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The Impact of a Structured Teaching Program on Maternal Knowledge of Dental Hygiene for Under-Five Children

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Abstract: ***The aim of the study was to assess the effect of structured teaching programme on knowledge of mothers regarding dental hygiene of under five children. The objectives of the study were to assess the knowledge of mothers regarding dental hygiene of under five children, determine the effect of structured teaching programme on knowledge of mothers regarding dental hygiene of under-five children, find out the association between level of knowledge of mothers regarding dental hygiene of under-five children and selected socio demographic variables. The researcher adopted quantitative pre experimental one group pretest posttest design for the study. Sixty mothers who have under-five children attending the paediatric OP clinics of SSNMM Hospital, Varkala were selected using convenience sampling technique. Data collection tools were structured questionnaires to collect socio demographic variables and to assess the knowledge of mothers regarding dental hygiene of under-five children. Pretest was done to assess the level of knowledge of mothers regarding dental hygiene of under-five children and structured teaching programme was administered on the same day. Posttest was conducted four weeks after the intervention. The effect of the structured teaching programme on knowledge of mothers regarding dental hygiene of under-five children was computed by 't' test (t= 22.15, P<0.001). Association between the level of knowledge of mothers and selected socio demographic variables were also assessed. There was statistically significant association between level of knowledge of mothers and selected socio demographic variables like occupation and education of mothers. There was statistically no significant association between level of knowledge of mothers and selected socio demographic variables like age, income, residence, type of family, religion and number of children (P>0.05).***

Keywords: structured teaching programme, dental hygiene, knowledge, mothers of under five children

1. Introduction

Oral hygiene is the practice of keeping one's mouth clean and free of disease and other problems (e.g. bad breath) by regular brushing of the teeth and cleaning between the teeth. It is important that oral hygiene be carried out on a regular basis to enable prevention of dental disease and bad breath[1].

First teeth commonly the lower central incisors may appear in 6 to 7 months of age. It can be delayed even up to 15 months, which also can be considered with in the normal range of time for teething[2]

Oral disease causes a major public health burden for many countries and affect people throughout their lifetime causing pain, discomfort, disfigurement wide spread health issues such as diabetes and cardiovascular disease. Poor oral health during childhood is directly associated with poor health outcome in adulthood as people remain more susceptible to developing dental caries throughout their lives[3].

The majority of oral health conditions like dental caries and periodontal diseases are severe and mostly affecting children. The most common type of dental disease are tooth decay (dental caries) and gum disease, including gingivitis and periodontitis. Dental caries is progressive and destructive process causing decalcification of the tooth enamel, destruction of dentine and cavitation of tooth. It can spread into the tooth pulp and may cause inflammation and abscess. Gradually tooth decay begins following demineralization of enamel. Destruction of dentine with cavity formation occur causing inflammation and abscess formation. Serious complication of dental caries may be seen as endocarditis. Prevention of dental caries include dietary modification, use of fluoride tooth paste, good oral and dental hygiene, mechanical removal of plaque and debris from teeth and regular dental check-up[7].

2. Need and Significance of Study

Globally, it is estimated that 2.3 billion people suffer from caries of permanent teeth and more than 530 million children suffer from caries of primary teeth. In most low- and middle-income countries, with increasing urbanization and changes in living conditions, the prevalence of oral diseases continues to increase[4].

Oral disorders have remain the most prevalence disease group in India over the past 3 decades. According to government estimates, more than 70% of school children are suffering from dental caries[5].

According to the Royal College of surgeon's reports, tooth decay was the primary reason for hospitalization in the 5 – 9 year old age group. Children with severe caries are at higher risk for developing dental caries in future[6].

3. Material and Method

The researcher adopted quantitative pre experimental one group pretest posttest design for the study. Sixty mothers who have under-five children attending the paediatric OP clinics of SSNMM Hospital, Varkala were selected using

convenience sampling technique. Data collection tools were structured questionnaires to collect socio demographic variables and to assess the knowledge of mothers regarding dental hygiene of under-five children. Pretest was done to assess the level of knowledge of mothers regarding dental hygiene of under-five children and structured teaching programme was administered on the same day. Posttest was conducted four weeks after the intervention.

