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A study to assess the knowledge regarding prevention of dental caries among children

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Abstract
Background: Oral health is the absence of disease and the optimal functioning of the mouth and its tissues. Oral disease are globally health problem in both industrialized and especially in the developing countries.
Objective: To assess the level of knowledge regarding prevention of dental caries among school children and to determine the association of level of knowledge regarding prevention of dental caries among school children with selected demographic variables.
Material and Method: A descriptive design was used to collect data from school children. The subjects consisted of 220 school going children who were selected using convenient sampling method. With paper pencil technique data were collected by administering a structured knowledge questionnaire. Data were analysed using descriptive statistics such as mean, median and standard deviation, and inferential statistics such as Chi square test.
Result: Majority of school going children had good knowledge (35.45%) regarding prevention of dental caries. The computed chi square value of knowledge score with relation to selected demographic variables of school going children were found to be statistically not significant at 0.05 level of significance which indicate that these demographic variables have no impact on knowledge of school children except class, dietary habits, family monthly income in rupees, education of father, education of mother, how many times do you brush daily that was found statistically significant at 0.05 level of significance.
Conclusion: To put in the nutshell, present study revealed that most of school going children had good knowledge regarding prevention of dental caries.

Keywords: Knowledge, Prevention of Dental caries, School children

Introduction
Oral health is the absence of disease and the optimal functioning of the mouth and its tissues. Oral disease such as dental cancer, oral cancer, periondonitis are globally health problem in both industrialized and specially in the developing countries [1, 2].
Oral diseases have been a persistent public health problem globally, with almost every individual experiencing poor oral health at least once in their lifetime [3, 4]. Oral health is a state of being free from chronic mouth and facial pain, oral and throat cancer, oral sores, birth defects such as cleft lip and palate, periodontal disease, tooth decay and tooth loss, and other diseases and disorders that affect the oral cavity [5, 6]. Oral affects the general health, well-being, education and development of children and their families [7].
According to WHO the worldwide prevalence of dental caries is 60-90% school children. According to WHO, aim of "Health for All by the year 2000" the global status for children, should be that 50 % of children between the ages of 5 and 6 years will be caries free and at 12 years of age they should have 3 or fewer decayed, missing or filled teeth. In India caries is the commonest disease in school age, high rate due to lack of appropriate care and inadequate knowledge regarding dental hygiene. Dental health is hence dental health education and motivation shall be more effective [8].
Many health problems occur in the mouth, such as oral thrush, bad breath and others are considered as the effects of poor oral hygiene. Most of the dental and mouth problems may be avoided just by maintaining good oral hygiene [9].
A study shows that there was a significant association between the level of knowledge and the selected baseline variables such as age [10].

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A study shows that in spite of good knowledge among parents, their attitude, and practices are lacking to keep up with necessary standards. Parents should be informed to brush their children's teeth at least once by parents themselves at night before going to bed. This shows that parents need to be trained and motivated to carry out oral hygiene practices in a proper way and efficiently [11].

Methodology
The present study was conducted to assess the knowledge regarding prevention of dental caries among school going children. Non experimental approach with descriptive research design was used in the study and the study variables was Knowledge and school children. Total 220 school children was selected with convinent sampling technique from Govt. Girls high school Mullana, Ambala & Arya Sen. Sec. School Mullana, Ambala, Haryana. School going children class 6th, 7th & 8th of selected schools was included in the study and those who were not willing to participate and are failure in the class was excluded from the study.

Structured Knowledge questionnaire was used to assess the knowledge of school going children regarding prevention of dental caries with the help of Paper pencil technique. 25 knowledge questionnaire covering the, Introduction, Concept, Causes, Sign and symptoms and Prevention and treatment area regarding prevention of dental caries.

Content validity of tool was measured and the tool was found to be reliable by measuring the KR20 (Kudar Richerdson 20) and it was 0.6 (0.6-1.00).

