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Adherence of Indian Dental Professionals to COVID-19 Guidelines: A Study of Knowledge, Attitude & Practices

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ABSTRACT
Dental health care profession is the most at-risk profession in the COVID-19 pandemic due to direct or close approximation with the oropharyngeal secretions that can harbor SARS COV-2. Various national and international regulatory bodies have issued guidelines regarding the provision of best dental health care during this pandemic including pre-appointment, during appointment, and post-appointment considerations. Thus, it is essential to know how many dental professionals in India are aware and prepared for abiding by these guidelines. Hence, this study was done to assess the knowledge, attitude of the dental professionals to the COVID-19 guidelines, and adherence to the practices being advocated by guidelines prescribed by various regulatory bodies. The present study evaluated the knowledge, attitude, and practices of 185 Indian dental health professionals through an online questionnaire. Comparative analysis of responses in terms of academic association of professionals, qualification, and years of experience was done for each of the responses. Statistical significant results($p<0.05$) were obtained in each of the knowledge, attitude and practices responses. There was suboptimal adherence to the guidelines in practice even when professionals are aware of the same. This was more pronounced for private practitioners, less experienced and graduate professionals signifying the need for policy framing for monitoring and surveillance. There is a need to create a mechanism for surveillance and monitoring the norms being followed by private dental clinics. This will ensure safer dental practices and reduce the risk of improper handling and disease transmission.
Keywords: COVID-19; Dentist; Dental Treatment; Health Professional; Pandemic

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INTRODUCTION

COVID-19 pandemic shook the entire world affecting all communities regardless of borders, nationalities, or climate conditions. The pandemic has affected all aspects of human life, all professions, relationships, and the overall economy. The health care workers, predominantly the medical doctors and nurses have been on their toes throughout this pandemic. However, the health care profession that has been impacted the most is dental health care, as it has been the most at-risk profession for transmission and spread of COVID-19 compared to other occupations [1]. This is primarily due to the localization of the SARS COV-2 virus in the oropharyngeal area and its dissemination through droplets [2-3]. The aerosols produced during the dental treatment and the physical proximity of the personnel to the oropharyngeal secretions can lead to transmission of SARS COV-2 virus in the entire dental operatory through the infected patient and vice-versa [4-5].

Also, the asymptomatic nature of the disease in certain individuals and the prolonged incubation of disease before the appearance of symptoms (ranging from 5 days [6] to as long as 14 days [7, 8]) in certain cases makes it challenging to diagnose the presence of COVID-19 infection, which in turn would increase the risk of transmission during these periods.

Infection control in dentistry is extremely important as oral cavity is a harbor of multitude of organisms. Also, transmission of infectious agents among patients and dental health care personnel (DHCP) in dental settings has been reported. Therefore, CDC has laid down guidelines regarding the standard precautions and infection control in dental health care settings in 2003 [9]. These infection control measures have always been advocated and held great importance for a successful dental practice. However, they become prominently significant in the current pandemic situation. Thus, it is pertinent to have a rigorous infection control protocol in the dental operatory.

Since, the widespread vaccination of the population is still a long way, it is critical to make the necessary modifications in the current dental practices so that much needed oral health care can be provided and a 'new normal' provision of dental health care can be established and practiced. To this effect, various guidelines have been issued by numerous international regulatory bodies like World Health Organization (WHO) [10], Centre for Disease Control (CDC) [11], Occupational Safety and Health Administration (OSHA) [12], American Dental Association (ADA) [13], Australian Dental Association etc [14].

The first case of COVID-19 in India was diagnosed on 27th January 2020 in Kerala [15]. The Government of India announced a complete lockdown on 24th March 2020 when the total number of COVID-19 positive cases in the country was 564 [16]. During the lockdown all private dental clinics and dental institutions were closed. The National health regulatory bodies like Ministry of Health and Family Welfare (MoHFW, GOI) [17], Dental Council of India (DCI) [18] and Indian Dental Association(IDA) [19] have issued guidelines to postpone all elective dental care procedures and to perform only the urgent and emergency dental procedures till 30thApril 2020. The advisories to initiate dental clinics with the appropriate protocol have been issued from time to time by these bodies [20-22]. The dental professionals in private clinics and dental institutions must abide by the guidelines proposed to ensure the provision of best oral health care with minimum risk of transmission from patient to the operatory and vice versa.

