PERCEPTION TOWARDS DENTISTRY AS A CAREER OF CHOICE AMONG FORM FOUR STUDENTS IN A NAIROBI SCHOOL.

A RESEARCH PROPOSAL FOR A COMMUNITY DENTISTRY PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE BACHELOR OF DENTAL SURGERY DEGREE OF THE UNIVERSITY OF NAIROBI.

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ABBREVIATIONS

BDS: Bachelor of Dental Surgery

Dr: Doctor

Msc: Mater of Science

MPH: Master of Public Health

UON: University Of Nairobi

USA: United States of America

WHO: World Health Organization
SUMMARY

In Kenya studies on attitudes towards dentistry as a career have been conducted among University of Nairobi dental students. However there is little or no information about perception of high school students towards dentistry as a career in the country. The aim of this study is to determine the perception of form four students in a Nairobi school towards dentistry as a career of choice.

The study will be conducted at Starehe Boys Center a national school which has a population of 208 students in form four divided into 6 streams. The school is located in Starehe division on the Eastland region of Nairobi at approximately 4 Kilometers from the city center. A descriptive cross-sectional study will be conducted on a sample size of 131 students picked from all the six form four streams using simple random sampling method. The 131 students picked will be issued with questionnaires. Result will be presented in form of pie charts, bar graphs and analyzed with the aid of excel software in a computer.

The result is expected to be incorporated in career guidance in high schools by career masters, parents and other stake holders in order to improve understanding of the dental profession.
INTRODUCTION

Dentistry has come a long way since in ancient times when barbers undertook the role of extracting teeth\(^1\). Today dentistry is a better recognized profession in addition to being a special branch of medicine. Treatment techniques in dentistry have undergone multiple paradigm shifts to evolve into what they are today. With the aid of modern materials and equipment dental treatment has progressed towards minimal pain and side effects and restoration of as much of tooth structure as possible\(^2\).

In spite of the tremendous advances in the profession, the prevalence of oral health conditions in the country is almost overwhelming. In addition, the dental profession has not enjoyed as favorable publicity as other medical professions such as medicine\(^3\). Dentistry has suffered from a lot of misinformation. Dental myths that impede the dentist’s ability to best serve their patients’ needs still persist even in this day of the information highway. It is estimated that as many as 25% of all patients suffer from some form of dental anxiety that is sufficiently severe enough to have caused them to cancel an appointment with their dentists. Interestingly the same patients might exhibit the same anxieties but still honor an appointment with their medical doctors. This shows that many patients just have a special aversion for dentistry \(^4\). Even among the medical fraternity dentistry has always been the subject of a hostile humor. It is felt that these factors have adversely affected the perception of high school students who might have chosen to join the profession.

Currently Kenya has a total of about 700 dentists who attend to a population of 30 million. This translates to a ratio of 1 dentist for every 42,000 people. This figure is ridiculously below the WHO recommendation of 1 dentist for every 2000 people\(^5\). While this calls for an urgent need to train more dentists, the perception of high school students towards dentistry as a career has not been promising and a previous study among dental students revealed that they were admitted into the course only after failing to secure their first career choices\(^6\).

Admission to the dental school for training in dentistry is based on the student’s choice and performance at the end of high school. However, previous studies reveal that many
interested students have limited, outdated or mismatched information regarding the dental profession\(^{(6)}\). Another study found out that at the time of joining university, 80% of the students felt that they were not adequately prepared for dentistry as a career.\(^{(7)}\)

The major objectives of this study are to establish the perceptions of high school students towards the dental profession and to find out why only a few students choose the profession as their first choice of career.
LITERATURE REVIEW

Many students chose to study dentistry without adequate knowledge of what the profession involves. After admission into the dental course most students find a totally different situation from what they had expected. This leads to disillusionment and frustrations. A study conducted among University of Nairobi dental students revealed that 80% of students pursuing the dental course felt that they were not adequately prepared for their career at the time of joining university. 50% were ready to abandon the course while 60% were finding the course unexpectedly difficult although 67% had chosen dentistry as their first university career choice.

Another study also among University of Nairobi dental students revealed that only 60% of the students at the time had chosen dentistry as their first career of choice while 40% had gotten into the course only after failing to secure chances for their first career choices. 49.5% of the students were influenced into choosing dentistry by parents, 20% by dentist, 5% by peers and only 15% chose the profession out of their own volition. 33.7% of the students were confused and disillusioned with the course. On duration of time as dentists after training; only 46.3% felt that they would practice dentistry for life while 40% would practice dentistry as long as it remained monetary rewarding. 4% would stop practicing dentistry when they became wealthy, 3.2% would never practice dentistry at all while 6.3% were not sure. 24.2% indicated that they would consider changing career from dentistry.

A study in the United States found that 76.6-80.4% of the students felt that knowledge of dental history before joining a dental career is very important in order to clarify misinformation, broaden one’s view of dentistry, promote pride and appreciation and provide information that is basic to professional education.

