



TO ASSESS KNOWLEDGE, ATTITUDE, AND PRACTICE TOWARDS HEPATITIS B VIRUS INFECTION IN PATIENTS COMING TO GASTROENTEROLOGY OPD AT RAWAL INSTITUTE OF HEALTH SCIENCES, ISLAMABAD.

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ABSTRACT

Objective: The objective behind this study was to assess knowledge, attitude, and practice towards hepatitis b virus infection in patients coming to gastroenterology OPD at Rawal Institute of Health Sciences, Islamabad. **Methods:** This population & hospital-based descriptive study was conducted through a convenience sampling technique from 1st March, 2022 to 31st August, 2022 in the department of general medicine, Rawal Institute of Health Sciences, Rawalpindi. The study implemented 24- close ended questions consisted of three sections through which knowledge, attitude, and practice were assessed regarding HBV infection. All baseline and clinical data were taken using a structured questionnaire and then entered & analysed using SPSS v. 22. **Results:** A total of 243 patients who responded to the questions were included in this study for final analysis. Overall mean age and SD was 36.27±17.81 years. The age range between 18 years to 85 years and majority belongs to young age group, ≥18 – 40 years (40.74%, n =99). Study participants had overall good knowledge (79.21%) while average practice regarding HBV was (57.83%) regarding HBV infection. **Conclusions:** Most of our study participants were males and belong to younger age group. Overall response rate of knowledge regarding HBV infection was good and most of the participants will seek medical attention if they get infected. Unluckily, only a small percentage of participants (11.11%) participated in health education regarding HBV infection.

Keywords: HBV infection, chronic hepatitis B, awareness, Pakistan

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INTRODUCTION:

Chronic liver disease caused by viral hepatitis B and C viruses (HBV and HCV) are the leading causes of morbidity and mortality among developing nations. Chronic infection with viral hepatitis if left untreated may lead to death by causing liver cirrhosis and hepatocellular carcinoma¹ and it has highest association with HBV infection (44.445%) as compare to HCV infection (27.33%)². World's overall burden due to viral Hepatitis B and C is 296 million and 58 million, respectively and they accounts for more than 97% of the deaths globally³. A multi-center systemic review was conducted in 195 countries from 1990 to 2017 has shown that viral hepatitis associated liver cirrhosis caused 1.32 million deaths globally and the death rates were higher in developing countries and lowest in developed countries⁴. The mortality rate due to HBV infection alone is 820,000 deaths per year globally⁵. In Pakistan, it is estimated that around 7-8 million people are affected by HBV infection⁶. In a recent study conducted by Zahoor S and colleagues from Pakistan have observed increased in incidence of HBV infection to 1.7%⁷.

Knowledge and awareness among general population regarding this deadly and devastating disease is extremely important to reduce the burden of this disease and

also, reduce the financial cost of the affected patients bearing the family and government hospital. Transmission of HBV infection from one person to other person depends upon the contact with the infected person such as transmission through intercourse ranging from 1% to 20%⁸, among blood donors is 2% to 10%⁹, among pregnant women is 2.66%, among hemodialysis patients is 5.76%, and among healthcare works is 4.21%¹⁰.

Considering the high transmission rates of HBV infection there is a dire need of a published data from our region so that policy makers and clinicians work together to reduce the burden of this disease.

Material & Methods:

This population & hospital-based descriptive study was conducted through a convenience sampling technique from 1st March, 2022 to 31st August, 2022 in the department of general medicine, Rawal Institute of Health Sciences, Rawalpindi. Ethical approval was taken from ethical review committee of Hospital before commencement of study. All the participants were briefed about the study and consent was taken before inclusion in this study. This hospital is a tertiary care hospital and providing health facilities to the Rawalpindi, Islamabad, and nearby rural areas and also to the referral patients from other small medical centers, clinics,

and hospitals. All the adult (age more than 18 years) males and females visiting the gastroenterology & hepatology out patients department (OPD) due to any complain were included in this study.

