

## Dental service utilization among junior secondary school students in Ibadan, Nigeria

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**Abstract** The study was carried out to determine factors affecting oral health care service utilization among a representative sample of junior secondary school children in Ibadan, Nigeria. The study was a cross sectional one in which self administered questionnaire was filled by each student. Data were collected on their socio-demographic characteristics, previous visit(s) to the dental clinic and reasons for the visit(s), reasons for non dental visits for those who have never visited the dentist, the students' beliefs in regular dental visits and reasons for these beliefs. Only 457 students completed their questionnaires reasonably well and their responses were analysed. Their mean age was  $13.04 \pm 1.10$  years. Over 80% of the children claimed they have never visited the dentist and lack of perceived need accounted for 82.8% of the various reasons given for the non visit. Sixty eight point nine percent of the children believed in regular dental visits while 27.8% of them did not believe in regular dental visits. Equity in access and opportunity for disease prevention among young adolescents may be achieved by school oral health program whereby regular oral health talks/education is instituted.

### Key words

Dental services,  
Nigeria,  
Students,  
Utilization

### Introduction

Good oral health is an essential part of good general health and well being throughout life. Regular dental visit has been found to provide an opportunity for oral health professionals to diagnose illness, provide primary preventive services and treat diseases and other health related problems<sup>1</sup>, and this has contributed substantially to healthy mouths for millions of children and adults. The United States department of health and human services also recognizes the importance of regular dental visits<sup>2</sup>.

Dental care utilization has been defined as the percentage of the population who access dental services over a specified period<sup>3</sup>. National health objectives for healthy people 2010<sup>2</sup> call for an increase in the proportion of those aged 2 years or older who use the oral health care system at least

once a year and an increase in the proportion of low income people younger than 19 years of age who are known to be at a higher risk for disease.

Most often children from low income or minority families have serious problems receiving the care they need. Some of the serious factors identified to limit access to dental care for these children include lack of finances, lack of transportation, language and cultural barriers and lack of perceived need for care<sup>4</sup>. In Nigeria, studies are needed to determine the utilization of dental services among cohort of Nigerian population so as to enable dental professionals plan programs that will ensure equity in access to oral care, although some studies have been conducted on utilization of dental services both within Hospital settings and communities<sup>5-10</sup> but none has been conducted among young adolescents with a view of knowing their beliefs on regular dental visits.

The aim of this study was to determine factors affecting oral health care service utilization among

Received on June 18, 2010

Accepted on September 17, 2010

Table 1 Characteristics of the children

Variable	No (%) of respondents N = 457
<b>Gender</b>	
Male	217 (47.5)
Female	240 (52.5)
<b>Social class</b>	
Low	324 (70.9)
Middle	129 (28.2)
High	4 (0.9)
<b>Previous dental visit</b>	
Yes	63 (13.8)
No	392 (85.8)
No response	2 (0.4)
<b>Believe in regular dental visits</b>	
Yes	315 (68.9)
No	127 (27.8)
No response	15 (3.3)

some junior secondary school children in Ibadan, Nigeria.

## Materials and Methods

This was a cross sectional study in which children from state government junior secondary schools in Ibadan, Nigeria were interviewed. A multistage sampling method was adopted to select the participants in the study. The children were selected using proportionate sampling method from the list of schools obtained from the state Ministry of education in the five local government areas in Ibadan metropolis in March 2008. Eleven of such schools were selected. Each junior school had three classes and 20 children from an arm of each class were selected by simple random sampling technique.

Permission to visit the schools was given by Oyo state ministry of education and principals of the respective schools.

Self administered questionnaires were given to the children and data were collected on the following:

- Socio-demographic characteristics of the study group
- Socioeconomic class was determined using a modified version by Famuyiwa and Olorunshola<sup>11)</sup>
- Previous visit(s) to the dental clinic
- Reasons for the dental visit(s)

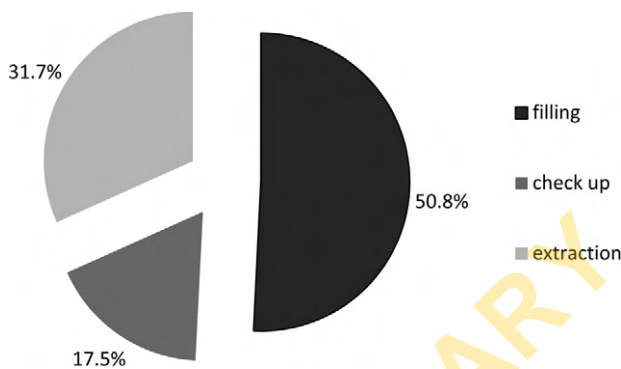


Fig. 1 Reasons for dental visits

- Reasons for non dental visit(s) for those who have never visited the dentist
- Belief in regular dental visits
- Reasons for and against regular dental visits

Data collected were analysed using SPSS version 12.0. Only children who had their questionnaires reasonably completed and submitted had it analysed. Frequency distribution tables were generated for categorical variables. Significance was at the 5% probability level.

