



Oral Hygiene: Knowledge and Practices of Students in Three Quranic Schools in Koutiala, Mali

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Abstract

Objective: To evaluate the knowledge, attitudes, and practices on oral hygiene (OH) of students of three Quranic schools of Koutiala, Mali. **Material and Methods:** It was carried out a descriptive prospective study with 300 students in three Quranic schools in the city of Koutiala, Mali. The data analyzed with the Epi Info 3.5.4 software. **Results:** The male sex was the most represented with 57.7% and the sex ratio = 0.73. The most represented age group was 8-12 with 52% with an average age of 17 years and minimum and maximum age of was 8 and 26 years. It was observed that 98.3% of students had a notion of knowledge about oral hygiene and this information was given by parents / elders in 60% of cases. They claimed that people who do not brush their teeth properly are the most likely to get tooth decay in 93.3% of cases. Regarding dental caries, 61.3% of students said that caries is transmitted by lack of oral hygiene; 33.3% of students said that using toothbrushes and having good oral hygiene are ways to avoid oral diseases. It was thought in 93.3% of cases that a good oral hygiene prevents oral diseases. The students brushed their teeth every day (98%) and they had a consultation with the dental surgeon in 8.7% of the cases. **Conclusion:** This study shows that students had knowledge of oral hygiene and preventive measures. Efforts should be made to promote, prevent, screen and manage oral diseases in Quranic schools while involving parents in the processes.

Keywords: Oral Hygiene; Students; Health Knowledge, Attitudes, Practice.

Introduction

Oral diseases are classified as major public health problems because of their prevalence and high incidence. Oral health is an individual responsibility; it includes very strong socio-cultural dimensions, summons self-esteem, mobilizes skills and competencies, and interacts with the overall health of the person. It should therefore be at the heart of any educational approach to health [1]. Oral health depends on the general state of health and influence in turn. It contributes to well being thanks to the essential place it occupies in communication and participates in the creation of self-image [2].

The lack of oral hygiene combined with changes in eating habits, especially in urban areas, are at the origin of the recrudescence of these oral diseases, the most frequent of which are dental caries and periodontal disease [3]. Since health is a multi-dimensional concept, its restoration must take into account the cultural and social elements that characterize the environment in which one wishes to intervene [4]. The school environment plays a central role in health education, identification, prevention and information. This role of school is all the more important as the knowledge and behavior acquired in children will influence their behavior as adults. [5]

The objective of this study was to assess the level of knowledge of the attitudes and practices of the students of three Quranic schools of Koutiala, Mali.

Material and Methods

Study Design

It was developed a descriptive and cross-sectional study. The sample was composed by 300 students from three Quranic schools in Koutiala (Mali) and the data were collected from February to August 2015.

It was used the questionnaire recorded in a survey form. The following variables were collected: socio-demographic data (sex, age, and ethnicity, the level of education, the neighborhood of residence, and the profession of the parents). The knowledge variables were the level of knowledge about oral hygiene, notions of oral diseases, their etiology and their mode of transmission, and prevention. The variables attitudes of the students were related to the risks of making these oral affections, the means of prevention, the sensitization of the relatives. For the practice it was evaluated the brushing (equipment used and the place of purchase, the frequency and the special moment of brushing) their sensitivity to the messages of prevention through the channels of communication; the use of oral health services by students as well as the means of support in the fight against these pathologies. The questionnaire was administered by a single investigator, helped the school authorities in organizing the process.

Statistical Analysis

Data analysis involved descriptive statistics (frequency distribution). All statistical analyses were performed using the Epi Info 3.5.4 Software (Centers for Disease Control and Prevention, Atlanta, Georgia, USA).

Ethical Aspects

The study was conducted in complete accordance with the Declaration of Helsinki, and ethical approval was obtained from Research Ethics Committee University Hospital Center - National Center of Odontology and Stomatology. Informed consent was obtained from all participants.

Results

The male sex was the most represented with 57.7% and the sex ratio = 0.73. The most represented age group was 8-12 years old with 52% with an average age of 17 and extremes of 8 and 26 years (Table 1).

Table 1. Distribution of students according to gender and age.

Variables	N	%
Gender		
Male	173	57.7
Female	127	42.3
Age Group (Years)		
8 to 12	156	52.0
13 to 17	107	35.7
18 to 22	25	8.3

It was observed that 98.3% of students had a notion of knowledge about oral hygiene and this information was given by parents / elders in 60% of cases (Table 2).

Table 2. Distribution of students according to the level of knowledge and source of information.

