

Knowledge, Awareness And Practice Of Dental Practitioners Regarding COVID-19 Pandemic- A Cross-Sectional Study

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ABSTRACT

Background: The present study was conducted to assess knowledge, awareness and practice of dental practitioners regarding COVID-19 pandemic.

Materials & Methods: 240 dental practitioners of both genders were provided with a questionnaire regarding knowledge and practice regarding COVID-19 pandemic.

Results: 80% showed that SARS-CoV-2 is the cause of COVID- 19. 85% replied that 2-14 days is the incubation period of Covid- 19, 75% correctly replied that 6.8 % is the incubation period for COVID- 19 and 82% replied that rRT-PCR is the laboratory test available for detection of COVID- 19. 80% replied yes in order to provide treatment to infected patients and 10% replied no. In response to question whether masks, head cap and sanitizer protect against virus, 74% replied yes, 18% replied no and 8% replied don't know. The difference was significant ($P < 0.05$).

Conclusion: Dental practitioners had sufficient knowledge, awareness and practice regarding COVID-19 pandemic.

Key words: COVID, Knowledge, Practice

1. INTRODUCTION

A pneumonia outbreak associated with a novel coronavirus, termed severe acute respiratory coronavirus 2 syndrome (SARS-CoV-2), was first documented in Wuhan, China, in December 2019. Since then, the infection has spread across China and then to numerous countries around the world.¹ At the beginning of June 2020, more than 7,676,209 confirmed new cases were reported, with more than 426,158 deaths attributed to the coronavirus infection.² This novel virus was declared a public health emergency of international concern

by the World Health Organization (WHO) on January 30, 2020. The disease caused by the novel coronavirus was identified by WHO on February 12, 2020 as Coronavirus Disease 2019.³

COVID-19 is becoming a big threat to human civilization as consequences, online awareness programs were initiated and conducted worldwide by WHO.⁴ Due to its rapid spread across the globe, novel coronavirus disease (COVID-19) outbreak was declared a pandemic on March 11, 2020 and on March 24, a nationwide lockdown was announced in India for 21 days to control the spread of the disease.⁵

The clinical symptoms are varied and manifest as fever, nasal congestion, sore throat, sneezing, loss of taste and smell.⁶ People with co-morbidities, including diabetes and hypertension, who are treated with the drugs such as thiazolidinediones, angiotensin-converting enzyme (ACE) inhibitors, and angiotensin-II receptor blockers (ARBs) have an increased expression of angiotensin-converting enzyme-2 (ACE-2).⁷ The present study was conducted to assess knowledge, awareness and practice of dental practitioners regarding COVID-19 pandemic.

2. MATERIALS & METHODS

The present study was conducted among 240 dental practitioners of both genders. All were informed regarding the study and their consent was obtained.

Data such as name, age, gender etc. was recorded. All practitioners were given a questionnaire regarding knowledge and practice against towards COVID- 19 infection. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

3. RESULTS

Table I Distribution of subjects

Age group (Years)	Male (130)	Female (110)	P value
25-30	20	15	0.01
30-40	35	20	
40-50	50	45	
>50	25	30	
Total	130	110	

Table I, graph I shows that age group 25-30 years had 20 males and 15 females, 30-40 years had 35 males and 20 females, 40-50 years had 50 males and 45 females and >50 years had 25 males and 30 females. The difference was significant (P< 0.05).

