

Original Research

Covid-19 to omicron: Too much worry or less – A survey report of dental professionals

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ABSTRACT:

Introduction: Nearly two years have passed since the first stage of pandemic, when people refused to believe that there is a new virus that will spread and affect the whole world. Currently, there seems to be another denial phase of a pandemic facing the new Omicron mutations that are more transmissible than previous strains. Through the last two years, dental professionals were adaptable and smart to anticipate the risks of the incoming change. **Material & Method:** A cross-sectional questionnaire-based online survey with convenience sampling was conducted. **Aim:** The aim of this study is to assess the dental practitioner's response against COVID-19 and how much they are prepared now for the new variant OMICRON. **Results:** Out of a total of 365 responses, there were 147 males (40.27%) and 218 females (59.72%). The age of the patient ranges from 25 to 60 years of age with the mean age of 42.5 years.

Received: 16 May, 2022

Accepted: 19 June, 2022

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This article may be cited as: Gupta R, Sharma S, Sharma S. Covid-19 to omicron: Too much worry or less – A survey report of dental professionals. J Adv Med Dent Scie Res 2022;10(7):68-71.

INTRODUCTION

COVID 19 is a disease caused by SARS-CoV-2 that can trigger a respiratory tract infection. It affects upper respiratory tract or lower respiratory tract. Most viruses, including SARS-CoV-2, changes over time.¹ Viruses are notorious of mutations and these mutations, may affect the virus properties, such as how easily it spreads, the associated disease severity, or the performance of vaccines, therapeutic medicines, diagnostic tools, or other public health and social measures.

On, 26 Nov. 2021, WHO designated the variant B.1.1.529 a variant of concern & named it OMICRON, on the advice of WHO's Technical Advisory Group on Virus Evolution (TAG-VE). Omicron has several mutations that may have an impact on how it behaves, for example, on how easily it spreads or the severity of illness it causes. According to US CDC analysis, the most common symptoms of the OMICRON variant are cough, fatigue, congestion, runny nose and generalised body ache.²

During early phase of COVID-19 Dental Professionals were the one most effected. Both

Dental patients and Professionals were at risk of exposing themselves to novel Corona virus at that time. Dental care settings invariably carry the risk of COVID-19 infection due to the specificity of its procedures, which involves face-to-face communication with patients, and frequent exposure to saliva, blood, and other body fluids, and the handling of sharp instruments.³

OMICRON, SARS-CoV-2 (B.1.1.529) variant with its already researched properties and some anticipated ones can be considered a new chapter in the COVID-19 pandemic. This highly-mutated strain has more than 30 mutations, several of which overlap with those in the Alpha, Beta, Gamma, or Delta variants of concern. These mutations and deletions have lead to increased transmissibility, higher viral binding affinity, and higher antibody escape. The most dangerous period of infection in dental office is the early asymptomatic stage. The omicron variant transmits more, and escapes immunity, inbuilt naturally. Hundreds of researchers globally are racing to understand the new variant, which is the most

differentiated strain yet among variants of concern identified by the WHO since the pandemic began.⁴

The pathogenic microorganisms can be transmitted in dental settings through inhalation of airborne microorganisms that can remain suspended in the air for long periods, direct contact with blood, oral fluids, or other patient materials, contact of conjunctival, nasal, or oral mucosa with droplets and aerosols containing microorganisms generated from an infected individual and propelled a short distance by coughing and talking without a mask and indirect contact with contaminated instruments and/or environmental surfaces.⁵

So, questionnaire survey was planned to understand the change in the preparedness of Dental Professional from COVID 19 toOMICRON.

AIM & OBJECTIVES

The aim of the survey is to assess the dental practitioner's response against COVID-19 during first wave and to evaluate their attitude towards this new variant OMICRON in current scenario. Also, this study is to evaluate the possible reasons of

apprehension among Dental Professionals while treating patients during pandemic.

