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Effectiveness Of Structured Teaching Programme On Knowledge Regarding Neonatal Care At Home Among The Mothers At Selected Rural Community Areas, Bengaluru, Karnataka, India.

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ABSTRACT

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. This study was designed to educate and encourage the parents and to improve their knowledge regarding neonatal care at home the study was conducted to evaluate the effectiveness of structured teaching programme on knowledge regarding neonatal care. The study involved pre-experimental design, with purposive sampling method. Information was collected from 50 mothers of neonates using the structured interview schedule. STP was implemented and the post-test was conducted after 7 days. Findings regarding demographic characteristics showed majority were in the age group of 21-24 years with education up to secondary school level and were private employees. The majority of the respondents were Muslims, belonging to nuclear and joint family, with monthly income between Rs.5001-8000/month. Majority of the respondents were, having total of two children. Findings related to effectiveness of structured teaching programme showed that the overall mean knowledge score in pretest is 36.0% and in posttest 80.0% with the enhancement of 44.5% and it is significant at 5% level. Analysis of demographic variable showed there is significant association between knowledge level and selected demographic variables such as education (11.42*), occupation (8.72*), religion (4.18*), type of family (4.19*), monthly income (5.19*). The study concluded that STP was effective in improving the knowledge of the mothers regarding neonatal care at home.

Keywords: Neonatal care at home, Structured Teaching Programme, Mothers.

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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. Yet communities vary considerably in their commitment to the collective health of children and in the resources that they make available to meet children's needs. This is reflected in the ways, in which communities address their collective commitment to children specifically to their health. 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). Neonatal period is the period until 28 days after birth. This is the most critical period of life. Many complications and death may occur during this period if the neonate gets deprived of its vital needs. The neonate needs to adjust to extra uterine life to a maintain normal physiological activity. Hence teaching 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 (2).

The knowledge of care of newborn is essential for a mother. She has to prepare herself for proper care of the newborn. The care of newborn begins with bathing, clothing, feeding, positioning and care of umbilical cord of the baby etc. The mothers need to be well versed with it for proper handling of the baby. Healthy survival of the baby is threatened every moment. Baby's health problems are shocking and alarming throughout the world, especially in the developed countries. Expert and empathetic approach is essential to minimize these problems and to reduce the inexcusable causes of neonatal morbidity, mortality and disability (3).

In India the mortality rate in the age group of 0–28 days is about 39/1000 live-births, 1–12 months about 30/1000 live-births and 1–5 years about 26/1000 live-births. Thus, the ratio of neonatal death rate to 1–5-year death rate is about 1.3. In contrast, in most developed countries the ratio is over 10. Thus, efforts are under way to reduce neonatal mortality in India, by introducing information, education and communication programme (4). A cross-sectional study conducted to the knowledge and practices related to newborn care in urban slums of Lucknow city, UP, and to identify critical behaviors, practices, and barriers that influence the survival of newborns. Datas from 524 women were analyzed and showed that about half of the deliveries took place at home. Majority (77.1%) of the mothers believed that baby should be bathed with warm water and dried with clean cloth and 79.7% mothers practiced it. Only 36.6% mothers-initiated breast-feeding within 1 h of birth and 30.2% initiated after 1 day and few not. In majority of cases, correct knowledge and correct practices regarding newborn care were lacking among mothers and this should be promoted through improved coverage with existing health services.

From the above facts it is clear that most mothers lack the knowledge on newborn care so teaching to mothers about newborn care is essential. In present world education /teaching programme plays an important role. People find it easy to see and learn rather than only to read information. Structured teaching programme about newborn care may contribute to greater care, knowledge and maternal confidence.

MATERIALS AND METHODS

The design used in this study is one group pretest and posttest design in which pre-test is conducted followed by structured teaching programme and then conducting post-test for same group after 7 days. The study subjects were selected from the selected rural community areas, which come under Jadigenahalli PHC area, Bengaluru Rural District; which covers 8 areas with 12,065 populations. The sample size was 50 mothers of neonates. A purposive sampling method through non-probability sampling approach was used for selection of subjects. Mothers of neonates residing at selected rural community, mothers who are willing to participate in the study and mothers who are present at the time of study were included. Mothers who are sick/ill were excluded.

