Effectiveness Of Teaching Programme on Knowledge, Attitude and Practice Regarding Neonatal Care at Home Among Mothers at Hospital, Vadodara City."

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Abstract

Background: Children are vital to the nation's present and future. Parents are usually committed to provide every advantage possible to the children in their families, and to ensure that they are healthy and have the opportunities that they need to fulfill their likely. The care of neonates in the family is governed by the family's knowledge, awareness and cultural practices. The baby's health, while in the womb, depends on health of the mother. But after being born, survival, health and growth depends mainly on the mother's knowledge of child rearing practices and the immediate environment in which the family lives. The mother's knowledge, Attitude and the practices play a crucial role in safeguard the health and enhancing the newborn's adaptation to the environment. Basic care should be provided to the new born by the mother at home. This includes caring, feeding, basic hygiene and identification of danger signs and seeking help from health personnel whenever required. Each year nearly 7.7 million children under five years die around the world; out of which approximately 3.1 million of the newborns die during the neonatal period and almost all these (99%) deaths occur in the developing countries. According to the World Health Organization's estimation neonatal deaths account for 45% of the under-five deaths. More than one-third of these deaths occur in the first 24 hours of birth, whereas three-quarter of the neonatal deaths takes place in the first seven days of birth.

Aim: The main aim of this study was to assess the effectiveness of Teaching Programme regarding Neonatal care at home and to educating the mothers at some extent.

Objectives: To assess the pre-test and post-test knowledge score regarding neonatal care at home among mothers.
To assess the pre-test and post-test attitude score regarding neonatal care at home among mothers.
To assess the pre-test and post-test Practice score regarding neonatal care at home among mothers.
To evaluate the effectiveness of Structure Teaching Programme.
To associate the mean difference before and after the level of knowledge, attitude and Practice.

Methodology: The Quasi-experimental one group pre-test and post-test design was adopted. The 40 mothers were from the Hospital, Vadodara city by non-probability convenient sampling technique.
The written setting permission was taken from the medical officer of Hospital for data collection. The prior consent form was also signed by the mothers for the study.
The tool was developed by four sections:
Section I: Socio-Demographic Data.
Section II: Structured Knowledge Questionnaires.
Section III: Likert Attitude Scale.
Section IV: Checklist Questionnaires for Practice.
The data were analyzed by using the SPSS Software. The frequency and percentage distribution are used to assess the demographic variables and the mean and standard deviation are used to describe the knowledge, attitude and Practice regarding Neonatal care at home. The paired t-test was used to compare pre and post test score, Chi-square test was used to determine the association between mean differences.

Results: Out of 40 samples, 55.0% (22) belong to age 26-30 years, 70.0% (28) belong to Hindu religion, 32.5% (13) was secondary school educated, 50.0% (20) from rural area, 100.0% (40) have first delivery, 52.5% (21) income is 5001-10000 rupees, 50.0% (20) was Housewife, 45.0% (18) has vaginal delivery, 45.0% (18) belong to 7th – 14th day, 52.5% (21) was female child, 30.0% (12) has weight is 2.6 to 3.0kg. and (24) 60.0% belongs to joint family. The paired t-test value was 8.069, 3.369 and 4.127. Hence, there exists significance effectiveness on level of knowledge, attitude and practice before and after administration of structure teaching programme among mothers. There is no significant relationship between all the variables regarding Neonatal care at home after structure teaching programme among mothers.

Conclusion: The study concludes that after the teaching programme intervention, 22.50% (9) mothers had moderately adequate knowledge, none of them had inadequate knowledge and 77.50% (31) had adequate knowledge regarding Neonatal care at home. 15.0% (6) mother had moderately favorable attitude, none of them had unfavorable attitude, and 85.0% (34) mother had favorable attitude. 12.5% (5) mother had

average Practice, none of them had poor Practice, and 87.5% (35) mothers had good Practice regarding Neonatal care at home among mothers.