Many of these guidelines were adapted from the WHO guidelines and modified as per the nation's requirements. But these guidelines and protocols have been framed in haste with idealistic recommendations rather than the realistic ones [23-25].

Thus, it is essential to know how many dental professionals in India are aware and prepared for abiding by these guidelines. It is also imperative to understand the various practices being followed in the dental operatories to minimize disease transmission and ensuring the safety of the personnel and patients.

Hence, this study was undertaken to assess the knowledge, attitude of the dental professionals to the COVID-19 guidelines, and adherence to the practices being advocated by guidelines prescribed by various regulatory bodies.

MATERIAL AND METHODS

Study duration: The study duration was from 11th March 2021 to 30th April 2021. The ethical clearance for conduction of study was obtained from the Institutional Ethics committee (FODS/EC/FRP/OMR/2021/69 dated 9th March 2021).

Study Population

The study population included the dental professionals who are either associated with dental institutions as academicians or practicing or consulting at private dental clinics or hospitals. The minimal qualification for a professional would be a graduate or BDS degree. The students pursuing BDS and interns were not included. However, the students pursuing MDS were part of the study.

Figure 1: Geographical profile of the respondents.

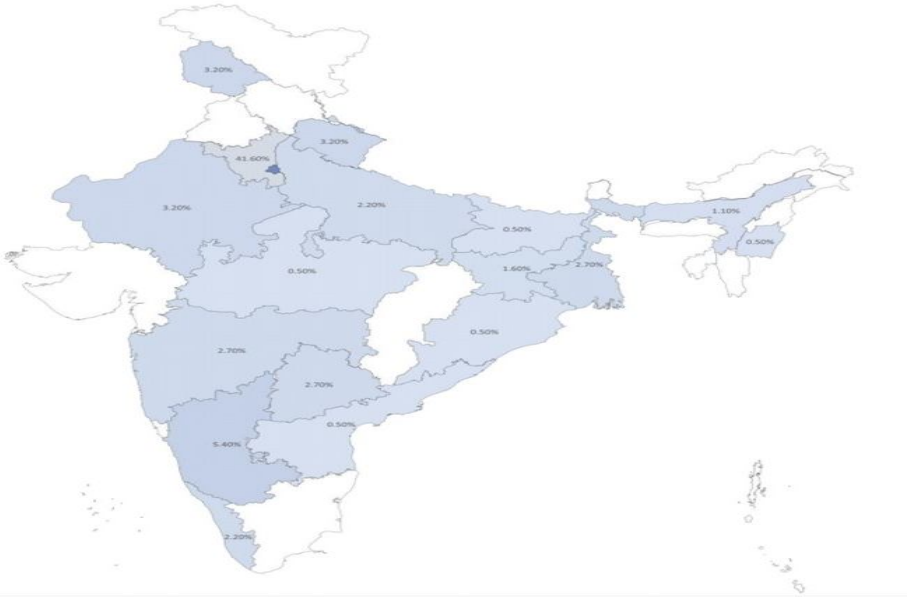
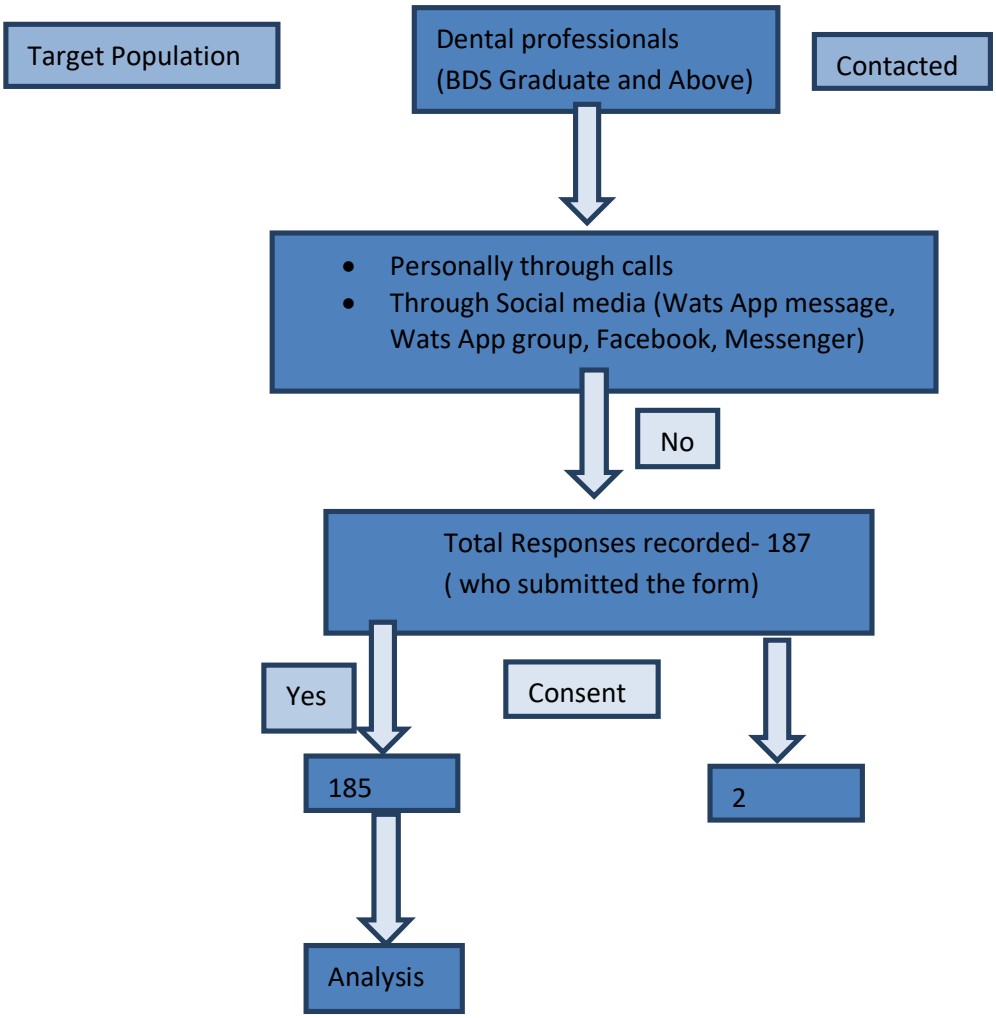


Figure 2: Flowchart depicting the study protocol.



Sampling method: The convenience sampling was primarily used to include the dental professionals that the researchers contacted themselves through whats app, facebook or messenger profiles. Snowball sampling was also used as the participating dental professionals were asked to include their dental colleagues and friends to ensure maximum participation in the study.

Study Instrument and Design: The study instrument was an online questionnaire prepared using Google forms available at https://forms.gle/AnSXUKhkSWicFBvm9

The questionnaire was designed in English as it would be easily understood by all dentists rather than the regional language. Also, the questionnaire was anonymous except for name which was kept optional.

The questionnaire was developed after reviewing the guidelines prescribed by National and International regulatory bodies. The first section of the questionnaire informed the study participants about the objectives of the study and their consent to participate in the study. If the participant consented, he was moved to the next section of the questionnaire. And if the participant answered 'No', the form was submitted and no further questions were displayed. The study protocol is explained through Figure 1. The subsequent sections collected the participants' demographic information, including their qualification, work experience, and clinical OPD status depending upon whether they are associated with academic institution or private clinic in separate sections. Specific questions regarding the knowledge, attitude and practices that these professionals are following were assessed in the subsequent common section. All the questions except the name were mandatory to answer and thus the form could not be submitted unless all questions were answered. This reduced the possibility of having incomplete responses by the participants.

