

Awareness, Attitude, Anxiety and Infection Control related to COVID-19 among Oral Pathologists- A Web-based Survey.

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Abstract:

Background: Infection prevention and control measures are critical to prevent the possible spread of Coronavirus disease 2019 (COVID-19). Oral pathology forms a crucial link between basic dental sciences and clinical dental sciences. Here, questionnaire study aimed to assess the awareness, attitude, anxiety, and infection control amongst oral pathologists in Maharashtra state.

Materials and Methods: A web based Cross-sectional survey study was conducted amongst the oral pathologists in Maharashtra state.

Results: 96% of the oral pathologists were aware of the exact pathogenesis of COVID-19 in Maharashtra. Practicing oral pathologists were found to have better knowledge. Within the limits of the study, we can conclude that there is good awareness regarding the pathogenesis of COVID19 among practicing oral pathologists.

Conclusion: In today's scenario it is extremely important for oral pathologists to assess the risk of transmission and clinical outcomes based on the pathological course of the disease. An in-depth understanding of the pathogenesis will also help in developing novel treatment protocols to combat the pandemic.

Keywords: Awareness, Coronavirus, Oral Pathologists, Infection control.

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INTRODUCTION:

Coronavirus disease 2019 (abbreviated as "COVID- 19") is an emerging respiratory disease caused by a novel coronavirus. It was first detected in December 2019 in Wuhan; COVID-19 is an increasing public event being a rapid pandemic.^[1] Two main unique features of the virus are its low pathogenicity and high transmissibility that

distinguishes it from other members of the coronavirus family such as SARS-CoV (*Severe Acute Respiratory Syndrome*) and MERS-CoV (*Middle Eastern Respiratory Syndrome*).^[2] COVID-19 is spread by human-to-human transmission through the droplet, feco-oral, and direct contact and has an incubation period of 2-14 days.^[3] These routes of transmission increase the concern of transmission for COVID-19 in

the dental setting. The disease is highly infectious, and its main clinical symptoms include fever, dry cough, fatigue, myalgia, and dyspnea.^[4] To date, no antiviral treatment or vaccine has been unequivocally recommended for COVID-19. Therefore, applying preventive measures to control COVID-19 infection is the most critical involvement.^[5]

The WHO initiated several online training sessions and materials on COVID-19 in various languages to strengthen infection control strategies, including raising awareness and training in preparedness activities. Despite the availability of prevention guidelines and recommendations on infection control, many dental practices lack the minimum infection control requirements.^[6] Oral pathology forms a crucial link between basic dental sciences and clinical dental sciences. As research into COVID-19 continues, many facts keep on changing, and many myths are also prevalent in the oral pathologists regarding the prevention and management of the infection. A questionnaire study aimed to assess the awareness, attitude, anxiety, and infection control amongst oral pathologists in Maharashtra state.

Material and Methods:

This cross-sectional study would be conducted among Maharashtra state oral pathologists to know the awareness, attitude, anxiety, and infection control regarding COVID 19 among oral pathologists of Maharashtra state. The study was conducted using a self-administered questionnaire. This study obtained Ethical Clearance from the Institutional review board of MIDSR Dental College. The survey questions were validated, and an online form (https://docs.google.com/forms/d/e/1FAIpQLScK4R-8crPTXH15EjRWpA1vxAVT4IA2yyjAYk3M-WyAoRTmGg/viewform?usp=sf_link) of the questionnaire was sent to oral pathologists at various places of Maharashtra. The period of the survey was from May 20, 2020, to July 20, 2020. Nearly 81 respondents completed the survey.

Data collection:

A Snowball sampling technique was used. An online questionnaire consisted of the first part as

demographic data such as age, sex, name, and region. And the second part is awareness, attitude, anxiety, and infection control of COVID-19 related questionnaire using Google forms, with a consent form. The link of the survey questionnaire was sent through emails, what's-App, and other social media. These questions were answered like yes, no, and don't know.

RESULTS:

A web survey related to awareness, attitude, anxiety, infection control related to covid-19 among oral pathologists community in Maharashtra state during the corona pandemic was conducted in the Indian population. A total of 81 responses were recorded. The mean age of the survey participants was 29.09±8.83 years. Among the participants, 61.2 % were females, and 38.6 % were males.

Part I: awareness about COVID-19

A considerable number of responders were aware of the disease's basic elements, as shown in Table. 1. Out of the total participants, 96% of participants answered "yes" to the question, "The main clinical symptom of covid-19 is fever, fatigue, dry cough & myalgia" Most participants, 72%, acknowledged that ordinary residents could wear general medical masks to prevent the infection by the covid-19". Only 18.2 % regarded fever as a symptom of COVID-19, which is known to be a major symptom. For the question, "The covid-19 VIRUS spreads via respiratory droplets of infected individuals?". 96% of the participants answered "yes."

