Original Article

Journal of Nurse Midwifery and Maternal Health
Volume 2 Number 1, January - April 2016

Effectiveness of Structured Teaching Programme on Knowledge Regarding Maternal and Child Health Services of Community Health Center among People Residing at Selected Panchayat in Ernakulam District

Sindhu Devi M., Nazia Meeran**, Tasha Jacob**

Author Affiliation: *Principal ***Assistant Professor, Sree Sudheendra College of Nursing, Ambalamedu, Ernakulam-682303 Kerala. **Assistant Professor, Si-Met College of Nursing, Kannankulangara, Thrippunithura, Kochi, Kerala 682301.

Abstract

Motherhood is the most important position a woman can have in her life but can be a life threatening event as well. During pregnancy, any woman can develop serious, life-threatening complications that require medical care [1]. India accounts for nearly 20% of maternal and child health services in the globe. This could be related to several factors such as non utilization or under utilization of maternal and child health (MCH) services. For proper programme implementation, understanding community knowledge and practices regarding maternal care during pregnancy, delivery, and postnatal period is required. Improving community awareness on maternal and child health (MCH) services is still required [4]. *Materials and methods;* Research design used for this study was pre experimental one group pre test post test design. 60 rural people belonging to the age group of 20-60 years were selected using non probability convenient sampling technique from Vadavucode Puthencruz Panchayath . The tool used for data collection consisted of two parts. Part A included demographic profile and part B was a structured questionnaire which comprised of maternal and child health services of community health centre .Pre-test was done which was followed by a structured teaching programme , five days prior to the post-test. The pre-test and post-test values were compared by using paired t-test. *ResuIt:* The findings showed that the mean post test knowledge score of the subjects 18.25 was higher than the mean pre-test score of 14.183. The calculated "t" value obtained from paired "t" test was10.190 which is significant at P£ 0.05 level showing that there is improvement in knowledge of people. The results of chi-square analysis indicated that there was significant association between knowledge and demographic variables. *Conclusion:* The research conducted on people of selected Panchayath revealed that there was significant lack of knowledge regarding MCH services provided by Community Health Centres , among the people and the structured teaching programme has a remarkable role in improving their knowledge.

Keywords: Effectiveness; Structured Teaching Programme; Knowledge; Maternal and Child Health; Services; Community Health Centre; People.

Introduction

The World Health Organization (WHO) estimates that, of 536,000 maternal deaths occurring globally each year, 136,000 take place in India. Maternal Mortality Ratio (number of maternal deaths per 100000 live births) in Kerala fluctuated between 48.19 and 26.33. District wise analysis showed that the districts of Alappuzha, Ernakulum and Thrissur had

Reprint Request: Sindhu Devi M., Principal, Sree Sudheendra College of Nursing, Ambalamedu, Ernakulam-682303 Kerala.
E-mail: mohansindhu05@yahoo.co.in

values of MMR below the state average almost throughout the period of study and the under 5 five mortality rate in Kerala is 14 deaths per 1000 live birth [2].

For centuries, caring for pregnant women and new born baby was considered as a private affair, the realm of midwives and mothers. The creation of public health programs to care for mothers and children has its origins in late 19th century in Europe where healthy mothers and children were seen as economic, political and military resources for states who believed that unhealthy children threatened their cultural and military aspirations. Over time, medical, charitable and governmental authorities increasingly saw the health of mothers and children as a legitimate cause in its own right. At the same time, workers and women's movements and organization also took up the cause of women and children's health. With the advent of 20th century, maternal and child health care assumed the status of a public health priority, with corresponding responsibilities for the state [3].

Malnutrition in mothers accounts for a substantial proportion of neonatal malnutrition (Freedman et al, 2005). The risk of death for children under five years is doubled if their mothers die in childbirth. At least 20% of the burden of disease among children under five is attributable to conditions directly associated with poor maternal and reproductive health, nutrition and quality of obstetric and newborn care.

Strengthening the maternal and reproductive health services can also benefit the health system as a whole, enhancing access and use of a broader number of reproductive health care services. Maternal mortality has generally been accepted as an indicator of how well a health system is functioning [3].