MATERIAL & METHOD

A cross-sectional questionnaire-based online survey with convenience sampling was conducted. The survey questionnaire was prepared during the lockdown in India, to assess their awareness, attitude towards their practice during lockdown and unlock phases. During first stage of pandemic, the questionnaire survey was opened on 01 June 2020 and closed on 08th July, 2020 midnight. As new variant OMICRON knocked the doors, this survey was reopened on 09th December, 2021 and closed on March 08th 2022. The questionnaire was shared in the form of Google document through various channels such as WhatsApp, Facebook, messenger, and E-mails to 510 dental practitioners. Participation in the study was totally voluntary.

Out of a total of 365 responded, there were 147 males (40.27%) and 218 females (59.72%). The age of the patient ranges from 25 to 60 years of age with the mean age of 42.5 years.

TABLE 1

Demographics	Variable	No. of participating Dentists	%age
Gender	Male	147	40.27
	Female	218	59.72
Age	25-40	294	80.5
	40-50	69	16.7
	50-60	5	1.4
Marital Status	Married	167	45.8
	Unmarried	196	53.69
Educational Qualification	BDS	239	65.5
	MDS	124	33.97
Any of the following medical condition	Diabetic	106	29.06
	Hypertension	85	23.28
	None	174	47.67

Dental Practitioners response				
	Response During COVID 1 st Wave		Response During OMICRON Wave	
	Yes (%)	No (%)	Yes (%)	No (%)
Q no.1 I fear for exposing myself to COVID/OMICRON	76	24	40	60
Q no.2 I fear for exposing my family members to COVID/OMICRON	93.8	4.8	92	8
Q no.3 I work in an inadequately equipped dental clinic	20.5	77.1	10.1	90.9
Q no.4 I believe that during this pandemic infected patient should be treated at dedicated COVID/OMICRON Dental Hospitals/Clinics designated by the Govt.	86.6	13.3	91	9
Q no.5 My financial situation allows me to suspend my clinic until the cases start to decline	76	24	35	65
Q no.6 Patient cancelled their appointments because of the fear of getting infected	84.6	12.3	88	12
Q no.7 Dental clinic where I work was closed	81.5	15.1	25	75
Q no.8 Are you afraid of getting infected from a patient and co-worker?	65.8	31.5	30	70

Q no.9 Are you anxious when providing treatment to a patient who is coughing or suspected of being infected?	78.5	18.2	65	35
Q no.10 Do you feel nervous when talking to patients in close vicinity?	81.2	16	88.8	11.2
Q no.11 Do you have fear that could carry the infection from your dental practice back to your family?	76.1	20.1	84	16
Q no.12 Are you afraid of getting quarantined if get infected?	67.1	29.9	29	71
Q no.13 Are you anxious about the cost of treatment if you get infected?	63.6	32.6	50	50

DISCUSSION

This survey provided us a level of apprehension among professionals during OMICRON wave. Also, it gives us an insight into the awareness of Dental Professionals response against OMICRON. The Survey was designed as multiple-choice questionnaire.

The socio-demographical characterization which includes gender, age, educational status, marital status, any medical condition as given in Table 1.

Among respondents, the majority were females (59.72%). The predominant age group range between 25-40 years of age with highest percentage of 80.5%. Of all the participants maximum were graduates (65.5%) whereas 33.97% were postgraduates.

As infections of the Omicron variant continue to spread around the world, there have been reports that symptoms of this variant are different from the other variants of SARS-CoV2. The symptoms of omicron generally start with body ache, generalised weakness, fatigue, headache and fever in the initial days and eventually they might also develop cough which is sometimes dry or with a runny nose, sneezing, etc. The dry cough resolved over in next few days. Isolating at the right time and preventing the spread of infection from one person to another is key. In our survey when Professionals were questioned regarding fear of exposing themselves to OMICRON, the response is unrealistic 40% as of now where as it was 76% during COVID 19 first wave. Possibly the problem of the 'mild variant' narrative. A popular narrative of calling Omicron a 'mild' and non-killing variant has gained ground over the past few weeks. Presuming its speculated 'mildness', people and governments are not rushing to depute resources, and mask-wearing behaviour has taken a back seat. Psychological implications such as fear and anxiety are natural in pandemics, especially when the number of infected individual and sickness rates are increasing sharply. Dental Professionals 'Being Human' seems effected in same way. When they were questioned about fear of exposing their family members to OMICRON. Despite of mild symptoms, the anxiety level related to Professionals family is near to first survey i.e., 92%.

