

A Study to Assess the Knowledge Regarding Prevention of Dental Caries among Mothers of Preschooler Children of Selected Villages of Sasaram, Rohtas with a View to Develop an Information Booklet

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Abstract: Dental caries is the single most common chronic childhood disease affects children ages five through seventeen years. Prevalence of dental caries five times more common than asthma and seven times more common than hay fever and it is very high in developing countries. Prevention of dental caries is very important in school children. So continuous educational programme should be conducted in schools. The study was carried out to assess the knowledge of regarding prevention of dental caries of mothers of preschooler children selected villages of Sasaram with a view to develop an information booklet. The study was based on health believe model.

Objectives: To assess the existing knowledge regarding prevention of dental caries among mothers of preschooler children of selected villages of Sasaram.

To find out association between the level of knowledge with their selected demographical data.

To develop and distribute an information booklet.

Methodology: A one Experimental descriptive approach his used to for this study as it is considered as suitable one to assess the level of knowledge regarding prevention of dental caries. The research design for the study Descriptive design.

Result: In order to collect the data, we the result show of the study in there 50 sample (22%) preschooler children Average mothers of knowledge, (74%) preschooler children moderate mother knowledge and (4%) preschooler children mothers' good knowledge. Those mothers know about dental carries prevent dental carries. Statically there is no any significant association was found.

Recommendation: The findings of the present study can be used as a guide of future research. Interventional study can be undertaken to reduce the dental carries. A study can be conducted in preventing aspect of dental carries. To make the recommendation to the government to arrange compulsory medical check-upon they early basis for the nursing personnel.

Conclusion: The present study was aimed at assessing the knowledge of mothers of prevention of dental caries among preschooler children sand its consequences. This show that these variables had influence dental caries in the study.

Keywords: Mothers Knowledge, and Dental Caries

I. INTRODUCTION

An especially virulent form of caries is early childhood caries (ECC), affecting infants and toddlers from 12 to 18 months of age. However, if appropriate measures are applied early enough (beginning during pregnancy and infancy), this painful condition can be prevented (Douglass, Douglass, & Silk, 2004; Finn & Wholphin, 2005). The first dental examination is now recommended between six months and one year of age (AAPD, 2010c), but this is often unrealistic, especially among the poor and underinsured. Therefore, there is a huge need for preventive efforts by nurses and other health care providers who care for infants and young children. The purpose of this article is to review the literature on the risk factors and prevention strategies for ECC, and to discuss the role of nurses in preventing this disease process.

The use of resin pit and fissure sealants has been shown to be an effective barrier method of preventing caries in pits and fissures over a wide range of studies in recent decades. Improvements in dental materials have increased retention and improved technique sensitivity in high caries risk patients. A formal meta-analysis has demonstrated their efficacy.

Parents have a major role in preventing dental diseases in their children. In addition, they have a major role in any preventive measure. Parents' knowledge about different preventive methods has been studied previously. Children generally spend most of their time with parents and guardians, especially mothers, even when they attend primary-schools or nurseries. These early years involve "primary socialization" during which the earliest childhood routines and habits are acquired. These include dietary habits and healthy behaviors established as norms in the home and are dependent on the knowledge and behavior of parents and elder siblings. Studies have reported that poor attitude of parents towards oral health of infants and young children are associated with increased caries prevalence. (Hind and Gregory, 1995). A higher percentage of children do not receive dental supervision and significant number reach adulthood without having been examined or treated. Many dental problems can be prevented if children and parents are well informed of the causes of dental diseases, prevention and aware of the importance of regular dental care.

II. REVIEW OF THE LITERATURE

Literature review is a critical summary of research on a topic of interest, often prepared to put a research problem in context.

Review of literature in this study is divided into the following sections:

- Section I: Studies related to dental caries in preschooler children.
- Section II: Studies related to knowledge of mothers regarding prevention of dental caries in preschooler children.

