

Oral health knowledge, perceptions and behaviour among nursing students in a Nigerian tertiary hospital

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Abstract

Aim: The purpose of the study was to investigate oral health knowledge, perceptions and behaviour amongst nursing students in a Nigerian tertiary hospital. **Materials and methods:** The study was conducted at University of Nigeria Teaching Hospital on 244 respondents aged 17 to 40 years, using self administered structured questionnaire.

Result: Respondents showed high level of oral health knowledge. Most of them (68.3%), had never visited a dentist with females accounting for 144 (67.7%) ($P > 0.05$). About 58.0% of the respondents brushed once a day. Majority, 155 (70.5%), of females perceived their oral health as good as against 14 (58.3%) males.

Conclusion: The respondents had good oral health knowledge, but poor oral health behaviour. Importance of regular dental visit, frequent tooth brushing, should be stressed.

Key words: Oral health, knowledge, behaviour, Nursing students, tertiary hospital.

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Introduction

Health is a state of complete physical, mental and social well being and not merely the absence of diseases or illness (1). On the other hand, oral health may be defined as a standard of health of the oral and related tissues which enables an individual to eat, speak and socialize without active disease, discomfort or embarrassment and which contributes to general well being (2). Oral health related knowledge and behaviour are those health information and practices that enable that standard of health of the oral and related tissues to be achieved. Oral health related knowledge is an important prerequisite for oral health behaviour (3).

It is the primary concern of oral health educators to impart a positive oral health knowledge and behaviour in the society. This knowledge is usually derived from information and the information, when believed translates into an action. Behaviour is the outcome when that action is sustained. However, only a weak relation exists between knowledge and behaviour (4). Nonetheless, there are reports that there is an association between increased knowledge and better oral health (5).

Several factors may affect oral health behaviour of an individual, among which are, acquisition of Western education, values and cultures, and cross cultural differences (6). Al-Ansari et al (7) reported that oral

diseases are related to behaviour, and that the prevalence of dental caries and periodontal disease decrease with improvements in oral hygiene and a decrease in the consumption of sugar. In contrast of twice daily tooth brushing in Western countries (8, 9), this behaviour is lacking in developing nations (10,11).

It is reported that women have better oral health behaviour than men (12, 13). Women brush their teeth 4 times more than men (11), while others (14) found no differences in brushing frequency between genders. Al – Omari (15) reported that women had dental checkups as often as men. There is a strong association between oral health knowledge and use of fluoride paste (7). Also very good knowledge between sugar and its role in the process of caries formation has been reported (7). It has been reported that unmarried subjects have better knowledge than the married. Furthermore, Al-Ansari et al (7) found that more than half of their subjects had visited a dentist in the last 12 months (7). Increased oral health knowledge is associated with increasing age (7).

By virtue of their professional role, nursing personnel play a vital role in health promotion and preventive information dissemination. It is therefore important that their own oral health knowledge is good and their oral health behaviour conforms to expectation of the

population. The purpose of the study was to investigate oral health knowledge and behaviour among nursing students in a Nigerian tertiary hospital.

Materials and methods

The study was conducted at University of Nigeria Teaching Hospital (UNTH), Enugu in the months of July and August, 2005. Two hundred and forty-four nursing students of both genders, aged 17 to 40 years were selected from a sample frame of 379 students, using table of random numbers. Data were collected by self administered structured questionnaire. Oral health knowledge questions about dental disease, sugar, calculus, fluoride, orthodontics and extraction we asked, while questions such as, dental visit, reason for the visit and brushing frequency explored oral health behaviour practices of the respondents. Also respondents' opinion about perception of personal oral health was explored.

Data was entered into a personal computer and analysis done with SPSS. Chi square was used to compare appropriate variables. Confidence Interval was 95% and P values less than 0.05 were taken as significant.

Results

A total of 244 respondents (220 female and 24 males) aged 17 to 40 years (mean: 23.23±3.58) participated in the study. The mean ages of females (range: 17 to 40 years) and males (range: 18 to 36 years) were 22: 9 ± 3.33 and 26.17 ± 4.48, respectively. Respondents in the 21-25 years age group accounted for the majority 142 (58.2%), while the unmarried were 219 (89.8%). Majority of the males 6 (85.7%) visited the dentist for check-ups as against 41(57.8%) of females that visited for treatment.

Oral health knowledge of nursing students by gender is shown (Table 1). Both genders showed high level of knowledge on oral health items. However, none of the items was significantly associated with gender.