Part II: Attitude towards COVID-19

As shown in Table.2, more than 50 % of the participants agreed that COVID-19 would finally be successfully controlled. 68% of the participants answered no, 20% yes, and 12% said they don't know the answer to the question, "Now a day, you feel like your chronic condition, if any, is worsening day by day?". Most (64 %) of the participants thought it was the right decision of the government to give preference to the economy than rising cases by unlockdown. 72% of the participants answered yes, 24% no, and 4% don't know to the question," In

recent days, have you worn PPE kit while doing patients?". 64% of the participants answered no, 32% yes, and 4% don't know to the question, "Have you received any biopsies during this COVID-19 pandemic?"

Part III: Anxiety towards the COVID-19

Drawing from the data given in Table.3, more than 64 % of the participants were feeling, dizzy light-headed, or faint when they read or listened to news about the coronavirus. Approximately 80 % of the participants were feeling trouble falling or staying asleep because of thinking about coronavirus. About 56 % of participants reported being depressed and irritated due to Social media, news & other information sources on covid-19. Approximately 64 % of the participants had reported the symptoms, heart races, or palpitates when they think about getting covid-19. In our study, 72 % of the oral pathologists affirmed, find it difficult to concentrate these days.

Part IV: Infection Control towards the COVID-19

As shown in Table 4, 96% of the participants agreed that prevention and infection control remains the main methods of addressing covid-19. 100% of the participants admitted that clinical management includes prompt implementation of recommended infection prevention and control measures and supportive management of complications. And No specific treatment for Covid -19 is currently available. Also, 100% of the participants agreed to implement respiratory hygiene and cough etiquette and have a separate, well-ventilated space that allows waiting for symptomatic patients to be separated by 6 or more feet. 64% of the participants reported that they usually put on a facemask to protect themselves from the risk of infection?". For the question, "Hand washing and social distancing are the main barriers to the adaption of key behaviors of Covid -19 infection?". 60% of the participants answered, yes.

DISCUSSION:

Epidemics and pandemics are a periodic phenomenon. People in the community face several challenges during such periods. Lack of awareness

often leads to an unconcerned attitude, which may adversely affect the preparedness to meet these challenges. Impacts of these epidemics and pandemics are often intense, which may adversely affect a given population's mental well-being. The fear and anxiety related to outbreaks and pandemics also influence oral pathologists' behavior in the health-care community. Hence, this study attempted to evaluate the awareness, attitude, anxiety, and infection control in oral pathologists in Maharashtra.

Rubin et al.^[7] had conducted a similar study during the swine flu outbreak in the United Kingdom. They had conducted the survey telephonically over four days in the native population who heard the term "swine flu" and was able to speak English. There is much similarity like illness between swine flu and COVID-19 infection. Both diseases are viral in origin, involving the respiratory system and spreading by droplet infection. Similar precautions are often recommended for the prevention of swine flu and COVID-19 infection. Unfortunately, there is no specific treatment or vaccine available for COVID-19 infection, whereas both treatment and vaccines are present for swine flu.

All epidemics and pandemics have their unique characteristics in terms of causality, progression, and control measures. It is crucial to provide health education and create awareness during such situations to prevent disease spread.^[8] The participants in our study were oral pathologists. The participants had a moderate level of awareness regarding the mode of spread, symptoms, and adequate awareness about preventive measures. It was possibly due to the government and media emphasizing more on the preventive measures. Also, webinars and articles provide a sufficient source of information regarding Covid-19 infection. Educated and especially healthcare people, i.e., oral pathologists, get more sensitized by this information. **Deblina Roy et al.**^[9] had conducted a similar study to assess the knowledge, attitude, anxiety experience, and perceived mental healthcare need among the adult Indian population during the COVID-19 pandemic. An online survey was conducted using a semi-structured questionnaire. Study results showed that the responders had a moderate level of knowledge about the COVID-19

infection and adequate knowledge about its preventive aspects.

Our survey study, the attitude towards COVID-19 showed oral pathologists' willingness to follow government guidelines on lockdown. Our study stated that most Oral pathologists are aware of this infection, possible preventive measures, the importance of social distancing, and government initiatives to limit disease spread during this coronavirus pandemic. Similar study results of **Bao-Liang Zhong et al.**^[10] stated that Chinese residents of a relatively high level of socioeconomic status, in particular women, have had good knowledge, optimistic attitudes, and appropriate practices towards COVID-19 during the rapid rise period of the COVID-19 outbreak.

