



Attitudes of Medical Practitioners towards Collaboration with Dental Professionals during a Pandemic: A Past Experience and a Future alert

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ABSTRACT

Aim: To determine the attitude of medical practitioners towards collaborating with dental professionals during a pandemic.

Materials and Methods: The present study is a cross sectional survey conducted among the medical practitioners of India. 2100 medical practitioners were randomly selected as study subjects. The data pertaining to their attitude toward collaboration with dental professionals were gathered using a self-administered questionnaire. Data was analyzed using descriptive studies.

Results: Among the study subjects, 93% of the medical doctors said in the future if the pandemic occurs then they would feel contented if they were to be given the provision to be aided by a well-trained dental support team, 80% of them said they experienced high stress during the pandemic. When asked to specify the reason in case they have not approached the dentist during the pandemic, 89% said they did not ponder over the thought of taking help from the dentist.

Conclusion: If a pandemic occurs in the future, the contribution of the dentist can be beyond dentistry provided we adopt and execute proper measures and plan them beforehand.

Keywords: *Dentist, Medical practitioner, Pandemic, Preventive measures, COVID-19*

INTRODUCTION

The advent of a new coronavirus that was extremely contagious led to the beginning of a pandemic that spread throughout the entire planet. 12 On December 31, 2019, the World Health Organization (WHO) received their first reports, which suggested that the first cases had been detected in Wuhan, China. This information was provided by the Chinese government. 1-3 On February 11, 2020, the World Health Organization (WHO) announced that SARS-CoV-2 is the causal agent of coronavirus disease 2019 (COVID-19), and on March 12, 2020, the WHO declared that the COVID-19 outbreak is a pandemic. 4 There was a rise in the amount of demand placed on medical services as a direct result of the fast increasing number of cases that were reported in India. Because of this, the objective of this research is to shed light on the previous experiences of medical practitioners during COVID-19 and on the potential preventative measures that can be considered by collaborating with medical and dental practitioners in the event that the human race is struck by another pandemic in the future. The purpose of the study was to attitudes of medical practitioners towards collaboration with dental professionals during a pandemic.

MATERIALS AND METHODS

The medical practitioners from India were included for a cross sectional study. The study was approved and accepted by institutional ethical committee and the informed consent was taken from all the study participants. The sampling method employed was simple random sampling. 2100 medical practitioners were involved in the study. A self-administered questionnaire was framed which comprised of 51 close ended questions divided into three sections. The data gathered from these questions was used to assess the attitude of medical doctors towards collaborating with dental professionals during a pandemic. The questions were prepared in google forms and sent to the medical doctors via social media platforms. Their consent was sought and assured that their feedback would be anonymous. Their demographic details like gender, medical specialty, clinical experience and employment

status were recorded. The filled questionnaire were analysis. The inclusion criteria include (i) the practitioners should possess registration in the All India Medical Council, (ii) they should be working in India and (iii) The doctors should have either completed MBBS or pursuing postgraduation/super-specialisation or should have completed their postgraduate course/ super specialisation course. Othertahn medical practitioners and those who are willing to participate in the study were excluded from the study.

Statistical analyses

Descriptive statistics, such as frequency and percentage was used to present the data. Data analysis was done by using Microsoft excel. The significance was not checked.

RESULTS

Response of the study subjects on questions based on consultations during the COVID-19 era are tabulated in Table 1. The results showed that 81% of the practitioners attended the covid -19 patients. About 80% experienced high stress during COVID-19 outbreak.

