



RESEARCH ARTICLE

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON PRETERM CARE AMONG THE MOTHERS OF PRETERM BABIES

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ABSTRACT

Introduction: Children are the precious gift of God. Dr. Abdul Kalam says, "Today's children are tomorrow's citizen and leaders". The resources spent on the care and health of the young are an investment of the future. The primary purpose of the study is to assess the knowledge, attitude and practices of mothers of preterm babies regarding preterm care and to evaluate the effectiveness of structured teaching programme on preterm care among the mothers of preterm babies and to correlate the knowledge attitude and practices of mothers of preterm babies with selected demographic variables.

Methods: A quasi experimental study design was used to evaluate the effectiveness of the structured teaching programme on "Preterm care among the mothers of preterm babies admitted in Neonatal Intensive Care and Referral New born unit at RMMCH, Chidambaram". A structured questionnaire was used to assess the knowledge, attitude and practices among 30 mothers of preterm babies regarding definition, causes, temperature regulation, nutritional requirements and infection control among the mothers of preterm babies. Conceptual framework used for the study was General System Theory.

Results: The pretest revealed that the mother's knowledge on preterm care was zero (0%) After structured teaching programme majority of the mothers knowledge on preterm care was improved to 90%. The favorable attitude towards preterm care before structured teaching programme was zero (0%). It became 100% after structured teaching programme. The good health practices in relation to preterm care before structured teaching programme was only 30%. It became 93.3% after the structured teaching programme.

Conclusion: This study demonstrated that the knowledge, attitude and practices of the mother was inadequate and poor before structured teaching programme. After structured teaching programme the knowledge, attitude and practice were increased significantly.

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INTRODUCTION

About 10-12% of Indian babies are born preterm. Babies born before 37 weeks are called preterm infants (Singh, 2002). For the preterm baby, especially neonatal period is indeed a critical time in life. Adequate care is essential for preterm babies for providing warmth, feeding, bathing, clothing and care of umbilical cord. The goals of the preterm care are to promote normal growth and development and to minimize morbidity and mortality (Daud, 1998). Infections are an important cause of neonatal mortality in low birth babies. The low level of IgG antibodies and inefficient cellular immunity predispose them to infection. Excessive handling, humidity and warm atmosphere,

contaminated incubators and resuscitators expose them to infecting organism thus contributing to high incidence of morbidity and mortality (Singh, 2005). Educating mothers regarding preterm care have been found to be a valuable measure in reducing stress and anxiety, and improving maternal confidence in patient care giving. Hypothermia and nosocomial infection are frequent and aggravating the poor outcome due to prematurity (Susan BakewellSachs, 2000).

Statement of the problem

A study to assess the effectiveness of structured teaching programme on preterm care among the mothers of preterm babies admitted in neonatal intensive care unit/referral new born unit of Raja Muthiah Medical College & Hospital at Chidambaram.

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Objectives

- To assess the knowledge, attitude and practices of mothers of preterm babies regarding preterm care.
- To evaluate the effectiveness of structured teaching programme on preterm care among the mothers of preterm babies.
- To correlate the knowledge attitude and practices of mothers of preterm babies with selected demographic variables

Hypothesis

- The mean post-test knowledge score regarding preterm care will be significantly higher than the mean pretest score of mothers of preterm babies who had structured teaching programme.
- There will be an association between the demographic variables with knowledge of preterm care among the mothers of preterm babies.

MATERIALS AND METHODS

A quasi experimental study design was used to evaluate the effectiveness of the structured teaching programme on “Preterm care among the mothers of preterm babies admitted in Neonatal Intensive Care and Referral New born unit at RMMCH, Chidambaram”. A structured questionnaire was used to assess the knowledge, attitude and practices among 30 mothers of preterm babies selected by convenient sampling technique regarding definition, causes, temperature regulation, nutritional requirements and infection control among the mothers of preterm babies. Conceptual framework used for the study was General System Theory. The setting of the study was Neonatal Intensive Care Unit (NICU)/Referral New Born Unit of Raja Muthiah Medical College and Hospital, Chidambaram and the population was mothers of preterm babies who are admitted in NICU. Structured questionnaire was prepared based on the objectives of the study by the investigator after reviewing literature on preterm care and considering the opinion of the medical and nursing subject experts. Data collection instruments were structured questionnaire (pretest and post-test), structured teaching programme (Intervention). The total score for knowledge, attitude and practices is 100, which if adequate 75-100%, moderately adequate 51-74% and inadequate < 50% scores are given