In our study, we found approximately 80 % of people reporting sleep difficulties. More than 56% of participants said themselves worried after seeing posts about the COVID-19 pandemic on various social media platforms. And approximately 64 % of participants worried about getting covid-19 and symptoms like heart races or palpitates and difficulties in concentration. This indicates that a significant proportion of participants in the survey, despite having adequate awareness about coronavirus infection, are primarily influenced by media information. Media affects mental well-being and adds to the level of anxiety. The swine flu pandemic of 2009–2010, which resulted in high mortality worldwide, also significantly caught global media attention and evoked anxiety among the public.^[11] It has been seen in a previous study that health professionals often have better awareness, positive attitudes towards epidemics/pandemics, and they often experience low levels of anxiety.^[12] However, there are increased worries and apprehensions among the public regarding acquiring the COVID-19 infection. People have higher perceived needs to deal with their mental health difficulties. There is a need to intensify the awareness program and address people's mental health issues during this COVID-19 pandemic.

Prevention and infection control remains the main methods of addressing covid-19. In our survey study, 100% of participants stated that implementing recommended infection prevention and control

measures is more important to avoid complications. As no specific treatment for covid -19 is currently available. Sensitization and awareness about COVID-19 are reflected significantly in their behavior and attitude as most of the participants agreed with social distancing, avoiding travel, self-quarantine, and adequate hygienic measures. A similar study by **Modi P D et al.**^[13] showed the awareness of COVID-19 disease and related infection control practices among healthcare professionals and students in the Mumbai Metropolitan Region. Their study showed adequate awareness of COVID-19 in the healthcare setting, with an overall percentage of 71% correct answers. This study shows a strong need to implement periodic educational interventions and training programs on infection control practices for COVID-19 across all healthcare professions.

CONCLUSION:

During this coronavirus pandemic, oral pathologists are aware of this infection, possible preventive measures, the importance of social distancing, and government initiatives were taken to limit the spread of infection. However, there are increased worries and apprehensions among the oral pathologists regarding acquiring the COVID-19 infection. They have higher perceived needs to deal with their mental health difficulties. There is a need to intensify the awareness program and address oral pathologists' mental health issues during this COVID-19 pandemic.

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LIST OF TABLES

Table 1: Represents the awareness of Oral Pathologists about Covid-19

Sr. No	Questions	Yes (%)	No (%)
1	The main clinical symptoms of Covid-19 are fever, fatigue, dry cough and myalgia.	96%	4%
2	Ordinary residents can wear general medical masks to prevent the infection by the Covid-19.	72%	28%
3	The Covid-19 virus spreads via respiratory droplets of infected individual.	96%	4%
4	Does webinars and articles provides sufficient source of information regarding Covid-19 infection.	68%	24%
5	In recent days, have you gone through any training related to Covid-19 pandemic?	80%	20%

Table 2: Represents the attitude of Oral Pathologists about Covid-19

Sr. No	Questions	Yes (%)	No (%)	Don't know (%)
1	Do you agree that COVID-19 will finally be successfully controlled?	50%	16%	32%
2	Now days, you feel like your chronic condition, if any is worsening day by day?	68%	20%	12%
3	Do you believe that it was a right decision of government to give preference to economy than rising cases by unlockdown?	64%	32%	4%
4	In recent days, have you worn PPE kit while doing patients?	72%	24%	4%
5	Have you received any biopsies during this COVID-19 pandemic?	60%	32%	8%

Table 3: Represents the anxiety of Oral Pathologists about Covid-19

Sr. No	Questions	Yes (%)	No (%)	Don't know (%)
1	You feel, dizzy light headed or faint when you read or listened to news about the corona virus?	64%	32%	4%
2	I feel trouble falling or staying asleep because I was thinking about coronavirus	80%	20%	0%
3	Does Social media, news & other Information source on covid-19 makes you depressed and irritate you?	56%	40%	4%

4	My heart races or palpitates when I think about getting covid-19?	64%	28%	8%
5	These days, you find it difficult to concentrate?	72%	28%	0%

Table 4: Represents the knowledge of Oral Pathologists about infection control in Covid-19.

Sr. No	Questions	Yes (%)	No (%)	Don't know (%)
1	Prevention and infection control remain the main methods of addressing covid-19?	96%	0%	4%
2	Clinical management includes prompt implementation of recommended infection prevention and control measures and supportive management of complications. No specific treatment for Covid -19 is currently available?	100%	0%	0%
3	Implement respiratory hygiene, and cough etiquette and have a separate, well - ventilated space that allows waiting symptomatic patients to be separated by 6 or more feet.	100%	0%	0%
4	I usually put a facemask to protect myself from the risk of infection.	64%	12%	24%
5	Hand washing and social distancing are the main barriers to adaption of key behaviors of covid-19 infection.	60%	16%	24%