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ORIGINAL RESEARCH

To determine the Knowledge, attitudes and practices of medical students concerning hepatitis B and hepatitis C

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ABSTRACT

Aim: To determine the Knowledge, attitudes and practices of medical students concerning hepatitis B and hepatitis C

Methods: A questionnaire-based research was carried out among medical students. The questions focused on knowledge and attitudes of Hepatitis B and C infections. The research included 100 MBBS students in total. To measure Knowledge, Attitude, and Practices Regarding Hepatitis B and C, a pretested proforma incorporating a questionnaire was employed.

Results: This questionare research included 100 MBBS students in total. Respondents were knowledgeable with hepatitis B risk factors, including contaminated blood transfusions (98 percent), needle sharing (97 percent), infected mother-to-child transmission (88 percent), unsafe sexual intercourse (94 percent), and tattooing/piercing (85 percent). Hepatitis B may be transferred by a needle stick injury, according to 87 percent of pupils. None of the pupils had ever been harmed by a needle poke. Only 35 pupils (35%) were aware of universal safety requirements. Respondents were aware of Hepatitis C risk factors, such as contaminated blood transfusions. 88 percent were aware of needle sharing, 81 percent were aware of sick mother to child transmission, 63 percent were aware of risky sexual contact, and 64 percent were aware of tattooing/piercing.

Conclusion: The medical students' knowledge and attitude toward Hepatitis B and C are adequate. To limit the spread of Hepatitis B and Hepatitis C, medical students must be sensitised to the many features of the illness and vaccinated via an active health education campaign.

Keywords: Hepatitis B, Hepatitis C, medical students

INTRODUCTION

Hepatitis B virus (HBV) is one of the world's most serious infections. [1] HBV has infected over 2 billion individuals worldwide, and there are over 350 million carriers. HBV is one of the most frequent infectious illnesses with no season. 2 The virus spreads via blood and bodily fluids, which may be detected during acute and chronic stages. [2,3] Acute infection may induce nonspecific symptoms or fulminant hepatitis, which can lead to death or necessitates a liver transplant. [1-3] Death from chronic infection is related with cirrhosis, liver failure, or hepatocellular cancer. On the list of recognised carcinogenic substances affecting humans, HBV ranks second only to cigarettes. [4] Furthermore, HBV infection is the primary cause of hepatocellular carcinoma and the tenth largest cause of mortality worldwide. [4]

Medical students are a subset of health care workers (HCWs) who are at high risk of contracting and spreading HBV because their jobs require them to come into contact with patients, blood, or other bodily fluids in healthcare, labs, or public-safety situations.[5-7] The danger fluctuates during their lifetime, although it is usually greatest during their professional training. It was considered that medical students lacked critical understanding and practise regarding infectious, occupational dangers of HBV. Although several studies have been undertaken in other countries, relatively little efforts have been made to analyse the knowledge, attitudes, and practises of students studying in India about occupational hazards of HBV. [5-8] As a result, the goal of this research was to assess students' knowledge, attitudes, and practises about HBV occupational hazards.

MATERIALS AND METHODS

This cross-sectional research was conducted after receiving approval from the institution's ethical and scientific committees. Prior to the start of the trial, all participants who participated provided informed and written permission. A questionnaire-based research was carried out among medical students. The questions focused on knowledge and attitudes of Hepatitis B and C infections. The research included 100 MBBS students in total. To measure Knowledge, Attitude, and Practices Regarding Hepatitis B and C, a pretested proforma incorporating a questionnaire was employed. SPSS statistical software was used to gather and analyse data. Data was tabulated, and frequencies and percentages were calculated.

RESULTS

This questionare research included 100 MBBS students in total. Table 1 depicts the age and gender distribution of the study population. There were 46 (46 percent) boys and 54 (54 percent) girls among the total of 100 pupils. The majority of research participants (50%) were between the ages of 18 and 19.

Table 2 displays awareness of Hepatitis B risk factors. Respondents were knowledgeable with hepatitis B risk factors, including contaminated blood transfusions (98 percent), needle sharing (97 percent), infected mother-to-child transmission (88 percent), unsafe sexual intercourse (94 percent), and tattooing/piercing (85 percent).