There were 31 specific questions assessing the knowledge(18 questions), attitude(5 questions) and practices(8 questions) related to COVID-19 guidelines for dental treatment. It is important to note here that attitude and practices will be followed only when the professionals have sufficient knowledge about

the prescribed guidelines. Hence, through this questionnaire, an attempt was also made to impart knowledge about the guidelines as the questions were graded and participants were able to view the correct responses once they submit the form.

Data Management and Analysis

The data was accessible to only the principal investigator and it was re-analyzed using SPSS (IBM Corp). Descriptive statistical analysis, mean and percentages were used to describe the data.

Participants' responses regarding knowledge, attitude and practices were coded and assessed. For comparative evaluation using chi-square test, the respondents were dichotomized into groups in each of the 3 domains as described in Table 1.

For the questions that had multiple correct responses and the ones that determine different practices by different professionals, descriptive analysis was used.

The questions pertaining to guidelines were also dichotomized as one related to general guidelines and patient treatment and the other related to protecting personnel and operatory.

RESULTS

A total of 187 responses were received, and out of these, only 2 participants did not consent for participation, making a total of 185 responses for the analysis.

Participant characteristics

The age of participants ranged from 22 to 60 years, with a mean age of 29.8 years. Out of 185 participants 141(76.2%) were females and 44(23.8%) were males. The geographical profile of the participants is Pan-India and is shown in figure 2. About 71.9% belonged to MDS group and 28.1% were BDS graduates. The 133 responses from MDS group showed multidisciplinary participation with responses from all specialties of dentistry.

The professional demographics and clinical information of participants is shown in Table 2.

General Guidelines and dental treatment responses

About 89.7% of respondents were aware that various regulatory bodies had issued guidelines for dental treatment. On specific asking about agencies, 85.9% have correctly identified WHO,74.6% correctly identified DCI, followed by IDA(69.7%), CDC(44.9%), MoHFW(43.8%), ADA(37.8%) and OSHA(24.9%). About 41.1% of participants have also responded for ICMR, whereas ICMR has issued guidelines for COVID-19 in general and not specific for dental treatment per se.

While 166 respondents were aware of the issue of guidelines but out of them, only 82.2% have gone through the guidelines. Maximum (70.8%) respondents have gone through WHO guidelines followed by DCI(59.5%), IDA(56.2%), CDC(29.2%), MohFW(25.4%), ADA(20%) and OSHA(9.2%).

'Telemedicine' or tele-consultation is rapidly growing and helps the DHCP remotely assess and monitor the patient. This practice is gaining momentum especially during the pandemic to avoid unnecessary exposure of the patient as well as DHCP. 'Triage' refers to the assignment of degrees of urgency to wounds or illnesses to decide the order of treatment of a large number of patients or casualties. This is done to identify the priority needs of the patient, so that the best care is offered to all. The combination of triage and teleconsultation led to the concept of Tele-triage which has become increasingly relevant and significant in the ongoing pandemic. Tele-triage means assessing the severity of patients' dental condition telephonically and then scheduling an appointment. This plays a fundamental role in identifying the patients who require emergency care like acute infectious pain/swelling and filtering out the less urgent procedures like prosthetic rehabilitation using implants.Only 62.7% of dentists had knowledge about Tele-Triage, and 24.3% have never heard of such a term, while 13% of dentists had partial knowledge about it. Even when 69.7% of dentists were well aware of tele-triage, only 40% dentists were actually practicing it.

93.8% of dental professionals admitted to asking patients about fever, cough, or cold before physically examining the patient. More than 75% have admitted to asking about travel and contact history from patients.

More than 65% of dental professionals were aware that chlorhexidine and povidone-iodine can be used as a pre-procedural rinse to reduce the level of micro-organisms in aerosols. However, only 30.8% were mindful of the use of hydrogen peroxide, 21.6% for the use of cetylpyridinium chloride, and only 11 dentists(5.9%) agreed that essential oils could also be used as a pre-procedural rinse.

