

The Knowledge and Attitudes of Dental Patients towards COVID-19 during the Pandemic: A Short Survey

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ABSTRACT

Aim: The aim of this study was to evaluate the knowledge attitudes and practice (KAP) of dental patients towards COVID-19 during the pandemic.

Materials and Methods: A structured questionnaire containing 12 questions was used, and each question had 2 or 3 possible answers. The patients aged 18 and above years who visited the dental department of our hospital were eligible to participate in this study. A total of 260 patients were participated to fill a questionnaire.

Results: 79.1% of patients pay attention to covid 19 and are aware of the global pandemic and its impact. 86% of the selected population prefers to consult a doctor over a phone call rather than opting for self-medication. Therefore 82.2% of the subjects favored tele-dentistry as an ideal option of communication or prescription of medication. Unfortunately, 56.2% of the selected subjects were unaware and unequipped with key details and extensive knowledge of COVID-19 and preventive protective measures to control its spread. Significant results (p-value- .043) were well aware and attentive subjects have a positive attitude towards dental treatment during the COVID-19.

Conclusion: The results of this study conducted indicated that the dental patients who had filled the questionnaire had acceptable knowledge of coronavirus and COVID-19.

KEY WORDS

novel coronavirus, COVID-19, precautions

INTRODUCTION

COVID-19 is a highly contagious disease caused by the SARS-CoV-2 virus. It was first identified in the city of Wuhan, in China's Hubei province in December 2019¹⁾. On March 11, 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a pandemic²⁾.

COVID-19 is currently a global health threat and an international public health emergency. The pandemic is now reported to have spread to almost all countries of the world raising great public health concern globally and since the start of the outbreak, the global pandemic has surpassed 97.8 million cases worldwide with more than two million deaths to January 21, 2021. Among the total of more than 220 countries and territories affected by the pandemic, the highest rates of infection and death have been recorded in the USA, India, and Brazil³⁻⁶⁾.

Currently, covid -19 has changed the lifestyle of all human beings around the world. CDC has advised the public to maintain social distancing, wear a face mask, avoid gatherings, and practice hand hygiene through frequent washing or sanitization. People have received a large volume of information about covid 19 through social media that could lead to confusion. It is important to know if there are any misconceptions so that dental professionals can help improve hospital measures as well as patient education. Thus, the present study aimed to evaluate the

knowledge and attitudes toward COVID-19 among patients visiting the dental hospital.

MATERIALS AND METHODS

This study was conducted at Krishnadevaraya College of dental science and hospital Bangalore India from Jan 2021 to March 2021. A total of 260 patients were included in this study to fill the questionnaire. The patients aged 18 and above years who visited our hospital were eligible to participate in this study. A structured questionnaire containing 2 or 3 possible answers was used in this study.

The questionnaire consisted of 12 questions aptly limited to the assessment of an understanding and knowledge of pandemic and dentistry among the patients visiting our department. First, a few questions were directed towards the patient's sociodemographic information. The next couple of questions were directed towards the patient's awareness, about the dental treatment and higher risk involved in contracting the infection, compared to general public places like public transport or mass gatherings. The next question was intended to discover more detailed information on the spread of covid infection during dental treatment (droplets, blood, or apparatus). Another couple of questions were open-ended, ascertaining the awareness of the severity of dental emer-

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Table 1: Distribution of subjects according to pay attention to Covid-19 and who are not visiting for dental treatment

Distribution of subjects according to who pay attention to Covid-19		
Attention	Frequency (n)	Percentages (%)
Always	204	79.1
Occasionally	39	15.1
Never	15	5.8
Total	258	100.0

Subjects who are not visiting for dental treatment during dental problem and instead		
	Frequency (n)	Percentages (%)
Self medication	36	14.0
Consult doctor on phone	222	86.0
Total	258	100.0

Table 3: Association/difference between gender, age, qualification and knowledge among subjects

Association/difference between gender and knowledge among subjects					
Gender	Knowledge		Total	X ²	p
	Present	Absent			
Male	152	199	351	.064	801
Female	187	236	423		
Total	339	435	774		

