



## COVID 19 AND DENTAL TREATMENT: CHALLENGES FACED DURING PANDEMIC

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### ABSTRACT

**Aims and objectives:** This study aims to access the knowledge, attitude and challenges faced by adult population towards covid-19 and dental treatment and to access availability of dental treatment and patient's satisfaction during the pandemic (covid-19).

**Methodology:** An online survey was conducted among 340 adult population of different residual background using a simple 12-point questionnaire, statistical analysis, descriptive analysis, chi square goodness of fit test, chi square test. The level of significance [P - value] was set at  $P < 0.005$ .

**Conclusion:** Infection control and prevention of disease transmission have always been an integral part of dentistry. But the current scenario asks for a more rigorous, mandatory, and effective implementation of the same. Public awareness is to be improved regarding risk of cross infection that can be associated with dental treatment and public should be motivated to use virtual facilities like teledentistry so that no dental emergencies is left untreated, at the same time avoiding any sort of unnecessary hospital visit during the pandemic time. Both dental personnel and patients should adopt themselves to the new normal.

**KEYWORDS :** Covid-19, Dental treatment, Teledentistry.

### INTRODUCTION

Corona virus disease 2019 (SARS-CoV-2) has created radical changes in dentistry during the lockdown, the way in which dental services is provided has been modified, and new challenges awaits in the dental treatment.

The practice of dentistry has always exposed dental health professionals to infectious disease agents due to the proximity to the patient's mouth and the use of aerosol-generating procedures and this current scenario has created panic in the minds of oral health care personnel and those who are seeking oral treatment as to, whether to continue the practice and seek oral treatment by overcoming the challenges or to remain benign until the world restores to normalcy.

### MATERIAL AND METHODS:

An online survey was conducted among 340 adult population of different residual background using a simple 12-point questionnaire.

### STATISTICAL ANALYSIS:

Statistical Package for Social Sciences [SPSS] for Windows, Version 22.0. Released in 2013. Armonk, NY: IBM Corp., was used to perform statistical analyses.

### Descriptive Statistics:

Descriptive analysis includes expression of responses to the study questionnaire in terms of frequency and proportions.

### INFERENTIAL STATISTICS:

Chi Square Goodness of fit test was used to compare the difference in the distribution of responses to the questionnaire among study participants.

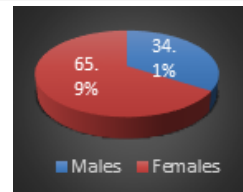
Chi Square Test was used to compare the responses for the study questionnaire based on the residence of living among participants.

The level of significance [P-Value] was set at  $P < 0.05$  and it is used to assess the availability, accessibility and various challenges faced by the people seeking oral treatment and also their knowledge and attitude towards teledentistry.

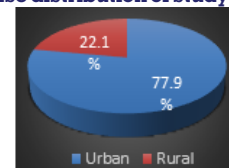
### RESULTS/ DISCUSSION

**Table 1: Distribution of study participants based on Gender, Occupation and Place of residence**

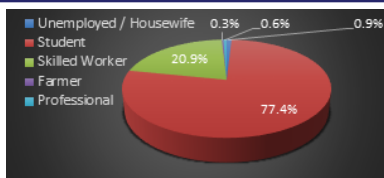
Variable	Category	n	%
Gender	Males	116	34.1%
	Females	224	65.9%
Occupation	Unemployed / Housewife	3	0.9%
	Student	263	77.4%
	Skilled Worker	71	20.9%
	Farmer	1	0.3%
	Professional	2	0.6%
Place of residence	Urban	265	77.9%
	Rural	75	22.1%



**Figure 1: Gender wise distribution of study Participants**

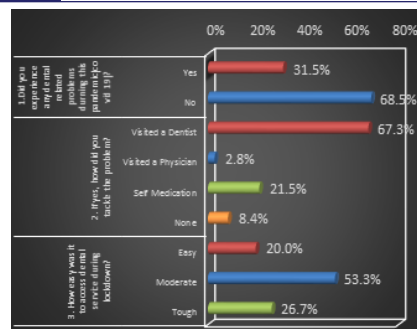


**Figure 2: Distribution of place of residence among study participants**



**Figure 3: Distribution of Occupation levels among study participants**

There were about 340 participants, 65.9% females and 34.1% males, involved in the present study. 77.4% of them are students 21.8% are employees and .0.9% of them are unemployed or housewife. About 77.9% came from urban background and 22.1% belong to rural background.



