

Psychological barriers among dental patients during the COVID-19 crisis

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Objective: To evaluate the psychological fear (anxiety) of dental patients while visiting a dentist in the period of the present coronavirus disease (COVID-19) pandemic.

Methodology: This online cross-sectional survey used a self-administered questionnaire to analyze the anxiety, knowledge, and perception of 461 dental patients. A $p < 0.05$ was considered significant.

Results: Data from 461 participants revealed significant differences among genders ($X^2 = 14.944$, $p < 0.001$), age ($X^2 = 142.915$, $p < 0.001$), and between the educational levels of the participants ($X^2 = 410.399$, $p < 0.001$). We found

that 63.6% patients were afraid of visiting dentists due to the fear of COVID-19, and 66.2% patients thought that they will get the disease from the dentist or dental office. We observed that females were found to be more anxious than men ($p < 0.05$).

Conclusion: There was high anxiety among the patients to visit dentists because of the current pandemic. Anxiety regarding COVID-19 is prevalent in the society that may lead to a monetary crisis for dentists. (Rawal Med J 2021;46:7-10).

Keywords: Psychological barriers, dentists, covid-19.

INTRODUCTION

In December 2019, there was an outbreak of pneumonia cases in Wuhan, China. A novel coronavirus later named COVID-19 was identified.¹⁻³ World Health Organization (WHO) professed the ailment as a Public Health Emergency of International Concern (PHEIC).⁴ Due to COVID-19 all fields of life have been affected and there developed fear and anxiety due to the contagious nature of coronavirus.^{5,6}

Many dental associations in different countries have stopped elective dental procedures, and in a few countries, dental clinics and teaching hospitals are close.^{7,8} Not only dental clinics but the dental schools, dental teaching hospitals, and universities as well, were closed for months.^{9,10} It has always been challenging for the staff of dental setup to maintain cross-infection control and, especially when performing selected dental procedures that produce aerosols. Due to the nature of dental care surroundings, the hazard of cross-infection is elevated in patients, dentists, and their coworkers.^{11,12} The airborne disease-causing microorganisms can spread in the dental setup and

can be inhaled by the dental personnel, because they can remain in the air for elongated periods.¹³

METHODOLOGY

It was an online survey conducted in May 2020, during the period of strict lockdown. Rao soft was used to determine the sample size. Assuming a 50% response rate, with a 5% margin of error, 95% confidence interval (CI) our calculated sample size was 384. Participants of the current study were the patients who had visited dentists for dental treatment in the last five years. And those who visited dentists for consultations only, were excluded. Non-probability, convenience sampling technique was used.

Dentists practicing in different cities of Pakistan were approached by the researchers through their personal contacts and social media and requested to share an online link of the questionnaire with their patients through Whatsapp or email address. The knowledge section had questions about the symptoms and treatment options of COVID-19.

Statistical Analysis: Statistical analysis was performed using SPSS version 21. Independent

sample t-test was performed to assess any difference in mean anxiety score among gender, and differences in mean anxiety scores among different age groups. Educational levels were assessed by one-way ANOVA. A $p < 0.05$ was considered significant.

RESULTS

A total of 488 patients filled the forms, 27 forms were excluded for not being appropriately filled or duplication; finally, the data of 461 patients was analyzed. Out of 461, 272 (59%) were males and 189 (41%) were female. Patients were divided into 5 age groups. In the age group of 31-40 years, we found the maximum number of patients ($n=168$). Based on education, the highest number ($n=202$) participants had a bachelors level of education. Fever came out to be the most common symptom, 91.23% participants mentioned that the ideal treatment for COVID 19 is quarantine and the most common source of information for them was social media (Table 1).

Table 1. Knowledge about the symptoms, treatment and source of information.

High-grade Fever	409 (88.72%)
Dry cough	386 (83.73%)
Shortness of breath	391 (84.81%)
Sore Throat	259 (56.15%)
Headache	163 (35.35%)
Joint/muscle ache	147 (31.88%)
Wet Cough	35 (7.59%)
Red Eyes	46 (9.32%)
Diarrhea	103 (22.34%)
Runny Nose	137 (28.41%)
Treatment of COVID-19	
Quarantine	419 (91.23%)
Supportive treatment	162 (35.28%)
Vaccine	25 (5.01%)
No Treatment	88 (19.41%)
Others	20 (6.0%)
Source of Information COVID-19	
Social Media	372 (80.7%)
Friends and Colleagues	173 (37.5%)
TV/ Radio	271 (58.8%)
Research Article	136 (29.5%)

Table 2. Comparisons between genders on anxiety.

