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Dental Emergencies During COVID-19 Pandemic: Are we providing treatment to the patients ethically and morally?

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Abstract

Like many other disciplines in the health sector, COVID-19 has mainly affected those disciplines where close contact is required such as dental practice. Given the nature of the pandemic disease, it is very challenging to treat any patient suffering from dental disease due to the close contact required to provide dental treatment. Yet, a myriad of dental emergencies might visit the dentists due to the severe pain originated as a result of the underlying disease. This severe pain pushes patients with dental disease to seek endodontic emergency departments to get treatment for severe pain. However, given the nature of the contagious disease and associated control measures to break the chain of transmission, it might be challenging for the dentists to provide accurate and effective care by following the best ethical and moral practices. In this opinion article, we provide an overview of why dentists might not provide care to the patients under the moral and ethical principles of patient care and what are the challenges that can be faced by dentists in treating the patients with severe dental emergencies. There is also a scarcity of research on understanding this phenomenon of providing ethical and moral treatment to the patients coming to the emergency department with severe pain or other severe dental problems. Thus, further research is needed to explore how the care of patients with dental problems is compromised in the emergency department and what should be the steps taken to provide them treatment guided by equity, ethics, and morality..

Keywords: Dentists; Emergency dental problems; Ethics; Moral values; COVID-19; Systematic review.

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1. Introduction

COVID-19 (Coronavirus Disease-2019) has spread quickly across the globe[1,2]. COVID-19 can cause acute respiratory tract infection among individuals infected by the virus and it is human to human transmission through saliva, nasal droplets, hands, and surface contacts[3,4]. Since the end of 2019, this newly identified deadly illness has spread swiftly through China and the remaining world. The rapidly spreading pandemic of coronavirus disease (COVID-19) has caused substantial morbidity and mortality[5,6].

By March 16, 2020, the proportion of cases of COVID-19 had increased drastically outside China, and the number of affected countries reporting confirmed cases to WHO increased drastically within weeks and then within a few days. Ever since the first case of COVID-19 was detected in Wuhan in the Hubei district of China in late November 2019, the virus has spread rapidly[7], owing to its highly contagious nature, across countries and continents[5,6]. With China reporting a significant decline in the incidence of CoVID-19 following these measures, countries around the world were quick to follow suit[8]. On 16th March 2020, the WHO declared the CoVID-19 to be a pandemic which had then affected 168,000 individuals and claimed 6500 lives across the globe[9].

An interactive web-based dashboard managed by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University, Maryland, USA estimates the total number of cases to be 141,716,848 which includes 3,024,529 deaths as of April 20, 2021 [10]. The COVID-19 global health pandemic has spoiled the health status as well as the quality of life of many individuals across the world. The highly contagious nature of the virus and its tendency to spread from person to person via aerosol droplets meant that the only way to curb its swift spread was to impose containment measures by enforcing nationwide lockdowns and travel restrictions and by encouraging social distancing[10]. These measures taken by different governments have affected the economies and health system to a greater extent. More specifically, this COVID-19 has not only affected the economies and health system in the short run, but it will have detrimental effects in the long run for which governments and administrations mainly health care systems might not be thinking of currently.

Like other disciplines in the health sector, COVID-19 has mainly affected those disciplines where close contact is required such as medical specialties related to the eye, ear, nose, and throat and has more effect on the dental procedures. For example, given the nature of the pandemic disease and its dreadful contagious course, it is very challenging to treat any patient suffering from dental disease due to the close contact required to provide dental treatment. Yet, a plethora of dental emergency cases end up visiting the health care providers or dentists due to the severe pain originated as a result of the underlying disease.

This severe pain pushes the patient with the dental disease to seek endodontic emergency department to get treatment and get relief from pain, which is sometimes severe in the intensity.