Protection of personnel and operatory

Cross-contamination in dental operatory can be prevented using adequate distancing and plastic barriers. About 71.4% of dentists admitted that they had used plastic barriers in between chairs, 60.5% have used in the reception area, and 58.9% have used to separate the patient waiting area, whereas only 39.5% have used plastic barriers in sterilization area.

About 65.4% of dentists admitted that they had removed reading materials, toys, and other communal objects from the patients sitting area to avoid cross-contamination, whereas 27% realized that they have not removed but the materials are cleaned and sanitized daily.
About 82.7% have admitted to strategically scheduling the appointments with variable frequency to avoid interaction between general patients and elderly patients and minimize the risk of transmission.
About 83.8% of dentists were aware of the need of fumigation of operatory. However, only 43.2% were fumigating their respective operatory daily, whereas 19.5% resorted to biweekly fumigation, 21.1% were comfortable with once-week fumigation.
Though 73.5% of dentists were aware that wet surfaces transfer microorganisms more easily than dry surfaces, only about 56.8% admitted that they always dry their hands after every wash.
The statistical significant results of each knowledge, attitude, and practice questions are categorized and compared in 3 groups and shown in Table 1. The results of the graded responses are explained in Table 3.

DISCUSSION

The impact of the COVID-19 pandemic on the dental profession has been immense and it can also be seen from the OPD data given by respondents wherein the average number of patients seen by professionals in dental institutions or by private practitioners pre- COVID have reduced post the lockdown. 14.5% of professionals have not even resumed their practice/consultation post-lockdown. This could be out of fear or unpreparedness and is a question of subsequent research.
One of the important pre-appointment guidelines advocated in the guidelines is the tele-triage which involves telephonically assessing the severity of patient disease and thus segregating them as per the urgency of required care to avoid exposure. Even though people knew about it still only 40% practiced it, suggesting an unfavorable attitude and practice. Also, 57% of these were associated with academic institutions and 77% were belonging to MDS group. Majority of dentists (>75%) were asking patients about their contact history, travel history, and history of fever, cough, or cold before starting procedure which signifies favorable attitude and practice.
Various procedures have been categorized after tele-triage as requiring urgent, emergency or elective care. On questioning the procedures, only 8.9% could correctly order a procedure under urgent care, whereas the majority(91.4%) of dentists have failed to distinguish between urgent and emergency care procedures. Thus suggesting that the actual awareness of the guidelines is limited and the practices may be further hampered because of lack of knowledge.
The categorization of dental procedures as per the levels of risk of exposure has been made primarily for the dental institutions. Only 55% of the dentists could correctly identify the type of procedures carried in level 2. Out of correct respondents, 72% were MDS associated with academic institutions (58.2%), private clinics(30.1%) with 62.6% of them having clinical experience of 0-4 years suggesting that specific guidelines were more known and adhered by academic professionals. This may be due to continuous monitoring by the authorities of the Institution as there is a risk of widespread exposure among student and personnel population. In contrast, in a private clinic, the absence of any monitoring by regulatory authority leads to a off-the-cuff attitude of the practicing professional considering the reduced number of patients and personnel even though the risk of transmission is no less.
Numerous studies have shown that the use of preprocedural mouth rinses reduces the viral load in saliva and oropharyngeal tissues, thereby reducing the viral load in aerosols and hence the transmission in dental operatory [26, 27].
Only 65% of respondents were aware of chlorhexidine and povidone iodine as the pre-procedural rinse. The fact that hydrogen peroxide, cetylpyridinium chloride, and essential oils can also be used is unknown to most professionals. The dental treatment requires patient to spit in the spittoon of the dental chair for obvious reasons. But the guidelines for the use of pre-procedural rinse states that it should be done in the washbasins so that the oral microbial load is less when the patient sits on the dental chair. But unfortunately, only 25.9% of dentists were aware of the same.
Multiple steps have been mentioned in the guidelines regarding the protection of operatory and personnel. The use of plastic barriers is the most commonly advocated technique to separate the various areas of the operatory to minimize transmission. While most dentists admitted to using plastic barriers at various areas of their operatory, they could not maintain the recommended distance of 6 feet between the chairs. 36.2% were even unaware of the correct distance between 2 chairs in the operatory [28].
As recommended by DCI, the area for each dental chair is 125sq ft, which amounts to almost 11 ft distance [29] but still the fact was largely unknown. This safe distance may not be attainable especially in private clinics with constricted spaces. But, separation can be achieved by using alternate chairs for treatment in dental institutions or clinics which will can help limit transmission.

