	0.81	3.73	0.58	2.43	23.89*
2	Thermoregulation	1.20	0.86	6.93	1.04	5.73	23.45*
3	E. Breast Feeding	2.20	1.08	7.13	1.00	4.9	22.16*
4	Immunization	0.85	0.76	4.75	0.75	3.9	22.81*
5	Prevention of Infection	1.95	0.79	7.62	0.83	5.67	27.66*
6	Follow - Up	1.50	0.62	4.30	0.51	2.8	20.97*
	Overall	9.0	2.85	34.46	3.44	25.44	33.65*

$P > 0.05^*$ significant

C. Association between demographic variables of primipara mothers with improvement score of overall knowledge regarding ENC.

There is a significant association between the overall improvement in the knowledge scores with demographic variables of mother's age, education, type of family, and residence.

Table 2: shows the association between the demographic variables of mothers with the improvement score of overall knowledge on preterm care

S. No.	Demographic Variables		No	Pretest –post test mean the difference	SD	ANOVA 'F' test
1	Mother's age	18-22 yrs	10	17.2	5.01	3.79 $P < 0.01^*$ (S)
		23-28 yrs	33	19.73	4.59	
		29-35 yrs	17	20.06	4.16	
2	Religion	Hindu	44	19.7	4.62	0.70 $P > 0.50$ (NS)
		Muslim	11	19.45	3.86	
		Christian	5	17.2	4.66	
3.	Mother's education	No formal education	19	16.16	3.91	3.32 $P < 0.03^*$ (S)
		Primary	22	19.73	4.64	
		Secondary	17	21.12	4.48	
		H secondary	2	22.5	2.12	
4.	Occupation	Employed	17	19.94	4.72	0.53 $P > 0.60$ (NS)
		Unemployed	43	19.26	4.42	
5.	Type of family	Joint	25	21.31	4.55	2.48 $P < 0.02^*$ (S)
		Nuclear	35	18.4	4.43	
6.	Residence	Rural	12	18.67	4.89	3.15 $P < 0.05^*$ (S)
		Suburban	41	19.02	4.33	
		Urban	7	23.29	2.93	

$P \leq 0.05^*$ Level of significance

NS-not significant

S-significant

IV. DISCUSSION

➤ The present study findings depicted that, in the pretest, none of the mothers had adequate knowledge, whereas, in the post-test, 97% of the mothers had adequate knowledge, the remaining 3% had moderate knowledge, and none of them had inadequate knowledge. This finding was supported by Oinam & Kharde⁷ and Shrishali B⁸ proved that the majority (83 %) of postnatal mothers had inadequate knowledge in pretest, whereas in post-test, 100% scored adequate knowledge.

➤ Regarding the effectiveness of VATP, the paired 't' test value between the overall pre and post-test was 33.65 showed the significant gained knowledge score at $P > 0.05^*$. It was also supported by Usha MB⁹ and other similar study findings^{7,8}.

➤ In regard to the association between demographic variables, the mother's age, education, type of family, and residence had a significant association at $P \leq 0.05^*$. A similar finding was supported by Misgna HG¹⁰ et al. identified that education and urban residence of mothers are significantly associated with knowledge score.

V. CONCLUSION

This study finding proved that there was a significant difference in the pretest knowledge score when compared with the post-test score. The mothers are only the first person to satisfy the needs of care by protecting, comforting, and nurturing their children. So, this "Video-Assisted Teaching Program" has a great influence among mothers about their knowledge to take care of newborn babies, which helps in reducing the morbidity and mortality rate and thus improving the quality of life.

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