Anxiety Items	Mean Score \pm SD		T-Scores	p-value
	Males (n=272)	Females (n=189)		
Due to COVID 19 are you afraid to visit your Dentist?	0.577 \pm 0.494	0.719 \pm 0.450	-3.205	0.001
Are you afraid of getting COVID from your dentist or the dental clinic?	0.621 \pm 0.485	0.719 \pm 0.450	-2.230	0.026
Total Score	1.198 \pm0.92	1.439 \pm0.82	-2.870	0.004

Table 3. Anxiety in case of a family member is infected.

	Mean Anxiety Score \pm SD		T-Scores	p-value
Any One Infected with a Coronavirus?	Yes	1.5025 \pm 0.81317	4.501	<0.001
	No	1.1385 \pm 0.919		

Table 4. Perception and attitude of the dental patients.

Questions	Option	N (%)	X ²	p-Value
Are you ready to pay an extra fee to your dentist to cover his expenses due to COVID 19?	Yes	251 (54.44%)	3.646	0.056
	No	210 (45.55%)		
Other than emergency will you go to dentists for routine dental procedures like scaling, filing etc during this pandemic?	Yes	102 (22.12%)	143.273	<0.001
	No	359 (77.87%)		
Will you ask or check if your dentist is following the protocol to protect himself and his patients from COVID 19?	Yes	412 (89.37%)	285.833	<0.001
	No	49 (10.62%)		
Dental clinics should be opened during this pandemic?	Yes	163 (35.35%)	39.534	<0.001
	No	298 (64.65%)		

We found that 293 (63.6%) patients were afraid of visiting dentists due to the fear of COVID-19, and

305 (66.2%) patients thought that they will get the disease from the dentist or dental office (Table 2). Males had a lower mean score of ($M=1.198 \pm 0.923$) as compared to females ($M=1.439 \pm 0.826$). As per independent t-test, we found a significant t value ($t_{(430.740)} = -2.870$, CI: -0.402- -0.079, $p < 0.05$). Patients who had a COVID-19 positive case in their family showed significantly higher scores of anxiety (Table 3). Mean score of the participant having an infected individual in their family ($M=1.5025 \pm 0.81317$) versus participants having no infected individual ($M=1.1385 \pm 0.919$). As per independent t-test, we found a significant t value ($t_{(450.739)} = 4.501$, 95% CI: 0.205-0.522, $p < 0.001$). More than half of the patients were ready to pay an extra fee and enquired if the dentists are following the standard operating protocols for COVID-19 prevention (Table 4).

DISCUSSION

Our study demonstrated that the main psychological barrier of the patients to visit the dental office was the fear of getting infected either from the surroundings or from the dental professional. Similar findings have been reported in a study from Brazil.¹⁴ The chances of the spread of infection from the hand-piece, ultrasonic scalars, triple syringe, and other aerosol-generating procedures have been reported along with the possibility of transmission of infection to the patient or dentist.¹⁵

We found that females were more anxious than males. A study from India stated that most of the educated persons and health professionals are conscious of this contagion.¹³ Another study reported that relatives of COVID-19 positive patients suffer from high levels of anxiety symptoms and related pandemic worries.¹⁶

In our study, we found that the majority of the participants had sufficient knowledge about the symptoms and treatment. In our opinion, it is because of the awareness campaigns run by the government on a mass scale. These findings are in accordance with the findings of other recent studies from Pakistan.^{17,18} The role of social media in the spread of information has been emphasized previously in general population as well as on health care professionals.¹⁹ Financial crises are one of the leading causes of

people not visiting the dentist. In a report, it is indicated that the patient flow has dropped to 5% of the normal.²⁰ We found that more than 77% patients were not willing to visit the dentist during the pandemic that may create financial instability for the dentists. We further found that 89% of the participants showed their interest in checking whether the dentists were following the protocols or not and whether the dental office is equipped with necessary equipment and tools. This has been reported by another study from Pakistan.²¹

There is a need to strengthen awareness programs and discourse on the mental health concerns of people through this COVID-19 pandemic.²² The fear among the dentists reported being quite high among other health care professionals.¹² The current research is restricted to the participants (patients) who had smartphones and e-mail addresses. The results may not be generalized on the entire population.

CONCLUSION

We found high anxiety among the patients to visit dentists because of the current pandemic. Patients are afraid of getting the infection from dental setups.

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