Criteria for Selection of Samples

Inclusion criteria

- Mothers of preterm babies whose weight is between 1500-2000 gms
- Mothers of preterm babies who are willing to participate
- Mothers of preterm babies who can speak tamil

Exclusion criteria

- Mothers of preterm babies with congenital anomalies

Ethics and consent

After getting Human ethical committee clearance and permission from institution and respective units, informed

consent has taken from mothers of preterm neonates and the confidentiality has maintained. The investigator first established a rapport with the mothers. The purpose of the study was explained. It was assured to them that all the data will be kept strictly confidential and used only for this study purpose and obtained the informed consent. Followed the ethical principles and data collection was started.

RESULTS

Study results were computed using descriptive and inferential statistics.

Table 1. Frequency and Percentage Distribution of Samples According to Demographic Variables (N = 30)

Demographic Variables	Frequency	Percentage
Gender of neonate:		
Male	14	46.7
Female	16	53.3
Order of birth		
I	7	23.3
II	22	73.3
III	01	3.3
Place:		
Rural	01	3.3
Urban	29	96.7
Education(Father):		
Educated	28	93.3
Uneducated	02	6.7
Education(Mother):		
Educated	27	90
Uneducated	03	10
Occupation (Father):	30	100
Employed		
Occupation (Mother):		
Employed	09	30
Unemployed	21	70

Table 1 is self explanatory.

Table 2. Level of Knowledge of Subjects in Pre Test and Post Test (N = 30)

Level of knowledge	Pre-test		Post-test	
	No	Percentage	No	Percentage
Inadequate	30	100	—	—
Moderately adequate	0	0	3	10
Adequate	0	0	27	90

Table 2 showed that all (100%) the subjects have inadequate knowledge in the pretest and have acquired adequate knowledge 27(90%) in post-test.

Table 3. Level of Attitude of subjects in Pre test and Post test (N = 30)

Level of Attitude	Pre-test		Post-test	
	No	Percentage	No	Percentage
Unfavourable	30	100	—	—
Favourable	0	0	30	100

Table 3 revealed the poor attitude towards preterm care in pretest and the good attitude in post test.

Table 4. Level of good health practices of subjects in pre test and post test

Level of knowledge	pre-test		Post-test	
	No	Percentage	No	Percentage
Adequate	9	30	28	93.3
Moderately Adequate	21	70	2	6.7
Inadequate	0	0	—	—

Table 4 showed that 93.3% of the subjects have developed good health practices in post test

Table 5. Comparison of mean, s.d. value of pretest and post test Knowledgescore on preterm care

Group	Mean	SD	Mean Changes	t Value	p Value
Pre-test	20.0	3.1	27.8	37.7	< 0.001
Post-test	47.8	2.6			

Table 5 showed that after attending the teaching programme the mothers knowledge level has increased, which is statistically significant ($p < 0.001$)

Table 6. Comparison of mean, s.d. value of pretest and post test Attitude score on preterm care

Group	Mean	SD	Mean Changes	t Value	p Value
Pre-test	6.9	1.0	9.4	39.6	< 0.001
Post-test	16.4	1.3			

Table 6 showed statistically significant ($p < 0.001$) level of mothers attitude after attending the teaching programme

Table 7. Comparison of mean, s.d. value of pretest and post test practice score on preterm care (N=30)

Group	Mean	SD	Mean Changes	t Value	p Value
Pre-test	8.6	1.7	8.5	32.38	< 0.001
Post-test	17.1	1.5			

Table 7 showed that after attending the teaching programme the mothers practice level has increased, which is statistically significant ($p < 0.001$)

Table 8. Mean, s.d of subjects pre/post-test knowledge gain with respect to their demographic variables

