

HEPATITIS B AWARENESS AND VACCINATION STATUS AMONG STUDENTS OF A MEDICAL COLLEGE IN KPK PESHAWAR

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ABSTRACT

Background. Hepatitis B virus (HBV) is a fatal infection and a notorious occupational hazard for health care professionals including medical students. Methods. A cross-sectional study was conducted at Pakistan International Medical College (PIMC), to evaluate the knowledge and awareness about Hepatitis B, Hepatitis B vaccination status and the reason for not getting vaccinated among the 2nd year and 3rd year medical students. Results. The present study reveals surprising results and raises issues about the high number of medical students that are not vaccinated which puts them at higher risk of being infected in the future. Another important issue is that medical students lacked awareness about Hepatitis B vaccine. The students have not been totally educated about the seriousness of the situation which requires the need of additional HBV vaccination awareness.

INTRODUCTION

The infection of Hepatitis B virus is a grievous health problem globally, especially in Africa and Asia.[1] The approximate number of people affected by Hepatitis B virus worldwide is 2 Billion, and among them the number of people suffering from chronic HBV infection is 400 million.[1] In Pakistan about 9 million people are affected by HBV and the rate of the infectivity rises continuously.[1] In 2008 0.6 million people in KPK were appraised to be infected with Hepatitis B infection.[2] There is a lot of variation in the clinical course of Hepatitis B infection among people.[1] The infection can be either asymptomatic or symptomatic and a chronic infection with this virus can progress to hepatocellular carcinoma or cirrhosis.[1] The most frequent cause of Hepatitis B virus spread is sharing contaminated syringes.[2] Hepatitis B is a contiguous job related threat for health care providers because of their frequent exposure to blood as well as other bodily fluids.[3] The crucial risk factor for HBV infection is therapeutic injections given in hospitals.[4] With the initiation of vaccination the prevalence of HBV infection has sharply decreased.[5] The most efficient way to put lessen HBV infection and its consequences is vaccination with Hepatitis B vaccine.[5] According to the Advisory Committee on Immunization Practice (ACIP) Hepatitis B vaccination is approved for individuals 18 years of age and younger along with individuals older than 18 years liable to Hepatitis b infection.[5] The immunogenicity of Hepatitis B vaccine is significantly high and provides 90-100% protection against the infection following completion of the Hepatitis B vaccination schedule.[6] The potential risk for HBV transmission can be reduced by numerous ways including blood screening at the time of donation and efficient infection control practices but certainly the single most efficient prevention measure is immunization.[7]

Previous studies have been conducted at national level about the awareness of Hepatitis B vaccination among the medical students/ health workers but there is still deficiency of awareness about the vaccination of Hepatitis B in medical students of KP, Peshawar.

So, the objective of this study is to spread awareness among the medical students of KP, Peshawar.

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2. Materials and methods:

We conducted a cross sectional study at Pakistan International Medical College Hayatabad, Phase 5, Peshawar, KP, Pakistan regarding awareness of Hepatitis B vaccination among medical students. Our study targeted the students of third year and second year MBBS. It was a combined study and the number of participants in this study were 112. The students knowledge regarding Hepatitis B vaccination was assessed by a questionnaire that consisted of the following sections: 1) Biodata 2) Academic characteristics 3) Knowledge regarding HBV infection , transmission , complications , risk factors , prevention and vaccination.

Statistical Analysis Used : Data was coded , entered and analyzed using MS Excel version 2010.

Results:

The demographic characteristics of the study sample are shown in Figure 1. A total of 112 students participated in this study, 83 (74.1%) males and 29 (25.9%) females. The age of the participants ranged from 18 to 24 years (shown in Figure 2). Participants in this study were MBBS students, 45 (40.2%) students were of second year MBBS and 67(59.8%) students were of third year MBBS. As shown in Figure 3 , 89.3% of the participants were aware of the Hep B infection while the rest 10.7% of the participants have not heard of the infection. Referring again to the Figure 3, 92% of the participants responded that Hepatitis B vaccination protects against the infection and non of the respondent has received Hepatitis B vaccination at Pakistan International Medical College, KP, Peshawar , Pakistan.

