

A Cross Sectional Study to Evaluate Knowledge and Preparedness Among Patna, Bihar Dentists During COVID- 19 Pandemic

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ABSTRACT

Background: The present study was conducted to assess knowledge and preparedness among Patna, Bihar dentists towards COVID- 19.

Materials & Methods: 250 dental surgeons of Bihar of both genders were included. A questionnaire was prepared and distributed among dentists. It comprised of information regarding knowledge and preparedness towards COVID- 19 such as symptoms, incubation period, laboratory tests etc. was recorded.

Results: There were 140 male and 110 female dentists, <30 years of age were seen in 25, 30-40 years had 105, 41-50 years had 70 and >50 years had 50 dentists, 180 were BDS and 70 were MDS. 85% responded that SARS-CoV-2 cause of COVID- 19, 90.4% replied that 2-14 days is the incubation period, 56% correctly replied that 6.8 % is the incubation period for COVID- 19 and 82.3% replied that rRT-PCR is the laboratory test available for detection of COVID- 19. 54% replied that virus is highly contagious, 35% found it moderately contagious and 11% found non- contagious. Dentists fall under very high by 65%, high by 20% and low by 15%. In response to question, dentist should provide dental treatment to a previous COVID-19- positive patient, 76% replied yes, no by 10% and don't know by 14%. Masks, head cap and Sanitize protect against virus, 82% replied yes, 10% replied no and 8% replied don't know. The difference was significant ($P < 0.05$).

Conclusion: Authors found that dentists had sufficient knowledge and preparedness towards COVID-19.

Keywords: COVID-19, Knowledge, Preparedness.

INTRODUCTION

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2 or COVID-19) continues to spread globally.¹ It has become a major cause of concern for health care professionals all over the world. COVID-19 is caused due to SARS-CoV-2 virus which is a single-stranded RNA with protein spike, envelope membrane, and nucleic capsid. In most of the cases, the average incubation period is of 4–14 days.² 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.³ This unprecedented spread and very little information on novel coronavirus response of the World Health Authorities were left much to be desired.⁴ Confusions, misinformation, and opinions without much scientific basis prevailed even in scientific communities. As dental settings have unique characteristics and needs additional

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infection control considerations. Oral health-care provider forms one of the highest risk groups in acquiring and transmitting the infections.⁵

The clinical symptoms are varied and manifest as fever, nasal congestion, sore throat, sneezing, loss of taste and smell. Centre of Disease Control (CDC) issued interim guidelines besides following the standard precautions which urged dental practitioners to postpone elective procedures, surgeries, nonurgent dental visits, and to contact the patient before the initial visit.⁶ The present study was conducted to assess knowledge and preparedness among Patna, Bihar dentists towards COVID- 19.

MATERIALS & METHODS

The present study was conducted among 250 dental surgeons of Bihar of both genders. All were informed regarding the study and their consent was obtained. Ethical clearance was obtained before starting the study.

Data such as name, age, gender etc. was recorded. A questionnaire was prepared and distributed among dentists. It comprised of information regarding knowledge and preparedness towards COVID- 19 such as symptoms, incubation period, laboratory tests etc. was recorded. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I: Distribution of subjects

Parameters	Number	P value
Gender		
Male	140	0.12
Female	110	
Age group (Years)		
<30 years	25	0.01
30-40 years	105	
41-50 years	70	
>50 years	50	
Education		
BDS	180	0.01
MDS	70	

Table I shows that there were 140 male and 110 female dentists, <30 years

Table II: Assessment of knowledge.

Questionnaires	Correct response
What causes COVID- 19?	
SARS-CoV-2	SARS-CoV-2 (85%)
MERS-CoV	
SARS-CoV	
Do not know	
Incubation period of COVID- 19 is	
1-7	2-14 days (90.4%)
2-7	
2-14	
Don't know	
Overall mortality is	
3.2%	6.8% (56%)
6.8%	
10.4%	
What are laboratory test available?	
ELISA	rRT-PCR- (82.3%)
rRT-PCR	
Western Blot	
Do not know	

Table II shows that 85% responded that SARS-CoV-2 cause of COVID- 19, 90.4% replied that 2-14 days is the incubation period, 56% correctly replied that 6.8 % is the incubation period for COVID- 19 and 82.3% replied that rRT-PCR is the laboratory test available for detection of COVID- 19.

Table III; Assessment of preparedness.