A study among first year students of dentistry at the University of Witwatersrand, Johannesburg found out that despite race and gender differences, motives for choosing dentistry appeared to relate to an image of the profession that is perceived as a vehicle for the achievement of personal goals.
A related study conducted among undergraduate students in an Irish university revealed that reasons for choosing dentistry included perceived ease of employment, being self-employed and regular working hours. These were followed by an opportunity of good income, and the opportunity to help people. Having relatives or friends in the profession and lifelong ambition were the least important factors. It also found that extrinsic factors relating to employment conditions had a strong positive correlation with each other, while lifelong ambition had a strong negative correlation with significant financial reward. No significant differences were found in most responses when analyzed by gender or year in school. It concluded that students are attracted to dentistry primarily due to a positive perception of working conditions, followed by the altruistic motivations of helping people and improving their appearance.\textsuperscript{10}

A study to determine motivation towards career choice between dental and medical students of University of Manchester revealed that in comparison to dental students, medical students manifested a more professional attitude in which altruism and intellectual challenge constituted central motivating factors. By contrast, dental students demonstrated more of a commitment to personal and financial gain. The paper queried the usefulness of such attitudes to a re-oriented dental profession whose aspiration is to provide more accountable and community oriented services.\textsuperscript{11}

A study to ascertain the reasons for pupils’ interest in dentistry and what appeals to them from their current knowledge of the profession recommended that promotion of dentistry as a career should be targeted at the 14-15-year-old age group and above and that advice on a career in dentistry may be sought from general dental practitioners. These they recommended should keep up to date with dental degree and career information, careers fairs, and written information which should be well-presented and informative. Dental schools, they also recommended, might provide information via ‘pre-dental advisers’ and recruiting courses, with help for applicants from professionals.\textsuperscript{12}

Another study conducted in 1971 revealed that the reasons to study dentistry includes the applicants realistic assessment of dentistry in relation to other careers, status in the
community the recruit to dentistry hopes to enjoy and the role in dentistry he thinks he will play after graduation\textsuperscript{13}

A study done in 1987 among British dentists revealed that 33.3\% of all dentists were job dissatisfied, the major stressors being time related stresses, apprehensive patients, poor working conditions and the boring nature of the job.\textsuperscript{14} A closely similar study by Elizabeth et al in 1987 among Scottish dentists revealed that 21\% of those interviewed felt that given a chance, they would choose other careers.\textsuperscript{15}
II-1 PROBLEM STATEMENT

At the time of filling the university admission forms, many high school students do not fully understand what dentistry entails. Many of the students who pass well do not chose dentistry as their first career choice and a good number of those who end up taking the course only do so after they have failed to get their preferred career choices. Even after joining campus it has been noted that quite a good number of students admitted to study dentistry apply for interfaculty transfer especially to medicine. This has been a worrying trend especially in Kenya where there is an acute shortage of dentists. It is felt that this trend is attributable to inadequate information high school students have about dentistry with many imagining it is only about tooth extractions and therefore not of an equal standing as the other medical professions, a fact that demonstrates the ineffectiveness of career guidance in high schools. Moreover dentistry has not been generally portrayed as glamorous as other medical courses by the media. This has led to a poor attitude towards the profession by school leavers who would have chosen the profession.

II-2 JUSTIFICATION OF THE STUDY

No local data are available on perception of high school students towards dentistry as a career and we have just been relying on overseas data.

The findings of this study are expected to be incorporated in career guidance at the high school level by career masters with a view to effecting attitude changes towards dentistry. It will also be of benefit to parents and other stake holders in giving students adequate and reliable information about the dental profession.
II-3 OBJECTIVES

Main objective.

1. To determine the perception of form four students in a Nairobi high school towards dentistry as a career of choice

Specific objectives

1. To establish any misconception that high school students have about dentistry
2. To establish any fears high school students have about dentistry
3. To determine whether career guidance in high schools is effective

II-4 HYPOTHESIS

1. Many high school students perceive dentistry as a simple profession which is restricted to the study of teeth with no scientific and medical basis.
2. Most high school students do not have adequate information about dentistry as profession.
3. Majority of students who chose dentistry do so only because of prospects of employment.
III RESEARCH DESIGN AND METHODOLOGY

III-1 Study Design
This will be a descriptive cross sectional study among form four students at Starehe Boys Centre.

III-2 Variables
a. Independent variables.
   • Career guidance
   • Level of knowledge on dentistry as a career
b. Dependent variables
   • Perception towards dentistry
   • Fear of dentistry

III-3 Study area
The study will be conducted at Starehe Boys Center, a national boy's high school located in Starehe division on the Eastland's region of the city of Nairobi. It is approximately 4km from the city centre. From city center one boards a matatu number 6 or 9 to reach the school. The school has a student population of close to 1000 divided into two sections i.e. the high school and the institute of computer and accounts studies. The institute offers training in computer studies and accountancy courses to students who have sat for their form four examinations. Each class in the high school section is divided into six streams each with an average of of 35 students. Starehe Boys center is one of the best schools in the country but it is unique in the sense that it draws two thirds of its student population from severely disadvantaged families. The remaining one third is a fees paying population. The school uses the quota system in admission of students and therefore it can be said that all the districts in the country are represented. The school provides sufficient medical services and is endowed with the services of two dentists in a fully operational dental clinic.
III-4 Study population
This is an institution based study. The individuals to participate in the study will be drawn from the student population in form four classes at the school.