Table 1: Statistical significance of each of Knowledge(3a), Attitude(3b) and Practice(3c) question as per the respondent association with academics, qualification and years of experience.

S.No	Knowledge related Questions(1a)	Academics/private clinics*		BDS/MDS¶		<4 yrs/>4 yrs professional experience¶¶	
		Pearson Chi-Square	*P value*	*Pearson Chi-quare*	*P value*	*Pearson Chi-Square*	*P value*
1	Are you aware that guidelines for dental treatment have been issued by regulatory bodies?	1.660	.000	1.684	.000	1.688	.000
2	As per the COVID-19 guidelines for dental practice in India, the dental services could be carried out in	1.635	.000	1.673	.000	1.647	.000
3	Are you aware of Tele-Triage?	1.627	.000	1.689	.000	1.679	.000
4	What according to you is Tele-Triage?	1.636	.000	1.725	.000	1.651	.000
5	The 3As of primary dental triage includes all EXCEPT	1.654	.000	1.710	.000	1.728	.000
6	As per the guidelines, which of the following dental conditions are categorized as requiring "urgent care"?	1.644	.000	1.713	.000	1.700	.000
7	Which of the following situations are NOT considered as Emergency care situations for dental treatment?	1.664	.000	1.634	.000	1.683	.000
8	Which of the following components of personal protective equipment are not required in clinical care in triage area?	1.649	.000	1.712	.000	1.739	.000
9	As per the guidelines for the use of personal protective equipments, the procedural areas in Dental Institutions are categorized as Level 1, Level 2 and Level 3 areas. What procedures are carried under Level 2?	1.648	.000	1.821	.000	1.747	.000
10	N95 or high level respirators are required in which level of dental procedures	1.643	.000	1.833	.000	1.698	.000
11	The techniques to reduce or minimize aerosol production includes use of all EXCEPT	1.666	.000	1.746	.000	1.703	.000
12	Do you think that Ventilation of the clinic is an important consideration to minimize the risk of airborne transmission of Infection?	1.628	.000	1.694	.000	1.648	.000
13	To minimize airborne transmission, the direction of airflow such as from fans should be from	1.636	.000	1.656	.000	1.737	.000
14	Wet surfaces transfer microorganisms more easily than dry surfaces?	1.675	.000	1.678	.000	1.700	.000
15	Which of the following areas &equipments needs to be cleansed after each dental procedure??	1.708	.000	1.729	.000	1.795	.000
16	According to guidelines for dental facilities with open floor plans, the distance between 2 dental chairs should be	1.630	.000	1.764	.000	1.698	.000
17	Which of the following dental task is associated with very high exposure risk level?	1.620	.000	1.620	.000	1.620	.000
S.No	**Attitude related Questions(1b)**	**Academics/private clinics***		**BDS/MDS¶**		**<4yrs/>4yrs professional experience¶¶**	
		Pearson Chi-Square	*P value*	*Pearson Chi-square*	*Pvalue*	*Pearson Chi-Square*	*P value*
1	Have you gone through any of the guidelines given by any regulatory body?	1.628	.000	1.677	.000	1.665	.000
2	Have you removed the reading materials, toys or other communal objects from patients sitting area?	1.702	.000	1.724	.000	1.762	.000

