KNOWLEDGE, ATTITUDE AND PRACTICE OF PATIENTS TOWARDS THE HEPATITIS B, AT THE UNIVERSITY OF NAIROBI DENTAL HOSPITAL

A RESEARCH PROPOSAL FOR A COMMUNITY DENTISTRY PROJECT PRESENTED IN PARTIAL FULFILLMENT FO THE DEGREE OF BACHELOR OF DENTAL SURGERY UNIVERSITY OF NAIROBI

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LIST OF ABBREVIATIONS

HBV - Hepatitis B virus
UON - University of Nairobi
Pg - Number
BDS - Bachelor of Dental Surgery
FDS - Faculty of Dental Sciences
MPH - masters of public health
INTRODUCTION

Hepatitis B is a virus that causes the liver to become inflamed; most people fight off the infection themselves. However, approximately 5 – 10% of these people who are infected with the virus will become carriers, and an estimated 5 – 10% of those people infected each year will progress to chronic liver disease, cirrhosis, and possibly liver cancer (1).

This disease is more infectious than AIDS and is transmitted through infected blood and other body fluids (seminal fluid, vaginal secretions, breast milk, tears, saliva, and open sores). However, in approximately 30 – 40% of cases, the method of transmission is unknown.

You can protect yourself against hepatitis B with a safe and effective vaccine. To be fully protected, three injections are required: the second one a month after the first injection and the third one six months later. Hepatitis B vaccination shots are recommended for all newborns, infants, and teenagers; shots may be given at any age. Most cases of hepatitis B occur among sexually active young adults; therefore, teenagers are an important group to be vaccinated. This vaccine provides immunity for most people for at least five years and possibly longer (1).

People who are exposed to blood or body fluids of an infected person are at risk, you may also be at risk if you:

- Are exposed to blood on the job e.g. first aid or emergency worker, funeral director, police personnel, dentist or dental assistant etc.
- Live in the same household with an infected person
- Have sex with a carrier or chronically infected person
- Use intravenous drugs
- Have hemophilia
- Work or are a patient in a health or long term care facility
- Travel to countries with a high incidence of hepatitis.
LITERATURE REVIEW

The carriage rate of Hepatitis B virus in the general population of Britain is 0.1 – 0.2% but in hot climates such as Asia and Africa may be 5 – 40% and dental staff there are at high-risk (2).

An estimated 40% of people who have been infected with hepatitis B do not know how or when they became infected. Most people who get hepatitis B have no recognizable signs or symptoms. The only way the disease can be positively identified is through a blood test, many people are surprised to learn when they have donated blood that they test positive for hepatitis B. Hepatitis blood tests are not usually included in routine blood tests done when having a physical examination (1).

Seroprevalence studies done in America have demonstrated that specific populations are at particularly high risk of hepatitis. Highest risks are persons from South East Asia with a seroprevalence of 12% to 16%. Relatively few studies have focussed on the health status and health behaviour of Vietnamese or other Asian Americans and little effort been directed at health education on hepatitis for South East Asian Adolescents. Asian children are relatively under vaccinated for hepatitis B. Development and implementation of effective clinical and Public Health prevention strategies for hepatitis B are predicated upon an understanding of the knowledge and attitude among adolescents regarding hepatitis B infection in particular we need a better understanding of Asian American adolescents perception of the risk of sexually transmitted hepatitis B, given the historical reticence of persons from Asian cultures to discuss sexuality and death and dying openly (3).

In the United States over 330,000 new cases of hepatitis B occur per year approximately 70% of new hepatitis B infections occur in adolescents and young adults. Once infection occurs, transmission can occur horizontally via contact with blood products, through sexual contact and even through apparent casual contact in the household. Strategies to prevent transmission from persons already infected include immunization of non-immune individuals, identification of persons with chronic infection with targeted health education to reduce transmission to
household sexual and vertical contacts and at a community level promotion of safe sex practices including the use of condoms (4).

In Kenya knowledge on hepatitis B infection is limited to information people get from health centres since majority of people are in rural areas where there is unlimited access to health centres not much information reaches the rural communities.