Description of Tool: The tool consists of structured interview schedule to evaluate the effectiveness of structured teaching programme regarding Neonatal care at home among the mothers of neonates at selected rural community Bengaluru. The tool consisted 2 parts.

Part I: This consisted of questions related to demographic data.

Part II: It consisted of interview schedule to assess the knowledge among the mothers of neonates

on neonatal care at home, danger signs in neonates. maintenance of proper airway in Neonate, prevention of hypothermia in Neonates, maintenance of adequate nutrition and Breast feeding, Prevention of infections in neonates and harmful traditional practices on Neonatal care at home. **Reliability of the Tool:** The reliability coefficient for knowledge questionnaire was found to be 0.96 and validity coefficient worked to be 0.98. The tool was found to be reliable and feasible.

The Structured Teaching Programme: The structured teaching programme was for one session, which was prepared to enhance knowledge of mothers of neonates regarding neonatal care at home.

Method of Teaching: Lecture cum discussion method with audio-visuals was used for teaching mothers of neonates.

Procedure for Data Collection: A formal written permission was obtained from the District health officer, Bengaluru Rural district and Medical officer, Jadigenahalli PHC to conduct the study. The data was collected by using interview schedule from 3-09-2012 to 30-09-2012. The investigator personally visited the mothers of neonates and explained the purpose of the study and collected data from subjects who were interested and willing to participate in the study. They were assured of anonymity and confidentiality. Number of samples selected per day was 5 to 6. Pretest was given by using structured interview schedule followed by STP on neonatal care at home for each mother. After 7 days post test was conducted through face to face interview.

RESULTS

Findings related to demographic characteristics of the subjects showed, Majority 50.0% of the respondents was in the age group of 21-24 years. Majority 30% of respondents with high school education. Majority 40% of the respondents were private employees. Majority 75% of respondent's received health information through electronic media. Majority 54% of respondent were Muslims. 64% of respondents from nuclear family and 36% from joint family. Majority 66.0 % of respondents belongs to have their monthly income ranging between 5001-8000. Majority 46% of respondents had two children.

Findings related to knowledge on neonatal care at home. The overall pretest mean knowledge was 36.0 % and SD of 13.1%. The overall knowledge assessment shows that majority 66% of subjects had inadequate knowledge and 34 % of subjects had moderate knowledge and none of the subjects exhibited adequate knowledge regarding neonatal care at home. The overall posttest mean knowledge was 80.5% with SD of 7.7%. The overall posttest knowledge assessment shows that majority 68% of subjects had adequate knowledge and 32% of subjects had moderate knowledge whereas none of them exhibited inadequate knowledge regarding neonatal cares at home (Fig-1).

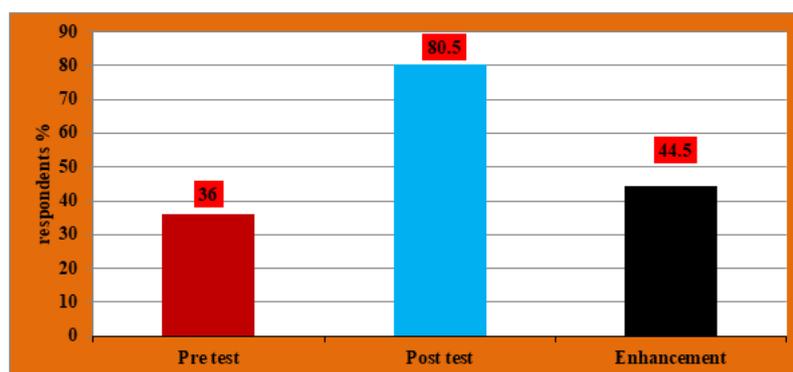


Figure.1: Over all pretest and posttest mean knowledge on neonatal care at home

The improvement means obtained for overall knowledge was 44.5% with t value of 27.36* at P<0.05 level of significance Thus it concludes enhancement of knowledge is statistically significant at P<0.05 level. Hence there will be a significant difference between pretest & posttest knowledge on neonatal care at home.

