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"A descriptive study to assess the knowledge, attitude and practice on oral health among school going children age group betwee 9 – 13 years old at selected school of Sasaram, Rohtas, Bihar."

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ABSTRACT

OBJECTIVE OF THE STUDY

- To assess the knowledge regarding oral health among school going children age group between 9 – 13 years old.
- To assess the attitude regarding oral health among school going age group between 9 – 13 years old.
- To assess the practice regarding oral health among school going children age group between 9 – 13 years old.

- To Co-relate the socio-demographic profile with knowledge, attitude and practice regarding oral health among school going children children age group between 9 – 13 years old

METHOD

A quantitative method was approached. The researcher adopted descriptive design and samples were collected using convenient sampling technique. 200 school going children were selected and they underwent a series of question to assess their knowledge, attitude and practice. A self-structured questionnaire was made to interview the children.

RESULTS AND CONCLUSION

The knowledge score of sample show that majority 153(76.5%) in poor range, follow by 46 (23%) sample who had an average and 01 (0.05%) sample had a good score. The analysis clearly stated that can be clearly seen the majority of the sample falls under category of positive attitude between 25-50 that is 135(67.5%) and 65% were had negative attitude towards oral care i.e 65(32.5%). For testing the practice of the children, the researcher found that out of 200, 110(55.5%) found to have average practice, 55(27.5%) have poor practice and 35(17.5%) good practice. Systematic health education improves the oral health of children, and primary schools provide the effective setting for such oral health programs. Children should be educated about ill effects of smoking, and should persuade their parents in quitting the habit. Education to the parents is also needed.

KEYWORDS: -

Assess, Knowledge, Attitude, Practice, Oral health, School going children

INTRODUCTION: -

Oral health is an important issue for school health because untreated decay can interfere with students' growth and learning, contribute to behavioural problems, and lead to reduced self-confidence. In addition, children with dental problems are more likely to miss school than those with good oral health.[4]

children of disadvantage subpopulation regardless of race, ethnicity, or culture have been found to be the most vulnerable. It is recognized as a serious public health problem due to its increase risk of potential dental caries. Untreated caries may lead to early loss of primary dentition and affect the growth and maturation of the secondary adult dentition.2 Preschool children, in contrast to other age groups, have experienced a significant increase in caries prevalence in the primary dentition and once caries develops in young children, adverse outcomes such as dental

pain and the need for extraction are common. Children with caries have an incidence of new cavities 5–6 times greater than those without caries, irrespective of when they have developed the disease.[3]

As BANDURA proposed, children perform behaviours as desired when they receive positive feedback from significant others (e.g. peers, parents, and teachers). Furthermore, significant others can serve as models for children. Children will have strong self-efficacy if they observe a successful model similar to themselves. Parents are considered as facilitators for children for oral health, and children are affected by the attitudes, beliefs, and behaviours of parents. A recent study indicated that oral- health education was more effective in improving gingival health in schoolchildren if parents engaged in the intervention. However, it is crucial to involve school staff and teachers in creating supporting environments for children and building capacity for oral-health promotion.[10]

It is known that the three basic circles from Paul- Keys display the basic etiological factors of dental caries. One of them is undoubtedly the microorganism, which accumulates and forms biofilm, known as dental plaque. Although there is no scientific based evidence correlating biofilm and dental caries, it is accepted that plaque removal is a very advisable procedure for oral health maintenance. Thus, tooth-brushing continues to be the most used and effective method for cleaning most tooth surfaces. Tooth-brushing, as all habits of hygiene, is acquired during the socialization process of the child. When this habit is taught in early childhood, it is naturally ingrained in the daily routine of the child, with only positive reinforcement needed later. Tooth-brushing can be compared with other health-related habits that will persist throughout life without great changes.[11]

A holistic approach to development of healthy lifestyles and creation of healthy environments is needed in schools and families to promote oral health of school children. The development of an enhanced school program to include oral health education for pre-school children and parents, combined with enabling and monitoring tooth brushing with efficacious toothpaste formulations, both in school and at home, should significantly reduce dental caries and improve the oral health of children. A school oral health initiative focuses on oral self-care practices, effective use of fluoride, healthy lifestyle in relation to diet and nutrition, personal hygiene and healthy environment related to the school and access to optimal sanitary facilities. Although the families of young children often have limited awareness of and engagement with oral health, young children tend to deliver to other family members those messages learnt in school. Improved communication of oral health will consequently support the development of sustainable oral and general health practices of children and parents.[15]