By the implementation of the various national programmes for control / eradication of diseases and also of family welfare programme including the universal immunization programme and the maternal and child health activities has helped the state to reduce the mortality rates and improve the health status of mother and child. Today, in Kerala, the infant mortality rate is as low as 16 and the maternal mortality is below 1, which are comparable to that of some of the developed countries [3].

More than 1 lakh women in India are estimated to die every year from pregnancy and child birth related causes due to inadequate knowledge of MCH services & illiteracy, poverty, population density etc. The overall efforts of maternal & child health professionals involves practicing MCH to provide health care service based on most recent scientific research to assess & identify MCH problems & plan interventions [4].

A cross sectional study was conducted to assess the antenatal care service utilization, delivery practices and factors affecting them in tribal area of Maharashtra. Samples were selected using cluster sampling. 210 mothers who delivered within 1 year were interviewed. Main reasons for inadequate utilization of ANC were financial and lack of awareness. Utilization was associated with education, socio-economic status, etc. The study strongly recommends the need to provide health education to improve the utilization of ANC services [14].

Community Health Centres demonstrated that locally governed healthcare can improve lives while lowering costs. These pioneer Health Centres launched a national movement that provides affordable, high-quality, primary and preventive care to millions of people and reduces the need for costlier forms of care today. The state aims to reduce the present IMR to single digits by the end of the 12th Five year plan [4].

Community health centres play an important role in promotion of health. The present study is an attempt to assess the level of knowledge on maternal and child health services of Community health centres among people residing at selected panchayaths at Ernakulam district. The purpose of this paper is to present the effectiveness of structured teaching programme on maternal and child health services of Community health centre which is tested by comparing the pre-test and post-test knowledge score of people residing at selected panchayats between the age group of 20 - 60 years.

Statement of Problem

" A study to assess the effectiveness of structured teaching programme on knowledge regarding maternal and child health services of community health centre among people residing at selected panchayat in Ernakulam district."

Objectives

1. To assess the knowledge of people regarding maternal and child health services available in community health centre residing at selected panchayat in Ernakulam district.
2. To find out the effectiveness of structured teaching programme on maternal and child health services of community health centre residing at selected

panchayat in Ernakulam district.

3. To find out the association between pre test knowledge score and selected demographic variables residing at selected panchayat in Ernakulam district.

Hypotheses (at 0.05 Level of Significance)

H1: There will be a significant difference in pre-test and post test knowledge Scores of the subject.

H2: There will be a significant association between mean pre-test knowledge Score and selected demographic variables.

Materials and Methods

A quantitative research approach with pre experimental one group pre test post test research design was used for the study.

Variables of the Study

1. Dependent Variable: Knowledge regarding maternal and child health services of community health centre among the people in a selected Panchayath in Ernakulam district.
2. Independent Variable: Structured teaching programme on maternal and child health services of community health centre.
3. Attribute Variables: Demographic variables of people such as age, sex, religion, residential area, educational status, family income, receive any services from community health centre, previous source of information and attended any health educational classes.

A structured questionnaire, developed by the researchers was used to assess the knowledge of people on MCH services of community health centre. A pilot study was carried out from 10/12/2014 to 15/12/2015.

The tool was divided into two main sections: Section A comprised of items pertaining to demographic data and section B was a structured knowledge questionnaire related to MCH services which comprised of 30 multiple choice questions on areas such as various clinics conducted in community health centres, immunization services, national health programs and family planning services. Out of the 4 alternatives, three were distracters and one was the correct answer. The demographic data included were age, sex, religion, residential area, educational status, family income, receive any services from community health centre, previous source of information and whether attended any health educational classes.

A structured teaching programme was developed by the researcher which contained details about the MCH services of community health centre such as definition, various clinics conducted in CHC, National health programs (RCH, school health programme, Janani Suraksha Yojana, NRHM and Adolescent Health Programme), immunization for pregnant women and children and family planning services.