Among the demographic variables analyzed in this study the knowledge scores with regard to Neonatal care there is significant association between knowledge level and selected demographic variables such as

education (11.42*), occupation (8.72*), religion (4.18*), type of family (4.19*), family income (5.19*), However there is no significant association between knowledge level and selected demographic variables such as age group (1.48NS), number of children (1.30NS), and source of information (0.63, NS).

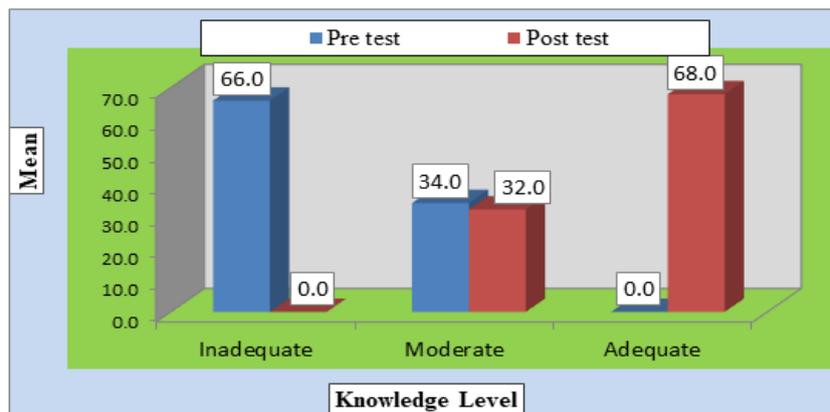
The table 1 reveals that the post-test mean percentage knowledge score was found higher (mean percentage=80.5 and SD percentage=7.7) when compared with pre-test mean percentage knowledge score value which was 36.0% with SD of 13.1% (mean knowledge enhancement score was 44.5%). The statistical paired 't' test implies that the difference in the pre-test and post-test value was found statistically significant at 5% level (p<0.05) with a paired 't' test value of 27.36. There exists a statistical significance in the enhancement of knowledge score indicating the positive impact of intervention programme (Fig-2).

Table 1: Over all pretest and posttest mean knowledge on neonatal care at home, N=50

Aspects	Max. Score	Respondents Knowledge				Paired 't' Test
		Mean	SD	Mean (%)	SD (%)	
Pre test	44	15.86	5.7	36.0	13.1	27.36*
Post test	44	35.44	3.4	80.5	7.7	
Enhancement	44	19.58	5.1	44.5	11.5	

* Significant at 5% level, t (0.05, 49df) = 1.96

Figure2 -Classification of respondents on knowledge level on neonatal care at home



There will be a significant difference between mean pre and post knowledge scores regarding neonatal care at home among the mothers after STP. The difference of mean observed is a true difference. Hence it can be concluded that STP has an influence in improving the knowledge on neonatal care at home among the neonatal mothers.

Table 2 reveals that in pre-test result shows 66% of the respondents possess inadequate knowledge and remaining 34% of the respondents possess moderate knowledge. Whereas, in the post-test results 68% of them had adequate knowledge and 32% had moderate knowledge. However, the Chi square test indicates the significant difference in the knowledge level of respondents on neonatal care at home.