Association/difference between age and knowledge among subjects					
Age	Knowledge		Total	X ²	p
	Present	Absent			
18 – 35	205	244	449	1.653	.438
36 – 55	97	142	239		
> 55	37	49	86		
Total	339	435	774		

Association/difference between qualification and knowledge among subjects					
Qualification	Knowledge		Total	X ²	p
	Present	Absent			
Junior	77	77	154	5.852	.119
Undergraduate	170	209	379		
Doctor	69	108	177		
School	23	41	64		
Total	339	435	774		

gencies and patients fears while visiting the dental clinic during a global pandemic. The next set of questions addressed to patient's relief and confidence upon the use of protective measures by the clinician and mandatorily undergoing covid testing before any dental treatment. All questions were designed to assess patients knowledge regarding cross-infection control during the COVID-19 pandemic in the dental department.

Statistical analysis was performed after entering data in SPSS version 25. Descriptive statistics were used to obtain the frequency, percentage of independent, and dependent variables. An independent t-test was used to evaluate the difference in patients knowledge, attitude, and practice with gender and education status, while spearman correlation was used to identify any relationship between knowledge and practice levels of participants. A p-value of ≤ 0.05 was considered statistically significant.

RESULTS

In our study, the majority of participants were females 54.7% (141)

Table 2: Distribution of subjects according to knowledge of Tele-dentistry, awareness and attitude about covid-19

Distribution of subjects who think whether Tele-dentistry is good option or not		
Tele-dentistry	Frequency (n)	Percentages (%)
Yes	212	82.2
No	46	17.8
Total	258	100.0

Distribution of subjects according to knowledge/awareness about covid-19		
Knowledge	Frequency (n)	Percentages (%)
Present	339	43.8
Absent	435	56.2
Total	258	100.0

Distribution of subjects according to attitude about covid-19		
Attitude	Frequency (n)	Percentages (%)
Positive	689	89.0
Negative	85	11.0
Total	258	100.0

compared to males 45.3% (117). The distribution of subjects was maximum in the age range of 18-35 years (53.1%) and least above 55 years. Almost half of the subjects 48.4% were undergraduates.

79.1% of patients pay attention to covid 19 and are aware of the global pandemic and its impact. 86% of the selected population prefers to consult a doctor over a phone call rather than opting for self-medication. Therefore 82.2% of the subjects favored teledentistry as an ideal option of communication or prescription of medication. 56.2% of the selected subjects were unaware and unequipped with key details and extensive knowledge of COVID-19 and preventive protective measures to control its spread. 89% among the selected group has a positive and unafraid attitude towards obtaining the dental treatment during COVID-19 if proper preventative protective measures are conformed to. No significant association was obtained while assessing the knowledge among the different gender groups. Similarly, no significant results were obtained in declaring the higher awareness or knowledge among the younger age groups. Qualified groups and younger age groups (18-35) are superior or positive in their perception, attitude, and awareness about the global pandemic. Significant results (p-value- .043) were obtained in ascertaining a key point, well aware and attentive subjects have a positive attitude towards dental treatment during the covid -19 pandemic.

DISCUSSION

This study was conducted during the global COVID-19 pandemic peak in India commonly known as the first wave. This study aims at the provision of data and guidance to health sector organizations, seeking to promote prevention strategies for this disease.

Based on our findings, the KAP towards COVID-19 score was significantly higher among people with higher education. The high correct answer rate regarding knowledge about COVID-19 among the subjects is attributed partly to their constant exposure to the information provided by the media and the government about the global pandemic, virus, and its impact about the virus since the start of the outbreak. A significant positive correlation between the level of education and knowledge regarding COVID-19 exists, and the results are similar to the previous studies. In addition to the previously stated reasons, this study showed that a higher knowledge score regarding COVID-19 was markedly associated with a higher likelihood of having a positive attitude and good practice at the time of the COVID-19 pandemic.