Section I: Studies related to dental caries in preschooler children

Emil Namakuka kikwilu and G J Mandari, 2011. A descriptive study was conducted to describe the occurrence of dental caries and periodontal conditions among standards three and four primary school children in Morogoro municipality. A total of 1,297 standards three and four children in five primary schools randomly selected from a list of 36 primary schools. Dental caries and periodontal status were recorded using the criteria described in the WHO manual for Oral health Surveys, Basic Methods (1997). Analysis and interpretation showed that seventy six percent of the children were caries free. No fillings were encountered. Remaining 29% of the sample were affected with dental caries.

Giuseppe perinetti, Giuseppe varvara, Paola Esposito 2016. A study was conducted to describe the Prevalence of dental caries in Italian primary school children living in rural and urban areas. The number of surveyed children were 5413, 8359, 8362 and 5026 in the 6-, 7-, 8- and 9-year-old groups. Changes in the concept of vulnerability. The attributes are closely related to family and community factors and identified as limited parental income, community-based services and fluoride; and exposure to poor parental habits, parental neglect and harmful toxins. The primary antecedent is identified as a form of limited protection from exposure to various circumstances.

Section II: Studies related to knowledge of mothers regarding prevention of dental caries in preschooler children.

Deepgurunathan, jayson, moses, shanmugaavel k Arunalcham, 2018.

A study was conducted to identify the knowledge of mothers regarding dental hygiene. Results revealed that 26.7% of mothers of preschooler school children who brought their children for extractions of teeth under general anesthesia to a dental school did not know how to prevent caries in their children.

Anuj Appukuttan, 2013. A study was conducted to identify the Knowledge of practices on dental hygiene of preschooler school children with dental caries. Samples of 139 mothers were surveyed. Results revealed that 100 out of 139 mothers admitted giving their children sweets to reward them for good behavior, to pacify the child, or for no specific reason.

III. METHODOLOGY

Methodology enables the research to project a blue print of the details about the approach, data collection, analysis, finding the research taken.

According to Pilot and Beck

"Methodology means the step, procedure and strategies for gathering and analyzing data in a research investigation". The chapter deals with the methodology adopted for the study. it includes research approach, research design, variables under study, setting of the study, population of the study, sample of the study, sampling technique, development of tool, description of tool, content validity of the of tool, reliability of the tool, pilot study, data collection procedure, plan for data analysis, ethical consideration.

Research Design

Descriptive survey design.

Research Approach

Quantitative approach.

Setting of the Study

Selected villages of Sasaram, Rohtas, Bihar.

Accessible Population

The accessible population of this study is mothers of children who are 3 to 6 years of age and residing in villages of Sasaram.

Sample

In This Study The Sample Comprised Of Mothers Of Children Of 3 To 6 Years Who Satisfy The Inclusion Criteria.

Criteria for Sample Selection

Inclusion Criteria

- Mothers of children of 3 to 6 years.
- Mothers of preschooler children aged between 3-6 years at selected villages of Sasaram, Rohtas.
- Mothers of preschooler children those who are willing to participate in the study.
- Mothers of preschooler children who can able to read and understand Hindi.

Exclusion Criteria

- Mothers of preschooler children those who are not available during the data collection period.
- Mothers of preschooler children those who are not willing to participants in the study.

Sample Size

In this study total sample size is 50.

Sampling Technique

Purposive sampling technique.

Ethical Consideration

To conduct research study in selected villages of Sasaram, a written permission (forwarded by The Dean cum Principal) were obtained from the ward parasad /mukhiya of that selected villages before starting the study. A written consent was taken from the mothers.

Anonymity and confidentiality of the information was maintained.

Description of the Tool

The tool consists of two sections, section A is based on demographic variables, section I & II is on mother's knowledge to prevent dental caries in preschooler children. Demographic Performance consists of various demographic variables of child such as age of mother, type of family, no. of pre-schooler children, mother's education, mother's occupation, father's education, father's occupation, family income etc.

Selection and Development of Tool

SECTION-A: Demographic tool

Demographical tool under: age of mother, mother's education, mother's occupation, father's education, father's occupation, types of family, number of preschooler children, family monthly income, source of drinking water, previous knowledge on prevention of dental caries.