Table 2: Classification of respondents on knowledge level on neonatal care at home, N=50

Knowledge Level	Category	Classification of Respondents				χ ² Value
		Pre test		Post test		
		Number	Percent	Number	Percent	
Inadequate	≤ 50 % Score	33	66.0	0	0.0	67.03*
Moderate	51-75 % Score	17	34.0	16	32.0	
Adequate	> 75 % Score	0	0.0	34	68.0	
Total		50	100.0	50	100.0	

* Significant at 5% level, χ² (0.05, 2df) = 5.991

The findings reveal that the pre-test mean percentage knowledge score was 54.0 and 89.3% in post-test with an enhancement in the knowledge by 35.3%. Whereas, in the pre-test mean percentage knowledge score was 34.8 and 81.2% in post-test with 46.4% of enhancement in the knowledge on Harmful traditional practices (table-3). Further in the aspect of preventive measures, the pre-test mean percentage knowledge score was 33.4% and 76.6% in post-test with an enhancement in the knowledge by 43.2%. The overall mean percentage knowledge score in pre-test was 36.0% percentage and 80.5% in post-test with an enhancement of 44.5. The statistical paired ‘t’ test indicates the enhancement in the mean percentage knowledge scores, found to be significant at 5% level for all the aspects under the study (Fig-3).

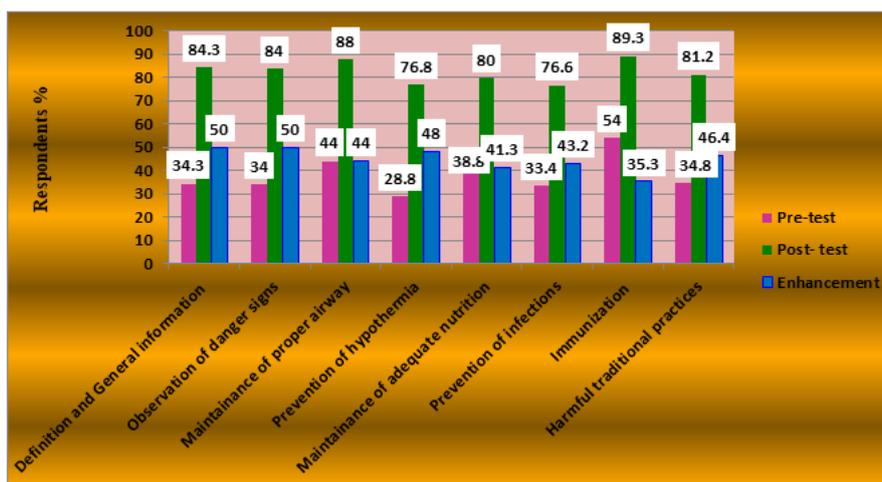
Table 3: Aspect wise mean pretest and posttest knowledge on neonatal care at home, N = 50

No.	Knowledge Aspects	Respondents Knowledge (%)						Paired ‘t’ Test
		Pre test		Post test		Enhancement		
		Mean	SD	Mean	SD	Mean	SD	
I	Definition and General information	34.3	25.5	84.3	13.2	50.0	25.4	13.92*
II	Observation of danger signs	34.0	31.0	84.0	27.6	50.0	35.0	10.10*
III	Maintanance of proper airway	44.0	37.3	88.0	21.6	44.0	35.9	8.67*
IV	Prevention of hypothermia	28.8	22.6	76.8	17.8	48.0	21.8	15.57*
V	Maintanance of adequate nutrition	38.8	19.4	80.0	12.9	41.3	20.4	14.32*
VI	Prevention of infections	33.4	16.4	76.6	13.0	43.2	18.1	16.88*
VII	Immunization	54.0	31.5	89.3	15.7	35.3	30.4	8.21*
VIII	Harmful traditional practices	34.8	19.7	81.2	15.9	46.4	24.1	13.61*
	Combined	36.0	13.1	80.5	7.7	44.5	11.5	27.36*

* Significant at 5% level,

t (0.05,49df) = 1.96

Figure 3: Aspect wise mean pretest and posttest knowledge on neonatal care at home.



