

Original Research Article

Perception of people seeking dental care during COVID-19 among adults in Madurai city: a cross sectional study

Ramalakshmi G.*, Sangeeta Chavan, Umesh K., Palanivel Pandian R.

Department of Public Health Dentistry, Best Dental Science College, Madurai, Tamil Nadu, India

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*Correspondence:

Dr. Ramalakshmi G.,

E-mail: ramalakshmimathan@gmail.com

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ABSTRACT

Background: This study aimed to assess the perception of people seeking dental care during COVID-19 pandemic, among adults in Madurai city.

Methods: It is a cross sectional questionnaire study conducted among subjects visiting outpatient department of public health dentistry, in best dental science college, Madurai city, Tamil Nadu, India. A pretested questionnaire consisting of 13 items was used to record perception of receiving dental treatment during COVID-19.

Results: The Study results showed that 60.5% people considered dental clinic visit as a risk of COVID and 16.5% of study population considered teleconsultations were effective. 60% feared of seeking dental treatment during COVID pandemic.

Conclusions: The results of the study revealed that there is an apprehension among people visiting dental clinic during pandemic, the treatments has to be made safe for dentist as well as the patients.

Keywords: COVID-19, Dental care, Perception

INTRODUCTION

A pandemic is an epidemic of an infectious disease spreading across a population in a vast area. COVID-19 (SARS-CoV-2) and HIV/AIDS are found to be a current pandemic.¹ COVID-19 actually called as a severe acute respiratory syndrome Corona virus 2 (SARS-CoV-2) is an emerging viral infection of RNA family affecting primarily the respiratory system, discovered first in 2019 of December, in Wuhan city, Hubei Province, China² with the symptoms found of fever, dry cough, fatigue, myalgia, shortness of breath, and dyspnoea that might leading to Middle East respiratory syndrome (MERS-CoV) and SARS-CoV.^{3,4} It is found to be transmitted rapidly by close contact with an infected person threatening the lives of many people throughout the world. WHO declared it as “global pandemic” while the Tamil Nadu government has been monitoring and developing measures according to WHO guidelines.⁵ Since after the first case, India has recorded total

confirmed cases of 31,025,875 and deaths of 412,563 and cured cases of 30,176,306 and in Tamil Nadu confirmed cases of 547,337, deaths of 8,871, recovered cases of 4,91,971 as of 16th July 2021.⁶ COVID-19 has created a turmoil among people related to seeking health care facility, it has also brought about changes in field of dentistry as it is and aerosol generating practice thus an attempt is made in this study how people perceived going to the dental hospital to receiving care during COVID-19 pandemic. Despite of the unprecedented measures by the government, the success in eradication of this outbreak largely depends on the public's knowledge and participation especially regarding the prevention of spread and tackling pandemics.^{7,8} By assessing the perception of public on COVID awareness, attributes that influence the adoption of healthy practices and responsive behaviour can be assessed that strengthens ongoing efforts. This study aims to assess the perception of people seeking dental care in best dental science college, Madurai.

METHODS

It is a cross sectional questionnaire study conducted among general population visiting the outpatient department of public health dentistry, in best dental science college in Madurai city in administrative headquarters of Madurai district, Tamil Nadu, India. Informed consent was obtained individually by explaining the aim and objectives of the research and the content of the questionnaire and permission was sought to conduct the research. Only those who consented to participate in the study were included. It was emphasized that strict confidentiality would be maintained at all times. Subjects aged 18 years and above were included. Intellectually challenged individuals were excluded from the study. The content and face validity of the questionnaire was checked by a panel of experts from the department of public health dentistry, best dental science college, Madurai. Ambiguous questions were reframed. A pilot was conducted to assess the internal consistency testing by using Cronbach's alpha with the value of 0.834 and the final version was designed and the main survey carried out for a period of 3 months (Nov 2020-Jan 2021). The questionnaire consisted of 13 items that with structured and self-administrative. The questionnaire was formed in English language which was then translated to local language (Tamil) by an independent bilingual translator, the questionnaire was then independently back translated (local language to original language) to ensure the accuracy of the translation. All the participants were given 10 minutes to fill the questionnaire. The participant was voluntary, and confidentially was assured.

