

# Does exposure to dental education change the perceptions of Nigerian students to dentistry as a profession?

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## Keywords

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## Abstract

**Aim:** To assess any effect of exposure to dental education and training on the perception and acceptance of dentistry by dental students at a Nigerian dental school.

**Participants and methods:** The study was conducted by means of an anonymous self-administered questionnaire distributed to second-, fifth- and sixth-year dental students at the College of Medicine, University of Lagos. Participation was voluntary and 67 students agreed to participate in the study. Majority (51%) were aged between 24 and 27 years. The questionnaire contained questions on demography, preferred choice of course on admission, attempts at change of course, their present perception to dentistry and future dental practice.

**Result:** Over 90% of them were admitted through the Joint admission and matriculation board and 40 (60%) chose Medicine as their first course choice. Of the 40, 18 had attempted a change of course and eight were still interested in a career change (four were in the fifth year). Most of the change in attitude occurred in fourth year. Sixty (90%) intend to practice dentistry but 38 (63%) of these would like to practice outside Nigeria.

**Conclusion:** Exposure to dental training appears to improve students' perception about dental practice but uncertainty about future prospects in Nigeria may lead to brain drain in the dental profession.

## Introduction

It is expected that in choosing a career, the person should have some expectations in terms of their future and the fulfilment of these expectations should give some amount of satisfaction. These expectations are usually dependent on the level of socialisation that the individual has concerning the profession. The scope and practice of dentistry is poorly understood in the Nigerian society. This may be due to the low awareness of oral health issues that have been reported in previous Nigerian studies (1, 2). Furthermore, it is not to be uncommon for a potential dental student in Nigeria to have never visited a dentist (3). Similarly in Tanzania, a study among high school students found that there was insufficient knowledge about dentistry and veterinary medicine to enable them indicate whether they admired either profession or not compared with Medicine (4). Studies involving dental students have reported varying factors influencing their choice of Dentistry (5–8). Parental and familial influence was found to be more important in Tanzanian students compared to their counterparts in

Finland (8). Similarly in Nigeria, 50% of those that had Dentistry as their first choice were influenced by their parents/family (3). In Ireland, the highest influencing factors were related to ease of employment and being self-employed and the least important was having relatives or friends in the dental profession (7). Parents and family dentist were the most influential factors in the USA (9). Other factors that have been identified include career day school visit by a dentist, school counsellors' advice and brochures on dentistry as a career (9). Unlike in the USA, where one-fourth of the respondents indicated that they decided to pursue dentistry as a career during their high school year (9), most Nigerian students admitted into dental schools had a preference for Medicine and were only made to study Dentistry as an alternative (3, 10). The choice of profession/course for high school students in Nigeria is made at the point of application for the University Matriculation Examinations which is a central examination taken by high school graduates for admission into undergraduate programs. Admissions are made on the basis of candidates' scores and candidates, who chose medicine as first choice may be

offered dentistry as the next available option based on their scores. There has however been no study conducted to investigate the acceptability of dentistry as a profession to these students.

The aim of this study therefore was to assess the effect (if any) of exposure to dental education on students' perception to dentistry and on their acceptability of dentistry as a profession.

## Participants and methods

A total of 67 students participated in the study comprising of 20 second-year students, 26 fifth-year and 21 sixth-year students. This represents an average response rate of 75% per year. Eighty-nine per cent of them were aged between 20 and 27 years. There were 26 (39%) females and 41 (61%) males.

The first year of the dentistry programme is spent at the main University campus (which is located separately from the medical school). The students take basic science subjects and have no exposure to any aspect of dentistry. In their second year, they move into the medical school where they start their pre-clinical courses; this to all intent and purpose may be regarded as their first year in medical school. Three cohorts of students were selected based on the following rationale:

Year two: to assess their attitude upon entry into the medical school.

Year five: to assess attitude upon initial exposure to clinical dental practice.

Year six: to assess attitude just prior to graduation with likely concerns.

A cross-sectional questionnaire based survey of dental students carried out between March and April 2005. The questionnaire was distributed to all consenting students during a lecture period and collected immediately. Participation was voluntary.

The questionnaire consisted of 32 questions on demography, first choice course, factors that influenced choice of Dentistry, attempts at change of course, their present attitude to Dentistry and their future plans. They were also asked of their opinion of the programme and their constraints. Most of the questions were close-ended apart from those which invited the students to state their reasons for either wanting to continue with dentistry or not. These were answered in the students' words to have a good understanding of their perception.

Chi-square test of association was applied where indicated to test differences among the students grouped by their first course choice and year of study, which were said to be significant when  $P$  equals or is less than 0.05.

## Results

Almost all students ( $n = 63$ ; 94%) were admitted via the Joint admission and matriculation board. Forty students (60%) of them chose Medicine as first choice. Statistically significant difference was found between year of study and first choice ( $P = 0.0002$ ): 75% of year two students chose dentistry as first choice compared with 16% of fifth-year students and 38% of sixth-year students. Eighteen students (27%) had attempted a change of course from dentistry, three of whom initially chose dentistry as first choice. Eight students (44%) were still

