Oral Health Care Knowledge and Practices of a Group of Deaf Adolescents in Lagos, Nigeria

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Abstract

Objective: *This study sought to determine the oral health care knowledge and practices of a group of deaf adolescents in Lagos.* ***Methods:*** *The study involved 50 students of Wesley School 1 for the Deaf, Lagos (26 males and 24 females, aged 10–19 years, mean 13.3±2.8). Information about previous dental care, oral hygiene, and snacking habits were obtained through a questionnaire and sign language by the teachers.* ***Results:*** *Only 12 percent of pupils had received dental care. Eight percent and 72 percent, respectively, gave correct answers to causes of tooth decay and bleeding gums. Ninety-four percent brushed their teeth once daily, with no significant sex difference (P>.05). Reported dental problems include bleeding gums (36%), tooth discoloration, and tooth decay. The majority of pupils (60%) preferred biscuits and soft drinks as snacks. More than 90 percent were willing to have a dental check-up.* ***Conclusions:*** *The oral health knowledge and practices of this group of children will improve through a controlled school-based oral health education program. [J Public Health Dent 2004;64(2):118-20]*

Key Words: hearing-impaired persons, oral health, health knowledge, attitudes, practice.

The low level of dental awareness in Africa has been attributed to ignorance, poverty, and lack of education (1). However, oral health education, which empowers the individual to prevent oral diseases, can work best when the state of knowledge and general oral habits of the intended recipient are taken into account (2). The cost of treatment, accessibility of facilities, fear of pain, acceptability of dentistry, and perception of dental need by children and parents may create barriers to seeking dental care (3).

Information for hearing-impaired persons is limited to visual instructions. Earlier studies on their oral health status reported poor oral hygiene and low utilization of dental services (4). For obvious reasons, this group relies mostly on their teachers, who are trained in special education for health instructions. There is a paucity of literature on the oral health knowledge of the deaf in Nigeria. This study was therefore designed to determine the oral health care knowledge and practices of a group of deaf and hearing-impaired adolescents in Lagos, in order to provide baseline information for health planners.

Methods

Consent for participation in this study was obtained from parents of third-year pupils of Wesley School 1 for the Deaf in Lagos through the head teacher prior to the study. The class consisted of adolescents. All students present in class took part in the study. Sociodemographic information, previous dental visits, toothbrushing and snacking habits, perceived dental problems, and willingness to have a dental check-up were obtained from closed-ended questions in questionnaires completed under supervision by the author. These were previously tested on 12 students of the same class in School 2 as open-ended questions. Where a question was not clear, the teachers assisted with sign language. Socioeconomic class was determined by the mother's education, where upper class included mothers who attended tertiary institutions, middle class included those who attended secondary schools, and lower class included those who only attended elementary schools or did not attend school (5). This has been found to be a sensitive method of classification in our environment because the mother has more contact with the child than the father and more influence on the family's income utilization in terms of nutrition and health behavior.

Data were analyzed by using the Epi Info version 6 statistical software (6). Subjects were classified into three age groups: 10–12 years, 13–15 years, and 16–19 years. The chi-square statistic was used to test distribution differences between sexes and associations between variables. The level of significance was set at $P<.05$.

TABLE 1
Demographic Characteristics of Study Population

Characteristic	No.	%
Age Groups (years)		
10–12	21	42
13–15	19	38
16–19	10	20
Mean age	13.3±2.8	
Sex		
Male	26	52
Female	24	48
Socioeconomic class		
Upper/middle	7	14
Lower	43	86
Previous dental visits		
Yes	6	12
No	44	88
Total	50	100

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TABLE 2
Oral Health Knowledge and Practices

Knowledge and Practices	Number	%
Cause of tooth decay		
Correct	4	8
Incorrect	33	66
Do not know	13	26
Cause of bleeding gums		
Correct	36	72
Incorrect	6	12
Do not know	8	16
Reason for brushing		
Correct	7	14
Incorrect	41	82
My parents ask me to	2	4
Function of the teeth		
Correct	41	82
Incorrect	4	8
Do not know	5	10
Brushing method		
Self	39	78
Assisted	11	22
Brushing frequency		
Once per day	47	94
Twice per day	3	6
Willingness to have a dental check-up		
Yes	47	94
No	3	6

Results

Fifty children, 26 males and 24 females aged 10–19 years (mean age=13.3 years ±2.8), took part in the study. The majority were from the low socioeconomic class, with 12 percent having visited the dentist previously for extractions (Table 1). The majority (72% and 82%) gave correct answers to causes of bleeding gums and function of the teeth, respectively (Table 2). Less than 20 percent of students gave correct answers to causes of tooth decay or the reason for toothbrushing. Responses were not significantly different across age groups or between sexes. Most of those assisted with toothbrushing were from the 10–12 year age group and more than 90 percent brushed once daily and also used toothbrush and toothpaste. In order of preference, favorite snacks were soft drinks, biscuits, and sweets. Reported dental problems include discoloration (8.3% of girls) and tooth decay (3.8% of boys). Bleeding gums during toothbrushing, reported by 36 percent of the children, was not significantly different between sexes. More than 90 percent were willing to have a dental check-up.

Discussion

In this study, the majority had not been to the dentist for a check-up or treatment. This finding agrees with earlier studies on the disabled in our environment and even among normal children (3,4). The nonattendance of disabled children could be due to the low priority parents placed on the disability or reduced importance of oral health. Financial considerations also could be a factor because most of the children in this study were from a low socioeconomic class.

Few children in the study had an adequate knowledge of the cause of tooth decay. This finding contrasts with that of hearing children, in whom a large proportion knew the cause of tooth decay and harmful effects of sweets and other cariogenic foods (2). Also, few gave the correct response to why they brushed, with no significant difference among age groups and sexes, although they all claimed they brushed every day. This response was expected because the majority had not had any dental visit, which is the main source of oral health education (7,8).

Could the lack of knowledge in deaf children be a result of noncommunication? Lack of communication was reported to lead to inequalities in access to health care compared with hearing people (9). It is expected to be more significant in young hearing-impaired individuals. However, the majority had an adequate knowledge of the cause of bleeding gums, which agrees with findings for hearing children (3).

Almost all the children used toothbrushes, as did hearing children from a similar environment, although few brushed twice daily (2). The fact that they all brushed every day, if only once, is a positive finding that should be encouraged and improved on. Since quite a number of children in the 10–12-year age group were being assisted with toothbrushing, parents and family members also should receive oral health education (7).

The majority of the children snacked on soft drinks, biscuits, or sweets. They did not understand the harmful effects of cariogenic foods and drinks, although their DMFT from a previous study (10) was 0.26, which is lower than the average for hearing children. The major component of DMFT in the deaf was, however, "decayed" or "missing due to caries."A large number reported gingival bleeding, though most knew the cause. The fact that parents had not done anything about the problems may indicate low perception of availability of oral health services, low priority placed on oral health, or communication barriers among others, in addition to those mentioned earlier. There are, at present, 11 government-owned dental clinics in Lagos State, in addition to several private clinics.

The findings from this study support the report that children from low socioeconomic families are less likely to benefit from preventive products and services (11). This is especially true for the disabled who face social and economic deprivations, which hinders the dissemination of information.

It can be concluded from this study that deaf children had limited oral health knowledge that, if improved, will raise the standard of their oral health practices. Appropriate oral

health education should be tailored to the needs of these children (12) with the support of teachers and parents.

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