Response of the study subjects on questions based on their approach towards dentist during the peak of COVID-19 pandemic are tabulated in Table 2. 9% practitioners called upon the dentist to administer COVID-19 diagnostic tests such as nasopharyngeal swabs and 13% for oropharyngeal swabs. 3% approached for patient triage. 10% took the assistance of oral surgeons for deep sedation and general anesthesia services. 50% urged dentists to encourage covid-19 vaccination drive. 89% medical doctors said they haven't approached the dentist because they did not ponder over the thought of taking the help from the dentist and 11% said that dentists refused to help. Table 3 displays the response of the medical body when questioned about their willingness to collaborate with the dental fraternity if a pandemic occurs in future. The results indicate that about 94% of physicians would need the dentist for monitoring vital signs, 70% for administering injectables, 65% would like to use high-volume evacuators from dental clinics to augment the capacity for COVID-19

screening, 71% medical practitioners would appreciate the assistance of the dentist for performing intubation. The graphical representation of questions in table 1, 2 and 3 are illustrated in figure 1, 2 and 3 respectively.

TABLE 1: Response of the study subjects on questions based on consultation during the COVID-19 era.

Sl. no	Questions	Yes (%)	No (%)
1.	Have you attended COVID-19 patients	81	19
2.	Method of consultation for COVID-19 patients		
	In person (at your clinic)	8	92
	In person (home visits)	3	97
	Remotely (telehealth)	37	63
	All the above	52	48
3.	Telehealth services were opted		
	Owing to very hectic schedules	6	94
	To minimise in-person contact with patients who may have COVID-19	3	97
	Due to the huge surge in the number of COVID-19 cases there was no time for one to one in-person consultation especially for patients with mild symptoms	27	73
	All the above	64	36
4.	Do you believe that medical professionals were more impacted than non-health care workers by work related stress	100	0
5.	Stress you experienced during the COVID-19 outbreak		
	High stress	80	20
	Moderate stress	20	80
	Low stress	0	0
	No stress	0	0

TABLE 2: Response of the study subjects on questions based on their approach towards dentist during the peak of COVID-19 pandemic.

Sl. no	Questions	Yes (%)	No (%)
1.	To educate the general public regarding the COVID appropriate behaviour and its scientific literature	28	72
2.	To address the myths associated with covid 19 pandemic	20	80
3.	For recording of case history, signs and symptoms	10	90
4.	To administer COVID-19 diagnostic tests such as nasopharyngeal swabs	9	91
5.	To collect oropharyngeal swabs	13	87
6.	Approached dental clinics that are well equipped with facilities to control aerosol spread of infections, such as negative pressure room	0	100
7.	For inpatient setting	6	94
8.	For patient triage	3	97
9.	The use of high-volume evacuators from dental clinics to augment the capacity for COVID-19 screening	0	100
10.	For monitoring vital signs	7	93
11.	For administering oxygen	4	96
12.	For administering injectables	3	97
13.	For writing prescriptions	10	90
14.	For administering local anesthesia	8	92
15.	For suturing	5	95
16.	For performing intubation	2	98
17.	Oral surgeons for deep sedation and general anesthesia services	10	90
18.	For saliva sampling procedures	9	91
19.	To deliver instructions to the care takers of covid patients	15	85

20.	For patient follow up protocol	14	86
21.	To encourage covid 19 vaccination drive	50	50
22.	To clarify the misconceptions on covid 19 vaccine	30	70
23.	If you haven't approached the dentist please specify the reason		
	Did not ponder over the thought of taking the help from the dentist	89	11
	Dentists refused to help	11	89

TABLE 3: Response of the medical practitioners upon their willingness to collaborate with the dental fraternity for the following procedures, if a pandemic occurs in future.

