ISSN: 2581-5989
PubMed - National Library of Medicine - ID: 101738774

*International Journal of Dental Science and Innovative Research (IJDSIR)*

*IJDSIR : Dental Publication Service*

*Available Online at: www.ijdsir.com*

*Volume – 6, Issue – 2, April - 2023, Page No. : 353 – 362*

# Assessment of preparedness and clinical practice modifications among Indian dentists during COVID-19 pandemic - A cross sectional study.

[1]Dr. Mohd. Mohsin Ainapur, M.D.S, Assistant Professor, Department of Oral & Maxillofacial Pathology, Al-Ameen Dental College & Hospital, Vijayapur, Karnataka, India.

[2]Dr. G. Suchitra, M.D.S., Professor, Department of Oral and maxillofacial Pathology, Al-Ameen Dental College & Hospital Vijayapur, Karnataka, India.

[3]Dr. Sulabha. A. N., Professor & Head, Department of Oral Medicine & Radiology, Al-Ameen Dental College & Hospital, Vijayapur, Karnataka, India.

[4]Dr. Krishna Pradeep K N, M.D.S., Monitoring Scientist, Shiva Products, Bangalore, Karnataka, India.

**Corresponding Author:** Dr. G. Suchitra., M.D.S., Professor, Department of Oral and Maxillofacial Pathology, Al-Ameen Dental College & Hospital Vijayapur, Karnataka, India.

**Citation of this Article:** Dr. Mohd. Mohsin Ainapur, Dr. G. Suchitra, Dr. Sulabha. A. N., Dr. Krishna Pradeep K N, "Assessment of preparedness and clinical practice modifications among Indian dentists during COVID-19 pandemic - A cross sectional study", IJDSIR- April - 2023, Volume – 6, Issue - 2, P. No. 353 – 362.



**Type of Publication:** Original Research Article

**Conflicts of Interest:** Nil

## Abstract

**Background:** During the recent pandemic era, emphasis has been given on safe hygienic practices. Dentists are at higher risk of attaining infections due to proximity to patients and also dental offices pose the areas of highest risk for transmission of virus. So, modifications in clinical practices are of utmost importance.

**Aims and Objective:** Assessment of preparedness and clinical practice modifications among practicing dentists in India.

**Materials and Methods:** Web-based cross-sectional survey was conducted from 16th October 2021 to 23rd November 2021. Around 1062 dentists from all parts of India participated in the study. Structured questionnaire with elaborative questions related to demographics and practice modification towards COVID-19 was prepared and distributed online.

**Statistical analysis:** Chi square test to analyze the inter group differences was done.

**Results:** A total of 1062 dentists responded. The analysis of questions was: 77.1 % agreed to saliva being the source of transmission. Statistically significant relation ($p < 0.05$) was established with the questions on the use of Personalized Protective Equipment and anti-bio tic mouth rinse prior to procedure. Rapid Antigen test usage as chair side investigation was agreed upon by doctoral degree holders. Question on initial screening for patients had a statistically significant value ($p<0.05$)

among most of the practitioners. Infection control strategies and use of high efficiency particulate aerosol filters ($p < 0.05$) was also commonly employed. Tele-dentistry was not very much advocated among the dentists surveyed.

**Conclusion:** Although dentists are aware, adequate guidelines regarding infection control for dentists, their staff and patient care can help them in rendering services more efficiently. Also, tele-dentistry guidelines can also be an optional emergency treatment mode under such pandemic situations.

**Keywords:** COVID-19, Infection control, Practice Modi fiction.

**Introduction**

In the recent years a new pandemic has emerged, and it is still an ongoing concern. Corona viruses are a diverse group of viruses that can affect humans also. Two zoonotic origin viruses namely Severe Acute Respiratory Syn drome Corona virus (SARS-Co V) (2002) and Middle East Respiratory Syndrome Corona virus (MERS - Co V) (2012) have already caused fatal respiratory ill ness in humans. In December 2019, a new public health concern arose in the form of SARS-CoV2 known as Corona virus diseases 2019 (COVID-19). This has spread all over the world and has surpassed the previous two infections in terms of both infectivity and in the spread of epidemiological areas. [1] It was first dis covered in Wuhan, China and has spread to other parts of the world. [2] Declared as global pandemic by the World Health Organization on March 11, 2020, it has affected every part of the globe.