Table 3 displays students' understanding of Hepatitis B signs and symptoms. Nausea and vomiting, as well as yellowish staining of the eyes, were recognised as indications and symptoms of Hepatitis B by 82% of the students. Anorexia was known by 77% of students, stomach discomfort by 71%, and joint pain by 70% as indications and symptoms of Hepatitis B.

Infected blood recipients, people with many sexual partners, health professionals, newborns born to infected moms, surgeons, and barbers were among those tested. Table 4 shows knowledge about Hepatitis B risk categories. Hepatitis B may be transferred by a needle stick injury, according to 87 percent of pupils. None of the pupils had ever been harmed by a needle poke. Only 35 pupils (35%) were aware of universal safety requirements. The availability of Hepatitis B vaccination was known by 93 percent of pupils. 26 students (26 percent) had previously been checked for Hepatitis B, and the same number of students were aware that vaccination may prevent the condition. Hepatitis B vaccinations were administered to 61 (61%) of the pupils. Thirty (30%) of 100 people recognised the right Hepatitis B vaccine regimen.

When students were asked whether they had heard of Hepatitis B, 100% of them said they had. When knowledge of the incubation period was tested, 36(36%) students did not know the incubation period of Hepatitis B, while only 25% were aware of the correct incubation period and 42 percent students stated the incorrect incubation period. However, all students knew that the causative agent of Hepatitis B is virus.

Table 5 displays awareness of Hepatitis C risk factors. Respondents were aware of Hepatitis C risk factors, such as contaminated blood transfusions. 88 percent were aware of needle sharing, 81 percent were aware of sick mother to child transmission, 63 percent were aware of risky sexual contact, and 64 percent were aware of tattooing/piercing. Around 79 percent of students were aware that nausea and vomiting, as well as yellowish discolouration, are indications and symptoms of Hepatitis C. Anorexia was known by 78 percent of students, stomach discomfort by 63 percent, and joint pain by 58 percent as indications and symptoms of Hepatitis C.

Infected blood recipients, individuals with several sexual partners, health professionals, infants born to infected mothers, illiterate people, people living in unsanitary surroundings, surgeons, barbers, and haemodialysis patients were all tested. Table 5 depicts knowledge about Hepatitis C risk categories. Only 27 pupils (27%) were aware that there is no Hepatitis C vaccination. Seventy-four percent of the pupils were unaware about the Hepatitis C immunisation.

Table 1: Age and sex distribution of study population

Gender	Number	%
Male	46	46
Female	54	54
Age of the students		
Below 18	9	9
18-19	50	50
19-20	30	30
20-21	6	6
Above 21	5	5

Table 2: Knowledge of Hepatitis Brisk factors

Risk group	Number	%
Infected Blood receivers	98	98
Persons with multiple sexual partners	94	94
needle sharing	97	97
infected mother to child	88	88
Health workers	82	82
Babies born with infected mothers	91	91
Uneducated people	64	64
People living in unhygienic conditions	70	70
Surgeons	83	83
Barbers	65	65

Table 3: Knowledge of Signs and Symptoms of HBV Infection

Signs and Symptoms of HBV Infection	Number	%
Anorexia	77	77
Nausea &Vomitting	82	82
Yellowish	82	82
Abdominal Pain	71	71
Joint Pain	70	70

Table 4: Knowledge of risk groups of Hepatitis B

Risk factor	Number	%
Infected mother to child	88	88
Tattooing/piercing	85	85
Unsafe sexual contacts	94	94
Infected Blood transfusion	98	98
Sharing common needles to inject drugs	97	97

Table 5: Knowledge of Hepatitis C risk factors

Risk factor	Number	%
Infected Blood transfusion	88	88
Sharing common needles to inject drugs	81	81
Unsafe sexual contacts	63	63
Infected mother to child	76	76
Tattooing/piercing	64	64

Table 6: Knowledge of risk groups of Hepatitis C

Risk group	Number	%
Babies born with infected mothers	74	74
Uneducated people	67	67
People living in unhygienic conditions	70	70
Infected Blood receivers	90	90
Persons with multiple sexual partners	65	65
Health workers	74	74
Surgeons	74	74
Barbers	65	65
Haemodyalysis patients	74	74

