

ORIGINAL RESEARCH

Evaluation of knowledge and attitudes of dental students about COVID-19 pandemic: A cross-sectional study

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ABSTRACT:

Background: The COVID-19 pandemic has rapidly become a public health crisis of global concern. Among all healthcare professionals, dental surgeons are considered at the highest risk of contracting and transmitting the corona virus. Hence; the present study was conducted for evaluation of knowledge and attitudes of dental students about COVID-19 pandemic. **Materials & methods:** A questionnaire Performa was designed for the present study and was converted in e-form. A total of 500 dental intern students were enrolled in the present study. Complete details of all the participants were obtained. The questionnaire was composed of 8 questions pertaining to assessing the knowledge and attitude of dental students about COVID-19 pandemic. Detailed information was conveyed to all the students regarding the content and aims and objectives of the study. Prepared e-survey forms were sent to students via a link created for the purpose. All the participants were instructed to fill the forms. **Results:** There were 348 males and 152 females. Mean age of the participants was found to be 24.1 years. For the question, "Are you informed about COVID 19 be your faculty during lectures/seminars", 74.6 percent of the participants answered No while the remaining participants answered yes. For the question, "Do you regret choosing dentistry as profession after pandemic outbreak", 35.8 percent of the patients answered yes while the remaining answered no. **Conclusion:** Dental students do not have adequate knowledge and attitude towards COVID 19 pandemic.

Key words: Knowledge, COVID 19, Attitude

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INTRODUCTION

A novel human corona virus, also called as Severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) was announced as the causative microorganism of COVID-19 outbreak by the Chinese Centre for Disease and Prevention in January 2020. The COVID-19 pandemic has rapidly become a public health crisis of global concern. Due to the widespread transmission of SARS-CoV-2 and the unique characteristics of dental office (including proximity of orop-haryngeal region, generation of aerosol during dental procedures), both the dental healthcare profession as well as the patients have an increased risk of cross infection.¹⁻³

Among all healthcare professionals, dental surgeons are considered at the highest risk of contracting and transmitting the corona virus. Dental services due to their

unique nature like generation of aerosol, sharps handling and caregiver's nearness to the oropharyngeal region of the patient can be attributed to these risks. Hence, dentists have an elevated risk of taking infection from patients and probably scattering it to their near and dear ones. Furthermore, the dental clinics can most likely expose patients to cross contamination, if ample safety measures are not engaged.⁴⁻⁶ Hence; the present study was conducted for evaluation of knowledge and attitudes of dental students about COVID-19 pandemic.

MATERIALS & METHODS

The present study was conducted for assessing the knowledge and attitudes of dental students about COVID-19 pandemic. A questionnaire Performa was designed for the present study and was converted in e-form. A total of

500 dental intern students were enrolled in the present study. Complete details of all the participants were obtained. The questionnaire was composed of 8 questions pertaining to assessing the knowledge and attitude of dental students about COVID-19 pandemic. Ethical approval was obtained from institutional ethical committee before the starting of the study. Detailed information was conveyed to all the students regarding the content and aims and objectives of the study. Prepared e-survey forms were sent to students via a link created for the purpose. All the participants were instructed to fill the forms. All the results were recorded in Microsoft excel sheet and were analysed by SPSS software. Chi-square test was used for evaluation of level of significance.

RESULTS

In the present study, a total of 500 dental intern students were enrolled. There were 348 males and 152 females. Mean age of the participants was found to be 24.1 years. For the question, “Are you informed about COVID 19 by your faculty during lectures/seminars”, 74.6 percent of the participants answered No while the remaining participants answered yes. For the question, “Did COVID 19 negatively affect your psychology”, 62.8 percent of the participants answered No, while the remaining answered yes. For the question, “Did you enquire about high fever and history of dry cough and travel from your patients” 83.6 percent of the patients, answered yes while the remaining answered no. For the question, “Do you regret choosing dentistry as profession after pandemic outbreak”, 35.8 percent of the patients answered yes while the remaining answered no.

DISCUSSION

Oral health is not separate from general health, but maintaining oral health is definitely difficult and different in old age. Elders above 65 years (old age) have health problems as a result of ageing process, which calls for special consideration. Considering the vital role of the body's immune system, elderly patients with chronic debilitating diseases such as diabetes, cardiovascular diseases, pulmonary dysfunctions have a higher risk of getting infected compared to young, healthy individuals with a strong immune system.⁶⁻⁸