Keywords: Knowledge, Attitude, Practice, Neonatal care at home, Mothers, Hospital

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INTRODUCTION

Children are vital to the nation's present and future. Parents are usually committed to provide every advantage possible to the children in their families, and to ensure that they are healthy and have the opportunities that they need to fulfill their potential. Healthy children are more likely to become healthy adults. Promotion of health today requires consideration of the overall status of children, not just identification and treatment of specific diseases or injuries. Hence the care of children at birth plays a vital role [1].

The birth of a baby is a momentous occasion: tiny details of experiences surrounding the whole event are etched in memory forever. Care during childbirth is those essential but un measurable components of care that count even though they cannot be counted the empathy and judgment that permits care to be personalized for each woman and her family [2]. WHO estimates that over 4 million babies die every year in first 4 weeks of life. 3 million of these deaths occur in the early neonatal period. In India alone of the 25million babies who are born every year one million die, accounting for 25% of the mortality around the world. This is so even though India has managed to cut the under- five mortality rate from 117 per 1,000 live births in 1990 to 72 in2007. The current Neonatal Mortality Rate (NMR)is approximately 44/1000 live births, accounting for almost two-thirds of infant mortality and one-half of under-5 years Mortality. The NMR is also one and a half times higher in rural areas than in urban areas. The rate of neonatal mortality varies widely among the different states of India ranging from 11per 1000 live births in Kerala to about 48 in Uttar Pradesh. The states of Uttar Pradesh, Madhya Pradesh and Bihar together contributed to over half of all newborn deaths in 2020 [5].

Objectives

To assess the knowledge of mothers before and after administration of a teaching programme on neonatal care at home among the mothers at Hospital, Vadodara city.

To assess the attitude of mothers before and after administration of a teaching programme on neonatal care at home among the mothers at Hospital, Vadodara city.

To assess the practice of mothers before and after administration of a teaching programme on neonatal care at home among the mothers at Hospital, Vadodara city.

To compare the pre-test and post test knowledge, attitude and practice regarding neonatal care at home among the mothers at Hospital, Vadodara city.

To find out the association between knowledge, attitude and practice regarding neonatal care at home among the mothers at Hospital, Vadodara city.

Hypotheses

H1: The mean post-test knowledge scores of mothers will be significantly higher than their mean pre-test knowledge score after the administration of structured questionnaire on neonatal care at home among mothers as evident from the structured knowledge questionnaire at 0.05 level of significance.

H2: The mean post-test Attitude scores of mothers will be significantly higher than their mean pre-test attitude score after the administration of attitude scale on neonatal care at home among mothers as evident from the attitude scale at 0.05 level of significance.

H3: The mean post-test practice scores of mothers will be significantly higher than their mean pre- test knowledge score after the administration of practice checklist on neonatal care at home among mothers as evident from the practice checklist at 0.05 level of significance.

H4: There will be significant association difference between the level of knowledge, attitude and practice regarding neonatal care at home among the mothers with their selected demographic variables.

Material And Method

Research Approach: Quantitative research approach.

Research Design: Quasi - Experimental research design. (One group pre-test and post-test.)

Research Variables:

Independent Variable: teaching programme regarding Neonatal care at home.

Dependent Variable: Knowledge, attitude, and Practice of neonatal care at home.

Demographic Variable: Age, Religion, Educational Status, Residential status, Parity status of mothers, Family Monthly Income, Occupation, types of delivery, Age of the neonate, Gender of child, Weight of the child, types of family.

Population: Mothers.

Research Setting: The present study was conducted at Kashiben Gordhanbhai Hospital, Vadodara city.

Sampling Technique: Non-probability convenient sampling technique.

Sample Size: 40 mothers.

Sample Criteria:

Inclusion Criteria:

Postnatal mothers who:

Are willing to participate in the study.

Are available at the time of data collection.

It involves Primi Para Mothers of Neonate.

Exclusion Criteria:

Mothers who will not be available at the time of data collection.

Tool for Data Collection:

Section-I: Consist of Demographic variables.

Section-II: Consist of structured knowledge questionnaires related to Neonatal care.