Demographic level	No.of subjects	Mean	S.D	t-value	LS
Education of the mother				0.39	
Uneducated	3	28.7	3.8		N.S
Educated	27	27.8	4.1		
Type of family				1.5	
Nuclear	23	27.2	4.3		N.S
Joint	7	29.9	2.3		
Occupation of the mother				0.408	
Unemployed	21	28.0	3.8		N.S
Employed	9	27.3	4.8		

LS-Level of significant, NS-Not Significant

Table 8 revealed that there is no significant difference between the education of mothers and their knowledge gain about preterm care, since the calculated value (0.39) is not significant.

Table 9 revealed that there is no significant difference between the attitude gain about preterm care, since the calculated value (0.39) is not significant.

Table 10 revealed that there is no significant difference regarding knowledge gain about preterm care, since the calculated value (0.39) is not significant.

Table 9. Mean, s.d of subjects pre/post-test attitude gain with respect to their demographic variables

Demographic level	No.of subjects	Mean	S.D	t-Value	LS
Education of the mother				0.32	
Uneducated	3	9.67	0.58		N.S
Educated	27	9.40	1.37		
Type of family				0.315	
Nuclear	23	9.4	1.4		N.S
Joint	7	9.6	0.97		
Occupation of the mother				0.331	
Unemployed	21	9.4	1.4		
Employed	9	9.6	1.1		N.S

LS-Level of significant, NS-Not Significant

Table 10. Mean, s.d of subjects pre/post-test practice gain with respect to their demographic variables

Demographic level	No.of subjects	Mean	S.D	t-Value	LS
Education of the mother				1.109	
Uneducated	3	9.3	1.2		N.S
Educated	27	8.4	1.4		
Type of family				1.131	
Nuclear	23	8.3	1.4		N.S
Joint	7	9.0	1.4		
Occupation of the mother				0.605	
Unemployed	21	8.6	1.5		N.S
Employed	9	8.2	1.3		

LS-Level of significant, NS-Not Significant

DISCUSSION

The first objective is to assess the knowledge, attitude and practices of mothers of preterm babies regarding preterm care and study revealed that structured teaching programme was effective in improving the knowledge, attitude and practice. JeyaGowriSubash (2007) in her study on antenatal care education revealed that the knowledge score improvement regarding antenatal care among the mothers in the study group was statistically significant. The association between antenatal health education and perinatal outcome like birth weight, gestational age and perinatal mortality was statistically significant. *The second objective* of this study is to evaluate the effectiveness of structured teaching programme on preterm care. It showed that there is a significant increase in the level of knowledge, attitude and practice of the subject on preterm care in the post test, compared to the pretest which is confirmed with ' $p > 0.001$ ' level.

This is consistent with Chen YJ et al 1988 study of the effectiveness of videotape education on preterm mothers knowledge, confidence, perceived stress and social support. The findings indicated that mothers who received video tape education reported to have higher knowledge and confidence of caring for their preterm babies than mothers who were in the control group. *The third objective* of this study is to correlate the knowledge attitude and practices on preterm care with demographic variables. The scores were compared with demographic variables by the 't' test method. Result proved that there is no significant relationship exist between knowledge, attitude and practices of mothers of preterm care with demographic variable, which is confirmed with paired 't' test at ' $p < 0.001$ ' level. The TNAI(2005) conducted a study on knowledge, attitude and practice of employed mothers on breastfeed in and around Mangalore city. The result revealed

that a highly significant association was found between a type of employment with knowledge scores and significant association between education status with knowledge score. A significant association was found with education status, type of employment and source of information with attitude score. Highly significant association was found between type of employment and practice scores and between educational status, and parity with practice scores.

Conclusion

The present study assessed the knowledge, attitude and practices of mothers regarding preterm care and found that mothers have inadequate knowledge, unfavorable attitude and poor health practices regarding preterm care. After the structured teaching programme on preterm care, there was a significant improvement in mothers knowledge attitude and practice regarding preterm care. The study concluded that the structured teaching programme was effective in improving the knowledge, attitude and practices on preterm care among mothers of preterm babies.

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