When asked about the reason behind not being vaccinated , 7.1% of the respondents were not vaccinated because of the fear of injection , 79.5% were not aware of Hepatitis B vaccine while 13.4% answered that they do not needed the vaccine. The knowledge about the prevention of Hepatitis B infection was adequate as 91.1% of the respondents answered that it is a preventable infection but only 8.9% of the respondents answered that it is not a preventable infection. It is clear from Figure 4 that the knowledge of the respondents regarding chronic Hepatitis B infection was poor as 68.7% of them answered that chronic Hepatitis B infection is symptomatic while the rest 31.3% were aware that chronic Hepatitis B infection is asymptomatic. Referring to Figure 5, the symptoms (fever ,jaundice ,vomiting) were well understood by 61.1% of the respondents , 17.9% of the participants responded with fever, 11.6% with jaundice and 4.5% vomiting. 38.4% of the participants have adequate knowledge about the complications of chronic Hepatitis B infection and they responded with cirrhosis, 1.8% responded with kidney disease , 0.9% with liver cancer , 28.6% with liver disease and 30.4% responded with all (cirrhosis , kidney disease , liver cancer , liver disease).

Majority (64.3%) of the participants were not aware of the frequency of chronic Hepatitis B infection and they responded that it occurs in adults. Only 35.7% of the participants were sure that the infection occurs in children. 78.6% of the participants responded correctly regarding the transmission of Hepatitis B infection that its transmission can occur through sexual contact while rest 21.4% did not have adequate knowledge about its transmission.

Referring to Figure 7 which shows the response of participants regarding the risk factors of Hepatitis B , 18.8% of the participants considered alcohol as a risk factor for Hepatitis B , 52.7% responded with blood transfusion , 5.4 % smoking and 23.2% considered tattoo as a risk factor.

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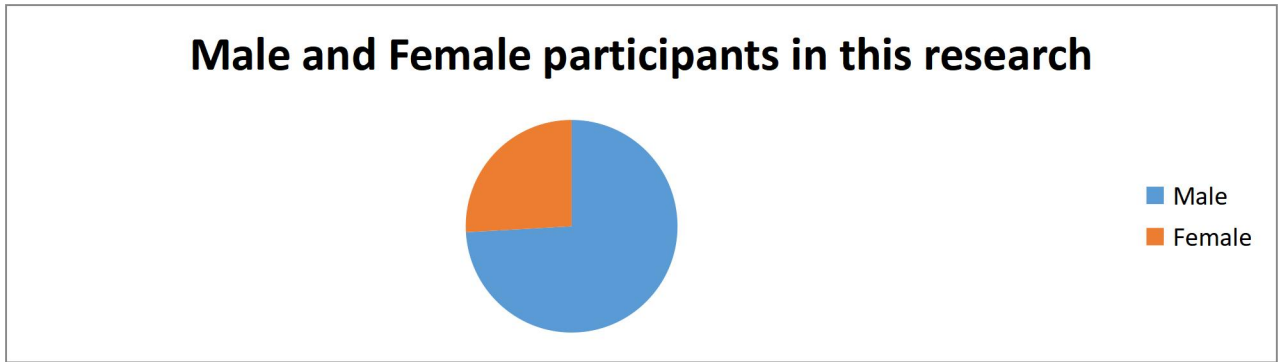


Figure 1: Male and female participants in the study sample.