Researchers obtained permission from Panchayat office Vadavucode to conduct study over there. After obtaining the permission, researchers met the samples between the age group of 20-60 years at their houses and established rapport with them and requested to participate in the study. They were assured that confidentiality of the information will be maintained. 60 samples who met the inclusion criteria were selected using non probability convenient sampling technique and they were requested to assemble at Anganwady in Ward no: 12 on 17/12/14 at 10am. On 17/12/14 after obtaining a written informed consent from the subjects for willingness to participate in the study, demographic data sheet was given to them, followed by structured questionnaire to assess the knowledge on maternal and child health services provided from community health centre. After this procedure subjects were given structured teaching program for duration of 30 minutes. Post - test was done on the 23|12|14 following the intervention on the same place.

Result

Distribution of Demographic Variables of Sample Who are Residing in Selected Panchayat

From Table1, among the 60 samples it is evident that, majority of the samples 26(43.33%), belonged to the age group of 41 - 50 years, a larger percentage of the samples 56 (93.33%) were females. Most of the people 49(81.66%) were Hindus. All 30(50%) had family monthly income below Rs500. Majority of the people, 29(48.33%) had only primary education. Considering the type of family, most of them (71.66%) belonged to nuclear family. When the area of residence was taken into consideration, a higher proportion of the people 53(83.33%) were living in rural area. About the previous source of information, most of the people 29(48.33%) got information from the health professionals, majority of the people had attended the classes i.e., 40(66.6%) and most of the people 36 (60%) had received services from CHC.

Table 1: Frequency and percentage distribution of samples with demographic variables N = 60

Sl. No	Demographic Variables	Frequency	Percentage
	Age		
1	21-30	0	0
2	31-40	10	16.66
3	41-50	26	43.33
4	31-60	24	40
	Sex		
1	Male	4	6.66
2	Female	56	93.33
	Religion		
1	Hindu	49	81.66
2	Christian	11	18.33
3	Muslim	0	0
4	Others	0	0
	Residential Area		
1	Rural	53	88.33
2	Urban	7	11.66
	Type of Family		
1	Nuclear	43	71.66
2	Joint	17	28.33
	Educational Status		
1	Primary	29	48.33
2	Secondary	24	40
3	Higher secondary	5	8.33
4	Graduates	2	3.33
	Family income		
1	Below 500	30	50
2	500-2500	20	33.33
3	2500-5000	8	13.33
4	Above 5000	2	3.33
	Have you receive any services from chc		
1	Yes	36	60
2	No	24	40
	Source of Information		
1	Health professionals	29	48.33
2	Family and friends	9	15
3	Medias	8	13.33
4	Others	14	23.33
	Health Education Classes Attended		
1	Yes	40	66.66
2	No	20	33.33

Table 2: Frequency and percentage distribution of pre-test level of knowledge among the samples N = 60

Knowledge level	Frequency	Percentage
Poor (> 36.6%)	32	53.33%
Average(36.6 – 63.3)	23	38.33%
Good (< 63.3)	5	8.33%

Table 3: Frequency and percentage distribution of post test level of knowledge among the samples N=60

Knowledge level	Frequency	Percentage
Poor(< 36.6)	0	0%
Average (36.6-63.3)	32	53.33%
Good (> 63.3)	28	46.66%

Table 4: Comparison of mean and SD of the pre and post-test level of knowledge regarding MCH services among of people selected panchayat **N=60**

Sl. NO.	Level of knowledge	Mean	Standard deviation	Range	"t□test
1	Pretest	14.183	3.092	10-24	10.190
2	Posttest	18.25	2.679	15-27	
3	Enhancement	4.067	0.413	5-3	

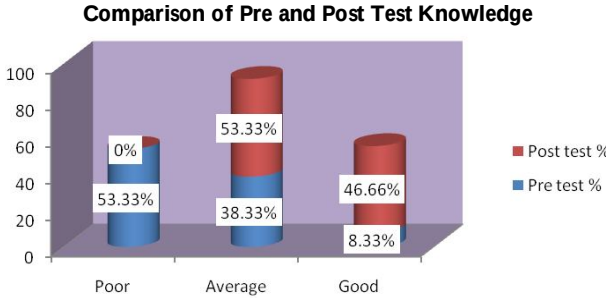

Fig. 1: Figure showing comparison of pre and post test knowledge among people of selected Panchayat