Sl. no	Questions	Yes (%)	No (%)
1.	To educate the general public regarding the pandemic appropriate behaviour	96	4
2.	To address the myths associated with pandemic	96	4
3.	For recording of case history, signs and symptoms	95	5
4.	To administer diagnostic tests	93	7
5.	To collect oropharyngeal swabs	97	3
6.	Approach dental clinics that are well equipped with facilities to control aerosol spread of infections, such as negative pressure room	66	24
7.	For inpatient setting	88	12
8.	For patient triage	84	16
9.	The use of high-volume evacuators from dental clinics to augment the capacity for pandemic screening	65	35
10.	For monitoring vital signs	94	6
11.	For administering oxygen	92	8
12.	For administering injectables	70	30
13.	For writing prescriptions	88	12
14.	For administering local anesthesia	68	32
15.	For suturing	69	31
16.	For performing intubation	71	29
17.	Oral surgeons for deep sedation and general anesthesia services	80	20
18.	For saliva sampling procedures	96	4
19.	To deliver instructions to the care takers of the patients	95	5
20.	For patient follow up protocol	98	2
21.	To encourage the vaccination drive	100	0
22.	To clarify the misconceptions on its vaccination	100	0
23.	Would you benefit if you were to be given the provision to be aided by a well trained dental support team, to reduce your stress and assist medical care.	93	7

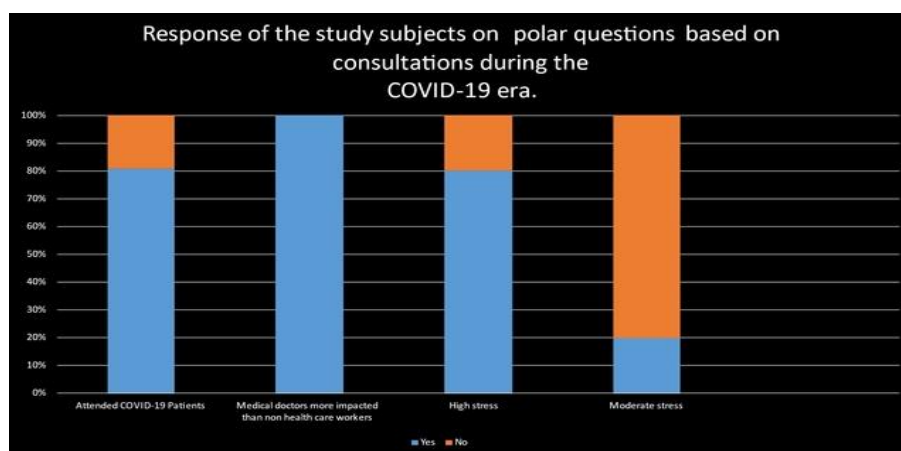


FIGURE 1: Response of the study subjects on polar questions based on consultation during the COVID-19 era.

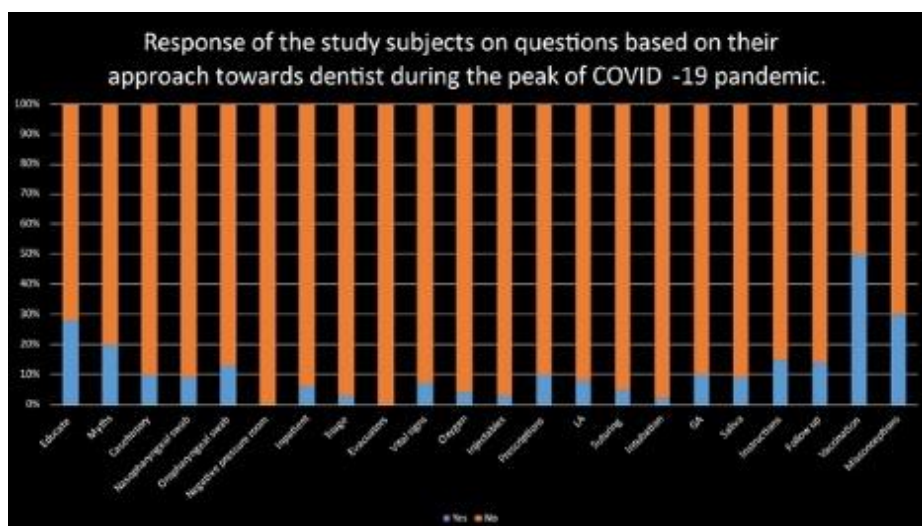


FIGURE 2: Response of the study subjects on polar questions based on their approach towards dentist during the peak of COVID-19 pandemic.