First wave of COVID teaches us to rethink on our health infrastructure in country. This time learning from the first wave the Central government acted swiftly and given nod to the defence establishment

(DRDO) for stepping up the aid efforts by setting up makeshift hospitals in various cities throughout the country. In a few days, two dedicated Covid hospitals were set up in Jammu & Kashmir UT, one hospital in Jammu and one in Srinagar in a short span of time. These hospitals were made operational immediately for subsequent waves. The newly developed health infrastructure is currently playing a vital role. A large number of practitioners 91%, believed that infected patients should be treated at designated hospital by Govt of India. The possible reason must be due to large infectivity.

Also, during the first wave of the pandemic, 76% Dental Professionals routine dental services were restricted due to unknown nature of infection, rate & severity of infectivity, shortages of personal protective equipment (PPE), to help flatten the curve, and protect patients and dental personnel against infection. Urgent care was delivered using PPE, and additional precautions, including taking patients' recent travel history, recording patients' body temperature, using Chlorhexidine as a pre-procedural mouth rinse, using a rubber dam and high-volume suction, and frequent cleaning and disinfection of public contact areas such as door handles, chairs and washrooms, were implemented. As of now 65% don't want to suspend their clinic. The possible reason may be we are now more aware of this virus like rate & severity of infectivity, availability of adequate testing facilities for COVID/OMICRON, and all of us are also well equipped with adequate equipment for protection. The vaccination drives of Health Professionals, Elderly age groups and adults is successfully carried which has given boost to the confidence of the Medical Professionals at large.

Omicron variant has had a high impact on Dental Practitioners willingness to ease restrictions. Dentists used to maintain gaps of up to an hour between most patients, to reduce the risk of viral transmission, an approach that has radically reduced patient numbers. In our survey, a lot of patients cancelled their appointments. As of now patients are more aware of mode of transmission and severity of this virus, fear of getting infected is not as before among them. From this survey it was found, OMICRON fear of getting infected is 30% among the respondents when compared with COVID 19 First wave where it was 65.8% only. The infectivity rate of OMICRON is

more than COVID, still people are not much afraid of this virus. When asked Professionals about how much anxious they are when they are providing treatment to patient having symptoms of cough or any other suspected symptom of being infected, the response of OMICRON is 65% but feel more nervous 88.8%.

When Professionals were questioned whether they fear of carrying infection from operatory area to back to their family, the response was clear. When comes to the family, the professionals were really apprehensive. About 84% responded positively. When questioned of getting quarantined, very less percent of professionals are afraid of being in isolation. The possible reason may be, they are mentally more prepared now and are now aware of self-isolation at home.

COVID-19 & OMICRON has almost affected every sector financially, even dental professionals are not spared. When professionals were questioned about the treatment cost, only 50% responded that they are afraid of the treatment cost where as it was 63.6% during first wave. The mild nature of this variant and various COVID health policy insurances has given reassurance to the patients to live a normal life & also helps in building confidence among the patients. The response may be due to more awareness regarding the infectivity and severity of the diseases.

CONCLUSION

What we've learned?

The Omicron wave has taught us several lessons about the effectiveness of various societal responses. First, up-to-date vaccination status, including a recent booster, proved to be especially important in protecting us against Omicron. Second, the link between OMICRON and behavioural adjustments is largely broken. Health risks of OMICRON are not significant enough for them to change their behaviour, either because of their vaccination status, and a desire to move on from the pandemic. Omicron have typically been less stressful than those of prior waves with similar disease burdens. At last, with the knock of new OMICRON XE variant at our doors, we must realise that "*Still its not the end*".

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