The virus contains single stranded RNA of size 26-32kbs in length. The subgroups are alpha (a), beta (b), gamma (c) and delta (d).[1] The mode of trans mission of this virus is- contact through infected droplets from the upper respiratory tract while sneezing, coughing, talking without covering the mouth and nose, hand to mouth to eye contact and through contaminated hard surfaces and close proximity.[3] The common signs and symptoms of this disease are fever, cough, shortness of breath, myalgia, sore throat, nausea, vomiting, diarrhea, [4] olfactory and gustatory dysfunctions.[5] Thus health care workers especially dental professionals are at higher risk due to proximity to patient's face and oral cavity during procedural tasks. Also, the aerosol generating procedures lead to consistent exposure to saliva and blood. [6, 7, 8]

Thus the concept of "infection control" has received consider able attention. There are various re commendations also, that can be employed in the regular dental practice set up. [9] Several modifications have now been added, such as upgrading with the Personalized Protective Equipment (PPE), use of N-95 masks, face protection or shield, gown, head cover and rubber boots. Routine dental care was also suspended during the active period of the pandemic to reduce transmission of infection. [10] But the ethical obligation of dentists to provide emergency services was still continued. [11] Therefore the onus rests on the practicing dentists to upgrade their knowledge and also develop practice modifications to reduce the infectivity rate. Despite all the available guidelines and information there seems to be still lot of ambiguity and lot of modifications has to be made for modern day practice. Hence this study was carried out with the following aims and objectives.

**Aims and objectives**

Assessing the clinical modifications and practice preparedness among practicing dentists in India.

**Study design**

The dentists including bachelor's degree, master's degree and doctoral degree holders participated in an online survey that included a questionnaire to evaluate their modifications in their infection control practice

since COVID-19 infection and their preparedness for future. This survey was conducted from 16th October 2021 to 23rd November 2021. Practicing dentists all over India, who had access to the internet, could provide informed consent and with knowledge of English were invited for survey.

**Exclusion criteria**

Students and interns pursuing dentistry course, persons without internet access and who could not understand English were excluded from the study.

Institutional ethical clearance was obtained. All the participants were requested to sign the informed consent to attest their willingness by answering an agree/disagree question. The anonymity of the participants was ensured and no personal identifiers like name, e-mail ID's were collected. Only one response per Internet Protocol (IP) address was allowed.

**Data sources and variables**

The questionnaire was developed by faculty members and experts in the field of dentistry, medical science, infection control and statistics. A group of selected experts was formed to add/modify the questions for better understanding. The survey link was disseminated through what's app groups and e-mail among the dentists. The questionnaire consisted of a total of 11 questions regarding their clinical practice modifications and 4 questions related to demographics.

**Demographics**

In this section their age, gender, educational qualification and zone of practice were included.

**Clinical practice questions**

This section evaluated the knowledge regarding the mode of transmission through saliva, use of infection control strategies for the clinician as well as patient and questions about potential risk of COVID-19 in future were assessed.

**Statistical methods used**

All characteristics were summarized descriptively. For continuous variables, the summary statistics of Mean and Standard Deviation (SD) were used. For categorical data, the number and percentage were used in the data summaries and diagrammatic presentation.

The difference of the means of analysis variables bet ween two independent groups was tested by chi-square test. If the p-value was $< 0.05$, then the results were considered to be statistically significant. Data were analyzed using SPSS software v.23 (IBM Statistics, Chicago, USA) and Microsoft office 2007.