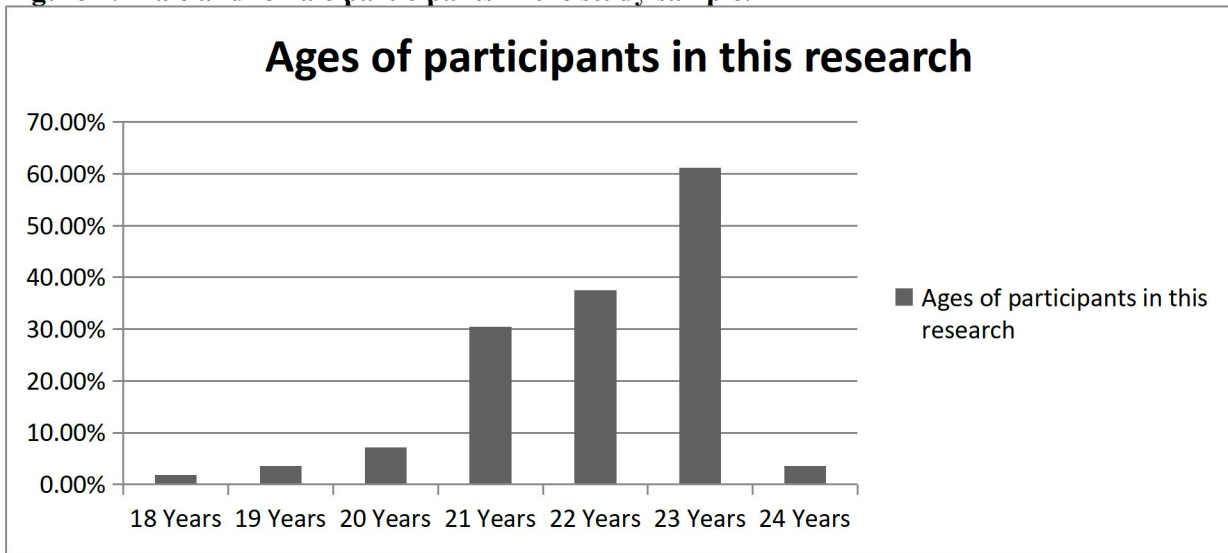


Figure 2: Ages of participants in the study.

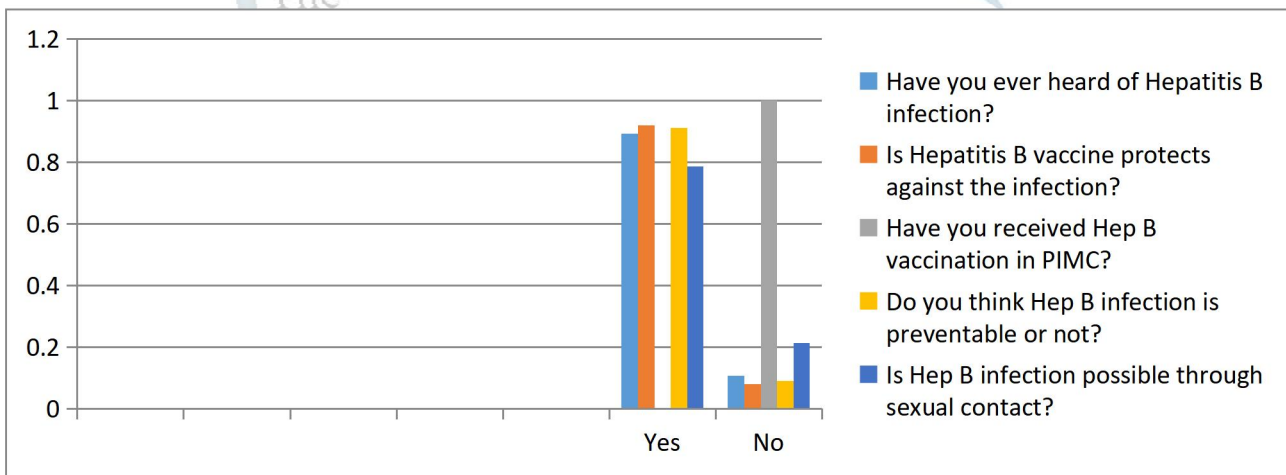


Figure 3.

