

# Dentists Knowledge, Awareness and Control Measures Towards Covid-19 – A Questionnaire Based Study

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## Abstract:-

**Background:** The global Pandemic of COVID-19 has immensely affected dentistry as a whole. The evidence of human-to-human transmission with worldwide deathshas confined the dentists to their homes due to the high risk nature of the profession. With this increase in risk, dentists are facing heavy fallout and are concerned about the effects of this pandemic on the future of dentistry. **Aim:** The aim of this survey was to assess the knowledge, awareness and control measures associated with COVID-19 among the undergraduates, postgraduates and consultant dentists in Kanpur. **Methodology:** Questionnaire was distributed among 100 participants comprising of dentists and Maxillofacial Surgeons in Kanpur. **Results:** In this study, majority of the participants believed that dentists were at higher risk of virus than any other healthcare profession and also for transmitting the infection to their patients. They also believed the fact that wearing N95mask did not guarantee them safety against the virus. Although all the dentists were vaccinated they believe that vaccination does not prevent from the deadly virus. Majority of the dentists felt that the pandemic has affected dentistry as a career and income as well and considerably reduced their patient flow. Moreovermost of them were prepared to treat patients with positive COVID-19 infection. **Conclusion:** This questionnaire based study clearly helped in assessing the common concerns associated with COVID-19 that pandemic has posed various drawbacks and threats to the dentistry profession still they are prepared to treat patient with active covid-19 infection.

**Keywords:-** Covid19, Dentist , Oral and Maxillofacial Surgeons, Questionnaire, Corona Virus .

## I. INTRODUCTION

The novel human coronavirus disease COVID-19 has become the fifth documented pandemic since the 1918 flu pandemic. COVID-19 was first reported in Wuhan, China, and subsequently spread worldwide and officially named as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) by the International Committee on Taxonomy of Viruses based on phylogenetic analysis<sup>1,2</sup>. SARS-CoV-2 is believed to be a spillover of an animal coronavirus and later adapted the ability of human-to-human transmission. Because the virus is highly contagious, it rapidly spreads and continuously evolves in the human population<sup>2</sup>.

In December 2019, it caused a new disease outbreak and on 11 March 2020, Covid-19 was declared a global pandemic by WHO (World Health Organization).The corona virus has been shown to cause multiple respiratory diseases ranging from mild common cold to life threatening pneumonia, organ failure, and death. The human to the human spreading of the virus occurs due to close contact with an infected person, exposed to coughing, sneezing, respiratory droplets or aerosols. These aerosols can penetrate the human body (lungs) via inhalation through the nose or <sup>mouth</sup><sup>1,2</sup>. The global Pandemic of COVID-19 has immensely affected dentistry as a whole because the transmission occurs most commonly through infectious saliva, associated respiratory tract secretions. Due to the high risk nature of the profession, being in direct and close contact with their patients dentists are facing heavy fallout and are concerned about the effects of this pandemic on the future of dentistry<sup>3</sup>. Our aim of this survey was to assess the knowledge, attitude, and control measures associated with COVID-19 among the undergraduate, postgraduate and consultant dentists of kanpur.

## II. MATERIALS AND METHODS

### ➤ Study design and sample

This cross-sectional study was conducted from May 2020 to August 2021 in participants who were fulfilling all inclusion criteria among the dentist registered in DCI and practicing in Kanpur, India. The study sample was composed of randomly selected 100 dentists who were undergraduates, postgraduates and consultant dentists who were willing

and desire to participate in the survey. The questionnaire consisted of 20 questions to assess the knowledge, awareness, and control measures towards covid-19 during dental treatment. The questionnaire was developed by the most recent information on covid19 based on recently published articles from English literature. The data of responses of participants were analyzed and evaluated with help of column chart.

