ABSENTEEISM DUE TO ORAL DISEASES AMONG
12-15 YEAR OLD SCHOOL CHILDREN
AT A PRIMARY SCHOOL IN KERICHO.

A COMMUNITY DENTISTRY PROJECT PROPOSAL SUBMITTED IN PARTIAL
FULFILLMENT OF THE BACHELOR OF DENTAL SURGERY DEGREE, UNIVERSITY OF
NAIROBI.

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STUDY PERIOD: MARCH 2003 TO SEPTEMBER 2003

COST OF STUDY: KSHS 4600

SOURCE OF FUNDS: SELF.
ABSTRACT

**Aim:** To determine the number of school hours lost due to oral diseases.

**Design:** Descriptive cross-sectional study.

**Setting:** Kericho, Rift Valley Province, Kenya.

**Materials and methods:** Structured questionnaire which will be administered by the principal investigator.
INTRODUCTION

Oral health is defined as intact well being of both hard and soft tissues as formulated by WHO report. Dental caries (tooth decay) is the single most common chronic childhood disease. Studies have shown that it is five times more common than asthma and seven times more common than hay fever and over 50 percent of 5 to 9 year-old children have at least one cavity or filling, and that proportion increases to 78 percent among 17 year-olds. Nevertheless, these figures represent improvements in the oral health of children in developed countries compared to a generation ago.¹

In Kenya several studies have been done to determine prevalence of dental caries and malocclusion in different age groups. A study done in Nairobi, Kenya showed that the proportion of children with dental caries was 63.5% & the mean dmf was 2.95, with the d- components making 96%. Prevalence of dental caries was higher among female children (65.8%) than males (61.1%).² Ng’ang’a et al examined 919 children and they found a prevalence of malocclusion of 72%³

A study done in America showed that due to the high prevalence of oral diseases, over 50 million school hours are lost each year nationwide due to dental related illnesses, 37% of American school children have not had a dental visit before starting school, and 89% of school absenteeism is due to oral diseases.¹ In the Rio Grand Valley, USA, and in San Antonio schools, Texas, USA, dental diseases have been found to be the number one cause of absenteeism among elementary school children and this has been seen to have a repercussion on pupil’s attendance regularity at school and with no doubt on school results.⁴

The aim of this study is to determine school hours lost due to oral diseases in order to provide baseline data that can be used to educate parents on the need for prevention and introduce dental health programs in school curriculums.
The relationship between oral health status and absenteeism was explored through data obtained at a suburban high school in Illinois, Chicago. Calibrated dentists and hygienists for students taking science classes during the 2000 Fall Semester conducted oral health screenings focused on caries experience. The oral health data were linked to school records on student demographics and absenteeism. 255 students participated in the screening and of the total group 52% were female and 12% of the students had a dentally related absence. The mean age was 16.0 years (SD 1.2); mean number of periods absent was 14.0 with 2.5 for dental absences. Orthodontic banding was found for 38% of students with dental absences. The results showed that dental absences appeared to have a role in high school absences but this suburban high school appeared to indicate dental care utilization.

A preliminary study done in Abidjan, Ivory Coast showed that 34.89% of children have been absent at least one time of which 19.78% for pulp pain, and for 14.02% among them, for at least a day. These absences resulted in a waste in annual hourly volume from 2.69% to 8.08% of the hourly quota in terms of dispensed Cowe’s in Ivory Coast Primary schools. The results show that the buccal-dental pathologies and their corresponding school absences have a repercussion on pupils’ attendance regularity at school and with no doubt on school results.

In America a study showed that due to dental visits or problems, 117,000 hours of school were lost per 100,000 school-age children and 17,000 activity day beyond school time were restricted.

In 1984, more than one million acute dental conditions were reported for children younger than 5 years old with 630,000 for children between 5-17 years old. These represent almost 5 million restricted activity days, more than 1.6 million days in bed and 1.7 million missed school days.

Naidoo S. et al drew a study sample from schools in five districts in London and 80% reported that they had experienced dental pain and 70% within the last two months. A high percentage of children not only lived with pain on a daily basis but also missed school on account of it (70%).
**PROBLEM STATEMENT**

Oral health problems, though preventable, affect many children not only in Kenya but also all over the world. These children, together with their parents, seek dental treatment during school hours thus losing out on both academic and non-academic school activities. Lost school hours invariably affect both academic and nonacademic performance.