A structured questionnaire was used to collect the relevant data. The study implemented 24- close ended questions consisted of three sections through which knowledge, attitude, and practice were assessed regarding HBV infection. The questionnaire consisted of 2 questions from basic demographic, 10 questions from knowledge, 6 questions from attitude, and 8 questions from practice. The main purpose of the knowledge questions was to assess the basic knowledge about the etiology, transmission, and associated complications if untreated. Attitude questions were related to the reaction regarding HBV infection if they get infected, and practice questions were related to preventive measures.

All the participants were given 1 score on 1 correct answer and then all these answered were summed up to determine the average. All the questions were pre-tested on 10 respondents and reviewed from the expert of community medicine department. All the data were entered and analysed using Statistical Package for the Social Sciences (SPSS) version 26.

RESULTS:

A total of 243 patients who responded to the questions were included in this study for final analysis. Overall mean age and SD was 36.27 ± 17.81 years. The age range between 18 years to 85 years and majority belongs to young age group, $\geq 18 - 40$ years (40.74%, n =99). Most of our study participants were males (68.72%, n = 167) (Table 1 & Figure 1).

Assessment of knowledge towards HBV

Study participants had overall good knowledge (79.21%) regarding HBV infection. According to study results, 97.11% of the respondents agreed that HBV infection is transmitted from needle stick injuries. Overwhelming majority of the respondents agreed that HBV infection results from using blades of the barbers, piercing and infected blood or body fluids, 94.65% and 90.94%, respectively. While less percentage of participants (64.6%) think that chronic HBV infection results in liver cirrhosis and hepatocellular carcinoma. Rest of the details are given in table 1.

Assessment of attitude towards HBV

Our study revealed that 44.85% of the participants think that they may get infected with HBV infection. Most of the study participants (86.41%) showed feared attitude if they get infected with HBV infection. And majority of the participants (89.71%) will talk to their physician if they get infected. Cost of treatment is the response majority respondents have mentioned if they get infection (49.38%). Table 2.

Assessment of practice towards HBV

Regarding practice of HBV infection, respondents revealed average percentage was 57.83%. Among the respondents, 98.35% and 97.11% showed positive response regarding taking further investigations and getting screening before blood transfusion, respectively. Unfortunately, 11.11% of the study participants answered that they took health education program related to HBV infection. Rest of the detailed description mentioned in table 1.

FIGURE 1: GENDER WISE DISTRIBUTION OF STUDY PARTICIPANTS(N = 243)

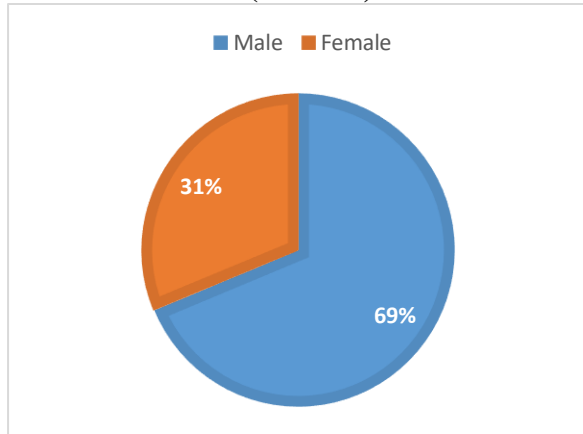


FIGURE 2: DISTRIBUTION OF PARTICIPANTS ACCORDING TO THE AGE GROUPS(N = 243)