**Table-1 Questionnaire Components**

Q.1 Who is more affected due to covid19 infection ?	Medical/Dental Professionals
Q.2 Did you treat patient's with active covid 19 infection ?	Yes/No/Always/Never
Q.3 Do you think you can get infected with covid 19 virus due to patients?	Yes/No/Always/Never
Q.4 Is there any chance to carry covid19 infection from work place ?	Yes/No/Always/Never
Q.5 Will you treat any patient with active cough?	Yes/No/Always/Never
Q.6 Are you confident that N95 mask can actively prevent transmission of covid19 virus from patients during dental treatment?	Yes/No/Always/Never
Q.7 Do you wash your hands frequently when working on infected patients?	Yes/No/Always/Never
Q.8 Do you think that you or your setup can be a source of transmitting covid19 virus?	Yes/No/Always/Never
Q.9 Has covid19 infection decreased or affected the carrier of dentist?	Yes/No/Always/Never
Q.10 Are you and your co-workers aware about precautions on transmission?	Yes/No/Always/Never
Q.11 Are you aware about the latest updates on the pandemic virus?	Yes/No/Always/Never
Q.12 Is vaccination mandatory?	Yes/No/Always/Never
Q.13 Do you think vaccination can prevent transmission of this deadly virus?	Yes/No/Always/Never
Q.14 Are you fully vaccinated ?	Yes/No/Always/Never
Q.15 Are you prepared to treat patients with positive covid-19 infection?	Yes/No/Always/Never
Q.16 Do you sterilize / disinfect the working area between patients?	Yes/No/Always/Never
Q.17 Have you met with any accident with sharps during treatment of patients with active or post covid infection ?	Yes/No/Always/Never
Q.18 Is it mandatory for patients to use antibacterial mouth wash before treatment ?	Yes/No/Always/Never
Q.19 which of these would you use in your practice?	PPE kits / N95 MASK
Q.20 Would you inform the local authorities if you came across any suspected or confirmed case of covid19 infection?	Yes/No/Always/Never

**III. RESULTS**

The total of 100 participants completed the survey questionnaire, among the final sample average age was 30 years, ranging 18-48 years.68% were undergraduate, postgraduates 28% and consultants were 4% (Table-2)which was statistically not significant.

Majority of the participants (54%) believed that dentists were at higher risk of virus than any other healthcare profession and also for transmitting the virus infection to their patients (81%). All consultants and some of the postgraduates responded that they will treat patient’s with active covid-19 infection (72%), also they believe that they can get infected with covid19 virus due to patients and 77% responded that

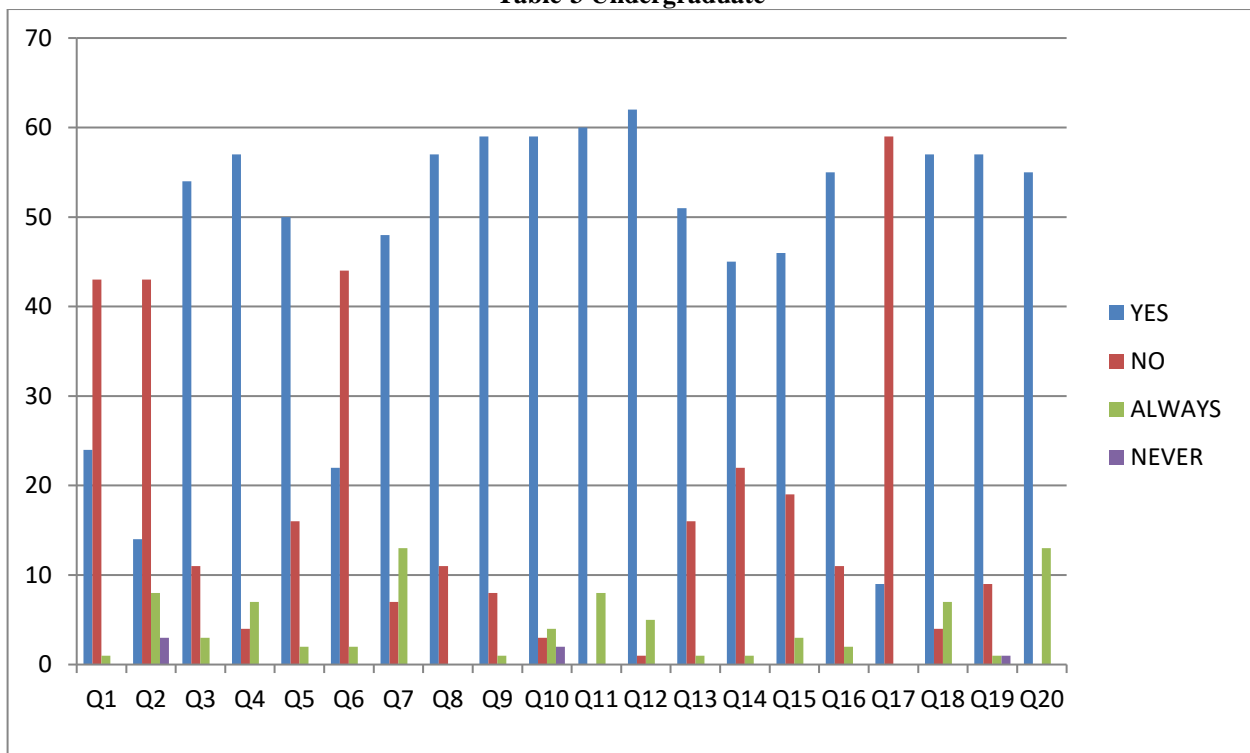
there is a chance to carry infection from work place. They also believed the fact that wearing N95 mask (61% ) did not guarantee them safety against the virus and 83% asserted that changing PPE after every patient was mandatory. 95% of participants believe that vaccination of covid19 is mandatory. Although 75% of the dentists were vaccinated and also they believe that vaccination does not make them immune to the deadly virus. 87% of participants responded that they were aware about latest updates on pandemic and they believe that their co-workers also aware about the precautions on transmission. Majority of the dentists (89%) felt that the pandemic has affected dentistry as a career and income as well and considerably reduced their patient flow. Moreover most of them (75%) were prepared to treat patients with positive COVID-19 infection.