Final study was conducted in the last week of Feb.2017. The total 220 sample were selected by using from differnt schools of class 6th, 7th 8th by using convenient sampling technique. Consent was taken from participants and information about purpose and nature of study before the data collection was given it takes 15 minutes. Then data was collected with the help of demographic variable and structured knowledge questionnaire. 25-30 minutes were given to students to fill the structured knowledge questionnaire. In a class total 45 minutes was used for collected the data.

Result
The data shows that the half of children 111 (50.5 %) were in the age group of 11-12 years. Most 138 (62.7%) of the children were female. Majority 77 (35%) of children were from class 7th. Most 161 (73.3%) of children were from rural area. Most 205 (93.2%) of children were Hindu. Most 205 (93.2%) of children were vegetarian. Most 156 (70.9%) of children had monthly family income (in rupees) <5000. Majority 77 (35%) of children's father education was secondary level. Half 91 (41.4%) of children's mother education was secondary. Half 103 (46.8%) of children's father occupation was labourer. Most 196 (89.1%) of children's mother occupation was homemaker. Majority 128 (58.2%) of children's no. of teeth were 27-29. Majority 148 (67.3%) of children's daily brushing times were twice a day. Most 177 (80.5%) of children were not having any history of dental caries. Most 218 (99.1%) of children were used Colgate to clean the teeth.
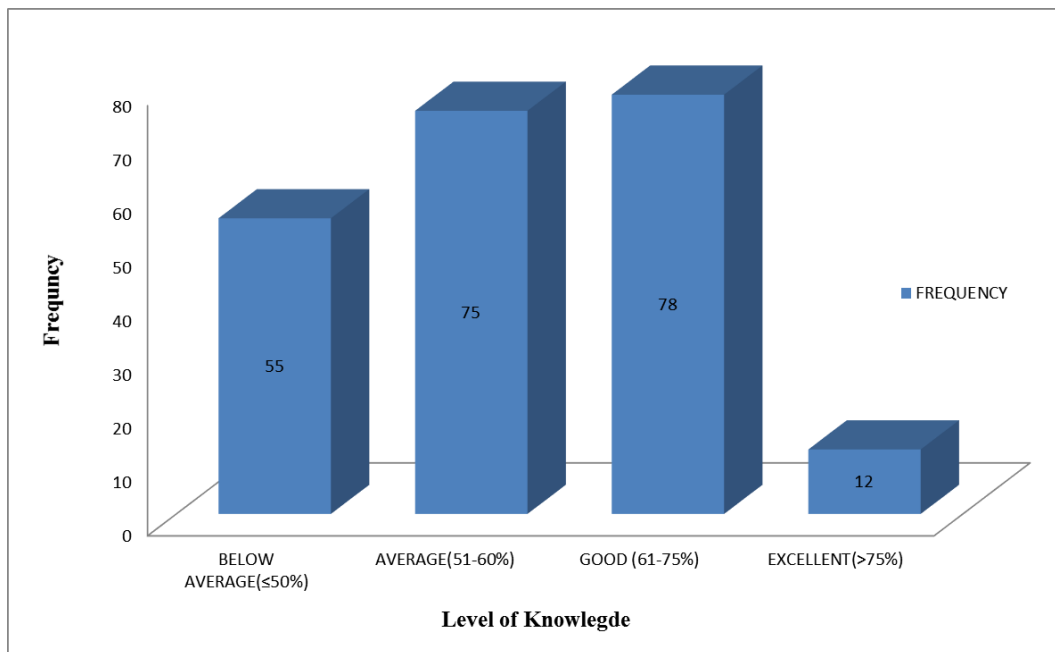

Fig 1: Bar Diagram showing level of knowledge of school going children regarding prevention of dental caries.

Table 1: Range, Mean, Median, Standard Deviation of knowledge score of school going children regarding prevention of dental caries, N=220

Level Of Knowledge	Range	Mean ± S.D	Median
Knowledge score	6-22	14.45±3.02	15

Table no 1:- shows that the Range of level of knowledge of school going children was 6-22, Mean with S.D was 14.45±3.02 and median was 15.

