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The impact of covid-19 pandemic on dental practitioner.

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Abstract:

Introduction: The coronavirus has so far been spread all over the world and hindered all aspects of person's life. This pandemic has adversely affected the professional life as well.

Objectives: To assess the impact of epidemic COVID-19 on dental practitioners.

Methodology: Dentist were invited to participate in the study through social media/ email. 250 dentist who give consent were selected randomly to be included in the study. Participants were assured about anonymity of the personal information and informed consent taken. Data collected by using an online questionnaire and analyze by using SPSS® version 22

Results: Majority (80%) dentists were facing financial constraint, 72% dentist agreed that reopening of clinics could result in transmission of virus. More than half of the dentist agreed that watching/listening news of COVID-19 is causing depression and anxiety. Nearly all the dentist revealed that they usually feel symptoms mimicking that of Covid-19.

Conclusion: Dentists due to the direct result of overwhelming fear, confusion and anxiety among dental staff, strengthened by the high perception of the risk of COVID- 19 contraction, had a significant reduction in dental clinical practice. The sudden decline in the number of dental procedures and the implementation of a new infection control protocol has caused financial problems for most dentists.

Keywords: COVID-19, Pandemic, dental practitioners.

Introduction:

Covid- 19 due to beta-corona virus, a novel, began in China's Hubei - Wuhan. The coronavirus has so far been spread all over the world and disrupt all aspects of person's life. A public health emergency was reported in the world after the 2019 epidemic announced by World Health Organization.¹ Symptoms of SARS-COV2 include (fever, dry cough, fatigue). Severe acute respiratory syndrome (SARS-COV2) has an increased spreading rate. The spread of the virus occurs through droplets of respiratory tract, contaminated surfaces through the mucous membranes of the eyes (conjunctiva) and

through the nose. It can also spread via orofecal route.² Corona virus is highly transmissible in nature and due to this many of the medical and dental institutions, dental clinics have cancelled optional procedures to decline the risk of infections. The use of hand pieces to remove tooth decay or drill teeth and ultrasonic instruments for dental procedures results in blood and saliva drops generation. These droplets can pollute the dental device, dental unit and office environment increasing the risk of infections to dentist, coworkers and other patient. Different studies have revealed that human corona virus can be effective on different intimate sur-

faces from 2 hours to 9 days.³ In addition to drops, methods involving the use of high-speed handsets or ultrasonic devices in dental clinics or offices can also aerosol various secretions, saliva or blood to viruses on the surrounding surfaces. Thus, infection can occur through direct and indirect contact by touching contaminated surfaces, then self-distributed to the eyes, nose and mouth⁴. Infection control measures would otherwise not be effective in following daily clinical work, more preventive protocols must be implemented during the epidemic to reduce the risk of infection. Dentist and dental assistant should use mouth rinses to regularly sterilize the oral cavity of patients and often disinfect the dental units and dental instruments. Use of PPE is very necessary and use of rubber dam is also very important. The Corona-virus has caused many problems in dental services for patients as well as for the dentist; leading towards the of closure of many of the dental clinics and hospitals. Nearly all dentist currently dealing only with emergencies; other dental problems are dealt with through social media/phone calls. Patient needs emergency management for some dental problem is managed usually by hand instruments rather than hand piece to reduce the aerosol generation.^{5,6}

Objective:

To identify the problems and risks dentist are facing during Covid-19 epidemic and to probe alternative treatment plans being practiced during Covid-19 pandemic.

Methodology:

The study is carried out from between November 1st to 15th November 2021 among Pakistani dentists. Study population includes specialist, consultants, general dentist who are working in Pakistan no matter from which city and workplace they belong to. Dentist were invited to participate in the study through social media/email. 250 dentist who give consent were selected randomly to be included in the study. Participants were assured about anonymity of the personal information and informed consent taken. Data collected by using an online questionnaire and analyze by using SPSS® version 22

Results:

During COVID-19, nearly all dentists agreed that they are facing financial problems during this pandemic, it has been found that there is a rise in phone calls while some dentists also agreed that phone calls are effective in solving dental problems while few dentists also reported that phone calls are not efficient in solving den-

tal problems.

Table no 1: Problems dentists are facing during covid- 19.

