

Research Article

ASSESS THE EFFECTIVENESS OF KNOWLEDGE REGARDING FOOD BORNE DISEASES AMONG THE MOTHERS OF CHILDREN AGE GROUP BETWEEN 3 TO 12 YEARS IN SELECTED RURAL AREA AT TUMAKURU

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ABSTRACT

INTRODUCTION: The study was conducted to assess the effectiveness of structured teaching programme with food borne diseases. Since mothers are the important health makers of their child. The mother's knowledge regarding food borne diseases were assessed. **AIM:** The aim of this study was to explore the knowledge of selected food borne diseases among mothers of children 3-12 years. **OBJEVTIVE:** The objective of this study was to assess mothers of children knowledge regarding selected food borne diseases. **METHODS:** The study was conducted on 60 mothers of children in Bhovipalya .The samples was selected by Purposive sampling technique. One group Pre test Post test design was used in this study. **RESULTS:** Mothers had increased their knowledge on selected food borne diseases such as Diarrhea, Typhoid Fever, Hepatitis A and Amoebiasis.

Keywords: Food Borne Diseases - Diarrhea, Typhoid Fever, Hepatitis A and Amoebiasis.

INTRODUCTION

Healthy children are greatest resource and pride of a nation. Investment in child development is an investment for the future of the nation. We must safeguard their health right from the beginning (1). Food borne diseases occurs when we eat contaminated food with bacteria, virus and parasitic infections symptoms include diarrhoea, abdominal cramps, vomiting which will start within 4-36 hours after eating contaminating food and also result from eating poisoning plants (Eg. mushroom), Especially during summer when food may not be kept cold enough to prevent bacterial from growing(2).

Objectives

To assess the pre-test knowledge regarding food borne diseases among mothers of children aged between 3 to 12 years. To develop and implement structured teaching programme regarding food borne diseases. To assess the post test knowledge regarding food borne diseases among mothers of children aged between 3 to 12 years. To compare the mean score of the pre-test and post-test knowledge regarding food borne diseases. To find out the association between the post test knowledge scores of mothers regarding selected food borne diseases with selected demographic variables.

Review of Literature: According to Nema V (2007), "isolation and characterization of heat resident enteritoxigenic staphylococcus aureus from a food poisoning outbreak in Indian subcontinent" an outbreak occured in the state of madyapradesh (India) after the consumption of snacks called "Bhalla" made up of potato balls fried in vegetable oil. More than 100 children and adults who ate the snacks, suffered from typical symptoms of staphylococcal food poisoning and required hospitalization.

As per the above studies the mortality and morbidity of children is increasing with the consumption of food with contaminated bacterial, viral and other parasitil microbes.

According to Sadkowska-Todys M, (2005): "Food borne infections and intoxicification in Poland" A total of 230 food borne and water borne outbreaks involving 3816 cases were reported in 2003 in poland. The most prevalent etiological factors in outbreaks were salmonella strains (1.4% of cases). The most prevalent salmonella strain were S.Enteritidis (89.3%) and S.Hadar (5.0%). The main vehicle of food borne and water borne outbreaks were meals prepared from various (>2) raw materials of animal sources (29.2%), eggs meals (27.6%) and meats (7.2%).Of the places of food contamination, the most prevalent were own apartments (26.1%).(19)

According to Mandira shahi, (2004): "fifty mothers on their knowledge, skill and attitude on diarrhea in children in Nepal". They revealed that the mothers of the lowest age group had higher education and these mothers have concerned with management of diarrhea in an effective way rather than those who had less education level. The result was all mothers answered that they can prepare ORS solution but only 20% should the correct techniques of preparing solution. The study concludes that all mothers expressed that usual cause of diarrhea is ingestion of contamination food and water.(23)

According to Dutta S,(1997) "Isolation of Escherichia coli to detect faecal contamination of children and their mothers in west Bengal."The present study was undertaken to gain insight into the sources of faecal contamination of children in rural Bengal. It was carried out in three villages near Calcutta, India from June 1993 to August among 148 children and their mothers. Escherichia coli was used as an indicators of faecal pollution. A total of 725 samples, including hand rinsing of children and mothers, feeding utensils and leftover food were examined. Results are isolation rate of faecal E. coli was 30%.The isolation raters from hands of children and mothers were 17% and 40% respectively. The germs from 30% of utensils

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and 59% of leftover food and drinks were recovered further. The study highlights the precarious hygiene in rural Bengal. (21)

According to Balci Y.I, (2009) “the distribution of intestinal parasites among children in Denzil. ”In this study, intestinal parasitic disease appears to be an important national health problem in our country. Parasitic infection distribution is related to the socioeconomic status and environmental factors. The aim of this study was to determine the distribution of intestinal parasites among children in the 1-15 age group in the Denzil province. The findings shows that, Parasitic infection was observed in 256 (10.2%) out of 2518 children. The highest rate of 31.4% was that of Giardia intestinalis. The rates of Enterobius vermicularis and Blastocystis hominis were found to be 29.6% and 14%respectively.(45)

METHODOLOGY

Research approach: Evaluative approach was used for the present study .Research design: One group pre test post test experimental design was used in this study. Setting of the study :The study was conducted at Bhovipalya ,rural area Tumkuru.

