

Original Research Paper

Knowledge and Awareness of Dental Team Regarding COVID-19; A Survey-based Study in Riyadh, Saudi Arabia

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Introduction: Healthcare workers (HCWs) of all levels and groups are involved in caring for patients with this highly transmittable pathogen. COVID-19 has posed serious occupational health risks to HCWs due to their frequent exposure to infected individuals. **Materials and Methods:** This is a cross-sectional study conducted among the dental professionals of Saudi Arabia using an online survey. **Results:** 350 dentists including general practitioners as well as specialists/consultants were used in this study and were contacted using social media. **Conclusion:** The overall level of dental healthcare workers regarding the COVID-19 situation is satisfactory.

Keywords: COVID-19, Dental healthcare workers, Knowledge, Saudi Arabia.

INTRODUCTION

Healthcare workers (HCWs) of all levels and groups are involved in caring for patients with this highly transmittable pathogen. COVID-19 has posed serious occupational health risks to HCWs due to their frequent exposure to infected individuals. The literature suggests that lack of knowledge and misunderstandings among HCWs lead to delayed diagnosis, spread of disease, and poor infection control practice. Several thousand HCWs have already been infected, mainly in China. Preventing intrahospital transmission of this communicable disease is therefore a priority¹.

It is well established that transmission of the disease among HCWs is associated with overcrowding, absence of isolation room facilities, and environmental contamination. However, this is likely compounded by the fact that some HCWs have inadequate awareness of infection prevention practices. Disease knowledge may influence HCWs' attitudes and practices, and incorrect attitudes and practices directly increase the risk of infection. Understanding HCWs' knowledge, attitudes, and practices (KAPs) and possible risk factors help to predict the outcomes of planned behavior².

A study in Saudi Arabia revealed that dental professionals seem to be consistent regarding their knowledge of the incubation period of SARS-CoV-2. However, knowledge of viral survivability and recommended hand-soap washing time was significantly variable among the professionals. A high degree

of apprehension toward suspected COVID-19 patients existed among all dental professionals. Pandemic-awareness campaigns are essential among healthcare providers³.

Another study in India revealed their dental professionals presented with satisfactory knowledge with adequate preparedness as the majority of them had a fair level of knowledge with significantly higher knowledge among female respondents and those with post-graduation studies. Dentists should make judicious utilization of all the precautionary measures to safely practice dentistry. As we are going through an evolutionary phase where new advances are expected to evolve, dentists will definitely emerge successfully out from the crisis of the COVID-19 pandemic⁴.

STUDY AIM

To determine the knowledge and readiness of the dental team regarding COVID-19.

MATERIALS AND METHODS

Study Design

This is a cross-sectional study conducted among the dental professionals of Saudi Arabia using an online survey.

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Study Sample

350 dentists including general practitioners as well as specialists/consultants were used in this study and were contacted using social media.

Study Instrument

Online questionnaire was constructed consisting of questions related to personal, professional, and demographic data followed by questions including knowledge and awareness regarding COVID-19.

Instrument Validity and Reliability

A pilot study was conducted by sending the survey to 20 participants and the data were inserted in SPSS version 22 to determine the **reliability** by using Chronbach's coefficient alpha (value: 0.721). **Validity** of the questionnaire was tested by sending it to experienced researchers in REU and changes were made according to their feedback and comments.

Statistical Analysis

Collected data was analyzed using SPSS version 22, where descriptive as well as inferential statistics were conducted.

DISCUSSION

This study aimed to determine the knowledge of dental professionals regarding COVID-19. Another similar study done in Lebanon demonstrated that the majority of dentists had

good knowledge (91.3%). They also found that 73.37% of dentists used official government websites such as the World Health Organization as the main source of information about COVID-19. This indicates that the COVID-19 updates posted online by official government health authorities had positive implications for improving dentist knowledge levels⁵. These findings are similar to our results, where a high level of knowledge has been demonstrated. However, majority of participants received information regarding COVID-19 from social media.

Another study done in Turkey reported that participants generally were informed about COVID-19 and dental practices. The fact that the pandemic began in our country in March 2020 suggests that dentists have been rapidly informed about COVID-19. Additionally, this result is affected by the fact that the epidemic started in China and information about the virus and its symptoms have accumulated during the process until it arrived in our country. Participants received extra-institutional information mostly from the Ministry of Health and Turkish Dental Association, followed by the internet and social media. However, because misleading information can be present on the internet, healthcare workers should be more careful about the information they get from the internet, and they should preferably act according to the scientific and reliable sources⁶.

There are a few limitations associated with cross-sectional design, which include the inability of generalizability of study sample as it may not represent the whole population. Furthermore, in a cross-sectional study, all the measurements for the test member are achieved at a single point in time, even though recruitment may take place over a longer period of time.