**Table-2 Distribution of participants based upon the undergraduate and postgraduates and consultant**

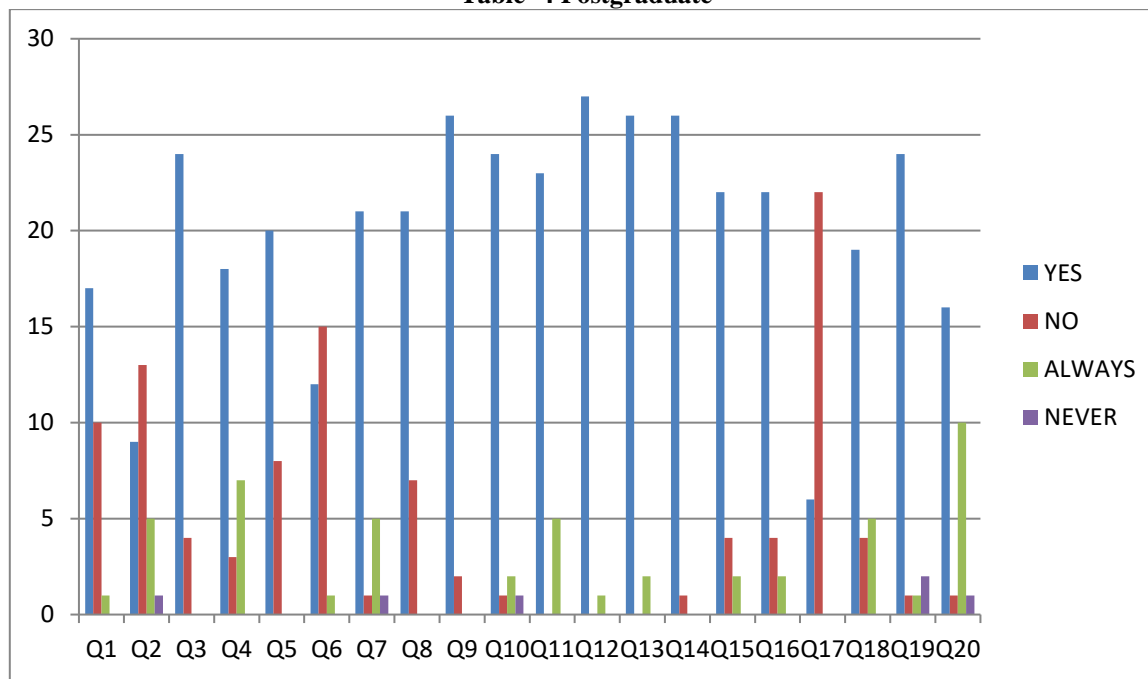
Speciality	Distribution	percentage	P value
Undergraduate	68	68%	0.69
Postgraduate	28	28%	
Consultant	4	4%	
Total	100		

[P value >0.05 , no significant difference]