Population: The population of the study was mothers of children between 3 to 12 years. Sample Size :60 mothers of children between 3 to 12 years. Sample technique: Purposive sampling technique was used to select the sample. Inclusion criteria :Mothers who are having children of age between 3 to 12 years Mothers who can understand either English or kannada. Description of final tool: The final format of the tool comprised of two parts .

Part I: Consisted of items seeking information regarding socio-demographic characteristics of mothers of children between 3 to 12 years.

Part II: Consisted of 44 items of tool to assess the knowledge regarding food borne diseases. It had 5 sections as mentioned below.

Section – A: General information regarding food borne diseases. **Section- B:** Diarrhoea. **Section- C:** Typhoid fever. **Section- D:** Hepatitis A. **Section- E:** Amoebiasis

Data Collection Procedure:

Prior to data collection permission was obtained from the concerned authorities. Data wa collected for a period of one week. Furthermore ,the investigator obtained consent from mothers of children and Confidentiality was maintained during data collection. The data was collected from rural area, Bhovipalya up to street III –X, at Tumkur. Averages of 8-10 mothers of children were interviewed per day and collected the data in the month of October. On the same day on STP was administered in their local language .After an interval of seven days a post test was conducted for the sample using same structured interview schedule for evaluating the effectiveness of Structured teaching Program .

Data analysis: The data analysis was done to organize and bring meaning to the data. The data analysis was done using descriptive and inferential statistics .The following plan for data was developed.

- Section 1-** Background data analysis
- Section 2-** Computing mean, median, standard deviation and chi square of pre test and post test knowledge scores and ‘t’ value to determine the significance of pre test knowledge scores.
- Section 3-** Computing mean, median, standard deviation and chi square of pre test and post test knowledge scores and ‘t’ value to determine the significance of post test knowledge scores.
- Section 4-** To find out the association between post test scores and demographic variables.

RESULTS

Effectiveness of STP in terms of knowledge of mothers of children between 3 to 12 years regarding selected food borne diseases.

Table I: Pre and post test knowledge mean and standard deviation and ‘t’ value on food borne diseases among mothers of children.

n=60						
Knowledge	Mean	S.D	Mean%	SD%	‘t’-value	Result
Pre-test	21.53	2.5	48.9	5.8	26.47	HS
Post-test	34.15	3.5	77.6	8.0		
Improvement	12.62	3.7	28.7	8.4		P<0.001

Note*-denotes significant at 0.05 level.

The above table shows that the post test knowledge score more than the pre test knowledge score.

Table II: Over all Pre test and Post test Mean Knowledge on Food Borne Disease

Aspects	Max. Score	Respondents Knowledge				Paired ‘t’ Test
		n=60				
		Mean	SD	Mean (%)	SD (%)	
Pre test	44	21.53	2.5	48.9	5.8	26.47*
Post test	44	34.15	3.5	77.6	8.0	
Enhancement	44	12.62	3.7	28.7	8.4	

* Significant at 5% level,

t (0.05,59 df) = 1.96

The above picture depict that the mean knowledge of post test score is more than pre test score.

Table III: Aspect wise Mean Pre test and Post test Knowledge on Food Borne Disease