However, given the nature of the contagious disease and associated control measures to break the chain of transmission, it might be challenging for the dentists to provide accurate and effective care by following the best practices. Thus, it is not clear whether we are providing dental care to such patients ethically and morally on an equitable basis. Moreover, there is an ambiguity in how different endodontic department is assessing and evaluating the patients in their respective capacities and premises. Therefore, we are of the opinion that dentists might not provide adequate care to the patients suffering from dental emergencies due to various reasons. In this opinion article, we provide an overview of why dentists might not provide care to the patients under the moral and ethical principles of patient care and what are the challenges that can be faced by dentists in treating the patients with severe dental emergencies.

2. Challenges faced by dentists to provide adequate moral, ethical, and equitable care to the patients.

In general, healthcare providers such as dentists are at higher risk of getting infection from COVID-19 because of the nature of close contact dentists have with the patients presenting with the dental problems [11]. More specifically, dentists also get exposed to the particles and air droplets forcing out of patients' mouths while they provide treatment to the patients [11,12]. Therefore, dentists are at a higher risk of getting infected from patients and they can easily spread it to their colleagues, family member, and other patients presenting to the clinics. Under these challenging situations, it may be a normal reflexive phenomenon for dentists to get afraid of being infected by their patients. Moreover, such psychological consequences such as fear and anxiety are normal during pandemic situations, particularly when there is sudden and unexpected rise in the frequency of infected cases and mortality rates.

This is further established by one of the studies, which was undertaken to evaluate the fear and anxiety of dentists where it was found that a myriad of dentists was afraid of being infected by their patients or colleagues. Furthermore, most of the dentists are fearful of coming in contact with any suspected patient due to anxiety of getting the infection. Since COVID-19 has swiftly infected numerous individuals across the globe, the fear of being infected by a known or suspicious patient is vindicated. This response in terms of fear and anxiety is also reflected by a greater number of dentists started discontinuing their practices, which might have substantial financial implications for them in the long run.

In addition, dental patients who tend to sneeze, cough, or have to receive treatment, which need the usage instruments like high-speed hand piece or ultrasonic are more likely to spread their secretions, saliva, or blood to the other patients or even the dentists. There is a high likelihood for dental apparatus to get contaminated with abundant fatal and deadly microorganisms after use or get exposed to a polluted

and unclean environment in the dental clinics. For example, dentists can get infections by sharp surgical tools or direct contact between contaminated hands and mucous membranes[13]. Due to the unique characteristics of dental procedures where several droplets and aerosols could be produced, the precautionary measures and protocols followed in routine clinical work might not be work sufficiently to avoid the spread of COVID-19, particularly during the time of incubation, or patients do not know they are infected due to lack of obvious symptoms (sub-clinical phase) or patients might not like to disclose the infection or disease status due to stigma attached to the disease.

Moreover, an article entitled “The Workers Who Face the Greatest Coronavirus Risk”, was published in the New York Times, which describes that of those health workers who are working in the hospital to provide front line care such as nurses and doctors, dentists are the ones who are at higher risk of risk of catching infection by COVID-19[14]. In order to take vital measures against COVID-19, the American Dental Association restructured its webpage during March 2020 and also created a link to frequently ask questions from number of dentists. These questions were formulated to address the topics such as when and how to use protective equipment (PPEs) and topics pertinent to communications of patient with the dentists. Moreover, Chinese researchers also wrote a very an important paper where they made a variety of suggestions to both dental students and dentists to on how to deal with patients suffering from COVID-19 [12]. Thus, dentists are advised to take numerous precautionary measures and evade or reduce the number of dental procedures and surgeries that can generate droplets or aerosols. Furthermore, the utilization of saliva ejectors with a low or high volume can also decrease the air droplets and aerosols production. Given the severity COVID-19 pandemic and considering the huge commitment of numerous dental associations and the most famous dental journals, it is crucial to provide clear and comprehensible guidelines and recommendations that can benefit the patients in terms of timely care as well as prevent the dentists from getting infection. However, looking at the other side of the mirror, these important guidelines along with fear and anxiety of dentists might affect the provision of care for the patients coming with dental emergencies..

