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KNOWLEDGE, ATTITUDE AND PRACTICES OF DENTISTS ABOUT HEPATITIS B INFECTION IN DARBHANGA (BIHAR): AN ORIGINAL RESEARCH

Dental Science

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ABSTRACT

Introduction: Hepatitis B (HB) is a serious global public health problem that causes chronic liver disease.
Aims and objectives: the aim of this study was to evaluate knowledge, attitude and practice (KAP) towards HB among dental students of Darbhanga.
Materials and methods: A KAP study was conducted in which a pre-validated WHO questionnaire was modified for the purpose of this study. A total of 113 students participated in this study.
Result: Mean knowledge, attitude and practice score for the entire study was 12.83 + 1.631, 4.35 + 0.989 and 6.35 + 0.778 respectively.
Conclusion: Dental students reflected fairly moderate level of KAP regarding HB infection and vaccination but still multiple gaps in knowledge and misconceptions in attitude and practices were identified.

KEYWORDS

Attitude, Dental, Hepatitis B virus, Knowledge

INTRODUCTION

Hepatitis B is a potentially life threatening disease affecting liver caused by hepatitis B virus (HBV). Based on the prevalence of hepatitis B surface antigen, different areas of the world are classified as high (≥ 8%), intermediate (2-7 %) or low HBV endemicity. India comes under intermediate zone (average of 4 %) [1]. As a consequence of their parenteral mode of transmission and ability to establish chronic infection, hepatitis types HBV, HCV, and HDV are of particular concern for oral health care professionals [2]. At times many patients are also unaware of respective medical conditions, which lead to negligence by dentists too, which may lead to cross infection either by needle stick injuries or through secretions. Many cases have been reported in literature in which disease got transmitted from patients to dental surgeons despite precautions [3]. Dental professionals should use all precautionary measures like use of gloves and masks, heat sterilization of instruments, vaccinations etc while treating a patient with hepatitis [4]. Few studies have been done worldwide regarding the knowledge of oral health care professionals or dentists regarding HBV infections. While it is important to assess the knowledge of dentist regarding HBV, it is equally important to evaluate the personnel's attitude and behavior towards HBV. Till today, no studies have been reported regarding knowledge, attitude and practice (KAP) of dentists about HB infection in Darbhanga (Bihar). Hence this study was planned and conducted on dentists of a dental college in Darbhanga (Bihar).

MATERIALS AND METHODS

This study was conducted in the Department of Oral Medicine and Radiology and Department of Public Health Dentistry. The study was approved by ethical committee of the institute. 113 students of a dental college of third year, final year and interns participated in this study. Informed consent was taken from each and every student. A KAP study was conducted in which a pre-validated WHO questionnaire was modified for the purpose of this study. The questionnaire consisted of two parts: 1st part recorded personnel details and 2nd part consisted of 16 questions assessing knowledge, 7 questions assessing attitude and 8 questions assessing practice regarding HBV and infection. A pilot study was conducted to validate the modified questionnaire.

STATISTICAL ANALYSIS

The collected data were subsequently processed and analyzed using SPSS statistical package version 17. Chi square test was applied. A p value of less than 0.05 was considered statistically significant which was observed in our study.

RESULTS

A total of 113 students participated in this study. Out of 113 students, 35 (31%) belong to third year, 40 (35.4%) were final year students and 38 (33.6%) were interns of a dental college in Darbhanga (Bihar). 43 students were male (38.1%) and 70 (61.9%) students were female. Most common age was 24 years (31%) and least number of students belonged to age of 25 years (4.4%).

Assessment of knowledge towards Hepatitis B virus (HBV).

Knowledge of the dental students was assessed by asking 16 questions from each and every student. Questions were related about HBV, disease, transmission, most common organs it affects, signs and symptoms and vaccination of HBV. All questions were having option yes or no. Response of each student was recorded in either yes or no format. Knowledge was assessed by giving 1 to correct and 0 to wrong answer. The scale measured knowledge from maximum 16 to minimum 0. A cut off level of ≤13 was considered as poor whereas >13 was considered as adequate knowledge about HBV. Mean knowledge score for the entire study was 12.83 ± 1.631 that was considered as poor knowledge. Poor knowledge was apparent in response to some questions relating to symptom, transmission and treatment and vaccination [Table 1].

Table 1 :- Table Shows Mean Score Of Knowledge, Attitude And Practice Among Dental Students.