Section-III: Consist of 5 Point Likert attitude scale to assess attitude of mothers.

Section-IV: Consist of checklist Practice Questionnaires related to Neonatal care.

Statistical Analysis

Statistical data were analyzed by Statistical Package for the Social Sciences (SPSS) software. The frequency and percentage distribution are categorized to assess the demographic variables and the mean and standard deviation are used to describe the knowledge, attitude and Practice regarding Neonatal care at home. The paired t-test was used to compare pre test and post test score and Chi-square test was used to determine the association between mean differences.

Result

Section I: Analysis of Socio-demographic characteristics of mothers.

Table 1: Analysis of the socio demographic variables of the mothers.

DEMOGRAPHIC DATA	F	%
Age of the mother 18 - 25 Years 26-30 Years 31 -36 Years Above 36 Years	14 22 04 00	35.0 % 55.0 % 10.0 % 00.0 %
Religion Of Mother Hindu Muslim Christian Others	28 07 05 00	70.0 % 17.5% 12.5% 0.0%
Education Status of Mother Non- Formal education Primary education Secondary School Higher secondary Graduation and above	01 13 13 09 04	2.5% 32.5% 32.5% 22.5% 10.0%
Residential Status of Mothers Rural Areas Urban Areas Semi-Urban Areas	20 14 06	50.0% 35.0 % 15.0 %
Parity status of Mother First Delivery Second Delivery Third Delivery Fourth Delivery and above	40 0 0 0	100.0% 00.0% 00.0% 00.0%
Family Monthly Income in Rupees Below 5000 Rupees 5001-10000 Rupees 10001-15000 Rupees More than 15000 Rupees	09 21 06 04	22.5% 52.5% 15.0% 10.0%
Occupation House wife Coolie/Labor work Private job Government job Business	20 09 03 08 00	50.0% 22.5% 7.5% 20.0% 0.0%
Types of Delivery Vaginal Delivery Instrumental delivery LSCS (Lower Segment Caesarean Section)	18 09 13	45.0% 22.5% 32.5%
Age of the Neonate 1st day – 6th day 7th day – 14th day 15th day – 21st day 22nd day – 29th days	07 18 10 05	17.5% 45.0% 25.0% 12.5%
Gender of the child Male	19 21	47.5% 52.5%

Female		
Weight of the child 02 – 2.5 Kg 2.6 – 3.0 Kg 3.1 – 3.5 Kg Above 3.5 Kg	10 12 12 06	25.0% 30.0% 30.0% 15.0 %
Types of family Joint Family Nuclear Family	 24 16	 60.0% 40.0%

(F = Frequency and % = Percentage)

Section II: Analysis of knowledge, attitude and practice of Neonatal care at home among mother before administration of teaching programme.

Table 2: Range, Mean, Standard Deviation and Mean Percentage of Pre-test knowledge, attitude and practice regarding neonatal care at home among mothers.

	Max	Pre-test Score				
		Min-Max	R	M	SD	V
Knowledge	34	7-24	17	17.33	5.03	25.3
Attitude	100	60-83	23	74.7	5.24	27.49
Practice	14	8-14	6	10.92	1.71	2.94

(Max=Maximum, Min=Minimum, R=Range, M=Mean, SD=Standard Deviation, V=Variance)

Section III: Analysis of knowledge, attitude and practice of neonatal care at home among mother after administration of teaching practice.

Table 3: Range, Mean, Standard Deviation and Mean Percentage of Post-test knowledge, attitude and Practice regarding selected neonatal care at home among mothers.

	Max	Post-test Score				
		Min-Max	R	M	SD	V
Knowledge	34	20 – 29	9	24.87	1.93	3.75
Attitude	100	63-87	24	79.1	7.3	53.37
Practice	14	10-14	4	12.25	1.27	1.62

(Max=Maximum, Min=Minimum, R=Range, M=Mean, SD=Standard Deviation, V=Variance)

Section IV: Analysis of knowledge, attitude and utilization of neonatal care at home among mother before and after administration of teaching programme.