The effect of the structured teaching programme on knowledge of mothers regarding dental hygiene of under-five children was computed by't' test (t= 22.15, P<0.001). Association between the level of knowledge of mothers and selected socio demographic variables were also assessed. There was statistically significant association between level of knowledge of mothers and selected socio demographic variables like occupation and education of mothers. There was statistically no significant association between level of knowledge of mothers and selected socio demographic variables like age, income, residence, type of family, religion and number of children (P>0.05).

4. Analysis

Level of knowledge	F	%
Poor	36	60%
Satisfactory	24	40%
Good	0	00%

Distribution of mothers based on pretest knowledge score.

The table shows that 60% of the mothers of under-five children had poor knowledge and no one had good knowledge in pretest.

Association between level of knowledge of mothers regarding dental hygiene of under five children and education.

Education	Poor		Average		df	x^2
	F	%	F	%		
High school	01	50.0	01	50.0	3	10.9**
Higher secondary	10	66.7	05	33.3		
Degree	24	70.6	10	29.4		
Post Graduate	01	11.1	09	88.9		

The chi-square value shows that there was statistically significant association between knowledge level of mothers and education (p<0.01).

5. Discussion

The present study showed that 60% of the mothers had poor knowledge and no one had good knowledge in the pretest. These findings were consistent with the study on 140 mothers of under five children regarding dental caries which revealed that The study concluded that the mothers had basic knowledge of caries prevention. However, their theoretical knowledge has been not fully reflected in the way they cared for their children's teeth.

The present study revealed that the mean knowledge score of mothers before the intervention was 11.23±3.65 and it was increased to 25.97±2.88 after the intervention. It is revealed that the structured teaching programme was effective in improving the knowledge of mothers regarding dental hygiene of under five children. The findings were consistent with the study on effectiveness of structured teaching programme on knowledge and practices of mothers to prevent dental problems among the children which revealed that 60% mothers had inadequate knowledge, 25% had moderate knowledge and 15% had adequate knowledge.

The present study showed that there was statistically significant association between knowledge level of mothers regarding dental hygiene of under five children and socio demographic variables like education and occupation of mothers(p>0.05).The findings of the study was consistent with the study conducted among 419 mothers of 3-5 years old pre-school children who were selected randomly from 20 kindergartens The study found significant association between dental health knowledge practice and mother's education level (p = 0.00). The study also found that the mothers with higher education had better knowledge and practices.

6. Conclusion

Knowledge of mothers regarding dental hygiene of under five children help the mothers to identifying the dental problems, if any, in their children. Structured teaching programme by the investigator created awareness among mothers regarding the importance of dental hygiene which will enable them in the early identification of dental problems and to seek early interventions for the management of dental problems.

References

[1] Wikipedia. Oral Hygiene [updated 2022 Sep 09; cited 2021 Mar 23]. Available from: https://en.wikipedia.org/wiki/Oral_hygiene.

[2] Yadav M. Text book of Child Health Nursing. Jalandhar: S Vikas and company; 2011.

[3] Dallas S, Dr Li J, Kruse K, Dr Henry K M. A literature Review on Oral Health on Pre-schoolers. HPA. 2015 May. Available from: https://www.hpa.org.nz/sites/default/files/Literature%20review%20oral%20health.pdf.

[4] World Health Organization. Oral Health. 2022. Available from: https://www.who.int/health-topics/oral-health#tab=tab_1.

[5] Dental Public Health. Why is it important in india?. Mint. Available from: https://www.livemint.com/news/india/dental-public-health-why-is-it-important-in-india-1563616880257.html.

[6] Miglani S. Burden of Dental Caries in India: Current Scenario and Future Strategies. Int J Clin Pediatr Dent. 2020 Mar-Apr;13(2):155-159. doi: 1 0.5005/jp-journals-10005-1733. PMID: 32742093; PMCID: PMC7366764.