RESULTS

The study results shows that 60.5% people considered dental clinic visit as a risk of COVID occurrence while 36.5% assumed dental visits safe during the pandemic and 3% of population had no idea.

Teleconsultations were considered effective by 16.5% of study population and very trivial percentage of study population (13%) visited the clinic after teleconsultation, but majority of the study population, 87% had walked in the dental clinic without any prior consultation. The 93% of people are identified wearing face mask along as a precautionary measure to be followed to visit dental clinic. Only 2% gave equal importance to wearing mask, washing hands and social distancing. According to the participants the mode of spread of corona virus was through person to person contact in majority of responses (47.5%) and the least response being droplet touching (2.5%). A larger portion of the study subjects considered only non-aerosol procedures like orthodontic follow ups (55%) and tooth removing (30%) as safe. While 15% considering filling and scaling as safe.

Visit to dental clinic in the recent 6 months is identified as 22.5% that includes 6.5% extraction, 16% consultation for pain and 77.5% have not visited dental clinic. Fear of dental treatment during COVID pandemic is found to be present in 60% and absent in 40% of population, the precautionary measures undertaken by individual responded with wearing mask by majority of population (56%) and answered environment sanitation by 7% population.

Table 1: Results of people seeking dental care during COVID-19 pandemic.

Questions	Responses	Percentage (%)
What are the initial symptoms of COVID-19	Cough	12.5
	Fever	55
	Throat infection	27.5
	Cough and throat infection	1
	Fever and throat infection	7
	Pain over the chest	0.5
	Nausea	0
How does the COVID spread?	Travel	25
	Through air	5
	Person-person	47.5
	Touching the droplet surfaces	2.5
	Water	8.5
	Sharing washroom	11.5
What is the best possible way that you can prevent from contracting COVID?	Wearing mask	40
	Washing hands with soap	28
	Social distancing	23.5
	Quarantine	0
	Wearing mask and washing hands	12
	Social distancing and mask	2.5
	Yoga	0
	Clean environment	0

Continued.

Questions	Responses	Percentage (%)
Does COVID-19 reoccur in a person within 3-6 months?	Yes	74.5
	No	21
	Don't know	4.5
Do you fear dental treatment during COVID pandemic	Yes	60
	No	40
Have you visited dental clinic in the recent 6 months?	Yes	22.5
	Extraction	6.5
	Consultation (pain)	16
	No	77.5
What precaution will you take if you have to visit dental clinic?	Wearing mask	56
	Washing hands	19
	Social distancing	15
	Wearing mask and washing hands and social distancing	2
	Wearing mask and washing hands	1
	Environment sanitation	7
What are the dental treatment that you think safe during COVID-19 (anyone)?	Tooth filling	8.5
	Tooth cleaning	6.5
	tooth removing	30
	Orthodontic follow ups	55
Do you think online consultation is effective?	Yes (how did you feel on online consultation)	16.5
	No (what are the reason)	83.5
	Not effective	55
	Operating difficulties	28.5
Whether did you visit consult online before visiting dental clinic?	Yes	13
	No	87
Do you think dentist/dental clinic could be the reason for spread of COVID?	Yes	60.5
	No	36.5
	Don't know	3
Did you feel essential to go for COVID test before dental treatment?	Yes	83.5
	No	12
	Don't know	4.5
Have you been asked to take a COVID test?	Yes	73.5
	No	26.5
	Don't know	0

Regarding symptoms of corona virus majority of the study subjects (55%) consider fever as a major symptom followed by throat infection (27%) and cough (12.5%) of the covid-19 infection. Among the study population 74.5% agreed with the statement that COVID-19 would recur within 3-6 months.

DISCUSSION

COVID-19 is an infectious disease caused by corona virus, a pandemic that hit the world in 2019 and spread across other countries and in INDIA the first wave took full swing from January 2020. The current study was conducted to understand about dental patient's perception regarding seeking dental treatment during the pandemic.