Distribution of People Based on Pre Test Knowledge Regarding MCH Services From CHC

From pre-test data analysis it was found that out of 60 samples , 32(53.3%) had poor knowledge regarding MCH services of CHC & 23(38.3%) had average knowledge and 5(8.3%) had good knowledge and it is shown in Table 2. This showed that the samples were not having enough knowledge regarding MCH services of CHC which clearly supported the need for teaching programme on the same aspect.

Distribution of Samples Based on Post Test Knowledge Regarding MCH Services from CHC

The table 3 below shows that during the post - test, out of 60 samples, 32(53.3%) had average knowledge regarding MCH services from CHC, 28 (46.6%) had good knowledge and 0 (0%) had poor knowledge. This indicated that the teaching programme improved the knowledge of the samples.

Effectiveness of Structured Teaching Programme by Comparing Pre and Post-Test Level of Knowledge

From the Table 4 and Figure 1 , the frequency and percentage distribution of knowledge on pre-test and post-test showed that majority of them had gained average level of knowledge 53.33% when comparing to pre-test. The standard deviation of pre-test knowledge score was 3.0% and post test knowledge score was 2.6%. The obtained "paired t"- value was 10.1%. The calculated value is less than "table value" at 0.05 level of significance. Hence the stated hypothesis H1 was accepted.

Association between the knowledge on MCH services provided from CHC and selected demographic variables among people in selected Panchayat

There was significant association between knowledge on MCH services provided from CHC and selected Socio-demographic variables of samples such as age, sex, religion, residential area, educational status, family income, receive any services from community health centre, source of information, attended any health educational classes in selected panchayat.

Discussion

Pre-Test Knowledge Score Regarding MCH Services Provided From CHC Among Samples.

The findings of the pre-test score showed that out of 60 samples , 53.33% of them had poor knowledge, 38.33% had average and only 8.33% had good knowledge. A survey was conducted to assess the utilization of antenatal care services among schedule caste women in India. The sample for the study comprised of 6212 currently married SC women in the age group of 15-49, who had given birth during three years prior to the survey. It was found that 75% of the mothers were not utilizing all the antenatal services, due to lack of awareness and illiteracy. The study strongly recommended for improving the implementation of RCH and strengthening the health education with regard to antenatal care services[16]

Post Test Knowledge Score Regarding MCH Services Provided from CHC among Samples

The findings of the pre-test score showed that out of 60 samples, majority, 53.33% of the samples acquired average knowledge and 46.33% of the samples acquired good level of knowledge after the intervention. So it revealed that the samples had lack of knowledge about the maternal and child health services from community health centre. This study enlightens that there is a need for educational program to improve the knowledge about the maternal and child health services from community health centre. A similar study to assess the effectiveness of structured teaching programme on knowledge about MCH services provided by health centres were conducted among mothers with infants. 40 mothers were selected for the study. Pre – test knowledge score was 58.2% and post – test knowledge score was 87.9%. From the results it was concluded that knowledge level increased after planned teaching programme [12].

Association between Knowledge and Selected Demographic Variables Regarding MCH Services Provided from CHC

The results of chi-square analysis indicated that there was significant association between knowledge and selected demographic variables of people

identified according to age, sex, religion, residential area, educational status, family income, receive any services from community health centre, source of information, attended any health educational classes. Of these variables, expect type of family, the other variables significantly associated at $p \leq 0.05$ level. A similar study to assess patient's awareness about primary health care centers services in Kuwait city. The sample consisted of 301 patients. The results indicated that gender, income, marital status and occupation were among the demographic variables that showed association [12].