It is also important to encourage the school teachers to take the key roles in health promotion of children. There is significant scope for improvement of oral health among young children, particularly among the underprivileged groups and children at high risk of dental caries, through the optimization of school programs. India, a developing country, faces many challenges in delivering oral health needs. There is a big gap in oral health related knowledge and behaviour among this country's population especially among the school children. In India, the incidence of dental caries is increasing due to the changing lifestyle and dietary patterns. The Government of India initiated a National Scheme known as the Integrated Child Development Services

(ICDS) which aims at the delivery of a package of basic he services through various functionaries.[16]

PROBLEM STATEMENT – "A descriptive study to assess the knowledge, attitude and practice on oral health among school going children age group between 9 – 13 years old at selected school of Sasaram, Rohtas, Bihar".

OBJECTIVE –

- To assess the knowledge regarding oral health among school going children age group between 9 – 13 years old.
- To assess the attitude regarding oral health among school going age group between 9 – 13 years old.
- To assess the practice regarding oral health among school going children age group between 9 – 13 years old.
- To Co-relate the socio-demographic profile with knowledge, attitude and practice regarding oral health among school going children children age group between 9 – 13 years old.

METHODS AND MATERIAL –

A descriptive research design was used in the study to assess the knowledge, attitude and practice regarding oral health. Permission of Research Ethics Committee and concern authority had obtained by researcher. Consent was taken from samples. The samples were school going children in selected school of Sasaram, Rohtas, Bihar. A total of 200 children were selected by convenient sampling technique.

DESCRIPTION OF TOOLS

The structured questionnaire comprised of 4 sections.

Section 1 Socio demographic profile.

- **Part A**: - Demographic data Performa such as age, gender, educational status, type of family, Religion etc.

Section 2. Structured questionnaires on knowledge regarding oral health among school going children.

Part B: - Structured questionnaire with 10 questions related to knowledge regarding oral health among school going children.

Scoring: - There are 10 questions. Each questions have 4 options with 1 correct option. The score assigned for correct answer is 1 and for wrong answer is 0.

The maximum score is 10 and minimum score is 0.

S.No	Level of knowledge	Knowledge score
1.	Good	7 – 10
2.	Average	4 – 6
3.	Poor	0 – 3

Part C: - Likert scale with 10 questions related to attitude regarding oral health among school going children.

Scoring: - there are 10 questions. each questions have 5 options. the score assigned for correct answer is 1 and for wrong answer is 0.

The maximum score is 10 and minimum score is 0.

S.No	Level of attitude	Attitude score
1.	Positive attitude	5 – 10
2.	Negative attitude	0 – 4

Part D :- check list with 10 questions related to practice regarding oral health among school going children.

Scoring: - There are 10 questions . each questions has 3 options with 1 correct answer option. The score assigned for correct answer is 1 and for wrong answer is 0.

the maximum score is 10 and minimum score is 0.

S.No	Level of practice	practice score
1.	Good	7 – 10
2.	Average	4 – 6
3.	Poor	0 – 3

RESULT-

SECTION I: DESCRIPTION OF SAMPLE CHARACTERISTICS

Table No. 1

Distribution of respondents according to socio-demographic variables.

VARIABLES	NO OF RESPONDENTS	PERENTAGE
Age		
9-13	**60**	**30**
10-11	**85**	**42.5**
11.1-12	**20**	**10**
12.1-13	**35**	**17.5**
Gender		
Female	**120**	**60**
Male	**80**	**39**
Religion		
Hindu	**115**	**57.5**
Muslim	**30**	**15.0**
Sikh	**15**	**7.5**
Others	**40**	**20.0**
Type of housing		
Pacca House	**180**	**90.0**
Kachha House	**20**	**10.0**
Type of Family		
Nuclear Family	**135**	**67.5**
Joint Family	**65**	**32.5**
Head Education of the Household		
Primary Education	**21**	**10.5**
Secondary Education	**39**	**19.5**

High and higher secondary education	**82**	**41.0**
Graduation and above	**58**	**29.0**
Occupation		
Government Job	**21**	**10.5**
Private Job	**78**	**39.0**
Business	**52**	**26.0**
Agriculture	**49**	**24.5**
Educational Status of the children		
7th class	**55**	**27.5**
8th class	**60**	**30**
9th class	**45**	**22.5**
10th class	**40**	**20.0**
No of children in family		
1	**70**	**35**
2	**82**	**41**
3	**35**	**17.5**
More than 3	**13**	**6.5**

