



Original Article

Impact of Covid-19 Pandemic on the Perception of Orthodontic Treatment Needs Among Dental Fraternity

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ABSTRACT

With COVID-19 declared as a worldwide pandemic, a nationwide lockdown was implemented overnight in India on March 24, 2020. This posed many challenges to the orthodontic practice that requires periodical and regular appointments to ensure appropriate results. Since orthodontic treatment often takes long period of time ranging from 12 to 18 months or even longer, patients undergoing Orthodontic treatment were affected as institutions and clinics were indefinitely closed. The participants were asked to fill out an online questionnaire using google forms and the responses submitted were analysed to note the changes in the perception of orthodontic treatment since the start of the pandemic and implementation of compulsory face covers. The study conducted was purely perspective based wherein the popular opinion was taken and conclusions were drawn on the basis of the same. The results indicated that masks seemed to reduce the consciousness of the patients, and they seemed to have become more inclined to undergo orthodontic treatment with metallic brackets now being a popular choice.

Keywords: COVID19; Masks; Braces; Metallic brackets; Orthodontic treatment

1 INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic has posed such a threat to public health around the world that even when we have managed to defeat the infection through effective treatment and/or vaccination, dramatic and long-lasting changes are expected to affect the way we live, work, and relate to each other.⁽¹⁾

This will have a direct impact on all social settings and professions and orthodontics will be no exception. Some of the important adaptations implemented in orthodontic practice while we are still suffering the effects of the pandemic may be reversible, but others will not be. The coronavirus pandemic presents challenges to the orthodontic practice.⁽²⁾

Strict microbiologic controls are required. Increasing interpersonal distance in the dental office will be important. Tele orthodontics and appliances that generate fewer appointments should be embraced. As the COVID-19

pandemic worsens, many orthodontists across the world are heading toward implementing virtualized orthodontic consultations and treatment approaches that remove the need for in-person meetings with patients.⁽²⁾

With COVID-19 declared as a worldwide pandemic, a nationwide lockdown was implemented overnight in India on March 24, 2020. Orthodontics is a dental specialty that is catered for primarily by specialist orthodontists. Since orthodontic treatment often takes longer period of time ranging from 12 to 18 months or even longer, the orthodontic patients were affected very badly as with no prior warning or anticipation, patient appointments were temporarily ceased as institutions and clinics were indefinitely closed.⁽³⁾

Thus, the need for this study was to assess the impacts of the pandemic on orthodontic residents and Orthodontic patients.

2 AIMS & OBJECTIVES

The study was conducted with the following Aims and Objectives:

- To assess the impact of covid-19 pandemic on orthodontic residents.
- To assess the impact of covid-19 pandemic on orthodontic patients.

3 MATERIALS AND METHODS

3.1 3.1 Source of the data

A total of 215 members of the dental fraternity had participated by filling an online questionnaire using google forms: <https://docs.google.com/forms/>.

3.2 3.2 Procedure

A self-designed questionnaire was circulated to 215 potential responders through messages/email. A total of 15 questions had been presented to the participants using which logical conclusions have been drawn. The participants were asked to fill out an online questionnaire using google forms and the responses they submitted were analysed to note the changes in the perception of orthodontic treatment since the start of the pandemic and implementation of compulsory face covers. The study was conducted using an online questionnaire using google forms: <https://docs.google.com/forms/>.

4 RESULTS

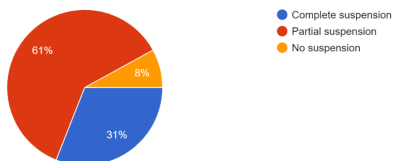
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The results were derived based on the analysis of the questionnaire

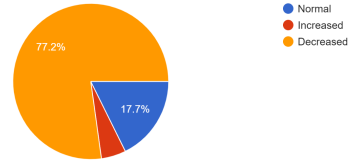
- What was the status of the orthodontic services in your workplace/college during the pandemic?

What was the status of the orthodontic services in your workplace/college during the pandemic?
213 responses



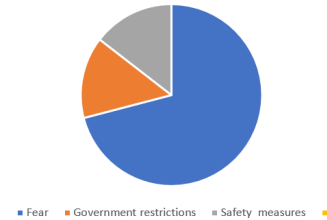
- Has the COVID-19 pandemic affected the number of patients in your college/ workplace when compared to the same time last year?

Has the COVID-19 pandemic affected the number of patients in your college when compared to the same time last year?
215 responses



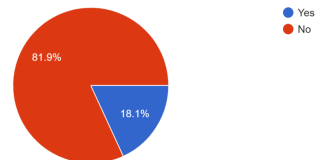
- If increased/decreased, what do you think is the likely reason?

Cause of decrease in the number of patients



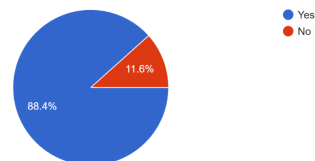
- Have you had the experience of treating or caring for patients confirmed or suspected of COVID-19?

Have you had the experience of treating or caring for patients confirmed or suspected of COVID-19?
215 responses



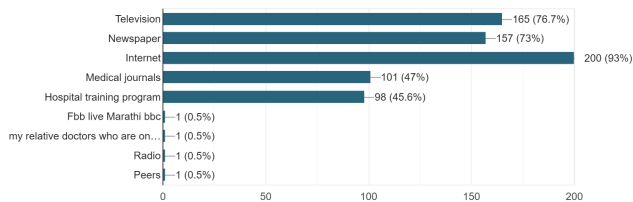
- Do you think you have relevant knowledge regarding the COVID-19 pandemic?