	Agree	Disagree	Partially Agree
Decrease in financial income	200 (80%)	0 (0%)	50(20%)
Rise in phone call	150 (60%)	20(8%)	80(32%)
Phone call effective to resolve dental problems	120 (48%)	55 (22%)	75(30%)
Re-opening of dental clinic/hospital would lead to spread of Covid-19 cases.	180 (72%)	50 (20%)	20(8%)
Patients had problems while paying consultation fee	160 (64%)	40 (16%)	50(20%)
Change in working hours and practice	175 (70%)	10(4%)	65(26%)

Almost all the dentists agreed on that the PPE are effective to prevent from virus while some of the dentist denied. More than half of the dentist agreed that watching/listening news of COVID-19 is causing depression and anxiety. Nearly all the dentist revealed that they usually feel symptoms mimicking that of Covid-19 as shown in table 2.

Table no 2: Risk dentist are facing during covid-19

Risk	Agree	disagree	Partially agree
PPEs are effective to prevent virus	180 (72%)	20 (8%)	50 (20%)
News of Covid-19 is causing anxiety, depression	145 (58%)	30 (12%)	75 (30%)
High risk patient flow	110 (44%)	80 (32%)	60 (24%)
Feels having Covid-19 symptoms	160 (64%)	30 (12%)	60 (24%)

Most of the participants were agreed that epidemic resulted in a change of dental practice standards, while some dentist disagreed with that. Nearly all the dentist agreed that they are performing only emergency treatments, while 24% dentist showed that they have canceled all the treatments until the end of COVID as

shown in table no 3.

Table no 3: Treatment plans dentist are executing during covid- 19

Treatment plan	Agree	Disagree	Somewhat agree
Change in dental practice standard	190 (76%)	10 (4%)	50 (20%)
Change in working time and dental practice	177 (70.8%)	25 (10%)	48 (19.2%)
Examination of patients with Covid-19 symptoms	135 (54%)	15 (6%)	100 (40%)
Any change in management strategy during Covid-19	188 (75.2)	20 (8%)	42 (16.8)
Offering only emergency treatment	170 (68%)	30 (12%)	50 (20%)
Cancelled all treatment plan till Covid-19 ends	60 (24%)	140 (56%)	50 (20%)

Discussion:

Coronavirus or (COVID-19) started as an animal infection and then human to human infection. COVID-19 is an RNA enveloped virus that is characterized by club like spikes that project from the surface. Pandemic COVID-19 is an infectious disease-causing symptoms like cough, fever, shortness of breath, loss of taste & smell, diarrhea, muscular and abdominal pain. Different studies have been carried out on spread, prevention and treatment of corona virus. In this study we focused dental practitioner to know how they have been affected due to pandemic and what strategy develop to overcome the problems during dental practice. Results shows that 80% dentist facing financial constraint during pandemic. 60% dentist like More than half of the participants (60%) showed that patient finding it difficult to pay consultation/procedural fee due to pandemic. This reflects that current pandemic has resulted in restricted purchasing power due to lockdown and even resulted in unemployment.

The results of our study showed that 72% dentist agree that PPE are effective during COVID-19. Study conduct-

ed by Muhammad Hamad et al revealed that only hand hygiene is not enough for treatment using PPE's specific respirators and googles.⁷ It is extremely crucial that dentist should be prepared with adequate knowledge to protect themselves and their patients from transmission of this disease. However, study conducted by Saood khan lodhi⁸ showed that 52% participants reported that they have never been trained on appropriate use of PPE. Here it is quite alarming situation in this pandemic. Results of the current study showed that 76% dentist agreed that there is a change in dental practice standards and 70.8% showed that there is a change in working time and dental practice. 75.2% dentist agreed that change in treatment plan during COVID-19. Study conducted by Muhammad Haroon⁹ did not show agreement with our study. Other study showed that dental treatment should not be provided while the patient is in incubation period and participants also showed that standard daily protocols are insufficient to combat COVID-19. Our study showed that 24% dentists cancelled all the treatment until the end of COVID and 68% performing only emergency treatment. According to other studies 48.5% participants voted to defer treatment for 1 month for all those who recovered from COVID-19¹⁰ while 44.1 % dentist stated that they have reduced staff to minimum to deal with emergency procedure.¹¹ These results are in agreement with finding of current study. The data for current study has been self-reported by the participants through questionnaire. Multicentered studies with a larger sample size should be conducted to be drawn concrete evidence for topic under discussion.

Conclusion:

Because of the lack of preparedness in the dentistry, which is a large sector of public or private, most dentists have voluntarily decided to stop their clinical practice due to many flaws in the care system, especially the lack of epidemic-related services and availability of personal safety equipment. Dentists due to the direct result of overwhelming fear, confusion and anxiety among dental staff, strengthened by the high perception of the risk of COVID- 19 contraction, had a significant reduction in dental clinical practice. The sudden decline in the number of dental procedures and the implementation of a new infection control protocol has caused financial problems for most dentists.

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