

Original Research

Assessment of problems faced by orthodontic patients during COVID- 19 pandemic

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ABSTRACT:

Background: Different policies and strategies were taken by each affected country to face this pandemic and minimize the number of cases, from partial to complete lockdown, giving that in the absence of a vaccine. The present study was conducted to assess problems faced by orthodontic patients during COVID- 19 pandemic. **Materials & Methods:** 60 orthodontic patients age ranged 14- 30 years undergoing orthodontic treatment were enrolled and a questionnaire was prepared in the form of google.com/forms which were sent to all participants through whatsapp and were asked to respond. **Results:** Mode of communication was phone call in 62%, SMS in 28% and mail in 10%. 45% were strongly disagree, 20% disagree, 5% were somewhat disagree, 10% were neutral, 7% were somewhat agree, 5% were agree and 8% were strongly agree regarding closing the dental clinics to minimize the spread of COVID-19. 13% patients did not stop visiting Orthodontist whereas 87% had not visited since >2 months. Reason for not visiting orthodontist was clinic was closed by 56%, fear of COVID- 19 spread by 20% and above both by 14%. Problems faced by patient was pricing of wires in 20%, ulcers due to wires in 35% and bracket breakage in 28%. 35% did not communicate, 50% communicated once in a week and 15% once in a month with orthodontist. The difference was non- significant ($P < 0.05$). **Conclusion:** Most patients undergoing treatment were concerned about their restriction to orthodontic clinic visits.

Key words: Orthodontic, Google from, Whatsapp

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INTRODUCTION

With the rapid rise in the number of cases with COVID-19, the pandemic led to several governments across the world taking action and many cities were placed under complete lockdown, travel bans were implemented, and schools, universities, and private clinics were indefinitely closed.^{1,2} The restrictions in India came into force overnight on March 24, 2020, which at first was announced to be for 21 days following which continued to be extended due to the steady increase in incidence rates.³ As a result, all OPDs, dental clinics, and institutions across India were instructed to be shut, leaving only emergency services functioning.⁴ Different policies and strategies were taken by each affected country to face this pandemic and minimize the number of cases, from partial to complete lockdown, giving that in the absence of a vaccine, the

World Health Organization has recommended some precautions to control infection, such as regular hand hygiene, the use of face masks, following cough etiquette, and most importantly keeping social distancing.⁵ The main way of transmission is through close contact with an infected individual; however, numbers of asymptomatic carriers were reported, which increases the possibility of transmission without cautious actions being taken.⁶ Patients receiving orthodontic treatment require multiple check- up visits to their orthodontist to adjust their appliances over a longer period that sometimes may take more than 2 years.⁷ Therefore, millions of orthodontic patients were not able to receive the care they needed during this pandemic and the closing of clinics that followed. This led to higher level of anxiety and mental distress among orthodontic patients in comparison with patients receiving other

types of dental treatments.⁸ The present study was conducted to assess problems faced by orthodontic patients during COVID- 19 pandemic.

MATERIALS & METHODS

The present study comprised of 60 orthodontic patients age ranged 14- 30 years undergoing orthodontic treatment in the department of orthodontics. All enrolled patients were informed regarding the study and their written consent was obtained through emails.

Demographic profile of each patient was recorded such as name, age, gender etc. A questionnaire was

prepared in the form of google.com/forms which were sent to all participants through whatsapp and were asked to respond. It comprised of question regarding the period of time the respondent had missed their visits during this pandemic. The reason for missing the appointments, communication with the orthodontist, main concern, degree of agreement toward closing of clinics and the problems patients faced and their ways of addressing those problems. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