About 90% of adults recover from hepatitis B in a few months clearing the virus from their system and developing immunity. They will never get Hepatitis B again, however, their blood test will always show that they had been infected and blood centres will not accept their blood. This is because there is a very small chance that the results are “false positive” for the immunity and the person might still be infected. About 10% of adults, 25 – 50% of young children (under 5 years and 70 – 90% of infants infected with hepatitis B who are unable to clear the infection from their bodies in six months become carriers or at chronically infected with hepatitis B.
CHAPTER II: RESEARCH PROBLEM

Problem statement

Education of hepatitis B infection is a national Public Health priority – Hepatitis B infection may result in acute and chronic morbidity and mortality. Neonatal hepatitis B infection frequently persists in a chronic carrier state and confers significant risk of morbidity and mortality from liver disease such as cirrhosis and hepatocellular carcinoma in early adulthood. Infection with hepatitis B during adolescence and adulthood is associated with a lower risk of chronic infection but is an important public health problem.

The transmission of hepatitis B virus in health care workers especially dentist is a two way process, with “carrier” dentists likely to infect their patients which may ethically have career ending implications (5).

Justification of Study

Studies have yet to be done locally to determine the knowledge and attitude of patients attending the University Dental Hospital on Hepatitis B infection. The information gotten would be added knowledge necessary in prevention of hepatitis B spread and assisting in planning for education of the public.

Hypothesis

1. Knowledge of patients attending University of Nairobi Dental Hospital on hepatitis B is inadequate.

2. 75% of the patients would be willing to take preventive measures including vaccination to curb spread of hepatitis B.
OBJECTIVES

1. To determine the knowledge of patients at the University of Nairobi Dental Hospital concerning hepatitis B.

2. To determine the attitude of patients at University of Nairobi Dental Hospital on taking preventive measures towards hepatitis B.

VARIABLES

Independent variables
These are factors that determine knowledge and attitude of the patients.

1. Age - older people are more exposed to information regarding health issues.
2. Sex -
3. Marital status - Married people are more conscious of infectious diseases.
4. Occupation - Some occupations bring people to direct contact with the problem.
5. Exposure to body fluids or blood of (infected person) or suspected infected person.

Dependent variables

These are used to describe or measure the problem under study.

1. Knowledge and awareness on hepatitis B
   a) Type of infection
   b) Mode of transmission
   c) Ways of preventing infection

2. Attitude towards hepatitis B
   a) Willingness to go for vaccination
   b) On living with infected persons
   c) Visiting an infected dentist
   d) On going to be tested for HBV
   e) On wanting to be given more information on HBV
3. Practices towards hepatitis B
   a) going for vaccination
   b) going for booster immunisation
   c) on use of information to curb spread of HBV
CHAPTER III: MATERIALS AND METHOD

3.1 Study Design

The study will be a descriptive cross-sectional study.

3.2 Study area

The study will be carried out at the University of Nairobi Dental Hospital. The Dental Hospital is situated along Argwings Kodhek road and is about 2 Kilometers from the Nairobi City Centre. The patients who come for treatment are treated by students under supervision by the lecturers. There are several departments offering different treatment e.g. oral diagnosis, periodontology, prosthetics, conservation, orthodontics and periodontics. The clinics start operating from 10.00 a.m. in the morning till 5 p.m. in the evening.

3.3 Study population

Patients who will come for treatment during the study period. The dental hospital attracts patients from different ethnic and socio-economic backgrounds.

3.4 Sampling Procedure

Purposive sampling will be done whereby questionnaires will be distributed to patients daily as they wait for treatment. The questionnaires are to be filled by the patient and will be left in the waiting room for collection. This exercise will be carried out for 1 month during the weekdays.
3.5 Sample size

Sample size will be calculated using modified Dobson formular for limited target population.

\[
\eta = \frac{\text{Sample population} \times Z^2 \times 0.8 \times 0.2}{0.05^2 \times (\text{sample population} - 1) + Z^2 \times 0.8 \times 0.2}
\]

Where \( \eta \) = Sample size

\( Z \) = Corresponding value of confidence level

Confidence level of 95% chosen thus

Corresponding \( Z \) value of 95% = 1.96.

target population = 4500

(4500 is the average number of patients seen in a year at the University of Nairobi Dental Hospital).

Thus: \( 4500 \times 1.96^2 \times 0.8 \times 0.2 \)

\( 0.05^2 (4500 - 1) + 1.96^2 \times 0.8 \times 0.2 \)

\[
\eta = 233
\]

280 questionaires will be prepared in anticipation of low response rate.

3.6 Data Collection Instruments

A closed-ended questionnaire will be used. The questionnaire will be self-administered.