DISCUSSION

Medical students are at high risk of infection with blood-borne viruses such as HBV and HCV, however it was discovered that more than half of the pre-clinical students in the current research did not know their HBV status, despite the fact that the proportion of vaccinated students was high. Students entering medical schools for the first time need to be properly informed about hepatitis B and C, and they should be urged to be vaccinated against Hepatitis B before beginning clinical practises as preclinical students. Most students were found to be unaware of the type of vaccination being used, and some of them even used low-quality brand vaccination, which could have resulted in failure of vaccination requiring revaccination, resulting in false security of individuals who believe they are vaccinated and secure against hepatitis B. All persons who have been vaccinated against hepatitis B must be tested for antibody titer, which if not developed with the vaccine requires either a booster dose of vaccine or a complete course of re-vaccination.

The current research assesses medical students' knowledge, attitudes, and practises about Hepatitis B and C infections. There were 46 (46 percent) boys and 54 (54 percent) girls among the total of 100 pupils. The majority of research participants (50%) were between the ages of 18 and 19. In our survey, 100% of the students had heard of hepatitis B and were aware of the causal agent of Hepatitis B. According to Abdnur Abdela et al[9], around 77 percent of medical students are aware that they are at risk for HBV infection, and 83.3 percent believe that following infection control recommendations will keep them from being infected at work.

Respondents in our research were aware of Hepatitis B risk factors, such as contaminated blood transfusion. 98 percent, 97 percent knew about needle sharing, 88 percent about sick mother to kid, and 94 percent about risky sexual contact, with 85 percent knowing about tattoos and piercing. The results are consistent with a Lahore study[10], which revealed that awareness regarding Hepatitis B and C transmission by blood and blood products (80.7 percent), sexual method (53.6 percent), and used needles and syringes (80.0 percent) was high. However, the proportion of medical students who used the Faeco oral route (27.5 percent) and drank contaminated water (43.2 percent) was low. A B.J Medical investigation revealed similar results. [11] In that research, a fair number of the participants mistakenly knew or did not know that tattooing, dental operations, and sexual interaction are possible causes of HCV and HBV transmission. A comparable research done among dentistry students found that awareness of Hepatitis B risk factors ranged from 31.6 percent to 93.7 percent, while knowledge about Hepatitis C ranged from 40.5 percent to 86.1 percent. 73.4 percent had had Hepatitis B vaccine, and 87.1 percent were knowledgeable about Hepatitis B vaccination dosages. However, understanding of Hepatitis C post-exposure prophylaxis remained limited (1.3 percent).[12] In our research, 61 students (61 percent) were immunised against Hepatitis B. Thirty (30%) of 100 people recognised the right Hepatitis B vaccine regimen. Our results show a favourable relationship between medical students' understanding of Hepatitis B and C and their attitude toward the illnesses, with more knowledge linked with a better attitude. This finding is consistent with the findings of other comparable surveys. According to an epidemiological study[13] on medical students' awareness of and compliance with the hepatitis B vaccine in a tertiary care academic hospital, nearly half of the study participants had medium to low knowledge levels of HBV, and nearly half were non-compliant with the vaccination programme. To raise general knowledge and prevention of this illness, awareness initiatives and campaigns should be devised.

In Iraq, Othman S M et al[14] found that students' understanding of the HBV vaccine was inadequate, with just 64% of students knowing that immunisation against HBV infection was one method of illness prevention. Only 45 percent of the pupils had had HBV immunisation. Tanta University medical students' attitudes regarding hepatitis B and C were found to be favourable by more than three-quarters of the participants in a study. Accepting screening for B and C viral hepatitis, receiving additional examinations and treatment if positive for hepatitis B, or marrying someone with hepatitis B or C were all considered negative or uncertain by a small number of respondents. The majority of the students in the survey (81.6%) refused to share or practise sharing syringes, toothbrushes, or barber blades with others. [15] Our results are consistent with those of this investigation. The students exhibited solid understanding, a positive attitude, and appropriate practises for viral hepatitis B and C. Some forms of transmission, consequences, and therapy for B and C viral hepatitis were areas where knowledge needed to be reinforced.

CONCLUSION

The medical students' knowledge and attitude toward Hepatitis B and C are adequate. To limit the spread of Hepatitis B and Hepatitis C, medical students must be sensitised to the many features of the illness and vaccinated via an active health education campaign.

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