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Original ARTICLE

To assess knowledge and awareness towards hepatitis C infection among dental students

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ABSTRACT

Background: Viral hepatitis (hepatitis B and C) has become a silent epidemic worldwide. The present study was conducted to assess knowledge and awareness towards hepatitis C infection among dental students. **Materials & Methods:** The present study was conducted on 128 dental professional of both genders. All were provided with the questions which were regarding knowledge and awareness of HCV such as route of transmission, affected organs, long term effects, preventive protocol, source of information, availability of vaccine. **Results:** Out of 128 subjects, males were 78 and females were 50. Knowledge about unsafe sexual contact was seen in 67%, needle sharing in 70%, infected mother to child in 40% and tattooing/ piercing in 45%. Awareness about infected blood receivers was seen in 65%, persons with multiple sexual partners in 80%, health workers in 90%, Babies born with infected mothers in 70%, surgeons in 95% and barbers in 92%. **Conclusion:** Dental professionals had sufficient knowledge and awareness about Hepatitis C infection.

Key words: Awareness, Dental professionals, knowledge

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INTRODUCTION

Today, viral hepatitis (hepatitis B and C [HBC]) has become a silent epidemic worldwide. The virus primarily effects liver cells and can lead to severe inflammation of the liver with long-term complications.¹ The main symptoms of the disease include anorexia, abdominal discomfort, nausea and vomiting, fever, and fatigue which can proceed to jaundice in 25% of patients. There is a significant burden of hepatitis C virus (HCV) infection to public health worldwide.² Every year 3–4 million new cases are diagnosed as a result of chronic infection. More than 150 million people are chronically infected and are at the risk of developing cirrhosis of liver and liver cancer. More than 4 lakh deaths occur each year due to all HCV-related causes.³

Hepatitis C is the common cause of post transfusion hepatitis in developing countries. Hepatitis C was first detected in 1989 using molecular biology techniques after extensive testing of serum from experimentally infected animals.⁴ Hepatitis C is classified under family Flaviviridae, genus Hepacivirus. It is reported that

more than 350000 deaths from hepatitis C related liver diseases every year¹¹. The studies of prevalence have been conducted in blood banks mostly¹². Hepatitis C can present as acute or chronic hepatitis.⁵ Hepatitis C infection occurs worldwide. About 3% of the world population has been infected with HCV with more than 170 million chronic carriers. Higher prevalence rates have been documented from Africa followed by South America and Asia. About 25% people develop acute hepatitis and about 75-85% directly develops chronic disease.⁶ The present study was conducted to assess knowledge and awareness towards hepatitis C infection among dental students.

MATERIALS & METHODS

The present study was conducted in the department of Oral Medicine & Radiology. It comprised of 128 dental professional of both genders. The study was approved from institutional ethical committee. All participants were informed regarding the study and written consent was obtained.

Information such as name, age, gender etc. was recorded.

All were provided with the questions which were regarding knowledge and awareness of HCV such as route of transmission, affected organs, long term effects, preventive protocol, source of information, availability of vaccine. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of subjects

Gender	Males	Females
Number	78	50

Table I shows that out of 128 subjects, males were 78 and females were 50.

Table II Knowledge among subjects

Knowledge	Yes	No
Unsafe sexual contact	67%	33%
Needle sharing	70%	30%
Infected mother to child	40%	60%
Tattooing/ piercing	45%	55%

Table II, graph I shows that knowledge about unsafe sexual contact was seen in 67%, needle sharing in 70%, infected mother to child in 40% and tattooing/ piercing in 45%.