Table No. 4.2 The chart describing the knowledge score

(N=200)

S. No.	Knowledge Score	Score	
		No.	%
1.	Poor (0-3)	153	76.5%
2.	Average (04-06)	46	23%

3.	Good (7-10)	01	0.05%
	Total	200	100.0

b)Level of attitude regarding oral health

Table No. 4.2.3 Table describing the attitude among the children

(N=200)

S. No.	Attitude	Attitude Score	
		No.	%
1.	Positive Attitude (26-50)	135	67.5%
2.	Negative Attitude (0-25)	65	32.5%
	Total	200	100.00%

c) Level of practice regarding oral health

Table No. 4.2.2 Table describing the practice among the children

(N=200)

S. No.	Practice Score	Score	
		No.	%
1.	Good (7-10)	35	17.5%
2.	Average (0-6)	110	55.5%
3.	Poor (0-3)	55	27%
	Total	200	100.00%

DISCUSSION –

- **Section I: - To assess the knowledge regarding oral health among school going children age group between 9 – 13 years old.**
- **Level of knowledge regarding oral health**

The participants were given a questionnaire regarding knowledge about oral health, which consisted of 10 questions they were given 1 number for each correct answer and 00 for a wrong answer. These score were than graded in four categories – Poor (0-3), Average (4-6), Good (7-10). The knowledge score of sample show that majority 153(76.5%) in poor range, follow by 46 (23%) sample who had an average and 01 (0.05%) sample had a good score.

Tikare S, Eroje B, Saeed M et.al (2019), reviewed a study with an aim to assess paediatrician's knowledge and practice about ECC and infant oral health in Abha-Khamis. A cross-sectional study used a structured and pretested questionnaire. The study population included all the paediatricians practicing in the city of Abha-Khamis. It was showcased that total of 61 paediatricians completed the questionnaire. Most paediatricians (80%) were in agreement that white spots/lines on tooth surface were the first signs of tooth decay. Only 21% of the paediatricians agreed that only bottled-fed babies are affected by ECC while 72% disagrees, and 6.6% were not sure. Nearly half of the respondents (55%) were aware of the recommended age for prescribing fluoridated toothpaste. Most paediatricians (75%) had correct knowledge regarding the recommended child's first dental visit. The results suggest that most paediatricians (95%) performed routine visual examination of the oral cavity, 75% reported to have routinely conducted parental counselling regarding diet and oral hygiene practices, and majority of the practitioners (93%) often make referrals to dental clinics.[36]

- **Section II: - To assess the attitude regarding oral health among school going children age group between 9 – 13 years old.**

b) Level of attitude regarding oral health

The analysis clearly stated that can be clearly seen the majority of the sample falls under category of positive attitude between 25-50 that is 135(67.5%) and 65% were had negative attitude towards oral care i.e. 65(32.5%).

Bodhale P, Khedkar S (2014), examined a study on the topic, Knowledge and attitude of parents toward oral health maintenance and treatment modalities for their children. The purpose of this study was to determine parental awareness of their children's oral health maintenance and their attitude toward dental treatment. Total 284 parents from different socioeconomic groups participated in the study. They depicted that awareness among parents was significantly lower in low socioeconomic group. Their attitude toward dental treatment differed significantly in which only 53% parents from high socioeconomic group preferred going to the paediatric dentist. The level of awareness among parents is relatively low and there is need for the implementation of oral health awareness programs for parents to change their attitude toward dental treatment of their children.[43]

Section III: To assess the practice regarding oral health among school going children age group between 9 – 13 years old.

Castino A, Miathe F, Rontani P et.al (2013), conducted a study on the topic, Influence of family environment on children's oral health: a systematic review. The aim is to review current models and scientific evidence on the influence of parents' oral health behaviours on their children's dental caries. A total of 218 citations were retrieved, and 13 articles were included in the analysis. The studies were eligible for review if they matched the following inclusion criteria: (1) they evaluated a possible association between dental caries and parents' oral-health-related behaviours, and (2) the study methodology included oral clinical examination. The main search terms were "oral health", "parental attitudes", "parental knowledge", and "dental caries". They later depicted that parents dental health habits influence their children's oral health. Oral health education programs aimed at preventive actions are needed to provide children not only with adequate oral health, but better quality of life.[44]

c) Level of practice regarding oral health

For testing the practice of the children , again 10 sets multiple choice question were prepared , whose results were categorized under three heading good , average and poor practice . During analysis, the researcher found that out of 200 110(55.5%) found to have average practice, 55(27.5%) have poor practice and 35(17.5%) good practice.