III-5 Sample size
By use of anecdotal information, the study will assume that 90% of the students do not have adequate knowledge on dentistry as a profession.

Confidence level chosen = 95%
Hence c = 5%
Corresponding Z value for 95% confidence level = 1.96
Hence sample size (n) = \( \frac{Z^2 P (1-P)}{c^2} \)
= \( \frac{1.96^2 \times 0.90(1-0.90)}{0.05 \times 0.05} \)
= 138

III- 6 sampling procedure
Simple random sampling will be used.

III – 7 Data collection
A self-administered questionnaire will be used to collect data.

III-8 Inclusion and exclusion criteria
a). inclusion
   All form four students at Starehe Boys Center who will give their consent/assent
b). exclusion
   • All form four students whose consent/assent will not be obtained
   • All other students who are not in form four.
III-9 Minimizing bias and errors

- Questionnaire will be pre-tested prior to data collection and corrected if necessary.
- Semi-structured questionnaires with open-ended and closed-ended questions will be used.
- Students’ names will not be included in the questionnaires.

III-10 Logistics

- Limited time due to tight academic schedules.
- Financial constraints.

III-11 proposed benefits

- The study will find out some of the misunderstood facts about the dental profession which will be incorporated in career guidance in schools with a view to effecting attitude change among high school students towards dentistry as a career.
- Partial fulfillment of the Bachelor of Dental Surgery degree of the University of Nairobi.

III-12 Ethical issues

- Permission to conduct the study will be obtained from the school authority.
- Informed consent will be obtained from all the respondents.
- Confidentiality of the information will be maintained.

III-13 Data analysis

This will be done with the aid of Excel software in a computer.

III-14 data presentation

The results obtained will be presented in pie charts and bar graphs.
## PROPOSED BUDGET

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PERCEPTION TOWARDS DENTISTRY AS A CAREER OF CHOICE AMONG FORM FOUR STUDENTS IN A NAIROBI SCHOOL

QUESTIONNAIRE

Number .....................  
Age ........................

Please tick the appropriate answer:

1. Have you ever visited a dentist?
   ( ) yes
   ( ) no

2. If yes what was the purpose of the visit?
   ( ) pain
   ( ) cavity
   ( ) extraction
   ( ) cleaning
   ( ) surgery

3. In your opinion do you think that you have adequate information about dentistry as a profession?
   ( ) yes
   ( ) no

4. Do you know what the work of a dentist entails?
   ( ) Yes
   ( ) No

5. If your answer above is yes, state them.
   .................................................................
   .................................................................
   .................................................................
   .................................................................
   .................................................................
   .................................................................

6. Do you have a career guidance office in your school?
   ( ) yes
   ( ) no

7. If your answer to question 6 above is yes, how would you rate the usefulness of the career guidance?
   ( ) excellent
   ( ) good
   ( ) fair
   ( ) poor

8. If you passed your examinations and qualified for any course at the university would you choose the Bachelor of Dental surgery degree course?
   ( ) yes
   ( ) no
   ( ) I don't know

9. If the answer to question 8 above is yes, what is your reason?
   ( ) Advice from others, specify who..........................................
   ( ) Immediate employment upon graduation
   ( ) There is a lot of money in dentistry
   ( ) Any other, specify..........................................................
10. If the answer to question 8 above is no, what is your reason?
   ( ) I don't know much about dentistry as a profession
   ( ) Dentistry is boring as it involves only teeth
   ( ) The dental profession isn't prestigious
   ( ) Lack of job satisfaction
   ( ) Any other, specify.................................................................

11. Do you have any fears concerning the Bachelor of Dental Surgery degree course?
   ( ) Yes
   ( ) No

12. If your answer to question 11 above is yes, what is it about the course that you fear?
   ( ) Dental Surgery course is a very stressful one
   ( ) Dentistry requires artistic skills which I lack
   ( ) Many people get discontinued from the course
   ( ) Any other, specify.................................................................

13. In your opinion how would you compare dentistry to medicine?
   ( ) The two are of equal standing
   ( ) Dentistry is superior to medicine
   ( ) Dentistry is inferior to medicine
   ( ) I don’t know

14. Do you know of any training opportunities available on completion of the Bachelor of Dental Surgery course?
   ( ) Yes
   ( ) No

15. If your answer to question 14 above is yes, please indicate the training opportunities that you know of
   ( ) .................................................................................................
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