Oral health Attitude Knowledge Behavior and Consent towards Dental treatment among School children

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Abstract:

This study aims at determining the oral health awareness level, attitude, knowledge, behavior, pattern of dental health practice and consent towards their dental treatment as well as to evaluate the factors that determine these variables and their association with socioeconomic status. School children of age 8-15 years were recruited for this study. They are divided into two groups: high socioeconomic and low socioeconomic status. The subjects completed a questionnaire that aimed to evaluate school children's behavior, knowledge, attitude, perception of their oral health and consent towards their dental treatment.

15.9% subjects found to brush their teeth twice in a day among high socioeconomic group and 9.9% among low socioeconomic. Among 22.5% of high socioeconomic and 8.6% of low socioeconomic group pain is the driving factor for dental visit. 13.2% and 11.3% of high and low socioeconomic class wants that they should be involved in decision making process about their treatment.

The result of this study indicate that children and parents attitude ,awareness toward oral health need to be improved irrespective of socioeconomic status of family but special attention must be given to low socioeconomic class. Comprehensive oral health education programs are required to achieve these goals.

Key Words: Oral health attitude; behavior; knowledge; consent.

Introduction:

Childhood is the period of greatest change in life. It is widely recognized that good oral health practices are necessary from a young age to ensure positive long term dental health and hygiene. The oral health of children is important towards their overall well being. The past fifty years have witnessed a reduction in the severity and prevalence of oral disease among the population of developed countries.[1-3] Dental care has been systematically organized to improve dental health attitudes among children and the young.[4]

Dental caries occurs as a result of complex interplay of social, cultural, behavioral dietary & biological risk factor[5]. Too frequent consumption of food stuffs containing sticky and sugar material and lack of fluoride are the two main factors for the development of dental caries[6]. Dental caries, the most common childhood disease is preventable with a judicious preventive regimen including fluorides.[7] The level of caries differed between fluoridated and non-fluoridated areas.[8,9]

Children whose parents afford them personal authority in decision making about family and personal matters may be better prepared to take part in medical decision than children from sheltered family.[10] Basic behavior change theory such as the social learning theory[11] and the health belief model[12] suggests that changes may be brought about using a concerted approach in individual interactions.

This study aims at determining the oral health awareness level, attitude, knowledge, and behavior, the pattern of dental health practice and consent to their dental treatment and their relationship with the socio-economic status of the family among 8-15 year old school children in Udaipur city Rajasthan.

Material and Methods:

This research was conducted in Udaipur city between the time periods of November 2008 to January 2009. For a fair sample selection city was divided into north, south, east and west, according to the geographic location. The sample includes both male and female and consists of 302 subjects with an age range of 8 -15 years. The subjects comprising the population of the study were recruited from randomly selected eight schools, four private public school and four government schools. Children were divided into two group's High

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socioeconomic group (Class 1) and low socioeconomic group (Class 2) on the basis of ministry of health and welfare Government of India.

Approval from the school authority was obtained explaining the purpose of the study and the procedures that would be followed during its conduct. Consent forms were distributed to school children for an approval by their parents. The study protocol was reviewed and approved by ethical committee of Darshan Dental College and Hospital.

For conducting the study an interview schedule was designed and a total of 324 students of class sixth to class ninth were invited. Children whose consent forms were not obtained and whose Performa was not properly filled were excluded from study and thus the sample consisting of 302 students.

A pre-tested questionnaire was used for data collection. Two trained doctors were available during the completion of questionnaire and participants were encouraged to approach them whenever they needed clarification of any point. The results were entered on the spreadsheets and statistical analysis was done using SPSS software version11.0.

Results:

Table I: Oral hygiene habits among the study population (n=302)

	Class 1	Class 2	Total	
Brushing frequency	N(%)	N(%)	N(%)	
Less than once per day	0	4(1.3)	4(1.3)	Chi^2=3.99 P=*
Once per day	98(32.5%)	118(39.1)	216(71.5)	
Twice per day	48(15.9)	30(9.9)	78(25.8)	
More than twice per day	4(1.3)	0	4(1.3)	
Oral hygiene method used				
Paste + toothbrush	130(43)	136(45)	266(88.1)	Chi^2=5.12 P=*
Dental floss	2(0.7)	2(0.7)	4(1.3)	
Mouthwash	12(4)	0	12(4)	
Toothpicks	4(1.3)	0	4(1.3)	
Other	2(0.7)	14(4.6)	16(5.3)	
Role of parents in supervision of oral hygiene				
Watch while brushing teeth	28(9.3)	40(13.2)	68(22.5)	Chi^2=6.56 P=*
Do not but advice	82(27.2)	14(4.6)	96(31.8)	
Never cared	26(8.6)	76(25.2)	102(33.8)	
Only my mother watches me	14(4.6)	22(7.3)	36(11.9)	

*< 0.05(S)

Table 1 reveals that approximately 39% of study sample brushes their teeth once a day among the low socioeconomic group and 32% among high socioeconomic group.