Graph I Distribution of subjects

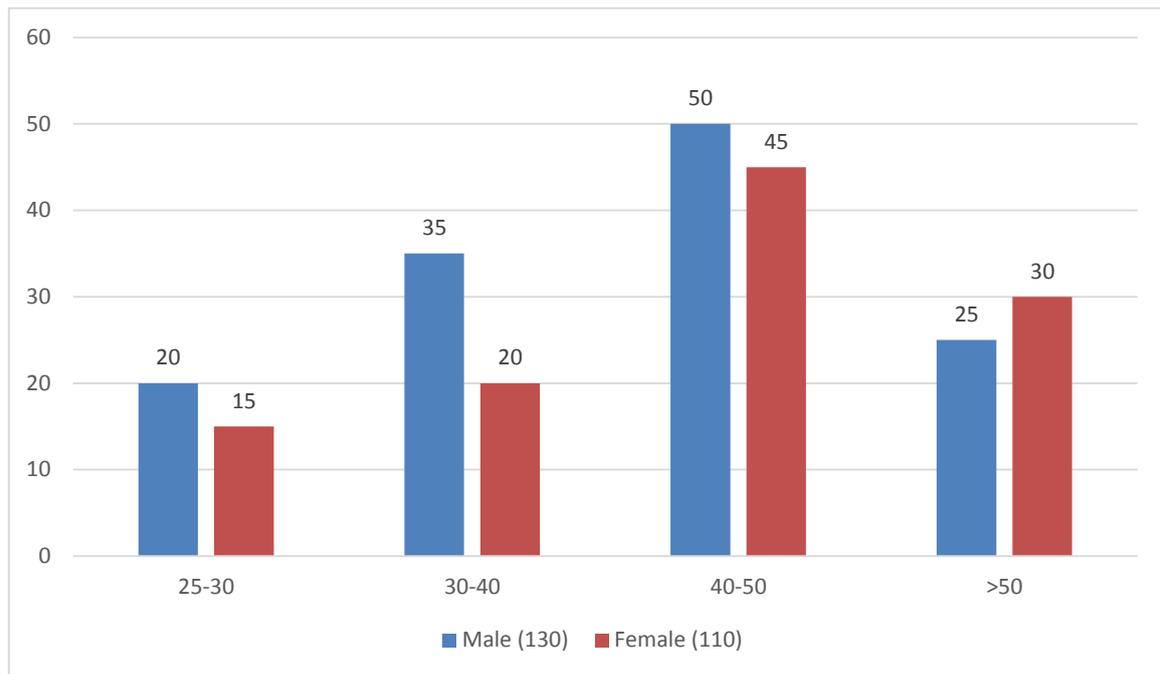


Table II Degree of practitioners

Degree	Males	Females	P value
BDS	70	65	0.12
MDS	60	45	

Table II shows that there were 70 male BDS and 65 female BDS and 60 male MDS and 45 female MDS. The difference was non-significant ($P > 0.05$).

Table II Knowledge among dentists

Questionnaires	Correct response
COVID- 19 is causes by which virus?	
SARS-CoV-2	SARS-CoV-2 (80 %)
MERS-CoV	
SARS-CoV	
Do not know	
What is the incubation period of COVID- 19?	
1-7 days	2-14 days (85%)
2-7 days	
2-14 days	
Don't know	

What is overall mortality of COVID- 19?	
3.2%	6.8% (75%)
6.8%	
10.4%	
What are laboratory test available to detect COVID- 19?	
ELISA	rRT-PCR- (82%)
rRT-PCR	
Western Blot	
Do not know	

Table II shows that 80% showed that SARS-CoV-2 is the cause of COVID- 19. 85% replied that 2-14 days is the incubation period of Covid- 19, 75% correctly replied that 6.8 % is the incubation period for COVID- 19 and 82% replied that rRT-PCR is the laboratory test available for detection of COVID- 19.