Table 1: Oral health knowledge of nursing students by sex

Oral Health Knowledge Questions	Male				Female				Statistical test	
	Yes		No		Yes		No		χ^2 Value	P-Value
	n	%	n	%	n	%	n	%		
1. Do you know what is Calculus	13	54.2	11	45.8	154	70.0	66	30.0	2.51	0.113
2. What is the role of fluoride in tooth paste	17	70.8	7	29.2	179	80.9	42	19.1	1.37	0.242
3. What is the role of sugar in caries	19	79.2	5	20.8	66	30.0	154	70.0	0.88	0.348
4. Is extraction the only option for a painful tooth	17	70.8	7	29.2	164	74.5	56	23.5	0.16	0.693
5. Do you know what is orthodontics.	10	41.7	14	58.3	81	36.8	139	63.2	0.22	0.630

Majority of the respondents (67% of females and 70.8% of males) had never visited a dentist. In the last one year, 29 (13.2%) females visited the dentist as against males 0 (0.0%). The association between gender and dental visit was not statistically

significant, (Table 2). More subjects 131 (53.79%) brushed once per day and 106 (43.4%) brushed more than once per day. Statistically, there was no significant difference between brushing frequency and gender, (Table 2).

Table 2: Oral health behaviour of nursing students by sex

Oral health behaviour	Male		Female		Statistical test
	n	%	n	%	
Dental visit					
In the last one year	0	0.0	29	13.2	$\chi^2 = 4.29$ df = 2 P = 0.117
Over one year ago	7	29.2	42	19.1	
Never	17	70.8	149	67.7	
Tooth brushing frequency					
Once a day	14	58.3	117	53.2	$\chi^2 = 0.89$ df = 2 P = 0.641.
More than once a day	10	41.7	96	43.6	
Occasional	0	0.0	7	3.2	

Most of the respondents 70.5% and 58.3% among females and males respectively perceived their oral health as good, followed by those who perceived their oral health as average (29.1% 41.7% males) and those

who perceived their oral health as poor (0.5% among females and 0% males). The association between perceived oral health and gender was not statistically significant (Table 3).

Table 3: Oral health perception by gender

Perception	Male		Female		Statistical test
	n	%	n	%	
Poor	0	0.0	1	0.5	$\chi^2 = 1.70$ df = 2 P = 0.428
Average	10	41.7	64	29.1	
Good	14	58.3	155	70.5	

Discussion

This preliminary study is the first of its kind on oral health knowledge, perception and behaviour amongst nursing personnel in a Nigerian tertiary hospital. By virtue of their professional role and education, nurses are models on health issues. Therefore, it is expected of them to be more knowledgeable in the community about oral health and its diseases, so as to be a positive model to the society. Exact relationship between knowledge and behaviour is yet unclear. However, a clue was glimpsed by Freeman et al (16) in their report on 14 – 16 year olds where they reported that oral health knowledge does not necessarily relate to better health behaviour. However, they (16) found that subjects who assimilated oral health knowledge and feel a sense of personal control over their oral health are more likely to adopt self care practices.

The high level of oral health knowledge demonstrated by respondents in the current study may be due to the position of nurses as role models to the community. Amongst other factors, Zavras et al (17) reported that education plays important role in oral health knowledge. They reported that the higher the educational status, the more knowledgeable the subjects about oral health and its diseases. Other study (5) has reported of an association between increasing knowledge and better oral health. On the other hand, Freeman et al 16 in their work on the relationship between health related knowledge, attitude and dental health behaviour; found that only a weak relation exists between knowledge and behaviour.

The current study found that about 68.0% of the nursing students, expected to be role models, had never visited a dentist and that in the last 12 months, only about 13.2% of females, as against no male, visited a dentist. This figure is low when compared with findings among Kuwaitis. The poor dental attendance in the current study may be because Nigerians and African in general have poor preventive oral health behaviour. Al-Ansari et al (17)

reported that among other factors, acquisition of Western education, values and cultures, etc may affect oral health behaviour. Nevertheless, the dental profession recommends regular dental attendance to be beneficial to oral health (18).

More subjects brushed twice or more a day in the current study than the subjects in Al Ansari et al (17) study, but less than those in other studies (20, 21). Since the respondents in the current study are nursing personnel, limited dental topics in their curriculum may be the cause of their poor oral health behaviour.

The reported 169(69.3%) that perceived their oral health as being very good/good may be a pointer to over reporting suggested by Zavras et al (17) as being characteristic of epidemiological questionnaire based studies. Logically this is a natural attribute of man, not being able to see negative aspects of selves.

Conclusion: The study population had good oral health knowledge, but poor oral health behaviour. Inclusion of practical dental activities in their curriculum would improve further their oral health behaviour for them to be a good model to patients and the community.

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