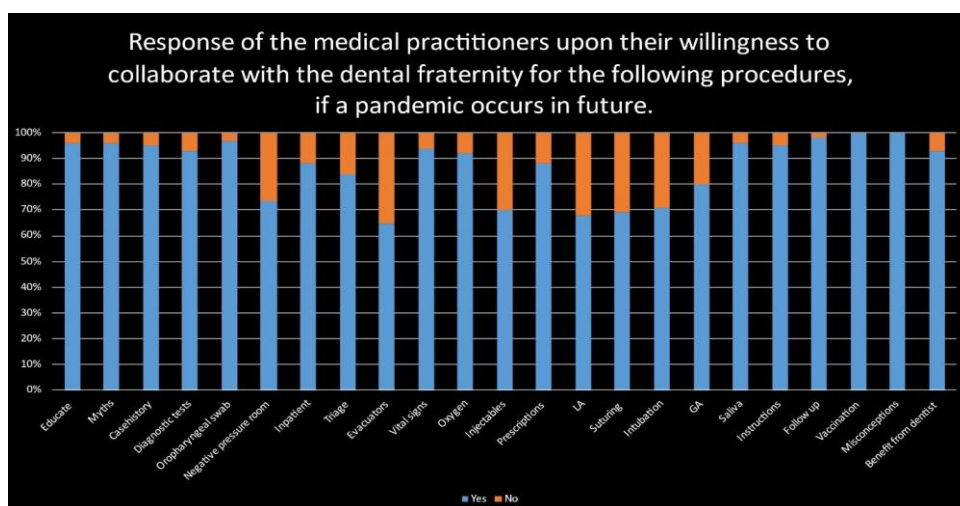


FIGURE 3: Response of the medical practitioners upon their willingness to collaborate with the dental fraternity for the following procedures, if a pandemic occurs in future.

DISCUSSION

When a pandemic strikes, it puts the global healthcare system under strain. As a result, doctors are required to perform more duties in order to compensate for the increased patient turnover. doctors, yet they are naturally stressed and fatigued. 13-16 They will suffer the consequences of shift work and long hours. 5 As a result, several countries have turned to medical specialists to deal with the pandemic. 6 In Singapore, for example, the National Dental Centre Singapore (NDCS) used dental clinicians and volunteers from research laboratories to screen for suspected cases, provide consultations,

and perform swabbing operations. Both Health NHS Trust and QMUL Institute of Dentistry dental staff have assisted in maternity, critical care, and emergency units. Dental hospitals have been redesigned to help with medical care. In the United States, dentist volunteers from Virginia and California have been asked to assist with severe emergency care needs and have been deployed to the cause. 4 Dentists, dental support teams, and clinical academics have helped the NHS in the United Kingdom. 7

Dental and medical practitioners have different practice horizons, although their curricula share many similarities. Dentists are well-versed in

basic human science topics.¹⁷⁻¹⁸ They also receive basic cardiac life support training. In their usual practice, dentists are well prepared to address medically impaired patients and medical emergencies. As a result of their extensive training in clinical medicine and dentistry, they are well-equipped to act as a volunteer force in the event of a pandemic. ¹⁹⁻²² As a result, this study underlines the relevance of the dental profession supporting the medical field in the event of a future pandemic. The first round of questions regarding consultations during the COVID-19 era was created in the current study. When asked about consultations, 81% of medical practitioners reported seeing COVID-19 patients. In terms of the method of consultation for COVID-19 patients, 8% of medical doctors said they only saw patients at the clinic, 3% said they saw patients at home, 37% said they only saw patients remotely (telehealth), and 52% said they saw patients in a combination of all of the above ways. Due to very hectic schedules, 6% of the doctors chose telehealth services; 3% wanted to minimize in-person contact with patients who may have COVID-19; 27% said that due to the huge increase in the number of COVID-19 cases, there was no time for one-on-one in-person consultations, especially for patients with mild symptoms; and 64% stated all of the above reasons. The role of telehealth has been extensively utilised by health care practitioners around the globe during COVID-19.^{23,24} 100% of medical practitioners stated that work-related stress affects medical professionals more than non-healthcare workers. Eighty percent reported high stress, while twenty percent reported moderate stress.^{25,26}