Table III Practice against COVID- 19

Questionnaire	Response	%	P value
Dentists fall under which risk category?	Very high	65%	0.05
	High	20%	
	Low	15%	
Perception about COVID-19 is that it is	Highly Contagious	65%	0.01
	Moderately contagious	30%	
	Non- contagious	5%	
Should COVID- 19 patients be given dental treatment?	Yes	80%	0.03
	No	10%	
	Don't know	10%	
Should previously COVID-19- positive patient be treated in dental office?	Yes	75%	0.02
	No	15%	
	Don't know	10%	
SARS- COV- 2 is protected by using masks, head cap and sanitizer?	Yes	74%	0.01
	No	18%	
	Don't know	8%	

Table III shows that 65% dentists replied that dentists fall under very high risk category, 20% replied high and 15% replied low risk category. 65% replied that virus is highly contagious, 30% found it moderately contagious and 5% found non-contagious. 80% replied yes in order to provide treatment to infected patients and 10% replied no. In response to question whether masks, head cap and sanitizer protect against virus, 74% replied yes, 18% replied no and 8% replied don't know. The difference was significant ($P < 0.05$).

4. DISCUSSION

COVID-19 prompted implementation of public health protocols to control the spread of the virus, many of them involving social distancing, hand washing, and lockdown procedures, but has also resulted in creating public anguish and massive fear, particularly among the unaffected population.⁸ Bangladesh has not previously experienced epidemics such as SARS or MERS, and it is clear that the public healthcare systems are not readily prepared for COVID-19.⁹ The magnitude and rapid proliferation of COVID-19 through slightly symptomatic or asymptomatic infected people in Bangladesh stresses the need to identify the behavioral responses of the population, such as to better address behavioral determinants of pandemic control.¹⁰ The present study was conducted to assess knowledge, awareness and practice of dental practitioners regarding prevention of COVID-19 infection.

We found that age group 25-30 years had 20 males and 15 females, 30-40 years had 35 males and 20 females, 40-50 years had 50 males and 45 females and >50 years had 25 males and 30 females. Singh et al¹¹ in their study a total of 522 responses from all over India were received. The respondents have adequate awareness for COVID-19 outbreak and its preventive measures, out of total, 98% (513) answered that the virus spreads from one person to another, 95% (494) answered that the disease is caused by a virus. Peoples understand the importance of social distancing and other preventive measures prescribed by the government with good attitude for coronavirus. Peoples are following trusted sources for corona information, having confidence to defeat disease but showed their concern for corona threat, are aware about the virus, its common symptoms and prevention, govt. testing and medical facilities. Principal component analysis was used to identify the latent dimensions regarding people's preventive measures and was found that they are majorly adopting three methods, that is, lockdown, naturopathy and social distancing.

We found that there were 70 male BDS and 65 female BDS and 60 male MDS and 45 female MDS. 80% showed that SARS-CoV-2 is the cause of COVID-19. 85% replied that 2-14 days is the incubation period of Covid-19, 75% correctly replied that 6.8% is the incubation period for COVID-19 and 82% replied that rRT-PCR is the laboratory test available for detection of COVID-19.

We found that 65% dentists replied that dentists fall under very high risk category, 20% replied high and 15% replied low risk category. 65% replied that virus is highly contagious, 30% found it moderately contagious and 5% found non-contagious. 80% replied yes in order to provide treatment to infected patients and 10% replied no. In response to question whether masks, head cap and sanitizer protect against virus, 74% replied yes, 18% replied no and 8% replied don't know. Tripathy et al¹² found that among 1,000 participants, 36.7% were HCWs, 53.9% were female, and 44.1% were aged ≥ 30 years. Majority of respondents showed awareness of COVID-19 (98.7%) as a deadly, contagious, and life-threatening disease (99.6%) that is transmitted through human-to-human contact (97.7%). They were familiar with the associated symptoms and common causes of COVID-19. Health organizations were chosen as the most reliable source of information by majority of the participants (89.6%).

Hand hygiene (92.7%) and social distancing (92.3%) were the most common preventive measures taken by respondents that were followed by avoiding traveling (86.9%) to an infected area or country and wearing face masks (86.5%). Significant proportions of HCWs and more educated participants showed considerable knowledge of the disease, and all respondents displayed good preparedness for the prevention and control of COVID-19.

5. CONCLUSION

Authors found that dental practitioners had sufficient knowledge, awareness and practice of safety guidelines regarding COVID-19 pandemic.

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