About 43% and 45% of subjects from high socioeconomic group and low socioeconomic group respectively found to use tooth brush and paste for cleaning teeth. 0.7% of high socioeconomic class and 4.6% of low socioeconomic class were found to use other materials for cleaning their teeth.

Table II: Awareness of periodontal and gingival health among the study population.

	Class1	Class2	Total	
Gingival bleeding means	N(%)	N(%)	N(%)	
Gingivitis	108(35.8)	4(1.3)	112(37.1)	Chi^2=7.09 P=*
Healthy gingival	12(4.0)	30(9.9)	42(13.9)	
Gingival recession	20(6.6)	6(2)	26(8.6)	
Don't know	10(3.3)	112(37.1)	122(40.4)	
What does plaque means				
Soft deposits on teeth	78(25.8)	4(1.3)	82(27.2)	Chi^2=8.87 P=*
Heavy deposits on teeth	42(13.9)	18(6)	60(19.)	
Tooth discoloration	22(7.3)	10(3.3)	32(10.6)	
Don't know	8(2.6)	120(39.7)	128(42.4)	
How to prevent gingivitis				
Brushing and flossing	82(27.2)	14(4.6)	96(31.8)	Chi^2=4.14 P=*
Soft food	38(12.6)	34(11.3)	72(23.8)	
Vitamin C	22(7.3)	28(9.3)	50(16.6)	
Don't know	8(2.6)	76(25.2)	84(27.8)	

*< 0.05(S)

Table II shows that 37.1% of the low socioeconomic groups do not know about bleeding gums while in high socioeconomic group only 1.3% of subjects did not know about bleeding gum. when subjects were asked about the link between dental plaque on one hand and gingivitis, caries and tooth discoloration on the other 25.8% of the high socioeconomic class subjects said that it can lead to inflammation while 1.3% of low socioeconomic class answered same 13.9% of high socioeconomic class and 6% of low socioeconomic class subjects said that plaque can lead to staining.

Table III: Knowledge and awareness of dental and general health among the study population.

	Class 1	Class 2	Total	
Does caries affect dental aesthetics	N(%)	N(%)	N(%)	
Yes	90(29.8)	16(5.3)	106(35.1)	Chi^2= 44.04 P= *
No	48(15.9)	54(17.9)	102(33.8)	
Don't know	12(4%)	82(27.2)	94(31.1)	
Do sweet affect dental health				
Yes	130(43)	44(14.6)	174(57.6)	Chi2=05.6 P=*
No	12(4)	36(11.9)	48(15.9)	
Don't know	8(2.6)	72(23.8)	80(26.5)	
Do soft drinks affect dental health				
Yes	118(39.1)	18(6)	136(45)	Chi^2=50.9 P=*
No	22(7.3)	32(10.6)	54(17.)	
Don't know	10(3.3)	102(33.8)	112(37.1)	
Does the health of mouth and dentition impact health of body				
Yes	114(37.1)	14(4.6)	128(42.4)	Chi2=54.14 P=*
No	24(7.9)	32(10.6)	56(18.5)	
Don't know	12(4)	106(35.1)	118(39.1)	
Treatment of tooth ache is as important vas any organ in the body				
Yes	112(37.)	18(6)	130(43)	Chi2=33.39 P=*
No	28(9.3)	48(15.9)	76(25.2)	
Don't know	10(3.3)	86(25.2)	96(31.8)	

* 0.000(HS)

Table III reveals that majority of the study sample from high socioeconomic group reported that dentist did provide proper care (36.4%) and explain dental procedures (35.8%) while among low socioeconomic group majority of subjects do not know about mentioned questions. When subjects were asked does dental caries affect aesthetics 29.8% from high socioeconomic class replied yes and 5.3% from low socioeconomic group .While 27.2% of subjects from same group does not know about it.

Table IV: Attitude towards professional dental care among study population (n=302)

Table IV reveals that approximately 22.5% subjects from high socioeconomic class and 9.3% from low socioeconomic class regularly visits the dentist while 37% and 4% from high and low socioeconomic class respectively were aware of importance of regular visit. About 0.77% and 4.6% of high and low socioeconomic class never visited dentist. Most common cause of not visiting the dentist on a regular basis or reason for disliking to visit the dentist was fear.