**Results**

A total of 1062 responses were evaluated. Overall demographic status has been depicted in Table 1. Out of these 185 (17.5%) were less than 30 years, 602 (56.7%) dentists were of age range of 31-40 years and 264 (24.9%) were aged between 41-50 years [Table 1]. Male dentists constituted around 60% (637) and females about 40% (425). Almost equal numbers of dentists were bachelor's degree holders and Master's degree holders [BDS-504 (47.5%) and MDS-549(51.7%)]. Only around 9(0.8%) had doctoral qualification. According to geographic location, 109 (10.3%) hailed from central region, 145 (13.9%) from east side, 208 (19.6%) from west region, 361(34%) from south region and rest 239 (22.5%) were from northern parts of India. The types of questions used in the survey and the associated responses obtained have been tabulated in table 2. Out of the responses obtained, intergroup analysis of variables was done using chi square test by assessing each question with other demographic parameters such as age, sex and educational qualification status and the obtained results have been formulated in table 3. A statistically signific ant relation was obtained for question related to saliva as a potential source of transmission from dentists

with doctoral degree and dentists aged between 31 to 40 yrs ($p<0.05$) and both male and female dentists had a positive opinion regarding saliva as a source of contamination ($p=0.01$).

The second question was whether PPE kit act as a protection from transmission. A statistically significant relation was obtained from both genders ($p=0.01$) and all age range group ($p=0.02$). Dentists with the age range of above 40 years agreed that RAT (Rapid Antigen Test) could prove a useful aid in the initial screening of positive patients. [Table 3]. A statistically significant value regarding age and gender of all dentists involved was obtained when they were questioned related to initial screening for all patients [Table 3]. All dentists of all age ranges agreed to the use of antiseptic mouth rinse before any procedure ($p=0.04$) and also regarding protection for health staff the opinion of dentists has a statistically significant value ($p=0.01$).

Equipping with HEPA (high- efficiency particulate arrestor) filter was considered by dentists with all qualifications and also these filters were more commonly employed among dentists aged between 31 to 50 years [Table 3]. Infection control practice changes were also agreed upon by most dentists and also a high value was obtained with dentists above the age of 50 years [Table 3]. Emergency dental care to a positive patient was top priority among all dentists ($p<0.05$). A statistically significant relation was observed with the question regarding dealing of COVID -19 in future [Table 3]. It was also generally agreed upon that dentists are at higher potential risk of transmission than other medical groups.

**Discussion**

COVID-19 is still an ongoing infection and managing this public health concern relies on the health professionals. Thus efficient use of infection control strategy, knowledge of the current practice modifications and developing newer approach will help in combating the infection by preventing its further transmission. Saliva constitutes a major transmission route. The salivary viral load during first week of onset of symptoms has been correlated with disease severity and age of patients. [12] Reverse transcription –Polymerase Chain Reaction analysis of nasopharyngeal swabs though widely used could be unsafe for health care professionals and thus saliva may be used as a suitable alternative for diagnosis. [13] Salivary diagnosis does not require close contact and hence there is less risk of transmission of virus to health care workers.[14] But saliva can act as a potential source of transmission in dental clinical procedures. Patients can be asymptomatic while reporting to clinic. In our study we assessed this knowledge among dentists and almost all participants agreed that saliva is a potential source of infection. There was also statistically signific ant relation ($p<0.5$) among the doctoral group signifying their higher knowledge levels. Although there is no evidence of cluster outbreak of COVID-19 in dental patients and health care providers, this has to be further investigated and more data collection in this regard is necessary.

To combat this health problem adopting several measures such as wearing of Personal Protective Equipment and surgical masks / N 95 respirators and shoe covers have been advocated. [15,16] In our survey only 41 % respondents agreed that use of PPE kit would give complete protection which is in contrast with the study by Khalifa S et al that showed 72% agreement.[17] This suggests that more educational sessions/ lectures should be provided regarding infection control protocols. Rapid Antigen test (RAT test) as a chair side diagnostic test was agreed upon by only 52.1% while 34.9% were unsure of its application. Therefore, practical and work

able measures must be developed and implemented so that RATs may be a helpful adjunct to establish a safer daily routine. The advantage of RATs, apart from their low cost, is their availability and flexibility, requiring no infrastructure, their ease of handling and rapid results. But additional time requirements, the incorporation of the test results in the practice workflow, additional and trained staff, space requirements need to be addressed as well. [18]

In the present study 88.3% dentists indicated that they practiced initial screening measures such as measurement of body temperatures which is in accordance with other studies. [17,19, 20].