Dental professionals are considered to be at the highest risk during the covid outbreak and knowledge and apprehension of the patients visiting dental clinics during the ongoing pandemic needs to be assessed. This study aims towards formal delineation of patients' knowledge and attitude towards dentistry during this pandemic. Various studies have been conducted in the past on the knowledge and attitude of dental patients concerning the contagious infections that spread through aerosols, microdroplets, and instruments sharing⁷⁾, including severe acute

Table 4: Association/difference between gender, age, qualification and attitude among subjects

Association/difference between gender and attitude among subjects					
Gender	Attitude		Total	X ²	p
	Positive	Negative			
Male	310	41	351	.321	.571
Female	379	44	423		
Total	689	85	774		
Association/difference between age and attitude among subjects					
Age	Attitude		Total	X ²	p
	Positive	Negative			
18 – 35	394	55	449	3.273	.195
36 – 55	220	19	239		
> 55	75	11	86		
Total	689	85	774		
Association/difference between qualification and attitude among subjects					
Qualification	Attitude		Total	X ²	p
	Positive	Negative			
Junior	141	13	154	5.776	.123
Undergraduate	341	38	379		
Doctor	149	28	177		
School	58	6	64		
Total	689	85	774		

respiratory syndrome⁹) and the Middle East respiratory syndrome⁹. These studies documented patients' concerns, knowledge, and apprehension regarding the dental treatment and fear of contracting the disease. In view of the provision of continuous quality dental care, various measures must be taken to ensure the safety of the patients and vigilant practice of infection control.

Measures followed at our practice included a relatively thermal screening of dental patients and clinicians. Temperatures recorded higher than normal temperature, were sent back and reported to the local authorities followed by instructions to practice quarantine for the next 14 days. Dental patients were instructed to fill a detailed case history questionnaire relevant to Covid symptoms and travel history. These norms helped us in limiting the exposure to the healthy community.

Most subjects responded in favor of the use of preventative protective protocols to prevent cross-infection at the dental clinics. With the advent of this virus, it is indispensable that universal sterilization protocol is obeyed rigidly. Use of PPE, optimal sterilization of instruments, disinfection of the entire clinics or chairs after every patient, proper disposal of waste, and the use of high volume suction to control the spread of aerosols form a crucial limb of Covid-19 control in dentistry⁷.

It was encouraging to note that the patients found it appropriate to inquire the dental health professionals regarding their cross-infection control practices. This elucidates that dental patients are conscious regarding the potential for getting infected with certain diseases including the coronavirus through inappropriate cross-infection control during dental procedures⁸). National guidelines promote the practice of social distancing and less social gathering which are prudent to practice at a dental hospital. The dental council of India has taken an effort to divide dental care into emergencies and non-emergencies. Emergent care must be administered with paramount care, hence reducing the number of patient assemblies at dental clinics^{9,10}.

86% of the selected population prefers to consult a doctor over a phone call rather than opting for self-medication. Therefore 82.2% of the subjects favored teledentistry as an ideal option of communication or prescription of medication. Apprehension or anxiety of patients during this outbreak is clearly understood, as they believe in limiting their visits to public gatherings, such as dental clinics' waiting zone for non-emergency procedures¹¹.

Unfortunately, 56.2% of the selected subjects were unaware and unequipped with key details and extensive knowledge of covid 19 and preventive protective measures to control its spread in spite of extensive

Table 5: Association/difference between knowledge, attitude and attention among subjects

Association/difference between knowledge and attention among subjects					
Age	Knowledge		Total	X ²	p
	Present	Absent			
Always	278	334	612	5.087	.079
Occasionally	48	69	117		
Never	13	32	45		
Total	339	435	774		
Association/difference between attitude and attention among subjects					
Age	Attitude		Total	X ²	p
	Positive	Negative			
Always	548	64	612	6.287	.043 (S)
Occasionally	106	11	117		
Never	35	10	45		
Total	689	85	774		

media coverage of the pandemic. This factor could be attributed to the study targeting the rural population of north Bangalore.

Significant results (p-value- .043) were obtained in ascertaining a key point, well aware and attentive subjects have a positive attitude towards dental treatment during the covid -19 pandemic.

CONCLUSION

The KAP towards COVID-19 score was significantly higher among people with higher education. A significant positive correlation between the level of education and knowledge regarding COVID-19 was noted. Majority of the study population preferred to consult a doctor over a phone call rather than opting for self-medication and favored teledentistry as an ideal option of communication or prescription of medication. A significant proportion of the study participants were well aware and attentive and had a positive attitude towards dental treatment during the covid -19 pandemic.

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