Questions	Class 1	Class 2	Total	
How often do you visit the dentist?	N(%)	N(%)	N(%)	
Regularly every 6-12 months	68(22.5)	28(9.3)	96(31.8)	Chi^2=0.52 P=*
Occasionally	40(13.2)	58(19.2)	98(32.5)	
When have dental pain	40(13.2)	52(17.2)	92(32.5)	
Never visited dentist	2(0.7)	14(4.6)	16(5.3)	
Regular visit to dentist necessary				
Yes	112(37.1)	12(4)	124(41.1)	Chi^2=63.2 P=*
No	26(8.6)	26(8.6)	52(17.2)	
Don't know	12(4)	114(37.7)	126(41.7)	
The driving factor for my last visit to dentist				
Dental pain	68(22.5)	26(8.6)	94(31.1)	Chi^2=5.04 P=*
Family and friend advice	44(14.6)	20(6.6%)	64(21.2)	
A dentist advised	28(9.3)	96(31.8)	124(41.1)	
Another reason	10(3.3)	10(3.3)	20(6.6)	
The management sought in last visit				
Check teeth	22(7.3)	16(5.3)	38(12.6)	Chi^2=3.97 P=0.016(NS)
Have scaling	40(13.2)	42(13.9)	82(27.2)	
Have filling	62(20.5)	42(13.9)	104(34.4)	
Have tooth extraction	18(6)	40(13.2)	58(19.2)	
Other	4(1.3)	6(2)	10(3.3)	
Dentist explains procedure before treatment				
Yes	108(35.8)	56(18.5)	164(54.3)	Chi^2=5.15 P=*
No	34(11.3)	20(6.6)	54(17.9)	
Don't know	14(4.6)	92(30.5)	106(35.1)	
Dentist cares properly about the patient				
Yes	110(36.4)	12(4)	122(40.4)	Chi^2=2.47 P=*
No	32(10.6)	48(15.9)	80(26.5)	
Don't know	8(2.6)	92(30.5)	100(33.1)	
Reason behind not visiting the dentist				
Fear of drill	84(27.8)	44(14.6)	128(42.4)	Chi^2=1.82 P=*
Fear of needle	60(19.9)	36(11.9)	96(31.8)	
High cost	4(1.3)	44(14.6)	48(15.9)	
No clinic nearby	-	28(9.3)	28(9.3)	
No time	2(0.7)	-	2(0.7)	
Dentist cares about treatment but not prevention				
Yes	100(33.1)	10(3.3)	110(36.4)	Chi^2=3.30 P=*
No	36(11.9)	50(1.6)	86(28.5)	
Don't know	14(4.6)	92(30.5)	106(35.1)	

* 0.000(HS)

Table V: Children informed consent to dental care according to socioeconomic status.

Table V shows that in 25.8% of the subjects belonging to high socioeconomic class reported that dentist, parents and child must decide about the treatment plan where else 6% among low socioeconomic class reported the same respectively. It was only about 1.3% where decision was taken by both parents and children in high and 5.3% in low socioeconomic class.

	Class 1	Class 2	Total
Who decided about your treatment ?	N(%)	N(%)	N(%)
Dentist	10(3.3)	62(20.5)	72(23.8)
Dentist and parents	58(19.2)	56(18.5)	114(37.7)
Dentist, parents and child	78(25.8)	18(6)	96(31.8)
Parents and child	4(1.3)	16(5.3)	20(6.6)
Who should decide about your treatment?			
Dentist	6(2)	54(17.9)	60(19.9)
Dentist and parents	52 ((17.2)	18(6)	70(23.2)
Dentist, parents and child	40(13.2)	34(11.3)	74(24.5)
Parents and child	52(17.2)	46(15.2)	98(32.5)

When asked who should decide about your treatment 17.2% from high socioeconomic class and 15.2% from low socioeconomic class answered in favor of parents and child where else 17.9% from low socioeconomic class replied for dentist to take decision for their treatment.

Discussion:

This study presented a comprehensive overview of the oral health behavior, knowledge, attitude and consent towards their dental treatment among school children of Udaipur, India.

Previous studies on Jordanian school children showed that oral hygiene, gingival conditions and dental caries have improve since the early 1990s although gingival disease and dental caries among Jordanian were found to be more prevalent than in developed countries. [13,14]

This study found that a high percentage of the study population brush their teeth once in a day and number of children among high socioeconomic class found to brush their teeth twice a day when compared to low socioeconomic class children. The results can be compared with a study of Chinese school children where 22% of the twelve year old group brushed at least twice a day, 62% brushed once a day and 16% never brushed or brushed less frequently[15].

Majority of study population used toothbrush and paste. The use of other recommended oral hygiene method such as dental floss and mouthwash was found to be rare. These findings are found to be same when compared with North Jordanian school children.[16] This could be attributed to the lack of oral health education and /or the cost of such aids.

Walsh [17] in a study of twelve and fourteen year old students in San Francisco, reported that about 96% of the respondents used the tooth brush at least once a day and 75% claimed to use the dental floss at least once a day where else in the present study only 1.3% of the individual use floss once a day this could be justified because of lack of awareness towards oral hygiene in the developing countries like India.

Subjects from high socioeconomic group reported that bleeding gums means gingivitis which can lead to inflammation and can be prevented by brushing and flossing. This shows awareness regarding gingival bleeding as an indicator of periodontal disease, a finding that analogues with the results of a study among 12 to 14 year old Jordanian children[18].Majority of the study population from low socioeconomic group answered that they do not know about it this shows poor knowledge of low class children regarding periodontal conditions.

Most of the study subjects reported irregular dental attendance and this finding is consistent with the findings on Jordanian adults and children[4,5].The subjects from high socioeconomic group were aware of the importance of regular dental attendance. This can be explained by this that majority of the study sample not visit the dentist due to fear of drill and needle.

Regarding consent majority of the subjects wanted to be involved in the decision making process. These could be explained by the fact that children try to achieve independence and start attempts to build their identity without family interference. This may be due to the recent changes in the society as the schools are making children independent and take decision on their own.

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