Around 72% of dentists agreed to the use of antiseptic mouth rinse before any procedures. Our study showed significantly higher value in this parameter than studies by Khalifa et al, [17] Ahmad et al [21] and Canetti et al. [22] This discrepancy can be attributed to the timeline of surveys wherein earlier studies were conducted during the early periods of the pandemic. Evidence have suggested that povidone-iodine (PVP-I) based mouth washes which are 1% in concentration, have demonst rated antiviral and antibacterial properties. [23] Also PVP-I based products along with 70% ethanol are strongly effective in SARS-CoV inactivation. [24] It has been observed that other commonly used chlorhexidine mouth wash (0.2%, 15ml) for period of thirty seconds leads to fall in viral loads for 2 hours after rinse followed by a rise. [25] Though these need further investigation nevertheless it may be prudential to use antibiotics mouth rinses prior to dental procedures.

Only half of dentists in our survey used extra oral suction / HEPA filters in their clinics, while only one third of dentists agreed to the use of filters in study by Khalifa S et al. [17] Since high- efficiency particulate arrestor filter, rubber dam application and high-volume evacuator can reduce spatter and aerosol productions more emphasis should be made for its regular use. About 87.3% of dentists and dentists aged more than 50years agreed that their infection control routine changed after the pandemic which is in accordance with Khalifa S et al. [17] This signifies that dentists with higher experience have greater awareness of infection control systems.

Guidice et al [26] have reported to the use of tele-dentistry to decrease the risk of COVID transmission. This response was relatively low in our study where only 28.8% were willing to do tele-dentistry while around 47.9% were unsure of this. Thus proper guidelines regarding this mode of emergency treatment need to be rendered. Around 57.8% were of the opinion that they will be dealing more COVID patients in the future and dentists being at a higher potential risk than other medical/ para medical professionals were also perceived by 83% of our respondents. Thus, need for revised education goals pertaining to proper infection control and safety both to the operating clinician and patients need to be elucidated.

**Study limitations**

short period of survey and a small number of participants. The number of questions was also limited and thus more area of coverage of the questions was not possible. The cause-effect relationship could not be studied due to the cross- sectional nature of the study. There may be sampling bias as the participants were approached by web-based platforms. Prospective studies using large representative samples and use of safety compliance during clinical practice among dentists may be further assessed.

**Conclusion**

Our study highlighted that dentists are more aware of the current pandemic situation and adequate guidelines need

to be emphasized more regarding infection control measures among dentists, their staff and patient care.

Also tele-dentistry guide lines can also be an optional emergency treatment mode under such pandemic situations.

**References**

1. Shereen MA, Khan S, Kazmi A, Bashir N, Siddique R. COVID-19 infection: Origin, trans mission, and characteristics of human coronaviruses. J Adv Res 2020; 24: 91-8.

2. Lovato A, de Filippis C, Marioni G. Upper airway symptoms in corona virus disease 2019 (COVID-19). Am J Otolaryngol 2020; 41:102474. doi: 10.1016/ j. amj o to 2020.102474

3. Machhi J, Herskovitz J, Senan AM, Dutta D, Nath B, Oleynikov MD et al, The natural history, patho bio logy, and clinical mani festations of SARS-CoV-2 infections. J Neuro immune Pharmacol 2020; 15:359-86

4. Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel corona virus in Wuhan, China. Lancet 2020; 395:497-506.

5. Mehraeen E, Behnezhad F, Salehi MA, Noori T, Harandi H, Seyed Alinaghi S. Olfactory and gustatory dysfunctions due to the coronavirus disease (COVID-19): A review of current evidence. Eur Arch Otorhino laryngol 2021; 278:307-12

6. Peng X, Xu X, Li Y, Cheng L, Zhou X, Ren B. Trans mission routes of 2019-nCoV and controls in dental practice. Int J Oral Sci 2020; 12:9.

7. Meng L, Hua F, Bian Z, Coronavirus disease 2019 (COVID-19): Emerging and future challenges for dental and oral medicine. J Dent Res 2020; 99:481-7.