DISCUSSION

In this study, experimental approach and one group pretest and posttest research design was adopted to study the “Effectiveness of structured teaching program on knowledge regarding “neonatal care at home” among the mothers at selected rural community area, Bengaluru.” Among the demographic variables analyzed in this study the knowledge score with regard to Neonatal care there is significant association between knowledge level and selected demographic variables such as education (11.42*), occupation (8.72*), religion (4.18*), type of family (4.19*), family income (5.19*). Hence the research hypothesis H₂ was accepted for this

demographic variable. However, there is no significant association between knowledge level and selected demographic variables such as age group (1.48NS), number of children (1.30NS), and source of information (0.63NS). Hence the research hypothesis H₂ was rejected for this demographic variable.

Regarding Knowledge of mothers on neonatal care at home the results were supported by many studies like Mandlane RP, Graca de MA, Ebrahim JG. Results of the study revealed that, mothers with two or more children (85%) had more knowledge than mothers with single child (81%). Regarding advantages of breastfeeding, illiterate mothers (75%) had more knowledge than literate mothers (65%) (5,8,9). Regarding Effectiveness of structured teaching programme on neonatal care at home the results were similar to the study conducted by Poonam Sheoran, Molly Babu, Kalpana Mandal, Kanika Rai on effectiveness of planned health education programme regarding risk factors and care of low birth weight babies in terms of knowledge and practice among the Mothers (10). The present study evaluated the effectiveness of structured teaching programme on knowledge of mothers on neonatal care at home., in pretest 33[60.0%] mothers had inadequate knowledge, 17[34.0%] had moderate knowledge, and in the posttest 16[32.0%] had gained moderately adequate knowledge, 34[68.0%] had gained adequate knowledge. The improvement mean of knowledge was 44.5% with the standard deviation of 11.5%, t-value of 27.36*. It shows that there is a significant improvement in knowledge of mothers on neonatal care at home after administration of structured teaching programme. Thus, the investigator concludes that structured teaching programme is effective in improving the knowledge of mothers of the neonates on neonatal care at home.

REFERENCES

- [1] Marilyn Hockenberry, David Wilson. Wong's essentials of pediatric nursing 8th ed New Delhi: Elsevier publication 2011 p-198.
- [2] Tambulvadkar RS Pediatric nursing 10th ed Bombay: Vora medical publication 2010. p- 49.
- [3] Parul Dutta, Pediatric Nursing, 1st Ed, Jaypee Brothers Medical Publishers (P) Ltd, New Delhi P 66, 73-4.
- [4] Gray L, Darmstadt, Hussein MH, Winch PT, Haws RS, Lamia M, et al. Maternal Neonatal home care practices in rural Egypt during the first weeks of life. *Tropical Medicine and International Health* 2007 Jun; 12(6):783-87.
- [5] White-Traut R. Providing a nurturing environment for infants in adverse situations: multi-sensory strategies for new born care. *J Perinat Neonatal Nurs.* 2009 53141AprJun;24(2):11327.
- [6] Katherine K. Sink, PhD, CNS Seeking Newborn Information as a Resource for Maternal Support *J Perinat Educ.* 2009 Summer; 18(3): 30–38.
- [7] Poonam Sheoran, Molly Babu, Kalpana Mandal, Kanika Rai Effectiveness of Planned Health Education Programme regarding risk factors and care of low birth weight babies in terms of knowledge and practice among Mothers *Nursing and Midwifery Research Journal*, Vol-7, No. 4,40-46.
- [8] Neumark-Sztainer D, Wall M, Larson NI, Eisenberg ME, Loth K. Dieting and disordered eating behaviors from adolescence to young adulthood: findings from a 10-year longitudinal study. *J Am Diet Assoc.* 2011 Jul;111(7):1004-11.
- [9] Shroff H, Thompson JK. Body image and eating disturbance in India: media and interpersonal influences. *Int J Eat Disord.* 2004 Mar;35(2):198-203.
- [10] Silveira JA, Taddei JA, Guerra PH, Nobre MR. Effectiveness of school-based nutrition education interventions to prevent and reduce excessive weight gain in children and adolescents: a systematic review. *J Pediatr (Rio J).* 2011 Sep;87(5):382-92.