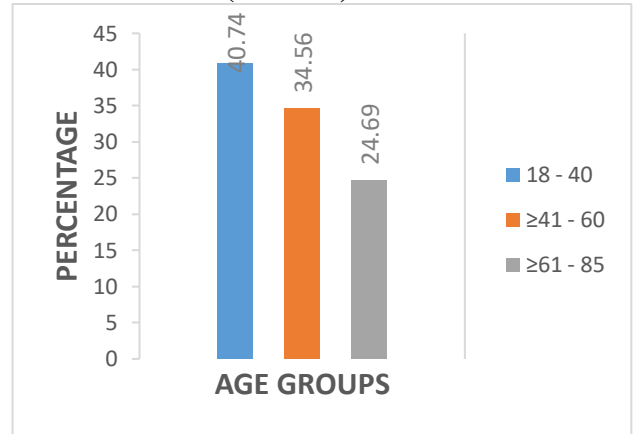


TABLE 1: INFORMATION OF KNOWLEDGE AND PRACTICE REGARDING HBV INFECTION BY THE GENERAL POPULATION(N = 243)

Variables	Number (correct answer)	Percent (correct answer)
HBV Knowledge variables	Frequency	Percentage
Transmission of hepatitis B virus results from exposure to infected blood or body fluids?	221	90.94
Transmission of hepatitis B results from needle stick injuries?	236	97.11
Transmission of hepatitis B results from unprotected sexual contact?	207	85.18
Transmission of hepatitis B results from dental procedures?	176	72.42
Transmission of hepatitis B results by using blades of the barber/ear and nose piercing?	230	94.65
Hepatitis B cannot be transmitted through hand shaking?	198	81.48
Hepatitis B is preventable by vaccination	174	71.6
Is hepatitis B curable /treatable?	168	69.13
Chronic hepatitis infection results in liver cirrhosis and hepatocellular carcinoma?	157	64.6
Can hepatitis B be transmitted from mother to child?	158	65.02
HBV Practice variables		
Have you done screening for hepatitis B	98	40.32
Do you ask your barber to change the blade /or safe equipment's for ear and nose piercing	149	61.31
Do you ask for screening of blood before transfusion?	236	97.11
In case you are diagnosed with hepatitis B, would you go for further investigations and treatment?	239	98.35
Do you ask for a new syringe before use?	234	96.29
Do you avoid meeting Hepatitis B patients?	36	15.38
Have you ever participated in health education program related to Hepatitis B?	27	11.11
Have you got yourself vaccinated against Hepatitis B?	104	42.79
HBV = Hepatitis B virus		

TABLE 2: INFORMATION OF ATTITUDE REGARDING HBV INFECTION BY THE GENERAL POPULATION (N = 243)

Attitude variables				
Do you think you can get Hepatitis B	Yes (44.85%, n = 109)			
What would be your reaction if you found that you have Hepatitis B	Fear (86.41%, n = 210)	Sham (2.05%, n = 5)	Surprise (58.84%, n = 143)	Sadness (85.18%, n = 207)
Who would you talk to about your illness	Physician (89.71%, n = 218)	Spouse (79.83%, n = 194)	Parents (57.61%, n = 140)	Friend/Relative (12.75%, n = 12)
What will you do if you think that you have symptoms of Hepatitis B	Go to health facility (53.49%, n = 130)	Go to homeopathic (9.87%, n = 24)	Go to Hakeem (23.45%, n = 57)	Go to traditional healer (0.82%, n = 02)
How expensive do you think is the diagnosis and treatment of Hepatitis B	Free (7.40%, n = 18)	Reasonable (44.03%, n = 107)	Expensive (22.63%, n = 55)	Don't know (16.87%, n = 41)
What worries you most if you will be diagnosed with Hepatitis B	Fear of death (12.34%, n = 12)	Fear of disease spread to family (27.16%, n = 66)	Isolation from society (9.87%, n = 24)	Cost of treatment (49.38%, n = 120)

DISCUSSION:

Awareness regarding hepatitis B virus infection in the general population is quite necessary to reduce the burden of this disease. Growing evidence suggest HBV infection rate is decreased in areas where awareness programs have been conducted frequently and also in those areas where literacy rate is high^{11,12}. Pakistan is a developing nation where rural dwellers, lack of awareness programs, and low literacy rate contribute in continuous rise in HBV infection prevalence¹³. Although numerous KAP studies from Pakistan regarding HBV infection and even all over the world are published but these studies does not reflect the KAP of people residing in our area^{14, 15}. Also, we choose those questions that we frequently encountered in our daily practice and these questions have not been previously well studied.