Do you think you have relevant knowledge regarding the COVID-19 pandemic?
215 responses



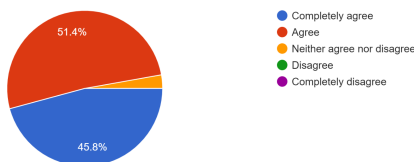
- The sources of your knowledge about COVID-19 include:

The sources of your knowledge about COVID-19 include: (multiple choices are allowed)
215 responses



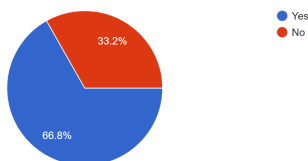
- You are confident that you understand the risks of the COVID-19 pandemic for patients and health care workers.

You are confident that you understand the risks of the COVID-19 pandemic for patients and health care workers.
214 responses



- Are you willing to treat or care for patients confirmed or suspected with COVID-19 if you have the opportunity?

Are you willing to treat or care for patients confirmed or suspected with COVID-19 if you have the opportunity?
214 responses



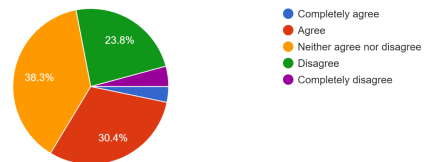
- If you choose "no" to the above question, what is the major reason?

If you choose "no" to the above question, what is the major reason? (multiple choices are allowed)
80 responses



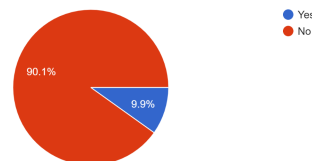
- Does PPE kit usage make patients nervous?

Does PPE kit usage make patients nervous?
214 responses



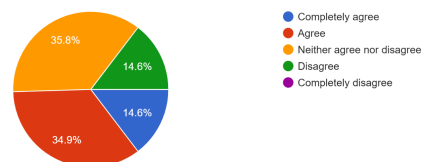
- With a mouth mask becoming the norm in society, Will it discourage patients from undergoing orthodontic treatment?

With a mouth mask becoming the norm in society, Will it discourage patients from undergoing orthodontic treatment?
213 responses



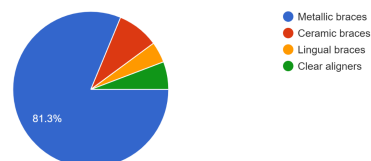
- Do you think patients are more inclined towards orthodontic correction with mandatory use of mouth mask effectively hiding metallic bracket smile.

Do you think patients are more inclined towards orthodontic correction with mandatory use of mouth mask effectively hiding metallic bracket smile
212 responses



- With a mouth mask effectively covering orthodontic braces, what kind of braces are preferred by patients?

With a mouth mask effectively covering orthodontic braces, what kind of braces are preferred by patients?
208 responses



5 DISCUSSION

Survey based studies play a pivotal role in helping the concerned party in better understanding the perspective or opinions of the public being affected. The above presented study puts forth before the orthodontic fraternity the popular opinion amongst the dental fraternity that may further help the orthodontists to make more refined decisions and keeping in view the perspective presented before them.⁽²⁾

In the following discussion we shall be analysing the opinion and the impact of the questions on the potential responders:

- The major portion of the potential responders were found to be between the ages of 21-26 years.
- 71% of the potential responders were females.
- A major majority of dental institutions witnessed a partial suspension in their services which caused a delay and lag in the orthodontic treatment and follow up procedures had to also be halted.
- Fear of spread of covid infection especially in the dental field due to direct exposure of aerosols and various procedures that require the usage of the same motor driven instruments, the guidelines imposed by the government have led to a decrease in the number of patients visiting a dental clinic.
- Although a majority of the dental fraternity has not had the opportunity of treating covid positive patients, it is essential that we know the importance of being aware of the prevalent covid virus, its mutant strains, clinical problems associated with the same, a very strong majority of the potential responders are confident that they are aware of the spreading covid virus with most of the knowledge and awareness being drawn from sources such as the newspaper, television and the internet.
- Belonging in the Healthcare provider's fraternity the potential responders stand aware and alert by having ample exposure by attending various hospital training programs that have been made mandatory by various institutions and the governmental body.
- On the flip side, having considered the low direct exposure to treat covid patients, only half a majority of the potential responders are confident about the risks of the covid 19 and the risk factors for the patient and the Healthcare worker.
- Having considered all these factors it is still very pleasing to know that more than 66% of the potential responders are willing to treat and attend to the needs of

COVID positive patients or COVID suspected patients.

- It is also essential to note that those unwilling to do so is because they are highly susceptible or in close contact with someone who is highly susceptible.
- A mixed and varied opinion is noted when the psychology of the patient is considered with respect to the usage of PPE kits wherein some doctors suggest that they've observed their patients getting nervous while some observe no difference, the other end of the spectrum presents us with another group of doctors who have observed a better assurance of safety and confidence that infection transmission has been minimised by the use of PPE kits by the Healthcare provider.
- A wide majority of 90.2% has observed that the usage of masks does not discourage the patient from getting orthodontic treatment.
- Another interesting perspective to be observed is on whether the presence of a mask inclined a patient to undergo orthodontic treatment as it conceals the metallic smile or does it conceal their mouth thereby allowing them to postpone their treatment.
- It has been observed that a majority of the patients are inclined towards orthodontic treatment with metallic braces being the most popular choice as they are cost effective and at the moment concealed by the presence of a mask.

6 CONCLUSION

The study conducted was purely perspective based wherein the popular opinion was taken and conclusions were drawn on the basis of the same. The results indicated that

- Masks seemed to reduce the consciousness of the patients.
- Patients seemed to have become more inclined to undergo orthodontic treatment with metallic brackets now being a popular choice.

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