Table 4: Frequency and percentage distribution of mothers according to Pre-test and Post-test level of knowledge regarding Neonatal care at home.

Level of knowledge	Before Structure Teaching Programme		After Structure Teaching Programme	
	No.	%	No.	%
Inadequate (<50%)	05	12.50	00	0.0
Moderately adequate (50-75%)	33	82.50	28	22.50
Adequate (>75%)	02	5.0	32	77.50
Total	40	100	40	100

(No. =Number, % = Percentage)

Table 5: Frequency and percentage distribution of mothers according to Pre-test and Post-test level of attitude regarding neonatal care at home.

Level of attitude	Before Educational Package		After Educational Package	
	No.	%	No.	%
Unfavourable (<50%)	0	0.0	00	0.0
Moderately favourable (50-75%)	32	80.0	6	15.0
Favourable (>75%)	8	20.0	34	85.0
Total	40	100	40	100

(No. =Number, % = Percentage)

Table 6: Frequency and percentage distribution of mothers according to Pre-test and Post-test level of practice regarding neonatal care at home.

Level of practice	Before Structure Teaching programme		After Structure Teaching Programme	
	No.	%	No.	%
Poor (<50%)	00	0.0	00	0.0
Average (50-75%)	18	45.0	5	12.5
Good (>75%)	22	55.0	35	87.5
Total	40	100	40	100

(No. =Number, % = Percentage)

Section V: Analysis of effectiveness (Paired t test) of educational package on knowledge, attitude and practice regarding Neonatal care at home among mothers.

Table 7: Paired t-test analysis for the significance of pre-test and post-test knowledge, attitude and practice regarding neonatal care at home among mothers.

	Max	Enhancement		Paired t test	P-value
		Mean	SD		
Knowledge	34	7.54	2.03	8.069** S df= 39	p<0.05 Sig.= 0.00
Attitude	100	4.4	8.26	3.369** S df= 39	p<0.05 Sig.= 0.00
Practice	14	1.32	5.91	4.127** S df= 39	p<0.05 Sig.= 0.00

(Max=Maximum, SD=Standard Deviation, Note: *= denotes significant at 0.05 level at (i.e. p<0.05))

The outcome of paired t-test analysis carried over to assess the statistical significance of pre-test and post-test mean score of knowledge, attitude and practice regarding neonatal care at home. Hence the above table shows that there was significance effectiveness on level of knowledge, attitude and practice before and after administration of teaching programme among mothers.

Section VI: Analysis of association of pre-test knowledge, attitude & Practice scores of mothers with their selected demographic variables.

Table 8: Association between pre-test knowledge score regarding neonatal care at home among mothers with their selected demographic variables.

KNOWLEDGE		Pre-Test Knowledge			Total	Chi Square	DF	Table Value	Sig/Non Sig
		Moderate	adequate	Inadequate					
Age of Mother (In Year)	18 to 25years	13	0	1	14	10.169	4	9.49	P<0.05 Sig
	26 to 30years	19	2	2	23				
	31 to 36years	1	0	2	3				
Religion	Hindu	23	0	5	28	16.71	4	9.49	P<0.05 Sig
	Christian	7	0	0	7				
	Muslim	3	2	0	5				
Educational status of the mother	None-formal education	1	0	0	1	27.385	8	15.51	P<0.05 Sig
	Primary School	13	0	1	14				
	Secondary School	11	0	2	13				
	Higher Secondary	7	0	2	9				
	Graduation and above	1	2	0	3				
Residential status of the mother	Rural area	13	1	2	16	1.638	4	9.49	P>0.05 Non Sig
	Urban Area	14	1	3	18				
	Semi-Urban area	6	0	0	6				
Parity status of the mother	First delivery	33	2	5	40	Cant Be Computed			
Family Monthly Income	Below 5,000 Rupees	3	0	1	4	3.523	6	12.59	P>0.05 Non Sig
	5,001 to10,000Rupees	16	2	3	21				
	10,001 to15,000 Rupees	6	0	0	6				
	More than15,000 Rupees	8	0	1	9				
Occupation of the mother	House wife	17	0	3	20	3.145	6	12.59	P>0.05 Non Sig
	Coolie/Labour work	7	1	1	9				
	Private Job	3	0	0	3				
	Govt. job	6	1	1	8				
Type of delivery	Vaginal delivery	15	2	4	21	4.521	4	9.49	P>0.05 Non Sig
	Instrumental delivery	8	0	1	9				