8. Odeh ND, Babkair H, Abu-Hammad S, Borzangy S, Abu-Hammad A, Abu –Hammad O. COVID-19: Present and Future challenges for Dental Practice. Int J Environ Res Public Health.2020;17(9).

9. Sebastiani FR, Dym H, Kirpa Lani T. Infection Control in the Dental Office. Dent Clin North Am. 2017; 61 (2):435-57

10. Meng L, Hua F, Bian Z. Response to the Letter to the Editor: How to deal with suspended Oral Treatment during the COVID-19 Epidemic. J Dent Res, 2020: 2203 45 20920166.

11. Coulthard P. Dentistry and corona virus (COVID-19)-moral decision-making. Br Dent J.2020;228(7):503-5. PMID:32277203

12. Kapoor P, Chowdhry A, Kharbanda OP, Bablani Popli D, Gautam K, Saini V, Exploring salivary diag nostics in COVID-19: A scoping review and research suggestions. BDJ open 2021; 7:8

13. Sri Santosh T, Parmar R, Anand H, Srikanth K, Saritha M. A review of salivary diagnostics and its potential implication in detection of COVID-19. Cureus 2020;12: e7708.

14. Harikrishnan P. Saliva as a potential diagnostic specimen for COVID-19 pandemic and role of human saliva as a testing biofluid in point-of-care technology. Eur J Dent 2020;14: S123-9.

15. Amato A, Caggiano M, Moccia G, Capunzo M, De Caro F. Infection control in Dental Practice During the COVID-19 Pandemic. Int J Environ Res Public Health 2020; 17:4769

16. Say burn A. COVID-19: PHE upgrades PPE advice for all patient contacts with risk of infection. BMJ 2020; 369: m1391

17. Al-khalifa KS, AL Sheikh R, Al-Swuailem AS, Al-Khalifa MS, Al-Johani MH, Al-Moumen SA, et al. (2020) Pandemic preparedness of dentists against corona virus disease: A Saudi Arabian experience. PLoS ONE 15(8): e0237630.

18. SARS-CoV-2 and regular patient treatment – from the use of rapid antigen testing up to treatment specific precaution measures. Durner et al. Head & Face Medi cine (2021) 17:39

19. Consolo U, Bellini P, Bencivenni D, Iani C, Checchi V. Epidemio logical Aspects and Psychological Reactions to COVID-19 of Dental Practitioners in the Northern Italy Districts of Modena and Reggio Emilia. Int J Environ Res Public Health. 2020; 17(10).

20. Ahmed MA, Jouhar R, Ahmed N, Adnan S, Aftab M, Zafar MS, et al. Fear and Practice Modifications among Dentists to Combat Novel Coronavirus Disease (COVID-19) Outbreak. Int J Environ Res Public Health. 2020; 17(8)

21. Ahmed MA, Jouhar R, Ahmed N, Adnan S, Aftab M, Zafar MS, et al. Fear and Practice Modifications among Dentists to Combat Novel Coronavirus Disease (COVID-19) Outbreak. Int J Environ Res Public Health. 2020; 17(8).

22. Cagetti MG, Cairoli JL, Senna A, Campus G. COVID-19 Outbreak in North Italy: An Overview on Dentistry. A Questionnaire Survey. Int J Environ Res Public Health. 2020; 17(11).

23. Parhar HS, Tasche K, Brody RM, Weinstein GS, O'Malley BW Jr, Shanti RM, et al. Topical preparations to reduce SARS-CoV-2 aerosolization in head and neck mucosal surgery. Head Neck 2020; 42:1268-72.

24. Kariwa H, Fujii N, Takashima I. Inactivation of SARS corona virus by means of povidone-iodine, physi cal conditions and chemical reagents. Dermatology 200 6; 212 Suppl 1:119-23.

25. Yoon JG, Yoon J, Song JY, Yoon SY, Lim CS, Seong H, et al. Clinical significance of a high SARS-CoV-2 viral load in the saliva. J Korean Med Sci 2020; 35: e195.