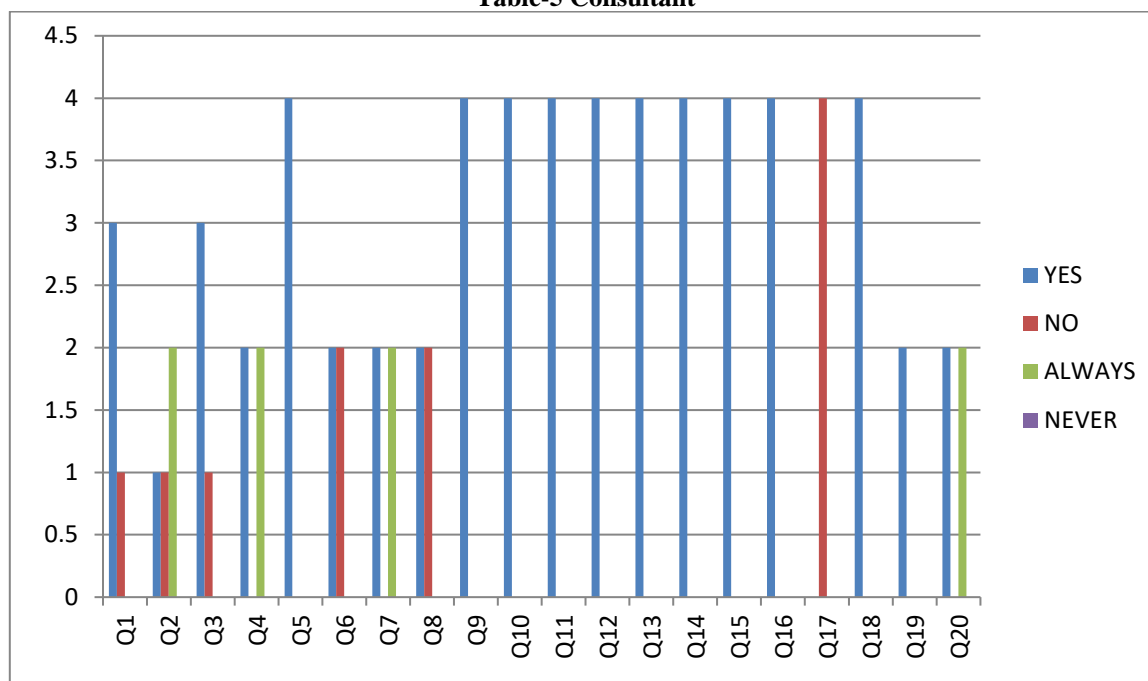
**Table-3 Undergraduate**



**Table -4 Postgraduate**



**Table-5 Consultant**



**IV. DISCUSSION**

The COVID-19 pandemic puts pressure on the healthcare system. In a practice changing situation such as this, there is a need for guidance at a time of threatening and ever-changing developments. Every article that covers aspects of the management of patients in times of COVID-19 can only give a snapshot of the situation and might be outdated within a short time. Definitely, there is a need for continuous adaptation of recommendations and guidelines. Nevertheless, the present review is intended to collect and to discuss aspects of the current status of approaching the

management of inpatients and outpatients in oral and maxillofacial surgery during the COVID-19 pandemic.

In oral and maxillofacial surgery elective procedures, urgent procedures and emergency procedures are performed<sup>3</sup>. In order to provide adequate healthcare resources for the treatment of critically ill COVID-19 patients, it makes sense not to perform elective procedures for a well-defined time interval that must be reevaluated on a regular basis. There should be a clear agreement between oral and maxillofacial surgery and general dentistry regarding who is responsible for the variety of interventions that can be covered by both specialties in principle. In times of limited resources, oral and

maxillofacial surgery must focus on treatment of malignancies, traumatology, deep head and neck infection, severe hemorrhage, or severe temporomandibular joint pathologies that can be approached only by surgery<sup>3,6</sup>. General dentistry must take care of removal of teeth and related complications such as bleeding, treatment of localized abscesses in the oral cavity, treatment of pulpitis, repair of oro-antral fistulae, or craniomandibular disorders that cannot be approached by surgery<sup>7</sup>. However, it is clear that the treatment of the infected patient needs an adequate infrastructure. An approach to reduce the infection rate with SARS-CoV-2 is social distancing. Even in healthcare, this principle should be adopted wherever it is adequate. At a time in which there is a continuous increase and change in knowledge, guidelines, and standard operating procedures, etc., fast and ubiquitous dissemination of knowledge and new information on problems and solutions are important to keep every stakeholder up-to-date. In the field of e-learning, webinars are rising in relevance significantly. They allow dissemination of new information in an interactive way, even at short notice, to a large audience. Webinars also have been proved to be well accepted in medical education (Knipfer et al., 2019; Wagner et al., 2019). This technology will be most important during the peak of the pandemic to keep every body up-to-date without taking risks for infection as a consequence of unnecessary institutional meetings and conferences, for example, would pose (Merchant and Lurie, 2020).

Patients with symptomatic COVID-19 should be treated in the field of oral and maxillofacial surgery only when the indication is urgent or an emergency. Symptomatic patients are a main source of viral transmission and therefore must be treated in an adequate infrastructure with personal protective equipment.

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