	Lower segment cesarean section (LSCS	10	0	0	10				
Age of the Neonatal	1stday-6thday	7	0	0	7	5.665	6	12.59	P>0.05 Non Sig
	7thday-14thday	15	1	2	18				
	15thday-21stday	8	1	1	10				
	22ndday-28thday	3	0	2	5				
Gender of the child	Male	18	1	4	23	1.2	2	5.99	P>0.05 Non Sig
	Female	15	1	1	17				
Weight of the child	02 to 2.5 Kg	7	1	2	10	8.545	6	12.59	P>0.05 Non Sig
	2.6 to 3.0 Kg	19	0	3	22				
	. 3.1 to 3.5 Kg	2	1	0	3				
	Above 3.5 Kg	5	0	0	5				
Types of Family	Joint Family	22	0	5	27	6.572	2	5.99	P<0.05 Sig
	Nuclear family	11	2	0	13				

Table 9: Association between pre-test attitude score regarding neonatal care at home among mothers with their selected demographic variables.

ATTITUDE		Pre-Test Attitude		Total	Chi Square	DF	Table Value	Sig/Non Sig
		Favorable	Moderate Favorable					
Age of Mother (In Year)	18 to 25years	12	2	14	0.663	2	5.99	P>0.05 Non Sig
	26 to 30years	21	2	23				
	31 to 36years	3	0	3				
Religion	Hindu	25	3	28	0.714	2	5.99	P>0.05 Non Sig
	Christian	6	1	7				
	Muslim	5	0	5				
Educational status of the mother	None-formal education	0	1	1	11.32	4	9.49	P<0.05 Sig
	Primary School	14	0	14				
	Secondary School	11	2	13				
	Higher Secondary	8	1	9				
	Graduation and above	3	0	3				
Residential status of the mother	Rural area	15	1	16	1.806	2	5.99	P>0.05 Non Sig
	Urban Area	15	3	18				
	Semi-Urban area	6	0	6				
Parity status of the	First delivery	36	4	40	Cant Be Computed			

mother								
Family Monthly Income	Below 5,000 Rupees	2	2	4	8.783	3	7.82	P<0.05 Sig
	5,001 to10,000Rupees	19	2	21				
	10,001 to15,000 Rupees	6	0	6				
	More than15,000 Rupees	9	0	9				
Occupation of the mother	House wife	18	2	20	0.401	3	7.82	P>0.05 Non Sig
	Coolie/Labour work	8	1	9				
	Private Job	3	0	3				
	Govt. job	7	1	8				
Type of delivery	Vaginal delivery	19	2	21	2.61	2	5.99	P>0.05 Non Sig
	Instrumental delivery	7	2	9				
	Lower segment cesarean section (LSCS)	10	0	10				
Age of the Neonatal	1st day-6th day	7	0	7	1.358	3	7.82	P>0.05 Non Sig
	7th day-14th day	16	2	18				
	15th day-21st day	9	1	10				
	22nd day-28th day	4	1	5				
Gender of the child	Male	21	2	23	0.102	1	3.84	P>0.05 Non Sig
	Female	15	2	17				
Weight of the child	02 to 2.5 Kg	9	1	10	2.391	3	7.82	P>0.05 Non Sig
	2.6 to 3.0 Kg	20	2	22				
	. 3.1 to 3.5 Kg	2	1	3				
	Above 3.5 Kg	5	0	5				
Types of Family	Joint Family	23	4	27	2.14	1	3.84	P>0.05 Non Sig
	Nuclear family	13	0	13				

Table 10: Association between pre-test Practice score regarding neonatal care at home among mothers with their selected demographic variables.