Martin M, Pugach O, Avenetti, Lee H et.al (2020), depicted an article on the topic, Oral Health Behaviours in very young children in low income urban areas in Chicago, Illinois. They assessed child frequency of brushing from caregiver reports and objectively determined child dental plaque scores. Significant factors associated with tooth brushing frequency and dental plaque score were identified using the Least Absolute Shrinkage and Selection Operator variable selection. They found that child brushing frequency was higher when children were older; used the correct toothpaste amount; brushed for a longer duration; and when caregivers brushed their own teeth more frequently, had more help with the overall care of the child's teeth, and had family to help.[46]

Section IV: Correlation of socio demographic variable with knowledge, Attitude and Practice Score regarding oral health among school going children.

Divaris K, Chi D L, Milgron P et.al (2014), conducted a study on the topic, Improving Children's Oral Health. In the present article it summarizes the proceedings from the symposium on the interdisciplinary continuum of paediatric oral health that was held during the 43rd annual meeting of the American Association for Dental Research, Charlotte, North Carolina, USA. This report showcases the latest contributions across the interdisciplinary continuum of paediatric oral health research and provides insights into future research priorities and necessary intersect oral synergies. Issues are discussed as related to the overwhelming dominance of social determinants on oral disease and the difficulty of translating science into action.[54]

This study interpreted the correlations criteria with r value 0–0.25 = a weak correlation, 0.25–0.5 = fair correlation, 0.5–0.75 = moderate correlation, and > 0.75 = strong correlation shows the correlation between KAP scores and their relation with demographic characteristics. The analysis of knowledge-practice ($r = 0.19$, $p < 0.01$) and attitude-practice ($r = 0.08$, $p < 0.05$) both showed significant positive linear correlations, however they were weak.

The relationship between knowledge and education was fairly strong ($r = 0.34$, $p < 0.01$) but with other variables was weak. Knowledge was positively correlated with

participant's age ($r = 0.11$, $p < 0.01$) and number of children in family and found neutral with educational status of children while the relationship with religion ($r = -0.13$, $p < 0.01$), type of family ($r = -0.11$, $p < 0.01$) type of living ($r = -0.11$, $p < 0.01$) and occupation ($r = -0.08$, $p < 0.05$) were negatively correlated.

Attitude was correlated with age ($r = -0.23$, $p < 0.01$), gender ($r = -0.25$, $p < 0.01$), religion ($r = -0.08$, $p < 0.05$), type of family ($r = -0.12$, $p < 0.01$), type of living and occupation and further on showed positive relation with the education level of participants ($r = 0.16$, $p < 0.01$) and number of children in family. Half of them showed negative correlation and educations of household and children, however those relationships were moderate.

Likewise, practice score correlations were weak in relation to age ($r = -04$, $p < 0.05$), religion gender ($r = -02$, $p < 0.05$), type of family and living ($r = -0.10$ and r=0.03, $p < 0.01$) respectively while occupation ($r = 0.00$, $p < 0.01$) neutral and education ($r = 0.25$, $p < 0.01$). Gender and education were positively correlated with practice and number of children positively correlated and overall, there were a good positive moderate correlation.

CONCLUSION: -

The present study provides information on prevalence of knowledge, attitude and practice regarding behaviour children on oral hygiene. The survey was confined to the school records under oral health education programme and therefore the data are not representative in pure statistical term. Systematic health education improves the oral

health of children, and primary schools provide the effective setting for such oral health programs. Children should be educated about ill effects of smoking, and should persuade their parents in quitting the habit. Education to the parents is also needed.

RECOMMENDATIONS: -

On the basis of the findings of the study following recommendation have to be made:

- A similar study can be done on larger samples.
- A similar study can be done in a hospital clinical teaching and demonstration in laboratory.
- A comparative study can be done to detect knowledge among the parents of children in both rural and urban setting.
- A similar study can be done conducted to assess the effectiveness of other learning methods.
- A study can be done using different teaching techniques to educate the patients

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