3.7 Data Analysis

Data will be analyzed manually and presented in form of tables, graphs and pie charts.
3.8 **Inclusion criteria**

1. Patients to be seen at University of Nairobi Dental Hospital
2. Patients giving consent
3. Literate patients

3.9 **Exclusion criteria**

1. Patients who will not consent to the study
2. Patients who are not literate

3.10 **Logistics**

1. Low response rate from the patients

3.11 **Ethical consideration**

1. Consent will be sought from patients
2. Confidentiality of information disclosed
3.12 Budget

PREPARATORY
Internet ................................................................. 1200
Stationary ............................................................... 800
Saving proposal on diskette printing and binding .......... 800

DATA COLLECTION
Questionnaires 280@sh5.00 ........................................ 1400
Results ................................................................. 600

REPORT ................................................................. 800

MISCELLANEOUS .................................................... 800

TOTAL ................................................................. 5850

3.13 Proposed Benefits

1. Results will be used in planning for Hepatitis B awareness programmes for patients.

2. Partial fulfillment of bachelor of dental surgery degree.
APPENDIX 1

1. The Hepatitis Information Network  
   http://www.gastro.com
2. Essential of dental Surgery and Pathology .Chapters 20 R.A. CAWSON.
3. An occasional paper  
   Differences in knowledge of Hepatitis B among Vietnamese African American, Hispanic and white adolescents in Worcester, Massachusetts’ by IAAS
4. Webmaster @hepnet.com
APPENDIX II

KNOWLEDGE, ATTITUDE AND PRACTICE OF PATIENTS TOWARDS HEPATITIS ‘B’ AT THE UNIVERSITY OF NAIROBI DENTAL HOSPITAL.

QUESTIONNAIRE

To be filled by respondent (Tick where appropriate)

Age (yrs). ........................................... Sex: Male □ Female □

Occupation..........................................................................................................................

Marital status
  Single □ Married □ Divorced/separated □

1. Have you ever heard of Hepatitis B infection?
   □ Yes
   □ No

2. What was your source of information regarding Hepatitis B?
   □ Hospital
   □ Newspaper
   □ Television/radio
   □ Workplace
   □ School
   □ Others specify.................................................................

3. According to your source of information, what is hepatitis B?
   □ Minor infection
   □ Serious infection
   □ Bacterial infection
   □ Viral infection
   □ Don’t know
   □ Others specify.................................................................

4. Do you think hepatitis B is a danger to your health?
   □ Yes
   □ No
   □ Not sure
   □ Others specify.................................................................

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5. Can the following transmit Hepatitis B?
   - Blood transfusion
   - Sneezing and coughing
   - Holding hands
   - Sharing needles
   - Unprotected sex
   - Kissing on the cheek or dry lip kissing
   - During surgery
   - Others specify

6. Do you think you can get Hepatitis B during dental treatment?
   - Yes
   - No
   If yes, specify how

7. Which is the best way of preventing Hepatitis B?
   - Abstaining from sex
   - Screening blood donations
   - Being faithful to your partner
   - Vaccination
   - Using condoms
   - Sterilizing dental instruments
   - Protective wear by surgeons
   - Others specify

8. Have you ever been tested for Hepatitis B?
   - Yes
   - No

9. Have you ever been vaccinated against Hepatitis B?
   - Yes
   - No
   - Don’t know

10. If no to Q.9, would you like to be vaccinated against Hepatitis B?
    - Yes
    - No
    - Not sure
11. If yes to Q.9, did you go for a booster immunization?
   - Yes
   - No
   - Not sure

12. If you are already vaccinated, where was it done?
   - At work
   - At school/college
   - Hospital
   - Others specify............................

13. What made you go for the vaccination?
   - It was free
   - Fear of being infected
   - Advice from friend/doctor
   - Others specify............................

14. Is it risky to live in the same house with someone infected with Hepatitis B?
   - Yes
   - No
   - Not sure

15. Suppose you are living in the same house with someone with Hepatitis B, what would you do to ensure you don’t get infected?
   - Isolate infected person
   - Get vaccinated
   - Nothing
   - Others specify............................

16. When visiting a dentist, who is more at risk of contracting Hepatitis B from the other?
   - Patient from the dentist
   - Dentist from the patient
   - Equal risk
   - Others specify............................

17. Would you seek treatment from a dentist who you know has Hepatitis B?
   - Yes
   - No
   - Don’t know
18. Would you like to be given more information on Hepatitis B?

☐ Yes
☐ No
☐ Don’t know
If yes, which information.........................................................

19. How would you use the information you have on Hepatitis B to curb the spread of the infection?

☐ Tell people about the dangers of Hepatitis B
☐ Tell people about vaccination against Hepatitis B
☐ Take precautions to avoid being infected with Hepatitis B

20. Would you like to be given information regarding Hepatitis B infection?

☐ Yes
☐ No
☐ No need
☐ Others specify.................................................................