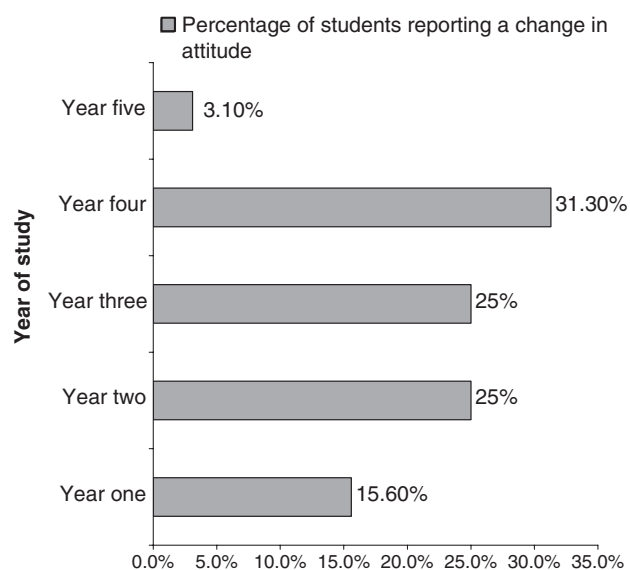


Fig. 1. Year of change in attitude to dentistry.

interested in a change of course; half of these were in the fifth year. Three of these students wanted a change because they perceived that dentistry is too expensive to practice but one student wants to change because she 'hates' dentistry.

Of those that were no longer interested in changing their course, reasons they gave included growing to love and enjoy dentistry ( $n = 9$ ) and the knowledge that dentistry is more lucrative than Medicine ( $n = 3$ ). Others just grew to accept the profession and stuck with it. The year of study in which the positive change in attitude occurred is shown in Fig. 1. Most of the change was reported to occur in year four; the year during which the students are exposed to the core dental courses and when they start their practical training in operative techniques. By year 5, the number of students reporting a change in attitude reduced considerably.

To the question, 'if given a second chance, would you choose Dentistry' 33 (56%) of them affirm that they would choose Dentistry compared with 27 (40%) that initially chose dentistry. Specifically, 13 students (36%) who had medicine as first choice would choose dentistry given a second chance. However, more students who chose Medicine as first choice would still not choose Dentistry ( $P = 0.0001$ ).

Sixty of the sixty-four (94%) students that responded to the question on future practice said they would practice dentistry. Only 10 (17%) of them intend to practice in Nigeria, 38 (63%) would like to practice outside Nigeria mostly in Western Europe or the USA while 12 (20%) were undecided. Fifty-six students (93%) intend to specialise. Twenty-five (47%) would prefer to be clinicians and 16 (30%) would mix clinics with some form of entrepreneurship! Only 5 (9%) would like to be academics.

## Discussion

This study sought to assess changes in perception of dentistry from three cohorts of dental students. This was prompted by the desire to investigate the acceptability of dentistry to

students who had been offered dentistry as an alternative to medicine upon admission.

In this study, nearly half of the students had unsuccessfully attempted to change their course and eight of them still desired a change. This is quite unfortunate given the time, resources and energy that had been invested by both the students and the educators. These students may subsequently need to pursue other careers or make do with dental practice, which may result in a degree of job dissatisfaction and stress. This again brings to question the method for students' selection for admission in Nigeria (10). The higher number of year two students who chose dentistry is evidence of a change in admission policy by which preference is given to students who selected dentistry as first choice provided they meet the cut off score for dentistry. However, we may still need to go further by incorporating interactive sessions which would seek to know the mindset of potential students.

A positive change in perception was found with exposure to core dental courses as evidenced by 13 students (36%) who originally chose medicine expressing their willingness to choose dentistry if given a second chance. This may thus make a case for possible curriculum review with early exposure of students to dental courses as seen in the 'vertical integration' (11) as opposed to the traditional approach which concentrates on basic sciences in the pre-clinical years.

French students who chose dentistry as a career cited arguments that fitted perfectly with the dental profession compared with those who did not choose the career path; the latter group cited non-specific answers that applied to many medical professions (12). The difference between the two groups however disappeared within 5 months of the programme supporting the idea that modifications of attitudes and representations occur over the course of a programme (13).

However, this study found also that more of those who chose Medicine initially would still significantly not choose dentistry. This again corroborates the French study which found that integration into the dental faculty seems difficult for students who did not choose dentistry as their career path; some of whom continue to have trouble feeling comfortable with the profession (12).

The low preference for dentistry among high school applicants in Nigeria may be attributed to a lack of awareness of the programme and this can be addressed with proper career counselling by dental professionals in conjunction with high school counsellor. It has been shown that career counselling in high schools have a somewhat high influence in the decision to pursue a dental career (9). Dentists remain critical factors in the decision process of pursuing dentistry as a career. In Britain, it was reported that the most quoted reason for choice of their career depended on a fairly detailed knowledge of dentistry and about 50% of all applicants had visited a dental clinic as an invited observer. Most of them rated this visit as very important in their career choices (5). Such visits would help in increasing interest in dentistry among Nigerians.

Future career prospects may be another reason for the low preference as this study further reveals that despite the low dentist:population ratio of about 1:41,000 (3), most students would prefer to practice outside Nigeria. This is probably a direct effect of their dissatisfaction with remuneration for

dentists contrary to findings in other studies where financial security rank quite high in the motives for choosing dentistry (6, 14, 15).

Private practice which is a common motive for choosing dentistry in many studies appears not to be an easy option in Nigeria because of financial constraints as expressed by some respondents in this study. However, we believe that with future reforms being proposed by the Federal authorities and the launch of the National Health insurance scheme, there would be better utilisation of dental care with increasing demand for dental practitioners. A lot of advocacy is however required for an improvement in work practice for dentists. This would make the option of working in Nigeria more attractive.

## Conclusions

Exposure to dental training appears to improve the perception of the students about dental practice. A curriculum structured to expose the students to core dental courses earlier in their training may therefore enhance the perception and acceptability of dentistry to the students. Guidance and counselling of high school students with visits to dental clinics are also desirable. However, uncertainties about the future prospects locally as observed in the high number of students who opted to practice outside Nigeria is an issue for concern for oral health stakeholders in Nigeria.

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