		Pre Test Practice		Total	Chi Square	DF	Table Value	Sig/Non Sig
		Average	Good					
Age of Mother (In Year)	18 to 25years	6	8	14	4.013	2	5.99	P>0.05 Non Sig
	26 to 30years	9	14	23				
	31 to 36years	3	0	3				
Religion	Hindu	9	19	28	6.32	2	5.99	P<0.05 Sig
	Christian	5	2	7				
	Muslim	4	1	5				
Educational status of the	None-formal education	1	0	1	6.845	4	9.49	P>0.05 Non Sig

mother	Primary School	5	9	14				
	Secondary School	4	9	13				
	Higher Secondary	5	4	9				
	Graduation and above	3	0	3				
Residential status of the mother	Rural area	8	8	16	0.494	2	5.99	P>0.05 Non Sig
	Urban Area	7	11	18				
	Semi-Urban area	3	3	6				
Parity status of the mother	First delivery	18	22	40	Cant Be Computed			
Family Monthly Income	Below 5,000 Rupees	4	0	4	7.988	3	7.82	P<0.05 Sig
	5,001 to10,000Rupees	10	11	21				
	10,001 to15,000 Rupees	1	5	6				
	More than15,000 Rupees	3	6	9				
Occupation of the mother	House wife	6	14	20	7.853	3	7.82	P<0.05 Sig
	Coolie/Labour work	4	5	9				
	Private Job	1	2	3				
	Govt. job	7	1	8				
Type of delivery	Vaginal delivery	13	8	21	7.375	2	5.99	P<0.05 Sig
	Instrumental delivery	4	5	9				
	Lower segment cesarean section (LSCS	1	9	10				
Age of the Neonatal	1stday-6thday	1	6	7	3.405	3	7.82	P>0.05 Non Sig
	7thday-14thday	9	9	18				
	15thday-21stday	5	5	10				
	22ndday-28thday	3	2	5				
Gender of the child	Male	10	13	23	0.051	1	3.84	P>0.05 Non Sig
	Female	8	9	17				
Weight of the child	02 to 2.5 Kg	6	4	10	5.571	3	7.82	P>0.05 Non Sig
	2.6 to 3.0 Kg	10	12	22				
	. 3.1 to 3.5 Kg	2	1	3				
	Above 3.5 Kg	0	5	5				
Types of Family	Joint Family	9	18	27	4.569	1	3.84	P<0.05 Sig
	Nuclear family	9	4	13				

Conclusion

This study was concluded that the structure teaching programme regarding neonatal care at home was effective for mothers and there was changes in the pre-test and post-test knowledge, attitude and practice score of mothers. Teaching program is the importance of newborn and infant care to mothers helps in preventing infections and disease with providing productive and fruitful life to newborn who will be the citizens of tomorrow [3]. The study consisted of 40 samples that were selected on the basis of Based on the objective the data analysis was done. After administration of teaching programme regarding neonatal care at home among mothers the posttest knowledge score was majority 32(77.50%) had adequate knowledge, 8(22.50%) sample had moderate knowledge. In the attitude score of samples was majority samples had favorable attitude 34(85.0%) ,6(15.0%) had moderate attitude and in the practice score of samples was most of the samples had good score 35(87.5%) and 5 (12.5%) had average practice score.

Conflict of Interest

The author had declared that there was no conflict of interest.

Sources of Funding

Self.

Ethical Clearance

The study was approved by the Institutional Ethical Committee of Dinsha Patel College of Nursing, Nadiad. There was total 15 members in the committee from various fields. The Ethical approval reference number is DPCN/2ndIEC/2020-21/10 and a formal written permission was gathered from the authority of Kashiben Gordhanbhai Children Hospital, Vadodara City.

Statement of Informed Consent

The informed consent form was taken from the mothers prior to the data collection of the study.

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