SECTION-B: Dental caries

It consists of 14 statements which include tick out the right answer. If optional question was given right answer we have given 2 marks and those given wrong answer we have given 0 marks. Total score is 14

Criteria of Tool Scoring

Each right answer carries 1 mark

Each wrong answer carries 0 mark

After extensive review of literature and guidance from self-structured questionnaire was developed to assess the level of knowledge regarding prevention of dental caries. The tool includes, section A: Demographic data and section B: Self structured questionnaire Prevention of dental caries among mothers of preschooler children in selected villages of Sasaram, Rohtas.

Validity

The proposed tool was submitted to 4 experts who are nursing specialists and dental specialists. Expert gives their opinion regarding the tool and content of self-structured. After receiving the tool, it was discussed with guidance and about 10% changes were made in the tool.

Reliability

The reliability of tool was ascertained by using Karl Pearson method (r values) by taking 5% of sample from the self-structured questionnaire the value of r is 1. So tool is reliable.

Pilot Study

The Pilot study was conducted by taking 10% of sample. The tool was found to be feasible to collect the required information. The subject did not experience any difficulties in understanding the tool.

Data Collection Procedure

Data collection will be collected from 4 days after taking permission from authority. The consent will be taken from mukhiya selected villages of Sasaram, Rohtas. Non-probability purposive sampling technique will be used for sample collection.

Ethical Consideration

For the present study the investigator will take the following ethical consideration:

Due to permissions from authority.

Obtain consent from participants.

Anonymity of participant was ensured.

Freedom to withdraw from study any time was assured.

Plan for Data Analysis

Coding was done for each item.

In master sheet coded data were entered.

They were again entered in master sheet with key for coding.

Frequency and percentage distribution for socio demographic variables of samples was done.

Analysis of assess the mother's knowledge regarding prevention of dental caries in selected villages of Sasaram, Rohtas.

IV. RESULTS

Majority of sample (22%) day students were having poor mothers knowledge, (74%) mothers were having average knowledge and (4%) mothers were having good knowledge. Due to excessive cause of preschooler children is not tooth brushing. Found that those participants who is not tooth brushing is caused by dental caries.

Fig 1 reveals that the majority study sample (22%) poor knowledge in preschooler mothers (74%) mothers is average knowledge (4%) mothers is good knowledge.

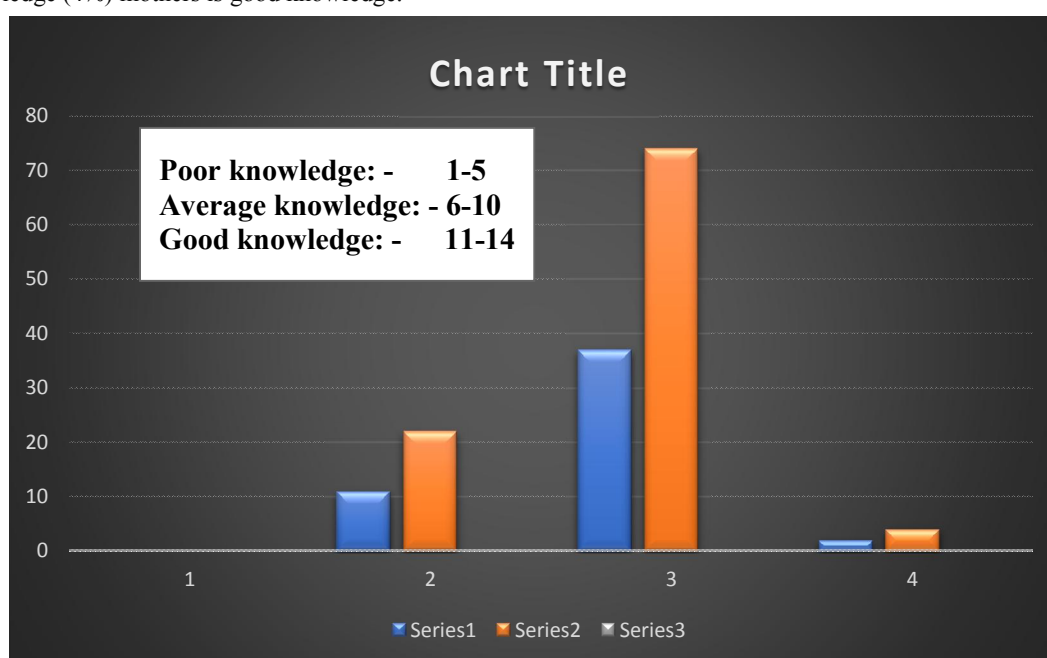


TABLE 1: Chi square analysis association between level of knowledge with their selected demographical variable