26. Giudice A, Barone S, Muraca D, Averta F, Diodati F, Antonelli A, et al. Can Tele dentistry Improve the Monito ring of Patients during the COVID-19 Disse mination? A Descriptive Pilot Study. Int J Environ Res Public Health. 2020;17(10).

**Table Legends**

Table 1: Distribution of Cases according to Demographic Parameters.

| Demographic Parameters | No. Of cases (N=1062) | Percent |
|---|---|---|
| Age | | |
| <30 years | 185 | 17.4% |
| 31- 40 years | 602 | 56.7% |
| 41-50 years | 264 | 24.9% |
| >50 years | 11 | 1% |
| Gender | | |
| Male | 637 | 60% |
| Female | 425 | 40% |
| Educational status | | |
| BDS | 504 | 47.5% |
| MDS | 549 | 51.7% |
| Doctoral(Ph.D) | 9 | 0.8% |

| Zone of Practice | | |
|---|---|---|
| Central | 109 | 10.3% |
| East | 145 | 13.7% |
| West | 208 | 19.6% |
| South | 361 | 34% |
| North | 239 | 22.5% |

Table 2: Response of participants to the questions.

| Sn. | Questions | Yes | % | No | % | Maybe | % |
|---|---|---|---|---|---|---|---|
| 1 | Is saliva a potential source for SARS-cov2 Virus transmission? | 816 | 77.1 | 52 | 4.9 | 191 | 18 |
| 2 | Do you agree that PPE KIT would give a complete protection from confirmed /suspected COVID-19 patients? | 434 | 41 | 625 | 59 | 00 | 00 |
| 3 | Can Rapid antigen test (RAT) be used as a chairside diagnostic test in dental clinics? | 552 | 52.1 | 138 | 13 | 370 | 34.9 |
| 4 | Do you follow initial screening measures for all patients? (Recording body temperature/ sanitizing hands/ wearing mask /maintaining social distancing) | 932 | 88.3 | 124 | 11.7 | 00 | 00 |
| 5 | Do you make patients use an antiseptic mouth rinse before any procedure in your clinic? | 761 | 72 | 296 | 28 | 00 | 00 |
| 6 | Whether all the health staff members in your dental clinic wear protective clothing? | 481 | 45.5 | 576 | 54.5 | 00 | 00 |
| 7 | Does your dental clinic have an extra oral suction / HEPA filter? | 460 | 43.6 | 594 | 56.4 | 00 | 00 |
| 8 | Did your infection control routine change after the COVID-19 pandemic? | 920 | 87.3 | 134 | 12.7 | 00 | 00 |
| 9 | Will you provide emergency dental treatment to a COVID-19 positive patient? | 304 | 28.8 | 246 | 23.3 | 505 | 47.9 |
| 10 | Do you think you will be dealing with COVID-19 patients to a greater extent in your clinics in the future? | 611 | 57.8 | 157 | 14.9 | 289 | 27.3 |
| 11 | Do you perceive that dentists are at a higher potential risk than other medical / paramedical professionals | 877 | 83 | 179 | 17 | 00 | 00 |

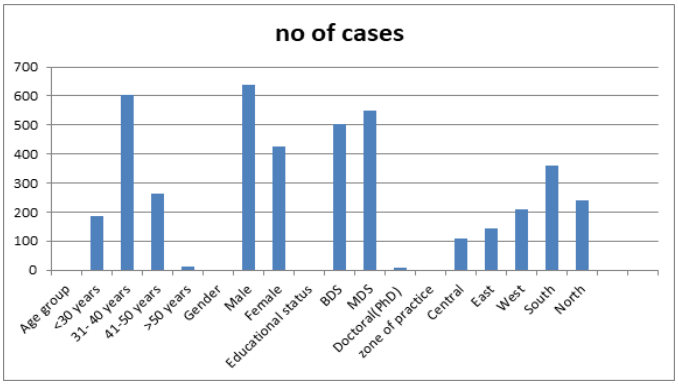
Table 3: Statistical analysis for inter-group variables.