RESULTS

Gender

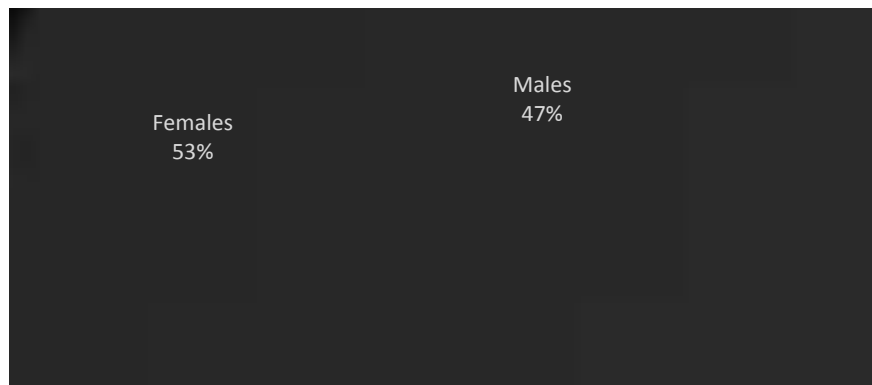


Figure 1: Gender ratio of study participants

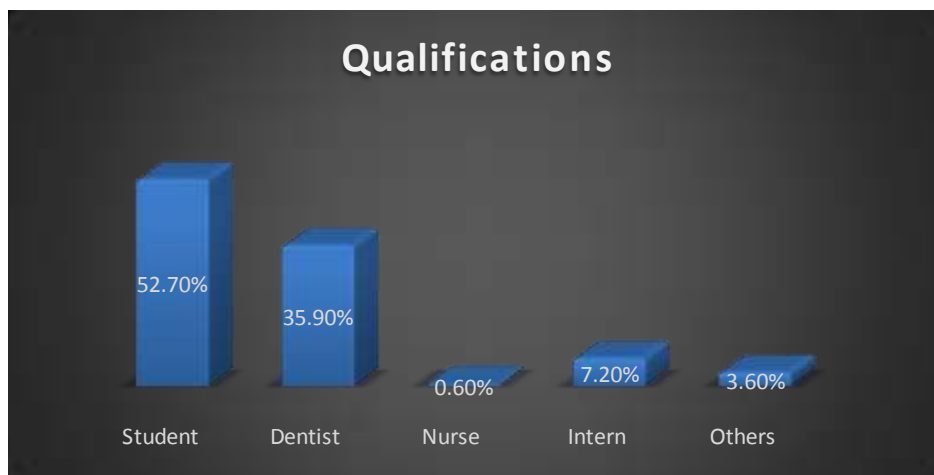


Figure 2: Qualifications of study participants

Table 1: Responses to the survey questions by participants

| Survey Questions | Frequencies |
|---|--|
| Age | Mean: 24.49 (SD 3.11) |
| Source of COVID-19 information: | Television: 7.8% Social media: 62.3% Websites of Health Ministry: 25.1% Friends/Relatives: 4.8% |
| COVID 19 is thought to be originated from bats? | Yes: 66.1% No: 13.9% Don't know: 20% |
| COVID 19 is transmitted by through air, contact, fecal-oral routes? | Yes: 80.2% No: 16.8% Don't know: 3% |
| Fever, cough, sore throats and shortness of breath are possible symptoms of COVID 19? | Yes: 95.8% No: 3.6% Don't know: 0.6% |
| The incubation period of COVID 19 is 2-14 days? | Yes: 89.2% No: 7.2% Don't know: 3.6% |
| COVID-19 vaccine is available in markets? | Yes: 12% No: 83.2% Don't know: 4.8% |
| Supportive care is the current treatment for COVID 19? | Yes: 80.2% No: 8.4% Don't know: 11.4% |
| Washing hands with soap and water, and using face masks can help in the prevention of disease transmission? | Yes: 95.8% No: 4.2% |
| Patients with underlying chronic diseases are at higher risk of infection and death? | Yes: 95.8% No: 2.4% Don't know: 1.8% |
| Healthcare workers are at higher risk of infection? | Yes: 94.6% No: 5.4% |
| COVID 19 could be fatal? | Yes: 86.8% No: 7.2% Don't know: 6% |
| Knowledge towards COVID 19: | Sufficient: 57.6% Insufficient: 42.4% |
| You think you will probably get illness if you are working in clinics? | Yes: 79% No: 21% |
| You are worried one of your family members may get an infection? | Yes: 91% No: 9% |
| COVID 19 patients should be kept in isolation? | Yes: 94% No: 4.8% Don't know: 1.2% |
| Sick patients should share their recent travel history with healthcare providers? | Yes: 94.6% No: 5.4% |

CONCLUSION

The overall level of dental healthcare workers regarding the COVID-19 situation is satisfactory. However, participants require more information about the vaccination programs.

ACKNOWLEDGMENT

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CONFLICT OF INTEREST

There is no conflict of interest among the authors regarding the writing and publication of this research.