Chinese centre for disease control and prevention have reported that 80% of COVID-19 cases were presented with mild symptoms and Lovato et al stated that cough and fever are the most frequent complaint which was perceived by majority of the subjects in current.

Considering upper respiratory symptoms includes sore throat that was reported in 5%, 11%, or 17.4% of COVID-19 patients.⁹ The results of the current study show that 80.4% believe the transmission of COVID was through air, droplet and during contact with other person which is in line with the WHO protocol, suggesting that people were aware about COVID-19 symptoms and transmission. The results of the current study revealed that the study participants measured visit to dental clinic as a potential area to contact infection owing to physical contact with the patient during procedures or consultation, saliva and blood exposure, frequent aerosol production during procedures employing ultrasonic and piezoelectric devices. While considering less dangerous procedures as fracture reduction or dental impression were recognized, the results of current study were 55% of the study subject considers non aerosol generating procedures like extraction and orthodontic follow up considered being safe dental procedure during pandemic. Teleconsultation and tele screening have also been suggested in the 'Guidelines for dental professionals in COVID-19 pandemic situation' issued by the ministry of

health and family welfare, government of India.¹⁰ During the pandemic prior teleconsultation for oral ailments was preferred as majority of the dental clinic/hospitals opted for emergency treatment to prevent the spread of infection. The study by Naomi Rahman in evaluation of patient experience towards tele dentistry during COVID-19 pandemic 94% population experienced satisfaction by the use of tele dentistry. However, the information was not perceived by the current study subjects, as 55% of people felt teleconsultation is not effective and 28.5% of subjects experienced operating difficulties, it might be due to this reason that majority of the study subject 87%, visited the dental hospital without prior tele consultancy. The study population reflected that the COVID test is essential before the dental treatment. During pandemic it is found that fear and stigmatization were noticeable, which could increase the reluctance of people to visit public areas, including dental clinic. It was also observed in current study 60.5% of participants feared that they might be infected with COVID if they visit dental clinic/dentist.

Guan et al identified pharyngodynia in 13.9% and nasal congestion in 4.8% of COVID-19 patients.¹¹ Proper and frequent handwashing is a critical component in controlling the spread of infections in individual level. It is advised to wash hands for at least 20 seconds with soap and hot water frequently, using alcohol-based hand sanitizer.¹² Furthermore, social distancing is the best way to avoid the transmission from the infected person as it is difficult to identify who is infected and who is not.^{13,14} Protective facemask wearing have played a major role in prevention of spread of infection during previous pandemics. It has been vital for health workers and even recommended for community people, that could be more effective when social distancing could not be maintained.¹⁵ The prevalence of face mask usage in the community has risen as COVID-19 spread globally.^{14,16} In accordance with our study it was shown that 91% population recognized the precautionary measures of face mask, social distancing and washing hands to wave-off COVID-19.

Faye et al have described a case of probable COVID-19 recurrence having clinical and radiological worsening symptoms, absence of neutralizing antibody in the blood, positive cell culture during the second episode.¹⁷ Wang et al have done epidemiological, clinical, serological (IgG seroconversion), and genomic analyses which had confirmed the re-infection by a different strain of SARS-CoV-2.¹⁸ And also it is concluded that the re-politicization may be a false-negative laboratory result or prolonged viral shedding.¹⁹ In our study results shows that knowledge about there occurrence of COVID infection after 6 months of recovery were 74.5% positively responded.

South Korea has notably reduced the death rate by the availability of rapid tests and prevention of transmission of COVID 19 in dentistry.²⁰ In our study shows that the

83.5% of population sensed essential to go for COVID test before dental treatment

CONCLUSION

From the results of present study, it is known that perception of dental care during COVID-19 were satisfactory and precautionary measures were undertaken by the population, yet there exist a lack of efficient practice, which should be improved by health education, here the oral health care professional was also considered to play a major role.

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