Questionnaire	Response	%	P value
Perception about COVID-19	Highly Contagious	54%	0.01
	Moderately contagious	35%	
	Non-contagious	11%	
Dentists fall under	Very high	65%	0.05
	High	20%	
	Low	15%	
Dentist should provide treatment to COVID- 19 patients?	Yes	80%	0.02
	No	5%	
	Don't know	15%	
Dentist should provide dental treatment to a previous COVID-19-positive patient?	Yes	76%	0.05
	No	10%	
	Don't know	14%	
Masks, head cap and Sanitize protect against virus?	Yes	82%	0.02
	No	10%	
	Don't know	8%	

Table III shows that 54% replied that virus is highly contagious, 35% found it Moderately contagious and 11% found non- contagious. Dentists fall under very high by 65%, high by 20% and low by 15%. In response to question, dentist should provide dental treatment to a previous COVID-19- positive patient, 76% replied yes, no by 10% and don't know by 14%. Masks, head cap and Sanitize protect against virus, 82% replied yes, 10% replied no and 8% replied don't know. The difference was significant ($P < 0.05$).

DISCUSSION

The Indian Dental Association (IDA) strongly recommended that a dental practitioner should not treat a patient in his/her dental office UNLESS they can comply with the emergency preparedness checklist.⁷ This checklist includes disinfection and sterilization protocol, personal protective equipment (PPE) including N95 face masks, face shields, and protective outerwear.⁸ This advisory also stated those patients only requiring emergency care should be considered for treatment in a well-equipped dental clinic adopting strict protective measures; rest all patients should be tele-consulted, managed pharmacologically and scheduled for the care later on priority once the regular dental services are restored.⁹ The present study was conducted to assess knowledge and preparedness among Patna, Bihar dentists towards COVID- 19.

We found that there were 140 male and 110 female dentists, <30 years comprised of 25, 30-40 years had 105, 41-50 years had 70 and >50 years had 50 dentists, 180 were BDS and 70 were MDS. Bansal et al¹⁰ found that assessed the knowledge, attitude, and practices of dentists across North India during the COVID-19 pandemic. Four hundred and ten survey questionnaires were sent to dental practitioners in the northern Indian region. Three hundred and thirty responses were received with response rate equivalent to 80.4%. Dentists across North India are well informed and aware of the changing scenarios during COVID-19 Pandemic. They seemed to be optimistic and trying to keep themselves abreast of the latest guidelines and providing emergency dental care in the best possible way with an intent to serve their community.

We found that 85% responded that SARS-CoV-2 cause of COVID- 19, 90.4% replied that 2-14 days is the incubation period, 56% correctly replied that 6.8 % is the incubation period for COVID- 19 and 82.3% replied that rRT-PCR is the laboratory test available for detection of COVID- 19. Arora et al¹¹ found that the majority (80.8%) of the dentists had a fair knowledge about the characteristics of COVID-19. Nearly 60.7% and 49.7% of the dentists had taken infection control training and special training for COVID-19, respectively. Nearly 50% of the dentists had the perception that COVID-19 is very dangerous. Only 41.8% of the dentists were willing to provide emergency services to patients. Most of the dentists had an opinion that there is a need to enhance personal protective measures. During the survey, it was found that varied technological advances are offered to dentists to ensure good clinical practice. They also concurred that there was a need to standardize the tools and measures available to carry out dental practices.

We observed that 54% replied that virus is highly contagious, 35% found it Moderately contagious and 11% found non- contagious. Dentists fall under very high by 65%, high by 20% and low by 15%. In response to question, dentist should provide dental treatment to a previous COVID-19- positive patient, 76% replied yes, no by 10% and don't know by 14%. Masks, head cap and Sanitize protect against virus, 82% replied yes, 10% replied no and 8% replied don't know.

Gambhir et al¹² in their study a total of 245 private dentists participated in this cross-sectional survey and finally 215 constituted the final sample size. A self-administered, multiple choice type questionnaire (verified by a specialist) was administered to obtain information from the subjects. The questionnaire was divided into two parts and included 15 questions on knowledge and awareness regarding COVID-19. Percentage of subjects who answered correctly regarding main symptoms of COVID-19 and primary mode of transmission was 87% and 82.5% respectively. One-third of the subjects were not aware regarding Personal Protective Equipment (PPE) to be used while rendering dental treatment. 75% of subjects believed supportive care is the current treatment regime for COVID-19. Less than one-third of subjects (30.2%) reported high scores. Education level ($p=0.018$) and health sector profile ($p=0.024$)

of the subjects were significantly associated with mean knowledge scores.

The shortcoming of the study is small sample size.

CONCLUSION

Authors found that dentists had sufficient knowledge and preparedness towards COVID-19.

CONFLICTS OF INTEREST

The authors declare they have no potential conflict of interests regarding this article.

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