Conclusion

The findings of the study suggested that there was inadequate knowledge regarding maternal and child health services offered by community health centre and structured teaching programme had a significant role in improving the knowledge among the people at selected panchayat in Ernakulam. So the nurses should create awareness about services provided by CHC at free of cost among the general population to increase the utilization of CHC thereby to improve the health status of the people.

References

1. Journal of family welfare volume 58,no.1, june-2012.
2. http://pib.nic.in/newsite/PrintRelease.aspx?relid=116061.
3. http://www.soulcity.org.za/.
4. Sinha RK. Maternal health care and Contraceptive acceptance in Orissa: Evidenced from a Baseline Survey. IASSI Quarterly. 1997; 16(3&4).
5. Babalola, Vishnu Bhat. Knowledge attitude of MCH services. Journal of Curr Pediatr Res. 2009 april 17; 14(2): 119-124.
6. Materia E, Mehari W, Mele A, Rosmini F, Stazi MA, et.al. A community survey on Maternal and Child health services utilization in rural Ethiopia. Eur J Epidemiol. 2000 sep; 9(5): 511-6.
7. Browne EN, Martey JO, Djan JO, Twum S, Opoku SA. Utilization of Maternal Health services in Ejisu district, Ghana. West Afr J Med. 1995 Jan-mar; 14(1): 24-8.
8. Nomita chandhiok, Balwan S dhillon, Indra kambo. Determinants of Antenatal Care utilization, Journal of Obstet Gynecol India 2006 January/ February; 56(1); 47-52.
9. Couillet M, Serhier Z, Tachfouti N, Elrhazi K, Nejjari C, Perez F. The use of antenatal services in health centres of Fès, Morocco. J Obstet Gynaecol. 2007 Oct; 27(7): 688-94 .
10. Banerjee B. Information, Education, and Communication Services in MCH Care Provided at an Urban Health Center. Indian J Community Med. 2009 Oct; 34(4): 298-300.
11. http://med.stanford.edu/news/all-news/2012/07/community-health-centers-compare-well-with-private-practices-researcher-finds.html.
12. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3439745/.
13. Das P, Basu M, Tikadar T, Biswas GC, Mridha P Pal R. Client satisfaction on maternal and child health services in rural Bengal. Indian Journal of Community Medicine 2010 oct; 4(35): Screens (10).
14. http://www.ncbi.nlm.nih.gov/pubmed/21278865.
15. Sachin SM. Antenatal care service utilization, delivery practices and factors affecting them in tribal areas of north Maharashtra. Indian journal of community medicine 2011; 36(4): 287-90; screens (10).
16. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3263149/.
17. Bahilu T. Factors affecting antenatal care utilization in Yem special Wordea, Southwestern Ethiopia. Ethiop J Health Sci 2009 march; 19(1): [7 screens]. 45-51.
18. http://www.ejhs.ju.edu.et/admin/Volume-19.
19. Num1/Factors%20affecting%20ANC%20utilization%20final.pdf.
20. Rejoice PR, Ravishankar AK. Utilization of antenatal care services among scheduled caste women in India. International journal of current research 2011 june2; 3(6): [6screens]. 202-07.
21. http://www.jounalclara.com/?q=node/611.
22. Vijayalakshmi S, Raman AV. Breast feeding technique in prevention of nipple sore. Nursing Journal of India. Aug 2002.
23. Shu-Shan Lin, Li-Yin Chien, Chen-Jei Tai. Effectiveness of prenatal education programme on breastfeeding outcomes in Taiwan. Journal of Clinical nursing. 2007 Oct 12; 17(3): p 296-303.
24. Arogya kudumbakshema Manthralayam. Arogya pravarthakarkuvendiyulla padanasahayi. New Delhi: Bharath Sarkar; 1995.
25. ASHA State facilitation resource center. Asha kaipusthakam, 2nd edition: Thiruvananthapuram.
26. National Rural Health Mission. Garbakala paricharanam, Department of Health Services: Kerala.
27. National Rural Health Mission, Navajatha sishu paricharanam, Department of Health Services: Kerala.
28. Arogya Keralam. Pauravakasharekha of Mulavukad Gramapanchayat, Department of Health and Science: 2008.