

ORIGINAL ARTICLE

Knowledge, Attitude and Practices of Medical and Dental House Officers for the Prevention of Hepatitis B and C in the Hospital Setting

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ABSTRACT

The aims of our study are to determine the knowledge, attitude and practices of hepatitis B and C among house officers. A structured self-administered questionnaire was used to check out the knowledge, attitude, and practices towards personal protective measures taken by house officers to prevent hepatitis B and C. We used a pre-tested questionnaire used before for the examination of Hepatitis B and C. A total of 150 house officers were included in the study with a mean age of 22.5 ± 0.082 years. Almost all the house officers 146 (97.3%) heard about hepatitis B virus infection. Half of the house officers 79 (52.7%) never participated in health education program. The present study showed that house officers have good knowledge about the gravity of the disease but lacks the deep information specially regarding its transmission and preventive measures.

Keywords: Hepatitis B, Hepatitis C, House officers

INTRODUCTION

Hepatitis is an inflammation of liver. The disease is either acute or chronic. It is caused by a number of viral agents including Varicella virus and certain mononucleosis. Main hepatitis viruses responsible for this disease are A, B, C, D and E. Hepatitis is a life-threatening disorder that leads to permanent liver damage. The main symptoms include nausea, fever, jaundice, loss of appetite, hepato-cellular carcinoma, cirrhosis, liver edema, and death.^{1,2}

Hepatitis C virus (HCV) is the major causative agent of non-A and non-B hepatitis.³ Hepatitis C is most common blood-borne infection and usually spreads through sexual intercourse, intravenous drug use, blood products, body fluids, and surgical procedures. There is no permanent treatment of hepatitis. However, vaccines are available for hepatitis A and B.⁴ Vaccines can prevent the occurrence of disease in individuals whereas there are no available vaccines for hepatitis C. However, any one can become a victim of this contagious disease but medical professionals and dentists are more prone to get this infection.^{5,6}

Hepatitis is one of the leading health care problems all over the world. It is now progressing at a breakneck pace. Each year millions of cases are reported regarding hepatitis B and C. Different researches have shown that nearly 170 million people get affected by hepatitis C each year.⁷ Moreover, 3% of world population is affected by hepatitis C, two billion people are affected by hepatitis B and 350 million are affected by chronic liver infections each year.⁸ Hepatitis B and C are main reasons of high mortality and morbidity all over the world.¹⁷ Majority of people are carriers of this disease and do not show proper symptoms, whereas a research survey has shown that nearly one to two million people get infections of this virus and half of them die.^{10,12} It is a common cause of occupational diseases that can spread rapidly. The exposure of this disease is more common in Asian Countries including Pakistan and India.¹⁷ The reason for this is poor hygienic conditions and improper sterilization of dental instruments and machines in hospitals and health care centres.^{9,13} Hepatitis B virus is widely spreading in Pakistan and the incidence of HBV is rising consistently.¹² It has been favoured that prevention is a shield against epidemic of viral hepatitis. Proper vaccines and precautionary measures are provided in the international sector for the safety of communities whereas such measures are usually neglected in South Asia.^{15,11} According to the World Health Organization (WHO), the prevalence of this silent disease is 2% to 7% for HBV and 0.5% to 0.1% for HCV.¹⁴ Pakistan is also facing this disease with reported prevalence of HCV 4-7% and that of HBV 3-4% as reported by different surveys from the

country.¹⁴ Researches show that prevalence of this disease is more in women as compared to children.^{15,16,18}

The aims of our study are to determine the knowledge, attitude and practices of hepatitis B and C among house officers.

MATERIAL AND METHODS

This cross-sectional descriptive research survey was conducted among the house officers of Sharif Medical and Dental College, Lahore, using convenient sampling. A structured self-administered questionnaire was used to check out the knowledge, attitude and practices towards personal protective measures taken by house officers for the prevention of hepatitis B and C. We used a pre-tested questionnaire which was used before for examination of Hepatitis B and C.^{8, 9} Doctors already suffering from Hepatitis B and C were excluded.

Recorded data was coded and entered using SPSS statistical package version 20.0. Numerical data like the age was reported as mean and standard deviation. Nominal data like gender and educational status were recorded as frequency and percentages.

RESULTS

A total of 150 house officers were included in the study with the mean age of 22.5 ± 0.082 . Fifty-six (37.3%) male and 94 (62.7%) female house officers participated in the study. The demographic profile of the participants has been shown in table 1.

Table 1: Demographic data

DEMOGRAPHIC PROFILE	
AGE	
20-25	149 (99.3%)
25-30	1 (0.7%)
GENDER	
Male	56 (37.3%)
Female	94 (62.7%)
EDUCATIONAL STATUS	
BDS	78 (52%)
MBBS	72 (48%)

Table 2 shows the responses of participants to questions regarding knowledge of medical and dental house officers about Hepatitis B and C in the hospital and clinical setting.

Table 3 shows the responses of house officers to questions regarding attitude towards Hepatitis B and C in the clinical and hospital setting.

Table 4 shows the responses of house officers to questions regarding practices of Hepatitis B and C prevention in the clinical setting.