Variables	N	%
Knowledge of IOH		
Yes	295	98.3
No	3	1.0
Do not know	2	0.7
Information Source		
Parent / Seniors	180	60.0
Teacher	93	31.0
TV	9	3.0
Radio	13	4.3
Do not Remember	5	1.7

IOH: Level of Information on Oral Hygiene.

With regard to knowledge about dental caries, the majority of participants reported that those who do not brush properly are the most likely to be decay (93.3%). 33.3% of students reported using toothbrushes and having good oral hygiene the means of avoid oral disease. In 93.3% of cases, students thought that a good oral hygiene prevents oral diseases. They said they brushed their teeth every day (98%) and 60% do it once a day. They did not use fluoride toothpaste (35.3%). For the

elements of the mouth to be cleaned, 48.7% cited the teeth, the tongue, the gum, and the cheek. Oral hygiene was the most taught module at school with 33% of cases followed by malaria with 30% of cases. They had consulted with a traditional practitioner in 3.3% and with dental surgeon in 8.7% of cases (Table 3). Students rated the care of dental surgeons very effective in 69.6% of cases.

Table 3. Distribution of students according to knowledge about dental caries, methods of prevention and dental consultation.

Variables	N	%
Who can catch tooth decay?		
Someone who does not brush properly	280	93.3
Someone who eats too much candy	8	2.7
Someone who drinks in the same glass as a person with cavities	12	4.0
Prevention Methods		
A good oral hygiene	95	31.7
Use toothbrushes	65	21.7
Good oral hygiene + use toothbrushes	100	33.3
A good oral hygiene + healthy diet	25	8.3
Use the brushes + do not share the candies	15	5.0
Consultation		
Dentist		
Yes	26	8.7
No	274	91.3
Traditional Practitioner		
Yes	10	3.3
No	290	96.7

Discussion

The oral cavity is the mirror of the body; its health is an integral part of the general health. Oral hygiene is of paramount importance because its deterioration causes oral affections and consequently the health and the quality of life of the person. School is the place where it is essential to instill or reinforce good oral hygiene habits to help ensure the development or maintenance of health and quality of life. Thus, teachers, as role models, are the key to putting in place hygiene habits and making students understand the importance of oral hygiene. This study aimed to assess the level of knowledge, attitudes and practices of students in three Koutiala quranic schools on hygiene and oral diseases.

In this study, male were predominant and the 8-12 age group was the most represented. It was found that majority has knowledge about oral hygiene and their main source of information was parents followed by teachers. For transmission, almost two thirds of students reported that caries is transmitted through lack of oral hygiene. For prevention the use of toothbrushes and good oral hygiene are ways to fight oral diseases. Similar results were found in Mali [6], which also showed that the male sex was preponderant and a sex ratio of 1.54. Regarding age, children between the ages of 8 and 13 were the most represented. Ninety-six percent of the students had knowledge; their main source of information was teachers with 32.6% of cases followed by parents with 28.0% of cases.

A lower number of children reported being at risk of developing oral disease. For prevention, the majority answered that good oral hygiene could prevent oral diseases. Findings from this study revealed that about 91.3% of the respondents had not done a consultation with a dentist. According to some authors, brushing teeth was the activity that children considered the most important 85% and 92% of children thought it helped "enough or so to avoid cavities" [7]. Regular use of dental services as well as dental cleaning by the dentist are also methods of prevention prioritized by adolescents, since more than 85% of them gave them importance.

A previous study showed that the majority of students of the Faculty of Medicine of Pharmacy and Odontostomatology of Bamako had a good knowledge of their medical courses (not before starting school) and on television, respectively 27.3% and 22.3%. The students said that caries is transmitted by the lack of hygiene of the mouth in 82% and for the prevention 83.9% of the students said to brush their teeth [8]. Another authors reported that only 2.7% had good knowledge about dental diseases and 73.6% of the patients reported being a high sugar diet as the main cause of dental caries [9].

According to a recent study, for 86.2% of men, 87.4% of women and 81.2% of eunuchs, having good oral health can improve general health. Regarding to oral hygiene, most reported using toothpaste or dental poeder to clean their teeth [10]. Another research shows that about 58.9% of pharmacy students had not consulted the dentist before [11] and 92.6% of students knew that the purpose of brushing teeth was to prevent tooth decay and gum disease [12]. A significant number of participants believed that the regular visit to a dentist was necessary (89.3%), when only 54% of medical students had the same opinion [12].

Conclusion

This study shows that students had knowledge of oral hygiene and preventive measures. Efforts should be made to promote, prevent, detect and manage oral diseases in Quranic schools while involving parents in the processes.

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