## Results

Four hundred and fifty seven junior secondary school children completed their questionnaires and participated in the study with their age range between 8–16 years. Mean age was  $13.04 \pm 1.10$  years while the modal age was 14 years. Table 1 gives the characteristics of the children who participated in the study. Forty seven point five percent were boys while 52.5% were girls. Over 70% of the children were from the low socioeconomic class and less than 1% was from the high socioeconomic class. Three hundred and ninety two (85.8%) children claimed they have never visited the dentist while 63 (13.8%) claimed to have had previous dental visits. Of the 63 children who have had previous dental visits, 44 (69.8%) were girls while the remaining children were boys. Similarly 54.6% (214) of the children who had never had dental visits were girls while 45.4% were boys. This gender distribution of the children in relation to their previous dental visit was found to be statistically significant ( $\chi^2=5.1, P<0.05$ ). Figure 1 shows the various reasons for dental visits. About 50% of the children claimed they went for fillings, 17% claimed they went for check up, while

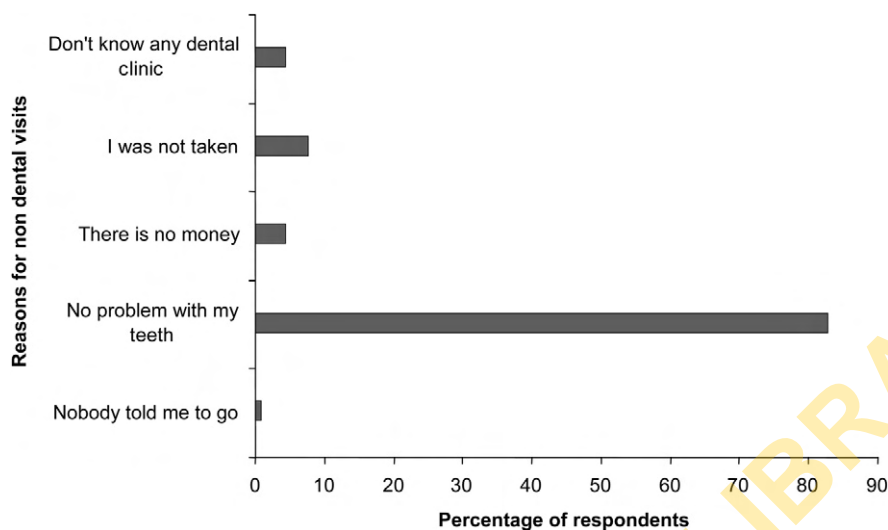


Fig. 2 Reasons for non dental visits

Table 2 Reasons for and against dental visits in the absence of dental problems

## a) Believe in dental visits

Response	n (%)
Allows early detection of diseases	109 (34.6)
Helps to prevent dental diseases	88 (28.0)
Helps with dental education	40 (12.7)
Allows prompt treatment	19 (6.0)
No response	59 (18.7)
Total	315 (100)

## b) Do not believe in dental visits

Response	n (%)
No need to visit if there are no problems	68 (53.5)
Money and attention needed for other things	13 (10.2)
Visiting the dentist is a waste of time	9 (7.1)
Dentist create more problems	3 (2.4)
No need to visit a dentist if teeth are clean	3 (2.4)
No response	31 (24.4)
Total	127 (100)

about 31% claimed they went for extractions.

Various reasons given for non dental visits included no perceived dental problem (82.8%), not taken by parents (7.7%), lack of funds (4.4%), lack of knowledge of location of any dental clinic (4.4%) and lack of information on regular dental visits (0.8%) (Fig. 2).

Four hundred and forty two children gave various reasons for and against dental visits in the absence

of dental problems while the remaining 15 children gave no reason(s).

Three hundred and fifteen (68.9%) of the children believed in regular dental visits if given the opportunity and 81.3% of them gave various reasons for this belief which included it is necessary for early detection of problems (34.6%), it will help with prevention of problems (27.9%). Other reasons are as indicated in Table 2. Out of 127 children who

did not believe in routine dental visits, 75.6% of them gave various reasons for their non belief. Lack of perceived dental problem was identified as the major reason why over 50% of the children did not believe in regular dental visits (Table 2).