Table 2: Knowledge of participants regarding Hepatitis B and C in hospital and clinical setting

Have you ever heard about hepatitis B virus infection?	
Yes	146 (97.3%)
No	4 (2.7%)
How serious do you think being infected with hepatitis B virus is compared to HIV?	
Less serious than HIV	92 (61.3%)
As serious as HIV	43 (28.6%)
More serious than HIV	12 (8%)
I do not know	3 (2%)
How can someone be infected with hepatitis B virus?	
Through contact with blood of an infected person.	51 (34%)
Through contact with saliva of an infected person.	12 (8%)
Through contact with sweat of an infected person.	4 (2.7%)
Through contact with body fluid contaminated by blood of an infected person.	47 (31.3%)
I do not know	1 (0.7%)
More than 1 answer	35 (23.3%)
How effective do you think hepatitis B vaccination is in protecting someone against hepatitis B virus infection?	
Not effective	10 (6.7%)
Slightly effective	91 (60.7%)
Very effective	44 (29.3%)
I don't know	5 (3.3%)
How long does a full dose of hepatitis B vaccine protect someone?	
Less than 1 year	34 (22.7%)
1 year to 5 years	57 (38%)
6 years to 10 years	52 (34.7%)
11 years to 19 years	7 (4.7%)
Do you believe that contaminated syringes, unsterilized instruments and mismatched blood transfusion causes Hepatitis Band C?	
Yes	136 (90.7%)
No	4 (2.7%)
Do not know	9 (6%)

Table 3: Attitude of house officers towards Hepatitis B and C

Do you think that changing of gloves after a patient is a preventive measure against Hepatitis?	
Yes	141 (94.0%)
No	3.0 (2.0%)
Don't Know	6.0 (4.0%)
Do you believe that doctors working in clinics are at risk of HBV or HCV?	
Yes	146 (97.3%)
No	3.0 (2.0%)
Maybe	6.0 (4.0%)
Do you think Hepatitis B and C is controlled with current available medicines in health care system of Pakistan?	
Yes	71.0 (47.3%)
No	51.0 (34.0%)
I Don't Know	28 (18.7%)
Do you think proper guidelines and precautionary measures are being adopted for these diseases?	
Yes	82.0 (54.7%)
No	67.0 (44.7%)
Do you think use of sterilized syringes is important for preventing hepatitis B and C?	
Yes	140 (93.3%)
No	3 (2%)
I don't know	7 (4.7%)
Do you think that blood picture test and ALT should be a part of follow up for hepatitis patient every month?	
yes	118 (78.7%)
no	31 (20.7%)
I don't know	1 (0.7%)
Do you think that dentists are at more risk of getting viral infections like hepatitis B and C?	
yes	133 (88.7%)
no	5 (3.3%)
I don't know	12 (8%)

Table 4: Practices of house officers for prevention of Hepatitis B and C spread in the clinical setting

Have you ever participated in health education program related to patients of hepatitis?	
Yes	69 (46%)
No	79(52.7%)
I don't know	1 (0.7%)
Do you share your personal belongings (glass, razors and towels) to others?	
Yes	60 (40%)
No	89 (59.3%)
I don't know	1 (0.7%)
Do you get blood screen test for Hepatitis B and C before blood transfusion?	
Yes	113.0 (75.3%)
No	37.0 (24.7%)
Do you take precautionary measures for hepatitis B and C on your own?	
Yes	133.0 (88.7%)
No	5.0 (3.3%)

DISCUSSION

Hepatitis B and C poses a great burden on economy of health system and thus is a major problem.^{19,20} This is serious issue as it is major cause of hepatocellular carcinoma and thus increases morbidity and mortality.²¹ Hepatitis is a significant occupational threat to health care worker. Due to nature of their profession and close proximity to hepatitis affected patients, health care workers have increased risk of getting infected. Thus, adequate awareness and knowledge of disease plays a pivotal role in prevention of disease spread.²² This study was conducted to assess the core knowledge, practice and attitude of doctors regarding hepatitis infection.

The present study showed that 146 (97.3%) of our studied population was well aware of the gravity of the disease and that the disease can spread easily in hospital setting, similar results have been reported in a study conducted in India.²³ Respondents of our study lack the knowledge of spread of disease and route of transmission. This may be due to lack of knowledge. On contrary, a study conduct by Ali et al. reported good knowledge of route of transmission among studied people in Pakistan.²⁴

Regarding practices opted to avoid spread of disease, 94% of respondents were aware of changing gloves after examining a patient. A study conducted in Japan reported only 25% of doctors change gloves for each patient but 17% don't even wear gloves,²⁵ while 17% of health care workers wear double gloves in Iran.²⁶

Quite a good number of participants (n=133, 88.7%) take precautionary measures to prevent catching disease from the patients. Most of the participants of study conducted by Babar et al. also followed preventive measures like wearing gloves, masks and goggles.²⁷

No significant association was found between the level of knowledge and gender and age of the healthcare workers. This is attributed to the fact that the standard of teaching and hospital policies are similar for the respondents of this study.

The limitation of this study lies in its self-reporting by the respondents. More robust results can be obtained by observing them in clinical settings and carefully evaluating the answers.

CONCLUSION

The present study showed that house officers have good knowledge about the gravity of the disease but lacks the deep information specially regarding its transmission and preventive measures. Lack of knowledge may contribute to negative attitude towards the patients that have active disease and thus may add suffering to the diseased person. In-depth knowledge and awareness are to be provided to the healthcare worker in order to treat the patients and above all prevent the spread of the disease my taking recommended preventive measures.

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