3	Do you think it is prudent for dental professional to change from personal clothing to scrubs and vice versa before entering and returning home.	1.632	.000	1.665	.000	1.667	.000
4	Do you schedule the appointments to avoid interaction between elderly and general patients?	1.654	.000	1.707	.000	1.729	.000
S.No	**Practice related Questions(1c)**	**Academics/private clinics***		**BDS/MDS¶**		**<4 yrs/>4 yrs professional experience¶¶**	
		Pearson Chi-Square	***P value***	***Pearson Chi-Square***	***P value***	***Pearson Chi-Square***	***P value***
1	Do you practice Tele-Triage?	1.642	.000	1.690	.000	1.685	.000
2	How should the preprocedural rinse be used by patient?	1.620	.000	1.629	.000	1.626	.000
3	After examining a patient with suspected or confirmed COVID-19 case, the gloves are disposed as routinely in red colored bins	1.667	.000	1.738	.000	1.713	.000
4	How often is your clinic/ operatory fumigated?	1.653	.000	1.692	.000	1.748	.000
5	Do you dry your hands after every hand wash with soap and water?	1.691	.000	1.839	.000	1.726	.000

*= Domain of association with academic institutions, the respondents were grouped as:
I- Associated with academic institutions
II- Associated with private clinics/consultant only
¶= Domain related to qualification, the respondents were grouped as:
I- BDS graduate
II- MDS which includes Pursuing MDS, MDS and MDS+Ph.D
¶¶= Domain related to professional experience, the respondents were grouped as :
I- Respondents with less than four years of experience
II- Respondents with more than four years of experience.

Table 2: The professional demographic details of the participants and the details of clinical and academic experience including OPD data for private practitioners and academicians

Variable	N(No of participants)	%
Qualification		
BDS Graduate	52	28.1
Pursuing MDS	61	33
MDS	70	37.8
MDS &Ph.D	2	1.1
MDS Discipline	133	
Oral Medicine and Radiology	35	26.3
Periodontology	17	12.8
Oral and Maxillofacial Surgery	4	3
Prosthodontics	18	13.5
Conservative dentistry and Endodontics	14	10.5
Pediatric dentistry	12	9
Public Health dentistry	15	11.3
Orthodontics	14	10.5
Oral Pathology and Microbiology	4	3
Professional affiliation		
Dental College and Hospital	82	44.3
Private dental clinic	50	27
Corporate hospital consultant	5	2.7
Dental College +Clinic/Consultation	24	13
Not practicing dentistry at present	24	13
Private clinic or consultant details	**55**	
Clinical Experience		
0-4 years	37	67.3
4-9 years	10	18.2
>9 years	8	14.5
Average Patients per day seen before COVID-19 Pandemic		
Upto 5	10	18.2

5-10	18	32.7
10-15	10	18.2
15-20	7	12.7
>20	10	18.2
Resumption of practice post lockdown	47	85.5
Average Patients per day during COVID-19 Pandemic		
0-5	30	54.5
5-10	14	25.5
10-15	4	7.3
15-20	1	1.8
>20	6	10.9
Details of association with Dental Institution	106	
Academic Experience		
0-4 years	71	67
4-9 years	21	19.8
>9 years	14	13.2
Average patients per day seen before COVID-19 Pandemic		
0-10	37	34.9
10-20	25	23.6
20-30	22	20.8
>30	22	20.8
Average patients per day during COVID-19 Pandemic		
0-5	43	40.6
5-10	27	25.5
10-15	14	13.2
15-20	14	13.2
>20	8	7.5