**Figure 4: Responses for questions no. 1-3 among study participants**

**Table 2: Comparison of distribution of responses for study questionnaire using Chi Square Goodness of Fit Test**

Variable	Category	n	%	$\chi^2$ Value	P-Value
1. Did you experience any dental related problems during this pandemic (covid 19)?	Yes	107	31.5%	46.694	<0.001 *
	No	233	68.5%		
2. If yes, how did you tackle the problem?	Visited a Dentist	72	67.3%	109.935	<0.001 *
	Visited a Physician	3	2.8%		
	Self-Medication	23	21.5%		
	None	9	8.4%		
3. How easy was it to access dental service during lockdown?	Easy	21	20.0%	19.600	<0.001 *
	Moderate	56	53.3%		
	Tough	28	26.7%		
4. Did you feel anxious about getting infected to covid 19 during or after the dental treatment?	Wasn't Anxious	45	42.9%	31.943	<0.001 *
	Mild Anxiety	52	49.5%		
	Panic Level Anxiety	8	7.6%		
5. Was your dentist well equipped and following all the necessary protocols of covid 19?	Yes	81	78.6%	97.243	<0.001 *
	No	5	4.9%		
	Maybe	17	16.5%		
6. Did you experience a rise in the treatment cost post covid?	Yes	42	41.2%	6.588	0.04 *
	No	38	37.3%		
	Maybe	22	21.6%		
7. Was there any interruption / delay in the ongoing dental treatment because of lockdown?	Yes	70	67.3%	12.462	<0.001 *
	No	34	32.7%		
8. Are you aware of the fact that dental personnel are potentially at a higher risk for covid-19 infection?	Yes	272	80.0%	122.400	<0.001 *
	No	68	20.0%		
9. How safe do you feel visiting a dentist during this pandemic (covid-19)?	Safe	100	29.4%	29.194	<0.001 *
	Unsafe	81	23.8%		
10. Are you aware of the concept of tele dentistry?	Yes	158	46.5%	42.288	<0.001 *
	No	121	35.6%		
	Not Sure	61	17.9%		
11. Do you think tele dentistry is beneficiary to patients during these tough times?	Yes	168	49.4%	114.112	<0.001 *
	No	21	6.2%		
	Not Sure	151	44.4%		
12. Have you ever considered tele dentistry as a mode of treatment in the pandemic (covid -19)	Yes	104	30.6%	1.153	0.57
	No	118	34.7%		
	Not Sure	118	34.7%		

\* - Statistically Significant

About 68.5% of the participants did not experience any dental related problems during this pandemic(covid-19), 31.5% of them experienced dental related problems among which, 67.3% of them visited dentist, 21.5% of them opted self-medication, 8.4% of them choose to do nothing about the problem and 2.8 % of them visited a physician.

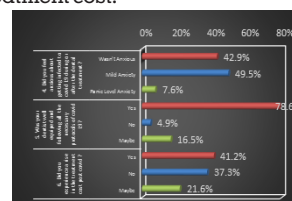
53.3% people had moderate accessibility to dental services, 26.7% people had tough and 20% people experienced easy accessibility to dental treatment during lockdown.

49.5% of the participants experienced mild anxiety, 42.9% of them did not experience any kind of anxiety and 7.6% of them experienced panic level anxiety about getting infected to covid-19 during or after dental treatment.