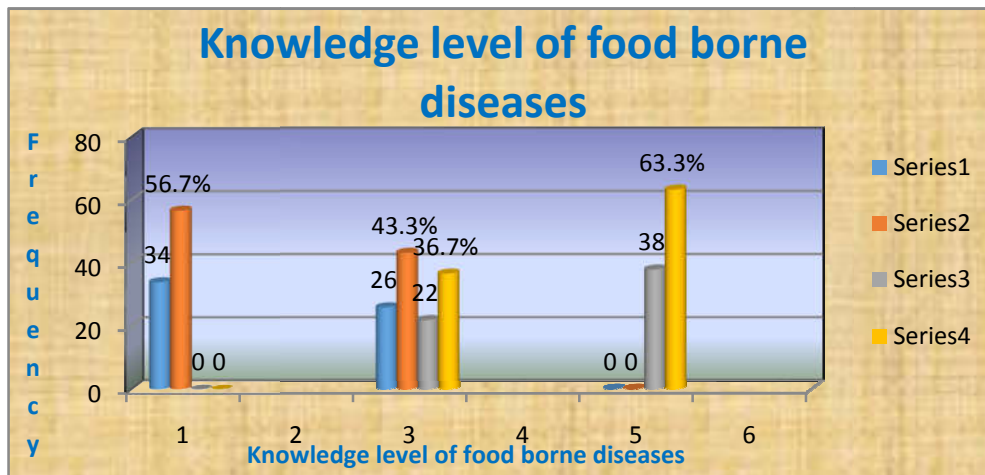
No	Knowledge Aspects	Respondents Knowledge (%)						Paired 't' Test
		Pre test		Post test		Enhancement		
		Mean	SD	Mean	SD	Mean	SD	
I	General Information	54.4	9.6	80.4	9.0	26.0	12.4	16.24*
II	Diarrhoea	49.2	14.0	77.1	13.3	27.9	14.8	14.60*
III	Typhoid Fever	44.5	14.9	79.3	15.0	34.8	18.5	14.57*
IV	Hepatitis A	40.2	17.3	71.7	16.7	31.4	18.0	13.51*
V	Amoebiasis	51.1	13.8	77.4	13.9	26.3	14.7	13.86*
	Combined	48.9	5.8	77.6	8.0	28.7	8.4	26.47*

n=60

* Significant at 5% level,

t (0.05,59 df) = 1.96

Table IV: Knowledge Level Mothers of children with Food Borne Diseases



The pre test findings of the study, 56.7% were having inadequate knowledge 43.3% were having moderate knowledge and adequate knowledge was 0% and post test findings of the study, 0 were having inadequate knowledge 36.7% were having moderate knowledge and 63.3% were having adequate knowledge.

DISCUSSION

The pre test mean score percentage of knowledge regarding general information was 54.4%, Post test mean score percentage was 80.4% it result with mean 7.07 and standard deviation 1.2. The Pre test mean score percentage of knowledge regarding Diarrhoea was 49.2% and Post test mean score percentage was 77.1%, it result with mean 3.93 and standard deviation 1.1. The mean score percentage of knowledge regarding Typhoid fever was 44.5%, Post test mean score percentage was 79.3, it result with mean 3.12 and standard deviation 1.0. The Pre test mean score percentage of knowledge regarding Hepatitis A was 40.2% and Post test mean score percentage was 70.1, it results with mean 2.82 and standard deviation 1.2. The Pre test mean score percentage of knowledge regarding Amoebiasis was 51.1% and Post test mean score percentage 77.4% it results with mean 4.60 and standard deviation 1.2. After exposure to structured teaching program the mother of children between 3 to 12 years were increased their knowledge and it was found be significant .

Implications: The finding of this study have the following implications in various areas on nursing service, nursing practice and nursing education.

Nursing Service : The findings implies the need for clinical nurse to keep abreast with the knowledge by undergoing continuing education and in-service education and training to upgrade skills and learning and be well versed with newer advancements in diagnosis and management skills

Nursing Practice: The nursing administrator should take an initiative in creating health policymaking and developing protocols in providing education to the mothers of children between 3 to 12 years, during their home visits and involve mothers of children 3 to 12 years in the promotion of their health.

Nursing Education: An in-service education programme may be planned to health personnel like village health guides, health volunteers, multipurpose health workers, on food borne diseases and food safety measures

Recommendations:

The study can be replicated on a larger sample; there by findings can be generalized for a larger population.

A comparative study can be conducted between urban and rural population regarding their knowledge food borne diseases. An experimental study can be undertaken with a control group for effective comparison. Pamphlets can be prepared & distributed to mothers of children between 3 to 12 years in rural and urban area.

Results:

The pre test findings of the study, 56.7% were having inadequate knowledge 43.3% were having moderate knowledge and adequate knowledge was 0% and post test findings of the study, 0 were having inadequate knowledge 36.7% were having moderate knowledge and

63.3% were having adequate knowledge. The findings from present study, demographic variables are highly influence the mothers knowledge regarding food borne diseases, like low economic status, low educational level and poor hygienic practices.

CONCLUSION

The pre test showed the inadequate knowledge of mothers regarding food borne diseases such as Diarrhea, Typhoid fever, Hepatitis .A and Amoebiasis. It indicates the importance of education programme to update the knowledge and to improve the practice. There is a significant association between the knowledge of post test scores with demographic variables like age, religion, type of the family, educational status, occupation, family income per month, number of children, type of the house, drinking water supply, drainage system and source of information

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