Twenty-eight percent said they encouraged dentists to dispel myths about the COVID-19 pandemic; ten percent said they encouraged dentists to take down patient histories and symptoms; nine percent said they encouraged dentists to administer nasopharyngeal swabs for COVID-19 diagnosis; and thirteen percent said they encouraged dentists to collect oropharyngeal swabs. The National Dental Centre Singapore (NDCS) sent dental clinicians and volunteers from research labs to the foreign worker dorms to undertake swab procedures, as evidenced by

reports of volunteer acts by dentists on a global scale.⁴ None of the doctors suggested using high-volume evacuators from dental offices to increase capacity for COVID-19 screening, despite the fact that these facilities are well-equipped to prevent the aerosol spread of infections with features like a negative pressure room, 6% for inpatient settings, and 3% for patient triage. The capacity for COVID-19 screening can be increased with the assistance of dental clinics that have equipment to prevent the spread of illness through the air, such as negative pressure chambers and high-volume excavators. Vital signs monitoring 8%-10%; oxygen administration 4%-3%; injectables administration 10%; prescriptions 10%; local anesthesia administration 8%; surgery 5%; intubation 2%; and oral surgeons deep sedation and general anesthesia 10%. Intubation, heavy sedation, and general anesthesia are all procedures that dentist anesthesiologists and oral surgeons are qualified to provide. 50% to promote COVID-19 immunization efforts; 30% to dispel myths about the vaccine; 9% for saliva sample procedures; 15% to provide guidance to the caregivers of COVID patients; 14% for patient follow-up protocols. When asked why they haven't sought dental assistance, 89% of medical professionals indicated they hadn't considered it, while 11% claimed dentists had flat-out declined their requests for assistance.

Medical practitioners were asked if they would be interested in collaborating with dentists if dental support teams were deployed to aid the medical body during a pandemic. 96% indicated they would want the dentistry community to educate the general population about COVID-appropriate conduct and dispel myths about the COVID-19 epidemic. 95% indicated they would work together to document case histories, indications, and symptoms. 93% would prefer that the dentist provide COVID-19 diagnostic tests such as nasopharyngeal swabs, and 97% would prefer that the dentist collect oropharyngeal swabs. 66% want to visit dental clinics that have facilities to control the aerosol spread of illnesses, such as a negative pressure room. 88% would like to call on the dental profession for inpatient settings: 84% for patient

triage, 94% for vital sign monitoring, 92% for administering oxygen, 70% for administering injectables, 88% for writing prescriptions, 68% for administering local anesthesia, 69% for suturing, 71% for performing intubation, 98% for patient follow-up protocols, 96% for saliva sampling procedures, 95% for delivering instructions to COVID-19 patients, and 100% for encouraging the 65% indicated they would prefer to use high-volume evacuators from dentistry clinics to supplement COVID-19 screening capacity. 80% of medical professionals said they would seek the services of oral surgeons for deep sedation and general anesthesia. 93% of medical personnel said they would benefit from being assisted by a well-trained dental support team to alleviate stress and assist with medical care. There were conflicts raised on the utilization of theatre for the management of dental problems among the general population during COVID-19.^{27,28} Only emergency and essential dental treatments were accepted to perform in the hospital setups.^{29,30} The limitations of the study were (i) self-administrative questionnaire, the comparison was not made, the tool was not validated and also no control web-based surveys.

CONCLUSION

With in the study limitations, we conclude that the medical professionals have traditionally thought of it as a great honour whenever they had the opportunity to receive assistance from the dental body. Therefore, in the event that a pandemic occurs in the future, the contribution of the dentist could go beyond dentistry, provided that we adopt and put into action the appropriate precautions, and that we plan for them in advance.

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