| Sn. | Question | Variable | Total | Yes | P-value |
|---|---|---|---|---|---|
| 1 | Is saliva a potential source for SARS-cov2 virus Transmission? | Educational status | | | |
| | | BDS | 504 | 396 | 0.62 |
| | | MDS | 549 | 465 | 0.58 |
| | | Doctoral (PhD) | 10 | 8 | 0.00* |
| | | Age | | | |
| | | 31-40 years | 602 | 468 | 0.05* |

| | | | | | |
|---|---|---|---|---|---|
| | | Gender | | | |
| | | Male | 637 | 523 | 0.01* |
| | | Female | 425 | 347 | 0.01* |
| 2 | Do you agree that PPE KIT Would give a give complete Protection from Confirmed /suspected COVID-19 Patients? | Age | | | |
| | | All age group | 1062 | 434 | 0.02* |
| | | Gender | | | |
| | | Male | 637 | 258 | 0.01* |
| | | Female | 425 | 175 | 0.01* |
| 3 | Can Rapid antigen test (RAT) be used as a chairside Diagnostic test in dental Clinics? | Age | | | |
| | | 41-50 years | 264 | 137 | 0.00* |
| | | >50 years | 11 | 6 | 0.01* |
| 4 | Do you follow initial screening Measures for all patients? | Educational status | | | |
| | | BDS | 504 | 440 | 0.04* |
| | | MDS | 549 | 490 | 0.08 |
| | | Age | | | |
| | | <30 years | 185 | 160 | 0.04* |
| | | 31-40 years | 602 | 530 | 0.00* |
| | | 41-50 years | 264 | 233 | 0.00* |
| | | >50 years | 11 | 11 | 0.02* |
| | | Gender | | | |
| | | Male | 637 | 565 | 0.02* |
| | | Female | 425 | 372 | 0.02* |
| 5 | Do you make patients use an Antiseptic mouth rinse before Any procedure in your clinic? | Age | | | |
| | | All age group | 1062 | 761 | 0.04* |
| 6 | Whether all the health staff Members in your dental clinic Wear protective clothing? | Age | | | |
| | | All age group | 1062 | 481 | 0.01* |
| 7 | Does your dental clinic have an extra oral suction / HEPA Filters? | Educational status | | | |
| | | BDS | 504 | 220 | 0.00* |
| | | MDS | 549 | 241 | 0.00* |
| | | Doctoral (PhD) | 9 | 4 | 0.00* |
| | | Age | | | |
| | | 31-40 years | 602 | 260 | 0.02* |
| | | 41-50 years | 264 | 116 | 0.0) * |
| 8 | Did your infection control routine change after the COVID-19 pandemic? | Educational status | | | |
| | | BDS | 504 | 464 | 0.02* |
| | | MDS | 549 | 513 | 0.04* |
| | | Age | | | |
| | | >50 years | 11 | 9 | 0.03* |

| | | | | | |
|---|---|---|---|---|---|
| 9 | Will you provide emergency?<br>Dental treatment to a COVID-19 positive patient? | Educational status | | | |
| | | All | 1062 | 308 | 0.01* |
| | | Age | | | |
| | | All age group | 1062 | 305 | 0.01* |
| 10 | Do you think you will be Dealing with COVID-19 Patients to a greater extent in Your clinics in the future? | Educational status | | | |
| | | BDS | 504 | 290 | 0.00* |
| | | MDS | 549 | 317 | 0.00* |
| | | Age | | | |
| | | All age group | 1062 | 612 | 0.008 |
| | | Gender | | | |
| | | Both | 1062 | 613 | 0.03* |
| 11 | Do you perceive that dentist Are at a higher potential risk Than another medical / para- Medical professionals? | Educational status | | | |
| | | BDS | 504 | 414 | 0.03* |
| | | MDS | 549 | 458 | 0.02* |
| | | Doctoral (phd) | 10 | 8 | 0.04* |
| | | Age | | | |
| | | 31-40 years | 602 | 502 | 0.02* |
| | | Gender | | | |
| | | Male | 637 | 530 | 0.00* |
| | | Female | 425 | 351 | 0.01* |
| *p value <0.05 | | | | | |

Graph 1: Distribution of Cases according to Demo graphic Parameters.




Graph 2: Response of participants to the questions.