3. The effect of COVID-19 pandemic on providing care to the patients based on ethical and moral values

The existing guiding principles on the COVID-19 pandemic have recommended deferring all unnecessary dental treatment and surgical procedures. Thus, patients suffering from pain, bleeding, swelling, and trauma are recommended to seek the treatment during an emergency[12]. Presently, dental regulatory authorities are advising dentists to perform only emergency dental treatments across the globe[4]. This might affect providing emergency care to the patients in the various emergency department related to dental care. Certain emergencies such as progressive fascial space infection and dentoalveolar

trauma require dental intervention urgently under emergency. Most importantly, patients complaining of dental pain or seeking a multi-visit treatment plan might end up experiencing unnecessary interruptions in getting dental care during such crisis of COVID-19. Above all, it might be a matter of concern more for those patients who have to seek emergency care due to severe pain but might not get the required treatment on the principles of equity, ethics, and moral values. In general, if we look at the moral and ethical values, a doctor needs to assess the patient comprehensively with great care and sufficient time for the patients.

Patients such as those suffering from severe pain or bleeding or any dental trauma need more care and attention as compared to the elective patients coming to the outpatient department. Moreover, there is a saying in the medical field that “kill the pain otherwise pain will kill the patient”, which indicates that a patient coming to the emergency department with severe and sometimes life-threatening dental problem need more time and attention by the dentist. Unfortunately, due to COVID-19, dentists might not be providing sufficient and effective care to these patients due to their fear, anxiety, and guidelines released by various dental associations. This might not only break the trust of the patient but more importantly, it might be even more dangerous for the patient if the pain alludes to some severe underlying undiagnosed and unrecognized condition.

This poor attention provided by the dentists in the current crisis might create an ethical dilemma for the dentists of whether to protect themselves and their families or provide effective care to the patients visiting them in the emergency. On the one hand, it seems that dentists are human beings and they have their responsibilities towards their own lives as well as their families. On the other hand, they are bound by the oath they have to obey to provide the best care to the patients suffering from a different ailment. This provision of treatment is even more important in the current COVID-19 outbreak, where patients are affected by double jeopardy i.e. being affected by the fear of catching COVID-19 and also suffering from severe dental problems.

Hence, health care providers mainly dentists might need to reflect on whether they are providing appropriate care to these patients with different dental problems in an emergency based on the ethical and moral values or they are just fulfilling their duties for the sake of finishing their job and go back to home. It seems that dentists might not be providing adequate care to the patients because of the social distancing measures and their higher risk of being affected by the disease. This might compromise the care being provided to the patients coming to the emergency departments of dental medicine. This might introduce an element of immoral and unethical practice of superficial care, which might be helpful for the patient in the short run, but might prove harmful for the same patient in the longer run.

If we analyze the current situation and imagine how a dentist could be providing care to their patients in the crisis, one can imagine the quality of care being provided to these patients. Above all, this might be causing injustice to the patients coming to the emergency department with a severe ailment. For example, if a patient comes to the emergency department with pain in one tooth, there is a possibility that dentists or other health care providers offering endodontic emergency care to these patients might provide a pain killer to the patients without further evaluation. This cursory evaluation and assessment of the patient due to COVID-19 fear might cause more harm to the patient because a dentist might miss some underlying severe pathology, which might be more important to treat on an emergency basis.

Thus, the dentist might not follow the ethical and moral principles of providing treatment to the patient. In addition, lack of proper evaluation of the patient might leave him with untreated pain, which in turn can increase the number of visits to multiple dentists thus continuing the cycle of immoral and unethical practice unless the patient is cured or might develop life-threatening complications. Moreover, the associations have developed the guidelines to protect the dentists themselves but there are no such guidelines, which focus on providing ethical and moral care to the patients presenting to the emergency department[4,15]. Hence there should be some guidelines and recommendations, which should provide a pathway and framework to the dentists whereby they can provide an effective treatment to the patients in dire need of treatment based on ethical and moral values without causing harm to their lives.