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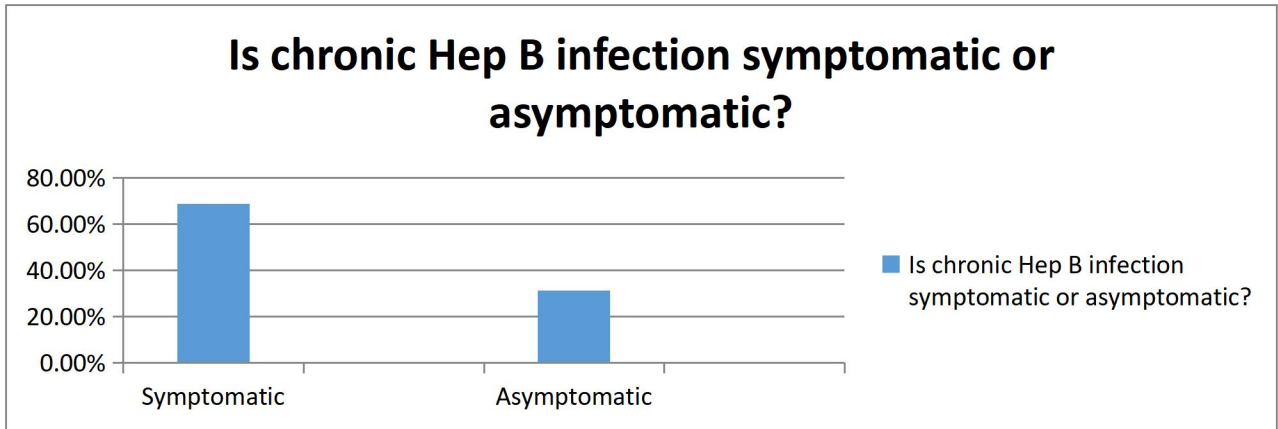