Due to the nature of dental treatment, procedures typically produce aerosols and splatters, which can contain large amounts of saliva or blood from patients and thus carry the risk of large-scale transmission of the virus. Therefore, many health departments have asked dental departments to adopt strict measures. Such measures include screening patients, only providing emergency treatment, restricting aerosol operation as much as possible, using extensive protection, and performing environmental disinfection. However, researchers have reported that because some carriers have

no symptoms, COVID-19 is difficult to control in the dental environment. Many patients have received COVID-19-related information through hospital propaganda and education.⁷⁻⁹ Hence; the present study was conducted for Evaluation of knowledge, attitudes, and clinical education of dental students about COVID-19 pandemic. In the present study, a total of 500 dental intern students were enrolled. There were 348 males and 152 females. Mean age of the participants was found to be 24.1 years. For the question, “Are you informed about COVID 19 by your faculty during lectures/seminars”, 74.6 percent of the participants answered No while the remaining participants answered yes. For the question, “Did COVID 19 negatively affect your psychology”, 62.8 percent of the participants answered No, while the remaining answered yes. Atas O et al evaluated knowledge, attitudes, and clinical education of dental students about COVID-19 pandemic. A total of 355 pre-clinical and clinical dental students (242 and 113, respectively, comprising 190 females and 165 males) answered an online questionnaire about the biosafety procedures for and their attitudes to and knowledge of COVID-19. Both the clinical and preclinical students were found to be afraid of infecting themselves and their environment with COVID-19, and the difference between them was statistically significant. Three quarters (74.9%) of the participants responded yes to the question of whether they thought that experiences related to COVID-19 affected them psychologically, with the differences between gender and clinical status were statistically significant. Responses to the question of which clinical rotation worried them more were 29.9% endodontics, 25.1% oral and maxillofacial surgery, 16.3% prosthesis, 15.2% periodontology, 6.8% restorative dentistry, 3.9% oral diagnosis and radiology, 1.7% pedodontics, and 1.1% orthodontics, with a significant difference between the preclinical and clinical students. Regarding the measures applied by the clinical students in their clinical rotation, the responses were 100% gloves and 100% mask (with 11.5% FFP3/N95 mask), 73.6% face protective shield and 37.1% safety glasses, and 49% bonnet and 16.8% disposable box, with 90.2% frequent hand washing, and 86.7% frequent hand antiseptic usage. While students gave good responses regarding the standard measures they take to protect against transmission of COVID-19, their knowledge and attitudes about the extra measures they can take should be improved.¹¹

In the present study, for the question, “Did you enquire about high fever and history of dry cough and travel from your patients” 83.6 percent of the patients, answered yes while the remaining answered no. For the question, “Do you regret choosing dentistry as profession after pandemic outbreak”, 35.8 percent of the patients answered yes while the remaining answered no.

Table 1: Knowledge and attitude of students towards COVID 19 pandemic

Question	Yes		No	
	n	%	n	%
Are you informed about COVID 19 by your faculty during lectures/seminars	127	25.4	373	74.6
Did COVID 19 negatively affect your psychology	186	37.2	314	62.8
Did you enquire about high fever and history of dry cough and travel from your patients	418	83.6	82	16.4
Are you afraid of becoming infected with COVID 19 while working on patients	247	49.4	253	50.6
Do antibiotics benefit in COVID 19 treatment	291	58.2	209	41.8
Would you hesitate in treating patients with past recovered history of COVID 19	217	43.4	283	56.6
Can a mother diagnosed with COVID 19 breast feed her child	89	17.8	411	82.2
Do you regret choosing dentistry as profession after pandemic outbreak	179	35.8	321	64.2

Kamate SK et al assessed the Knowledge, Attitudes and Practices (KAP) of dental practitioners regarding the Coronavirus Disease 2019 (COVID-2019) pandemic. An online questionnaire was distributed among dentists across the globe using a combination of convenience and snowball sampling. The questionnaire was divided into 4 sections: the 1st one contained personal information, whereas the 2nd, 3rd and 4th sections assessed knowledge (11 questions), attitudes (6 questions) and practices (7 questions) of the dentists. The largest number of dentists came from the Asian continent (264; 30.7%). Most dentists had a degree of MDS (Master of Dental Science) (301; 35.0%), followed by BDS (Bachelor of Dental Surgery) (282; 32.8%) and DDS (Doctor of Dental Surgery) (226; 26.3%). High/Good knowledge and practice scores were observed among 92.7% and 79.5 % of the dentists, respectively. Good knowledge scores were significantly associated with qualifications ($p = 0.04$) and years of practice ($p = 0.02$); good practice scores were associated with qualifications only ($p = 0.03$). The dentists were found to have good knowledge and practice scores, which is important to combat COVID-19.¹²

CONCLUSION

From the above results, the authors concluded that the dental students do not have adequate knowledge and attitude towards COVID 19 pandemic. Hence; adequate online seminars and presentations should be organized for improving the student's knowledge and attitude towards COVID 19 pandemic.

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