Year	Knowledge Score		Attitude Score		Practice Score	
	Mean	± SD	Mean	± SD	Mean	± SD
3rd Year (Year 1)	13.29	1.100	4.40	0.847	6.29	0.825
4th Year (Year 2)	12.15	1.942	4.53	1.037	6.58	0.712
Interns (Year 3)	13.13	1.474	4.11	1.034	6.18	0.766
Total	12.83	1.631	4.35	0.989	6.35	0.778
P value	0.003*		0.160		0.069	
3rd Year vs 4th Year	0.009*		0.860		0.269	
3rd Year vs Interns	0.915		0.442		0.853	
4th Year vs Interns	0.024*		0.173		0.084	

p<0.05; Significant;

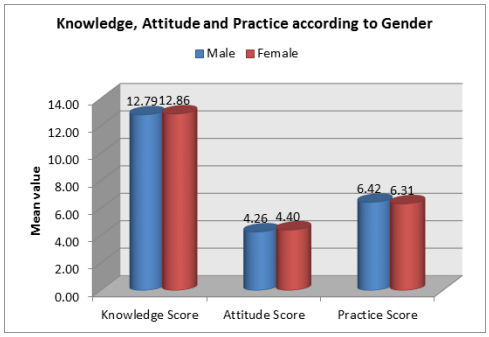
Different alphabets in superscript shows statistically significant difference (p < 0.05) on Post-Hoc Scheffe Analysis.

Assessment of attitudes towards HBV

Attitude towards Hepatitis B was assessed by asking 7 questions. It was surprising to find, 58.4% of students (66) thought they can't get hepatitis B. 100 % of students told that if they had symptoms of hepatitis B, they will go to health facility but 11.5% students said that they will go to health care facility when their own treatment failed of hepatitis B. 10.6% of students will go to health care facility 3-4 weeks after appearance of symptoms. 77% (87) students responded correctly that they will soon report to health care facility as they realize the symptoms of hepatitis B virus infection. 69 students (61.1%) were worried of spread of disease to family members. Mean value of attitude score was 4.35 + 0.989. A cut off level of < 6 was considered negative

attitude whereas > 6 was considered as positive attitude about HB. Among all subjects, females showed better attitude score than male [Graph 1].

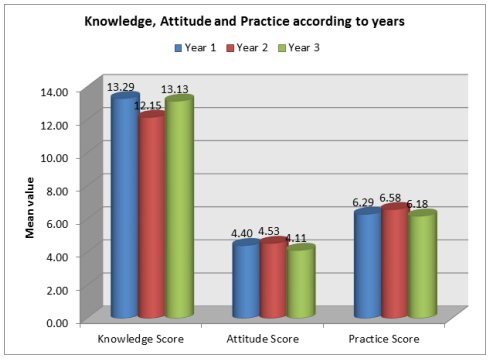
GRAPH 1:- Graph shows mean score of knowledge, attitude and practice among genders.



Assessment of practice towards HBV

Practices toward HB were assesses by asking 8 questions. Each question was labeled with good or poor practice. A score of 1 was given to good practice while 0 was given to bad practice with a score range of maximum of 8 and minimum of 0. A cut off level of 6 was considered poor and more than 6 was considered a good practice towards HB. Around 70.8% of students never went for HB screening but majority of them 77.9 % (88) students were immunized against HB. 99.1% (112) students asked for a fresh syringe every time wherever required. 97 (85.8%) always asked barber to change the blade or for safe equipments for ear or nose piercing. 110 (97.3%) were willing to go for further investigation and treatment if diagnosed with Hepatitis B. 101 (89.4%) students told that they wouldn't avoid meeting with hepatitis B patients. Only 89 students (78.8%) have ever participated in health education program related to Hepatitis B. Mean score for HB related practices was 6.35 + 0.778 [Graph 2].

GRAPH 2:- Graph shows mean score of knowledge, attitude and practice among dental students



DISCUSSION

HBV infection an occupational risk for Clinicians and surgeons especially in developing countries where a carrier rate is about 4%. However, incidence of HBV infection could be brought down by creating awareness regarding its transmission and encouraging practice of immunization with Hepatitis B at all health care provider levels. It is preventable by a safe and effective vaccine. It is easy to assume that health workers by virtue of their proximity to the health facility should have adequate knowledge, positive attitude & good practice about diseases and other health conditions. The current study sought to evaluate KAP towards HBV among dental students. In the present study, it was found that 100 % students were aware of HB vaccination which is higher than the studies conducted on dentists in Lahore and Dundee university [5,6]. Some important deficiencies were noted in the KAP about hepatitis B among students. In the present study the overall response rate was 100 % which is higher than the studies reported from Lahore (87 % and 83.25 %) on infection control practices in dental practitioner [5,7].

Another finding was that the attitudes towards HBV infections were encouraging, since a high percentage of respondents reported positive specific beliefs, around 58.4% of participants believed that they could never get the infection which is much higher than study conducted by Baig VN. Perceived susceptibility or a viewpoint of how vulnerable a person considers himself/herself to getting a disease can influence one's attitude in taking certain actions. 79 % individuals attended health care educational programmes on hepatitis B which is much higher than result found in other studies. Better information of dental students in dental college is probably due to their literature review and exposure to various seminars and symposia.

CONCLUSION

Since India has one-fifth of the world's population, it accounts for a large proportion of the worldwide HBV burden. India harbors 10-15% of the entire pool of HBV carriers of the world. Hence, this study was conducted in this part of Bihar to evaluate the knowledge, attitude and practice among dental students regarding hepatitis B infection. Repeated seminars, workshops or health campaign should be conducted at regular intervals by health care personnel to spread the knowledge regarding HBV infection.

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