**JUSTIFICATION**

Oral diseases are a major cause of pain, discomfort, and can be fatal all these contributing to children missing school. There is scanty data available with a few studies having been conducted in USA, Britain, Ivory Coast which have different set ups. Thus there was need to assess and tabulate school hours lost due to dental diseases in Kenya and the effect of oral health problems in school performance.

The information obtained from this study will be used to emphasize parent education on prevention and to justify the introduction of oral health education in school curriculums with an aim to prevent oral diseases and reduce school hours lost while seeking treatment.

**STUDY OBJECTIVES**

**General objectives:**
To determine the number of school hours lost due to oral diseases.

**Specific objectives:**
Determine percentage of school absenteeism due to oral diseases.
Determine the dental problems that cause school absenteeism.
Determine type of dental treatment sought.
Determine the gender predisposition to oral diseases and school absenteeism.
**VARIABLES**

**Dependent**
School hours lost

**Independent**
Type of oral disease:
  - Dental caries
  - Gingivitis
  - Malocclusion

**Hypothesis**
Oral diseases do not cause school absenteeism.
**METHODOLOGY**

**Study Area:**

The study will be carried out at Kericho Primary School a privately registered school partly assisted by the government. It is run by the Kenya Tea Growers Association. It is situated 2 kilometers away from the town centre. Kericho is a tea growing district in the Rift Valley province. It is situated at an elevation of 3300 meters above sea level.

**Study population**

The study will target primary school going children aged 12-15 years. This group is chosen as it is the critical age group of students sitting for their final year KCPE exams.

**Inclusion criteria**

All the school children within the age group of 12-15 years who have consent.

**Exclusion criteria**

Those children who will absent.

Those without consent.

**Study design**

Descriptive cross-sectional study.

**Sample size**

This will be computed manually using a confidence level of 95%.

The formula used was:

\[ N = \frac{z^2 P (1-P)}{C^2} \]

Where N – sample size

Z value – 1.960

P – prevalence of problem

C – 1-confidence level

Prevalence of school absenteeism: 89%
Sampling

Convenient sampling will be employed. Only those who will meet the inclusion criteria will be issued questionnaires.

Data collection instruments and procedures:

This will be done by use of a structured questionnaire, which will be administered by the principal investigator with the help of two trained assistants.

Ethical consideration

The information will be collected only after informed consent and the participants will be free to withdraw from the study if they choose to with no intimidation placed upon them.

Confidentiality of all information will be observed.

The study will be of benefit to the community.

Data analysis and presentation

The data will be analyzed manually and presented in form of tables, charts and graphs.

Minimizing bias and errors

Only questionnaires with complete information will be studied.

Perceived benefits

The results will be used by health care providers in promotion of parent education on preventive measures of dental diseases.

As partial fulfillment of the course requirements of a Bachelor’s Degree in Dental Surgery at the University of Nairobi, Faculty of Dental Sciences.

Problems encountered

Financial constraints.

Limited time for data collection.
REFERENCES


APPENDIX

QUESTIONNAIRE

Absenteeism due to oral diseases among 12-15 yr old children at a primary school in Kericho.

AGE : __________
SEX : __________
CLASS : __________

Please tick the box with the correct response.

1) Have you ever been absent from school in the years 2002 and 2003?
   □ Yes
   □ No

2) If so why?
   □ Dental problem
   □ Medical reason
   □ Other (specify) ________________________________

3) If it was a dental problem, what was the problem?
   □ Toothache
   □ Bleeding gums
   □ Crooked teeth or to adjust braces
   □ Check up
   □ Other(specify) ________________________________

4) What did you do?
   □ Went to see a dentist
   □ Was treated at home
   □ Other (specify) ________________________________

5) If you went to see the dentist what was done?
   □ Tooth was removed
   □ Cleaning of teeth
   □ Braces put
   □ Tooth was filled
   □ Check up
   □ Other(specify) ________________________________

6) In the years 2002 and 2003 how many times have you been away from school due to dental problems?
   □ 1-5
   □ 6-10
   □ More than 10

7) How long were you away from school?
   □ Half a school day
   □ A full school day
   □ More than one school day
## Proposed Budget

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