Figure 4

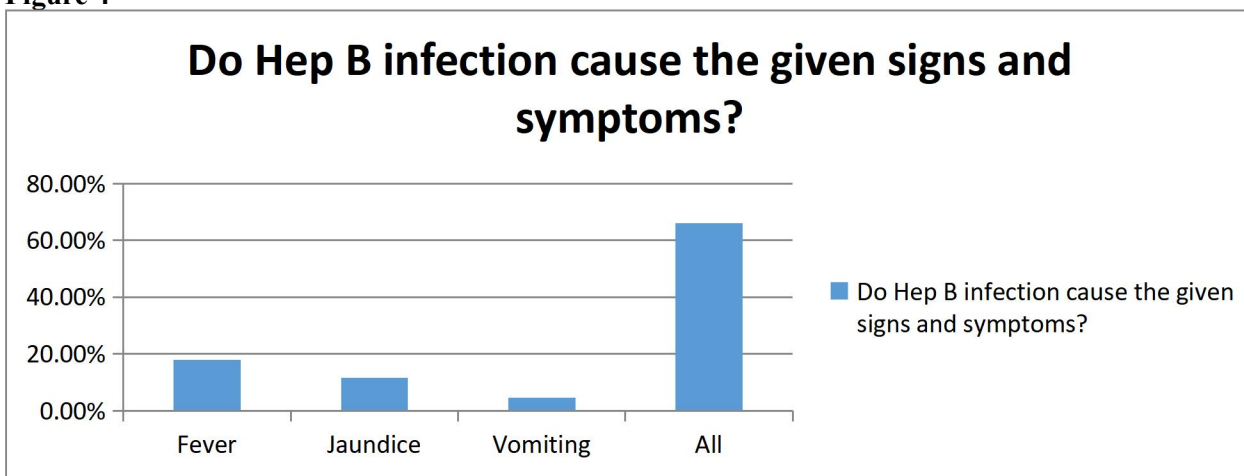


Figure 5

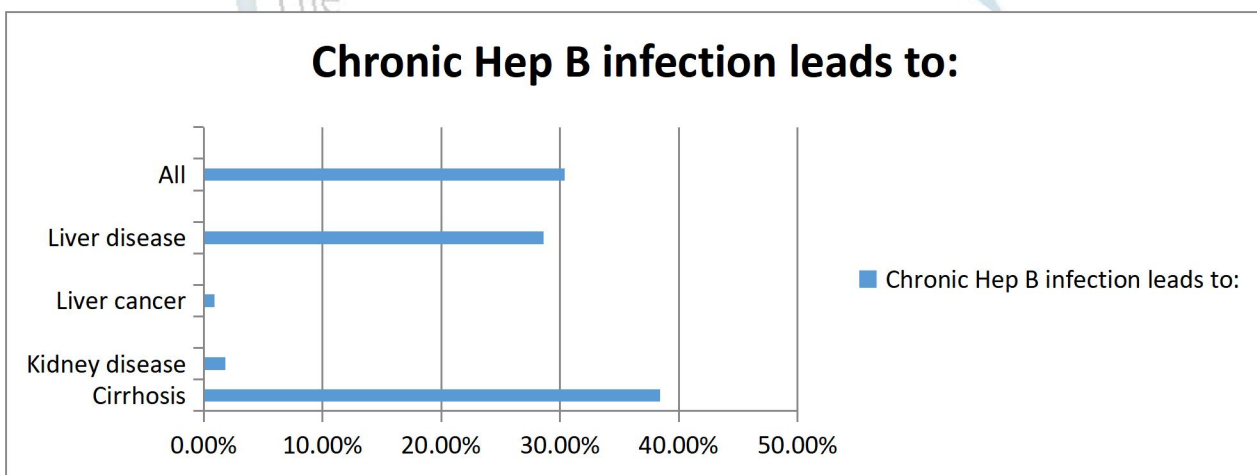


Figure 6

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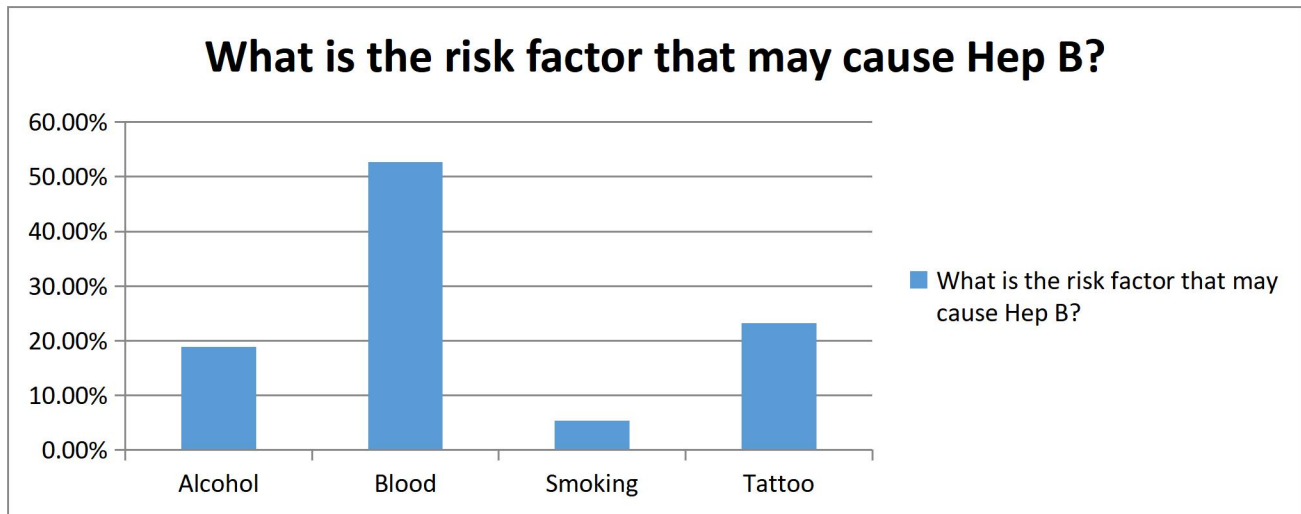


Figure 7

Discussion:

This study revealed that majority of the participants were aware of the Hepatitis B infection, route of transmission, risk factors and prevention but non of them were vaccinated because 7.1% of the participants have fear of injection, 79.5% of them have no knowledge regarding the vaccine and 13.4% claimed that they did not needed the vaccine. The medical students are more vulnerable to this infection because of their continuous exposure to some of the risk factors. Therefore, it is desired to promote awareness among the medical students regarding Hepatitis B vaccination as it may reduce the spread of infection among them . Another option that can reduce the spread of this infection is by providing free Hepatitis B vaccine to the medical students.

Conclusion:

We observed a general absence of HBV vaccination among health professionals in Pakistan International Medical College. Lack of knowledge, lack of awareness and cost were the major barriers for unvaccination . Continued efforts are needed to spread awareness regarding HBV vaccination among the health professionals to protect the workers as well as patients.

Ethical standards.

The study has been approved by Ethical Review Committee (ERC) of Pakistan International Medical College.

Conflict of Interests:

The authors declare that there is no conflict of interests regarding the publication of this paper.

Acknowledgements:

The authors are very grateful to the students who participated in the study and helped collect the data.

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