Chi Square Analysis association between the knowledge with their selected demographical variable

Table 4.3

Demographical data	Poor knowledge		Average knowledge		Good knowledge		X ²	df	p value	Inference
	F	%	F	%	F	%				
Q1. AGE OF MOTHER										
22-28 years	6	24%	19	76%	0	0%	3.264 41	4	0.718 14	NS
29-32 years	3	16.66%	14	77.79%	1	5.55%				
33-36 years	2	29%	4	57.14%	1	14.28%				

Q2. FAMILY INCOME										
<10000	6	18.18%	25	75.76%	2	6.06%	1.010 28	4	0.813 91	NS
10001-15000	4	26.26%	11	73.34%	0	0%				
15001-20000	0	0%	1	100%	0	0%				
>20000	1	100	0	0%	0	0%				
Q3. TYPE OF FAMILY										
1.Nuclear	2	8.33%	22	91.67%	0	0%	6.621 56	4	0.218 15	NS
2.Joint	8	33.33%	14	58.34%	2	8.33%				
3.Extended	1	50%	1	50%	0	0%				
Q4. NO. OF PRESCHOOLER CHILDREN										
1.	7	21.21%	24	72.73%	2	6.06%	1.044 71	4	0.788 93	NS
2.	4	23.52%	13	76.48%	0	0%				
3.	0	0%	0	0%	0	0%				
Q5. MOTHER'S EDUCATION										
No formal education	6	21.42%	20	71.44%	2	7.14%	3.815 27	6	0.507 93	NS
Matric	4	19.04%	17	80.96%	0	0%				
Intermediate	0	0%	0	0%	0	0%				
Graduate & Above	1	100%	0	0%	0	0%				
Q6. MOTHER'S OCCUPATION										
Housewife	10	21.27%	35	74.48%	2	4.25%	2.791 42	4	0.640 40	NS
Farmer	1	100%	0	00%	0	0%				
Self employed	0	0%	2	100%	0	0%				
Employed	0	0%	0	0%	0	0%				
Q 7. FATHER'S EDUCATION										
No formal education	3	27.27	8	72.73%	0	0%	2.576 41	6	0.969 98	NS
Matric	5	20.44%	17	70.83%	2	8.33%				
Intermediate	2	16.66%	10	83.34%	0	0%				
Graduate & above	1	33.33%	2	64.64%	0	0%				

Q 8. FATHER'S OCCUPATION										
Unemployed	3	21.42%	11	78.57%	0	0%	3.668 22	6	0.611 06	NS
Farmer	4	26.66%	10	66.64%	1	6.66%				
Self worker	3	15%	16	80%	1	5%				
Employed	1	100%	0	0%	0	0%				
Q 9. SOURCE OF DRINKING WATER										
Hand pump	10	20.84%	36	75%	2	4.16%	1.439 21	8	0.804 17	NS
Well	0	0%	0	0%	0	0%				
Government water supply	1	50%	1	50%	0	0%				
Q 10. PREVIOUS KNOWLEDGE ON PREVENTION OF DENTAL CARIES										
Family /relative /friend	2	11.11%	15	83.34%	1	5.55%	1.790 16	6	0.903 11	NS
Tv/ radio	8	28.57%	19	67.86%	1	3.57%				
Newspaper/magazine	1	25%	3	75%	0	0%				
Internet	0	0%	0	0%	0	0%				

This chapter deals with the detail discussion of finding of the study interpreted from statistical analysis. The finding is discussed in relation to objectives formulated, compared and contrasted with dose of other similar study conducted in 1-different setting.