Table no.2: Depict that the computed chi square value of level of knowledge score with relation to demographic variable of school going children were found to be not significant at 0.05 level of significance which indicate that these demographic variables have no impact on knowledge of school children. Except class, dietary habits, family income, father education, mother education that was found statistically significant at 0.05 level of significance, which means these variables affects the knowledge of school going children.

Discussion

The data shows that Most 161 (73.3%) of children were from rural area. Majority 77 (35%) of children's father education was secondary level. Half 91 (41.4%) of children's mother education was secondary. The findings was in consistent with the findings of Ernesto Smyth, Francisco Caamaño which shows that Mother's educational level was most frequently primary (52%). Habitat of residence was roughly equally split between urban and rural (56% urban, 44% rural) [12]. Also in consistent with the findings of "Nayana, Umarani. J" witch shows that the majority (59.00%) of school children had moderate level of knowledge of oral hygiene, and only 41% had adequate knowledge of oral hygiene and none of them had inadequate knowledge regarding oral hygiene [13].

The study reveals that majority 78 (35.45%) of children had good level of knowledge regarding prevention of dental caries. the findings were in consistence with the findings of "Ms. Manveer Kaur" which shows that majority of sample 47(78.3%) had average level of knowledge [14].

The computed chi square value of level of knowledge score with relation to demographic variable of school going children were found to be not significant at 0.05 level of significance which indicate that these demographic variables have no impact on knowledge of school children. Except class, dietary habits, family income, father education, mother education that was found statistically significant at 0.05 level of significance, which means these variables affects the knowledge of school going children the findings were in consistent with the findings of "Deepa Peter, Priya Janifer Fernandes" which shows that The chi-square values computed between the knowledge level and selected baseline variables such as age (27.461), gender (18.570), education (22.345), type of family (10.226), and previous visit to the dentist (7.173) were found to be significant at 0.05 level of significance. Hence, null hypothesis was rejected and alternate hypothesis was accepted. It was inferred that there was a significant association between the level of knowledge and the selected demographic variables such as age, gender, education, type of family, and previous visit to the dentist [15].

Conclusion

To put in the nutshell, present study revealed that most of school going children had good knowledge regarding prevention of dental caries. There are some demographic variables class, dietary habits, family monthly income in rupees, education of father, education of mother, how many times do you brush daily were associated with the level of knowledge.

References

1. Perry Potter. Fundamentals of Nursing, Published by Elsevier, 7th edition, 884-888:167.
2. Kozier, Erb's. Fundamentals of Nursing, Published by Dorling Kindersley, 8th edition, 370, 601, 764, 765.
3. Lins. Diseases in rural India Implementing Public Health Interventions in developing countries. 105-129.
4. Muhammad AS. Determinants of Oral Hygiene Status among junior secondary school in llorin west local government area of Nigeria. IOSR Journal of pharmacy and biological sciences. 2012, 44-48.
5. National Institute of Dental and Craniofacial research. Chapter-1: Meaning of Oral health accessed. 2013, 7.
6. Curzon M. Pediatric Operative Dentistry Lippincott; Company, 1996.
7. Peterson PE. Health- promoting schools an opportunity for oral health promotion. Bulletin of the World Health Organization, 2005, 677-685.
8. Department of Child Health Nursing, Father Muller College of Nursing, Manglore, Karnataka, India, 2016; 7:32-34.
9. Suresh BS. Department of Pedodontics and Preventive Dentistry, Teerthankar Mahaveer Dental College, Moradabad, 2010; 28:282-287.
10. www.iosrjournals.org, Kaur Manveer, Lecturer, Child Health Nursing.
11. World Health Organization (WHO). Oral health. Accessed at http://www.who.int
12. Ernesto Smyth, Francisco Caamaño. Med. oral patol. oral cir. bucal (Internet). 2007; 12:8.
13. Nayana Umarani J. Journal of Scientific and Innovative Research. 2014; 3(2):134-138.
14. IOSR Journal of Nursing and Health Science. (IOSR-JNHS) e-ISSN: 2320–1959. p-ISSN: 2320–1940. 2013; 1(3):05-08.
15. Deepa Peter, Priya Janifer Fernandes. Mullar journal of medical sciences and research. 2016; 7(1):32-34.