## Discussion

Our study showed that utilization of oral health care services was very low among junior secondary school children attending government schools in Ibadan, Nigeria. This is contrary to the findings among Maryland public school children in kindergarten and third grade where utilization of oral health care services was found to be relatively high<sup>1)</sup> and this suggests a favourable visit pattern. The finding in this study was also at variance with national estimates for those younger than 19 years of age, as the 1996 Medical Expenditure Panel Survey (MEPS) showed that approximately 80% of dental visits in the United States were for a preventive or diagnostic service<sup>12)</sup>. Previous clinic based studies in Nigeria have shown that dental visits by children were symptomatic visits and pain from dental caries and its sequelae were the reasons for the visits<sup>6,13,14)</sup>. A significantly higher number of female children visiting the dentist in this study is expected as an earlier study has reported a higher mean DMFT value in female children<sup>15)</sup>. Various modifiable factors that influence regular dental visits have been identified. Among these are economic and socio-demographic factors, dental insurance status, perceived need for care and relative priority placed on oral health<sup>16)</sup>. The finding from this study indicate that perceived oral health status as indicated as 'I have no problem with my teeth' is a strong determinant of regular dental visit among the studied population. This reason was also observed in an earlier study<sup>8)</sup>. This erroneous belief may be explained on the basis of lack of public awareness and appreciation for oral health care among the populace in general. It is an indication of incorrect self assessment and low perception of dental needs. Until there are acute problems 'health per se' is of little relevance to adolescents and they perceive it as an abstract concept.

Dental care is also correlated with the educational level of the primary care giver, family income and insurance coverage<sup>16)</sup>. These three factors are quite low in the present study as reflected in the low socioeconomic status of most of the children while

insurance coverage is not in existence. Care givers preventive dental visits has also been related to their children visiting the dentist<sup>17)</sup>, as care givers who have had preventive dental visits were five times more likely to have taken their children to a dentist than care givers who sought dental care only for treatment or not at all. This therefore means establishment of a dental home as recommended by the American association of paediatric dentistry<sup>18)</sup> will only be feasible in countries with increase dental awareness.

A statistically significant association between some form of dental insurance and receipt of dental prophylaxis has been reported<sup>1)</sup>, given that dental prophylaxis is a covered benefit in most dental insurance plans.

Contrary to this in Nigeria, the National Health Insurance Scheme (NHIS) does not cover dental prophylaxis therefore utilization of routine dental services is expected to remain poor except an intervention process inform of oral health talk is put in place especially in our schools.

The high percentage of the children who believed in regular dental visits even in the absence of pain or discomfort is quite encouraging. Providing oral health care to adolescents can be a rewarding experience for the practitioner as they are a very "teachable" age with most adolescents acutely interested in their appearance and their health. Therefore including oral health education as part of education should be considered an important part of school curricula especially if dentists and other dental health professionals often have the opportunity to contribute to the school programs. This educational program can generate interest and stimulate changes in knowledge and attitude of those who do not believe in regular dental visits.

Lack of finances including lack of third party coverage has been identified as one of the factors limiting access to dental care for most children from low socioeconomic class. It is therefore not too surprising that a high percentage of these young adolescents under study believed that money would be needed for other things other than oral care despite the fact that the mouth is the gate way to the body.

In conclusion, lack of dental problems and lack of funds were among the factors identified for none dental clinic attendance. Achieving equity in access and opportunity for disease prevention among young adolescents may require serious efforts in oral

health promotion by dental professionals especially in children who are from low social class. This may include School Oral Health Program whereby regular oral health talks and educations are instituted. Also the NHIS should be made to cover diagnostic, preventive and restorative dental serviced for children up to 16 years with proper funding of the scheme and prompt reimbursement of oral health care providers participating in the scheme.

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## Appendix

### Questionnaire

- 1) Name of school and class \_\_\_\_\_
- 2) Sex: Male                      Female
- 3) Age (last birthday) \_\_\_\_\_
- 4) Fathers educational level and occupation \_\_\_\_\_
- 5) Mothers educational level and occupation \_\_\_\_\_
- 6) Have you been to the dental clinic before? Yes                      No
- 7) If yes, what for? \_\_\_\_\_
- 8) If no, why not? \_\_\_\_\_
- 9) Do you believe in dental visits even when you do not have any dental problems?  
Yes                      No
- 10) Please give reasons for your answer to question 9.  
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