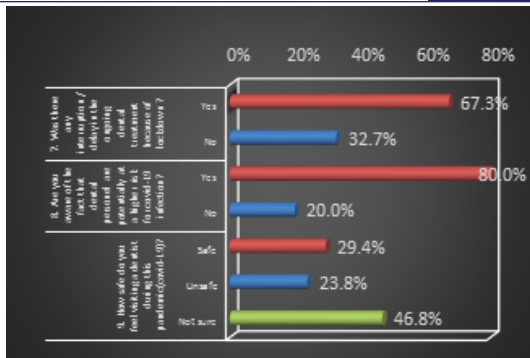
Among the participants who underwent dental treatment

78.6% of them reported that the dentist was well equipped and followed all the necessary protocols of covid-19, 16.5% of them are not properly 4.9% of them reported that their dentist did not follow the protocols properly.

About 41.2% have experienced raise in the treatment cost post covid-19, 37.3% of them have not experienced any raise in the treatment cost post covid-19, and 21.6% couldn't make out the variation in treatment cost.



**Figure 5: Responses for questions no. 4-6 among study participants.**

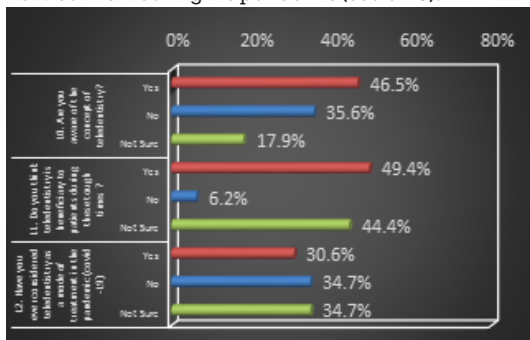


**Figure 6: Responses for questions no. 7-9 among study participants.**

About 67.3% of the participants had an interruption or delay in their on-going dental treatment due to lockdown whereas 32.7% of them did not experience any difference.

Among the participants 80% of them were aware of the fact that dental personnel are potentially at a higher risk for covid-19 infection whereas 20% of participants had no idea about it.

About 46.8% of the participants were not sure about the safety on visiting a dentist during the pandemic (covid-19), 29.4% of them felt safe visiting a dentist, 23.8% felt unsafe about getting dental treatment during the pandemic (covid-19).

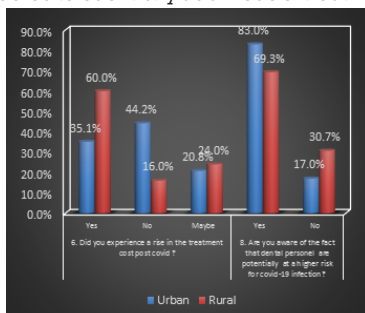


**Figure 7: Responses for questions no. 10-12 among study participants.**

Regarding the knowledge about teledentistry, about 46.5% of them were found to be aware of it, 35.6% of them were found to be not aware of it and 17.9% of them were not sure about it.

About 49.4% of the participants thinks teledentistry is beneficiary to the patients during these tough times, 44.4% of them are not sure about it and 6.2% of them think teledentistry is not that beneficiary.

About 34.7% of the participants did not consider teledentistry as a mode of treatment In the pandemic (covid-19), 30.6% of them considered teledentistry as a mode of treatment.



**Figure 8: Significant difference in the Responses for questions no. 6 & 8 based on the residence of living among study participants.**

Based on residence of living among the study participants About 60% of urban and 35.1% of rural residents have experienced raise in the treatment cost post covid, 44.2% of urban and 16.0% of rural residents have not experienced any raise in the treatment cost post covid, and 24.8% rural and 20.8% urban residents couldn't make out the variation in treatment cost.

Among the participants 83.0% of urban and 69.3% of rural residents were aware of the fact that dental personnel are potentially at a higher risk for Covid-19 infection whereas, 30.7% rural and 17.0% urban residents had no idea about it.

## CONCLUSION:

Infection control and prevention of disease transmission have always been an integral part of dentistry. But the current scenario asks for a more rigorous, mandatory and effective implementation of the same.

Public awareness is to be improved regarding risk of cross infection that can be associated with dental treatment and public should be motivated to use virtual facilities like teledentistry so that no dental emergencies is left untreated, at the same time avoiding any sort of unnecessary hospital visit during the pandemic time. Both dental personnel and patients should adopt themselves to the new normal.

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Nil.

## Conflicts Of Interest:

There are no conflicts of interest

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