Graph I Knowledge among subjects

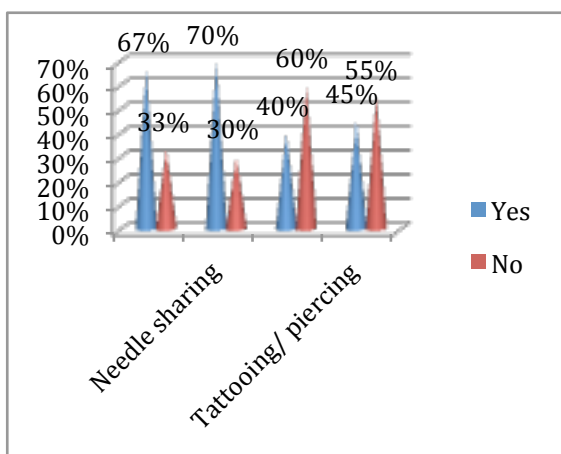
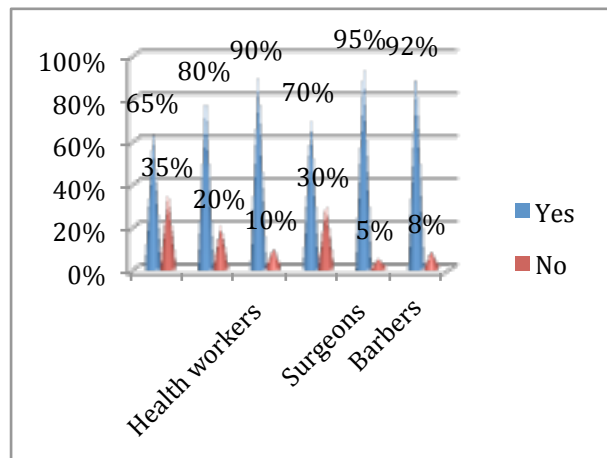


Table III Awareness among subjects

Awareness	Yes	No
Infected Blood receivers	65%	35%
Persons with multiple sexual partners	80%	20%
Health workers	90%	10%
Babies born with infected mothers	70%	30%
Surgeons	95%	5%
Barbers	92%	8%

Table III, graph II awareness about infected blood receivers was seen in 65%, persons with multiple sexual partners in 80%, health workers in 90%, Babies born with infected mothers in 70%, surgeons in 95% and barbers in 92%.

Graph II Awareness among subjects



DISCUSSION

There is incomplete understanding regarding exact mechanisms by which the HCV causes liver damage.⁷ Research suggests that a person’s own immunological response to the HCV contributes significantly to this process. HCV (HBC) infection has been one of the major cause of morbidity and mortality among health-care workers including dental health-care professionals. In the dental operatory, HCV infection can spread through several routes which include direct contact with blood, indirect contact with contaminated instruments, and other airborne contaminants which are present in droplet splatter or aerosols of oral and respiratory fluids.⁶ Prevention as a safeguard against the epidemic of viral hepatitis is highly recommended. By knowing facts, having proper awareness and attitudes, the menace of this disease can be prevented to a great extent. As health-care workers remain at a high risk of transmission through various routes, it is very important for them to follow proper measures of infection control

and prevention.⁷ The present study was conducted to assess knowledge and awareness towards hepatitis C infection among dental students. In present study, out of 128 subjects, males were 78 and females were 50. Knowledge about unsafe sexual contact was seen in 67%, needle sharing in 70%, infected mother to child in 40% and tattooing/ piercing in 45%. Gambhir et al⁸ conducted a study in which nearly 96% (102) of postgraduates and 84% (117) of graduates had heard about HCV. 45.5% (112) had poor knowledge scores, 33.6% (83) had moderate knowledge scores, and only 21% (52) of participants had good knowledge scores. On the opinion of treating an HCV-infected patient by a dentist, only 61% (65) of postgraduates and 46% (64) of graduates agreed. There was statistically significant association of mean knowledge scores with gender, education level, and experience ($P < 0.05$). We found that awareness about infected blood receivers was seen in 65%, persons with multiple sexual partners in 80%, health workers in 90%, Babies born with infected mothers in 70%, surgeons in 95% and barbers in 92%. Priyanka et al⁹ found that study participants were between the ages of 18 yrs to 21 yrs. 72.2% were females. The response rate was 100%. Majority of the dental students were aware of the etiology of Hepatitis B (96.2%) and C infection (91.1%). Their knowledge about risk factors of Hepatitis B ranges between 31.6% to 93.7% and Hepatitis C was 40.5% to 86.1%. The 73.4% were vaccinated for Hepatitis B while 87.1% had correct knowledge about doses of Hepatitis B vaccination. But the knowledge about Hepatitis C post exposure prophylaxis was poor (1.3%) The students had good knowledge regarding HBV infection and its preventive aspect.

Almansour et al¹⁰ found that a total of 201 students participated, with a response rate of 79.8%. About 75% of students had a poor grasp of HCV transmission while the awareness of <25% of students was fair. More than half of students had fair knowledge about screening, prevention, and treatment of HCV. The majority of students were familiar with the clinical presentation and complications of HCV. The overall awareness of the 4th-year medical students on HCV infection was fair, with no significant difference between males and females.

CONCLUSION

Authors found that dental professionals had sufficient knowledge and awareness about Hepatitis C infection.

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