Table 3: Results of the graded items of the questionnaire

S.No	Item in Questionnaire	Percentage of respondents with correct response- %(N)
1.	As per the COVID-19 guidelines for dental practice in India, the dental services could be carried out in containment zones	77.8(144)
2.	What according to you is Tele-Triage?	69.7(129)
3.	The 3As of primary dental triage include all except	49.2(91)
4.	As per the guidelines, which of the following dental conditions are categorized as requiring "urgent care"?	8.6(16)
5.	Which of the following situations are NOT considered as Emergency care situations for dental treatment?	68.1(126)
6.	How should the preprocedural rinse be used by patient?	25.9(48)
7.	Which of the following components of personal protective equipment are not required in clinical care in triage area?	28.1(52)
8.	As per the guidelines for the use of personal protective equipments, the procedural areas in Dental Institutions are categorized as Level 1, Level 2 and Level 3 areas. What procedures are carried under Level 2?	55.7(103)
9.	N95 or high level respirators are required in which level of dental procedures	67(124)
10.	The techniques to reduce or minimize aerosol production includes use of all EXCEPT	58.9(109)
11.	How should the gloves be disposed off while handling COVID positive or suspected patient	30.3(56)
12.	Do you think, it is prudent to change clothes from clinic to home and vice versa	88.1(163)
13.	Do you think that Ventilation of the clinic is an important consideration to minimize the risk of airborne transmission of Infection?	91.9(170)
14.	To minimize airborne transmission, the direction of airflow such as from fans should be from	62.2(115)
15.	Wet surfaces transfer microorganisms more easily than dry surfaces?	73.5(136)
16.	Which of the following areas &equipments needs to be cleansed after each dental procedure??	57.8(107)
17.	According to guidelines for dental facilities with open floor plans, the distance between 2 dental chairs should be	63.8(118)
18.	Which of the following dental task is associated with very high exposure risk level?	83.2(154)

Nearly 83.2% of dentists were aware that the maximum exposure risk is associated with aerosol-generating procedures. Hence, steps have to be taken to minimize aerosol production. The procedures

such as ultrasonic scalers, air–water syringes and slow and high-speed hand pieces are known for generating spatter and aerosol [30]. But only 58.9% of respondents correctly identified that 3 in 1 syringe increases the aerosol production. The statistical significant results were obtained in the group of professionals associated with academic institutions and with master's qualification with an experience of more than four years.

It is imperative to fumigate the dental operatory periodically and the recommended frequency is daily in high contact areas and biweekly in low contact areas. 16.2% of respondents were not aware about the fumigation status of their operatory and 66.6% of them were associated with dental institutions and 20% were associated with private clinics. It is largely understandable that academicians are not aware of the fumigation status as it is generally practiced before the operatory is functional in the morning or after the clinical OPD is closed in the evenings. But, the private practitioners who are the owners plan for their operatory fumigation. So, there is no question of unawareness of the same except if it is a consultant who visits the clinic intermittently. This explains the 20% of private practitioner respondents who were unaware of the same.

Hence, it is seen that dental professionals have variable adherence to the guidelines prescribed by the regulatory authorities. There was considerable knowledge or attitude for some of the items, and some were also practiced with varying results. But in consensus, the knowledge, attitude, and practices were followed mainly by the professionals associated with academic institutions, probably because the dental institutions involve lot of exposure and increased risk of transmission due to increased footfall and multiple handling of larger surface areas.

The inculcation of right attitude and adherence to the practices was seen more in professionals with MDS or higher degree than a BDS graduate and the adherence to the guidelines was more seen in professionals with increased years of professional or clinical experience.

The sampling method used in this study was convenience and snowball sampling to get in touch with as many known dentists as possible. This small sample of dental professionals even though showed a nationwide distribution, but it is still not representative of the entire dental population of the nation. Thus, the study sample not be an actual representative sample of the dentists in India. Hence, the results may not be generalizable.

However, this study points to two crucial challenge areas for the regulatory authorities to look into. Firstly, even though the authorities are issuing guidelines from time to time, there needs to be a mechanism of surveillance and monitoring of adherence to these guidelines regularly.

Secondly, it is vital to conduct awareness campaigns about the specific guidelines targeting all dental professionals, including academic institutions or private practitioners.

CONCLUSION

However small, the private dental clinic may be with just one or two personnel, it is capable of transmission of the disease in the community. Therefore, there is a need to create a mechanism for surveillance and monitoring the norms being followed by private dental clinics.

This will ensure safer dental practices and reduce the risk of improper handling and disease transmission. Thus, the overall impact of the pandemic or any other similar situation on dental profession will be minimized and the sanctity and prospects of the profession will continue to flourish.

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