4. Conclusion

The COVID-19 pandemic has created many ethical issues and challenges for health care providers including dentists and others on the front lines of care. The ongoing pandemic due to COVID-19 has led to multiple challenges for health care providers including dentists. Although it is true that dentists are more likely to be infected due to the nature of their work, this might affect the provision of care to the patients coming to the emergency department with severe conditions such as pain, bleeding, and dental trauma. This care is further compromised by the fear and anxiety of the dentists who might avoid providing quality of care to these patients on the basis of moral and ethical values. There are multiple guidelines available for the dentists to carry out their practices in the COVID-19 situation, but these guidelines are not focused on how to provide appropriate care, which is based on equity, ethics, and moral values. Dentists mainly need to reflect on their professional and ethical obligations to patients in a pandemic; how should they implement these ethical obligations and, what are the limits of these obligations. There is also a dearth of research on the topic of understanding this phenomenon more in-depth. Thus further research is needed to explore how the care of patients with dental problems is compromised in the emergency department and what should be the steps taken to provide a required treatment to such patients

guided by equity, ethics, and morality by maintaining the safety and well-being of dentists during COVID-19.

5. Declarations

5.1 Conflict of Interest Statement

The authors have no conflict of interests to declare.

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6. References

- [1].Chen Y, Liu Q, Guo D. Emerging coronaviruses: Genome structure, replication, and pathogenesis. *J Med Virol.* 2020;92(4):418-23.
- [2].Tu H, Tu S, Gao S, Shao A, Sheng J. The epidemiological and clinical features of COVID-19 and lessons from this global infectious public health event. *J Infect.* 2020.
- [3].Khurshid Z, Asiri FYI, Al Wadaani H. Human Saliva: Non-Invasive Fluid for Detecting Novel Coronavirus (2019-nCoV). *International journal of environmental research and public health.* 2020;17(7).
- [4].Peng X, Xu X, Li Y, Cheng L, Zhou X, Ren B. Transmission routes of 2019-nCoV and controls in dental practice. *International Journal of Oral Science.* 2020;12(1):1-6.
- [5].Nishiura H, Jung SM, Linton NM, Kinoshita R, Yang Y, Hayashi K, et al. The Extent of Transmission of Novel Coronavirus in Wuhan, China, 2020. *J Clin Med.* 2020;9(2).
- [6].Khachfe HH, Chahrour M, Sammouri J, Salhab H, Makki BE, Fares M. An Epidemiological Study on COVID-19: A Rapidly Spreading Disease. *Cureus.* 2020;12(3):e7313.
- [7].Liu SL, Saif L. Emerging Viruses without Borders: The Wuhan Coronavirus. *Viruses.* 2020;12(2).
- [8].Sjödin H, Wilder-Smith A, Osman S, Farooq Z, Rocklöv J. Only strict quarantine measures can curb the coronavirus disease (COVID-19) outbreak in Italy, 2020. *Euro Surveill.* 2020;25(13).
- [9].Mahase E. Covid-19: WHO declares pandemic because of "alarming levels" of spread, severity, and inaction. *Bmj.* 2020;368:m1036.
- [10]. Peng F, Tu L, Yang Y, Hu P, Wang R, Hu Q, et al. Management and Treatment of COVID-19: The Chinese Experience. *Can J Cardiol.* 2020.
- [11]. Ather A, Patel B, Ruparel NB, Diogenes A, Hargreaves KM. Coronavirus disease 19 (COVID-19): implications for clinical dental care. *Journal of endodontics.* 2020.
- [12]. Meng L, Hua F, Bian Z. Coronavirus disease 2019 (COVID-19): emerging and future challenges for dental and oral medicine. *Journal of Dental Research.* 2020;99(5):481-7.
- [13]. Kohn WG, Collins AS, Cleveland JL, Harte JA, Eklund KJ, Malvitz DM. Guidelines for infection control in dental health-care settings-2003. 2003.
- [14]. Gamio L. The Workers Who Face the Greatest Coronavirus Risk.
- [15]. Spagnuolo G, De Vito D, Rengo S, Tatullo M. COVID-19 outbreak: an overview on

dentistry. Multidisciplinary Digital Publishing Institute; 2020.