The mean age of our study participants belongs to young age group 36.27 ± 17.81 years. This age group has multiple benefits over middle and older ones like they are mature enough to answer all the questions sensibly and their visit to hospital mainly

due to medical problems rather than non-specific complains like we see in middle and older age group peoples. In a recently conducted Pakistani study also observed young age group was most prevalent with mean age was 32.61 ± 9.48 years¹⁴.

In this study we evaluated the KAP based on the point-percentages rather than scoring. Study participants had overall good knowledge (79.21%). The knowledge regarding HBV infection is largely based on the population included in a study i.e. if the study conducted in developed countries the knowledge regarding HBV infection would be better than the knowledge of people residing at developing nation.¹⁵ Our study's population competing and having almost same mean percentage of knowledge as observed in the Jordanian population (80%)¹⁶. Also, almost same percentage (76.5%) have been observed by the study Akazong E and colleagues¹⁷ but that study was conducted on health care professionals. While study conducted by S. M. M. Mursy¹⁸ has shown average level of knowledge, which is quite lower than previously conducted studies and also with the findings

of our study. Our study's population had good knowledge regarding HBV infection possibly due to their residence at urban area and they must be well educated and aware of the common health issues.

The attitude regarding HBV infection were evaluated in our study and we have observed that most of the patients had shown fear if they get infected with HBV infection (86.41%) and they will seek medical attention for their treatment (89.71%) rather than Hakeem, homeopathic, and traditional healers. In a previously conducted Iranian study in which authors have observed that diagnosis of HBV infection causes psychological reactions such as anxiety, fear, depression, and anger & aggression and they do not seek medical attention due to the fear of "bad news" ¹⁹. While another study has shown association of lower education level with feeling of scared of hepatitis B (33%) ²⁰.

Regarding practice of HBV infection, respondents revealed average percentage was 57.83%. Among the respondents, 98.35% and 97.11% showed positive response regarding taking further investigations and getting screening before blood transfusion, respectively. Surprisingly, only 11.11% of the study participants answered that they took health education program related to HBV infection. This shows lack of awareness programs from the government for public. A recently conducted Study by Zaigham Abbas from Karachi ²¹ has taken an initiative to determine the challenges during implementation and formulation of Hepatitis B elimination program. Authors found that due to lack of diagnostic and treatment capacity in Pakistan, HBV's prevalence is not getting low. Also, in developing countries most of the HBV infections are undiagnosed and under-treated ²². This also shows a dire need of awareness programs regarding HBV infection.

Study's Limitations:

This study provided fruitful data regarding KAP of HBV infection among general population but there are certain variables which need to be included in future studies and also as shown in my study, there is also a dire need of a KAP study from different cities of Pakistan.

CONCLUSION:

Most of our study participants were males and belong to younger age group. Overall response rate of knowledge regarding HBV infection was good and most of the participants will seek medical attention if they get infected. Unluckily, only a small percentage of participants (11.11%) participated in health education regarding HBV infection.

AUTHOR

CONTRIBUTION

STATEMENT

The authors confirm contribution to the paper as follows: Author Anwar Abbasi, Aasia Zameer, and Taqdeer Abrar were involved in conception and design of the work. Authors: Hina Andaleeb, Khawaja Ashfaq, and Nadeem Yousuf were involved in data collection, data analysis, and writing of initial draft of manuscript. All authors read and approved final draft.

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ETHICAL STATEMENT

This study approved by Medical Research Ethics Committee/

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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