The present study is an effort to find out the prevention of dental caries and preschooler children's consequences in order to achieve the objective, A descriptive approach was adopted and non-probability purposive sampling was used to select the samples. This study was conducted in four days at Sasaram and jamuhar. The data was collected from 50 sample by using self-structured questionnaire.

The findings of the study have been discussed based on objectives.

FIRST OBJECTIVE:

To assess the existing knowledge regarding prevention of dental caries among mothers of pre- schooler children of selected villages of Sasaram, Rohtas.

(22%) mothers were having poor knowledge, (74%) mothers were having average knowledge and (4%) mothers were having good knowledge. Due to excessive cause of preschooler children is not tooth brushing. Found that those participants who is not tooth brushing is caused by dental caries.

SECOND OBJECTIVE:

To find out association between the level of knowledge with their selected demographic variables.

The study did not find significant association between age of the level of knowledge.

The chi-square test did not establish any significant association between respondents i.e., mother age, family monthly income, type of family, No. of preschooler children, mother's education, mother's occupation, father's education, father's occupation, source of drinking of water, previous of knowledge on prevention of dental caries.

The association between level of knowledge and Selected Demographic Variables was found to be non-significant by chi square the obtain 0.93737 which is higher than the table value at 0.05.

Major findings of the study are summarized as follows, findings related demographic characteristics in the present study all select variable were not statistically significant with level of stress hence, hypothesis H1 is related in this area.

THIRD OBJECTIVE

To develop and distribute an information booklet

Development of health education module was the last objective of the study. Health education module will increase the knowledge of children regarding prevention of dental caries it is developed on the basis of the finding of the study.

The step adopted to develop health education module were: -

- The preparation of the first draft
- Development of criteria for evaluation
- Editing
- Preparation of final draft

The final draft of information booklet module consisted the content goal of enhancing knowledge regarding dental caries in preschooler children

- On definition
- Part of tooth
- Cause of dental caries
- Sign and symptom
- Treatment
- Prevention

V. SUMMARY

The purpose of the study is to assess the level of knowledge of prevention of dental caries among mothers of preschooler children of selected villages of Sasaram, Rohtas with a view to develop an information booklet.

The data collected by the using of self-structured questionnaire, in first section in demographic data and in second section questionnaire regarding prevention of dental caries

The setting of the study was Sasaram and jamuhar, data collection by descriptive survey approach there was 50 participants. The data analysis was performed by using both descriptive frequency and percentage.

VI. CONCLUSION

The present study was aimed at assessing the level knowledge of prevention of dental caries and its consequences.

The Relevant data collected statically based in the objectives of the study. Among 50 samples, (22%) mothers were having poor knowledge on prevention of dental caries, (74%) mothers were having average knowledge on prevention of dental caries and (4%) mothers were having good knowledge on prevention of dental caries. Statically there is no any significant association was found.

This show that these variables had influence level of knowledge of dental caries in the study.

VII. LIMITATIONS

The present study cannot generalize, as it is limited to

- 1 Those students who preschooler children.
- 2 Smaller sample size.
- 3 Lack of higher analysis.
- 4 Presence of extraneous variables.

IMPLICATION FOR NURSING EDUCATION

- Nursing curriculum should be for imparting health information regarding management of knowledge of prevention of dental caries.
- Nurse educator should educate the mother nurses about how to cope up with knowledge of prevention of dental caries.
- Nurse educator should educate the mothers nurses how to carry out the knowledge of mothers.

IMPLICATION FOR NURSING RESEARCH

- Many more research studies could be done to assist the level knowledge of highly feasible and less expensive therapy in various other conditions and settings.
- Nurses are encouraged to conduct the interventional study regarding knowledge of prevention of dental caries.
- Adequate allocation of funds, manpower, time, adequate training should provide to the nurses for conducting research regarding prevention of dental caries.

RECOMMENDATIONS

- The findings of the present study can be use data guide of future research
- Interventional study can be under taken to reduce the dental caries.
- A study can be conducted in preventing aspect of dental caries
- To make the recommendation to the government to arrange compulsory medical check-upon they early basis for the nursing personnel.

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