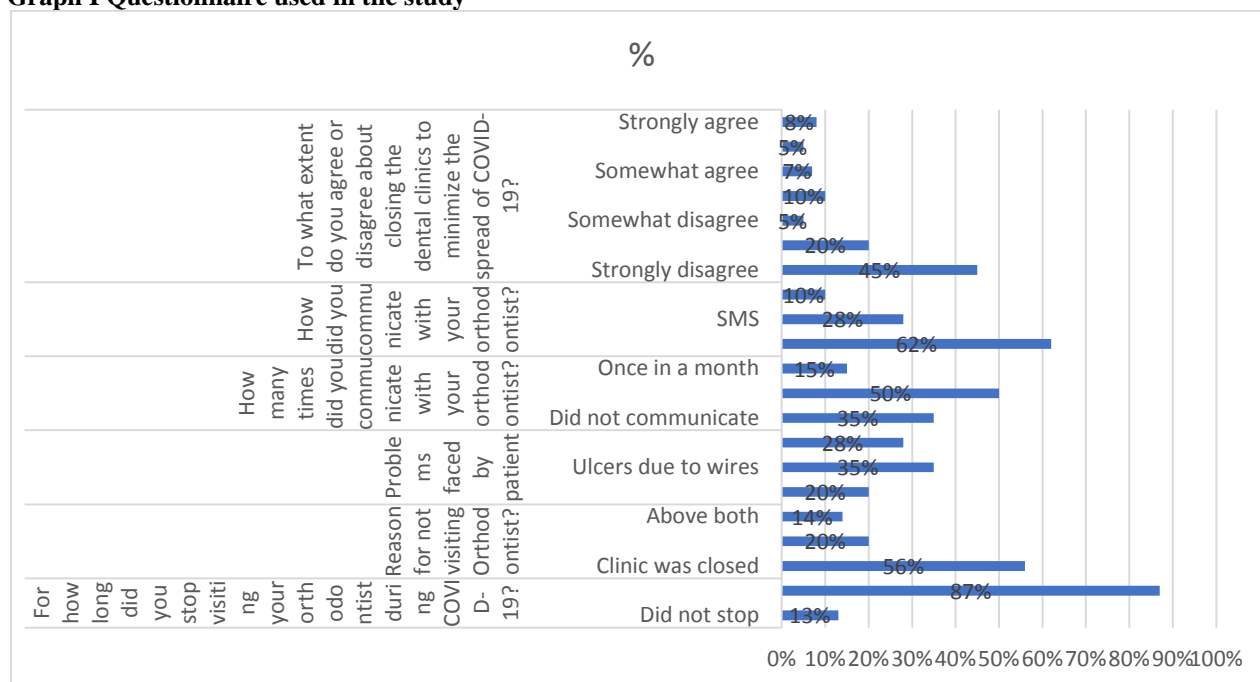
Age group (Years)	Male	Female	P value
14-22	16	20	0.12
23-30	14	10	0.15

Table I shows that age group 14-22 years comprised of 16 males and 20 females and 23-30 years had 14 males and 10 females. The difference was non- significant ($P > 0.05$).

Table II Questionnaire used in the study

Questionnaire	Response	%	P value
For how long did you stop visiting your orthodontist during COVID-19?	Did not stop	13%	0.02
	>2 months	87%	
Reason for not visiting Orthodontist?	Clinic was closed	56%	0.04
	Fear of COVID- 19 spread	20%	
	Above both	14%	
Problems faced by patient	Pricing of wires	20%	0.12
	Ulcers due to wires	35%	
	Bracket breakage	28%	
How many times did you communicate with your orthodontist?	Did not communicate	35%	0.05
	Once in a week	50%	
	Once in a month	15%	
How did you communicate with your orthodontist?	Phone call	62%	0.03
	SMS	28%	
	Mail	10%	
To what extent do you agree or disagree about closing the dental clinics to minimize the spread of COVID-19?	Strongly disagree	45%	0.05
	Disagree	20%	
	Somewhat disagree	5%	
	Neutral	10%	
	Somewhat agree	7%	
	Agree	5%	
	Strongly agree	8%	

Table II, graph I shows that 13% patients did not stop visiting Orthodontist whereas 87% had not visited since >2 months. Reason for not visiting orthodontist was clinic was closed by 56%, fear of COVID- 19 spread by 20% and above both by 14%. Problems faced by patient was pricing of wires in 20%, ulcers due to wires in 35% and bracket breakage in 28%. 35% did not communicate, 50% communicated once in a week and 15% once in a month with orthodontist. Mode of communication was phone call in 62%, SMS in 28% and mail in 10%. 45% were strongly disagree, 20% disagree, 5% were somewhat disagree, 10% were neutral, 7% were somewhat agree, 5% were agree and 8% were strongly agree regarding closing the dental clinics to minimize the spread of COVID-19. The difference was significant ($P < 0.05$).

Graph I Questionnaire used in the study

DISCUSSION

The COVID-19 pandemic has been the main concern among societies because of many limitations that have occurred to everyday life.⁹ Being in high risk of infection, most dental clinics were closed, which put the patients who were receiving orthodontic treatment in a complicated situation, mainly due to the hindrance that occurred to their regular visits to their orthodontist. In the field of orthodontics, treatment is generally not considered an emergency.¹⁰ However, what is not understood is the importance of regular check-ups or monthly appointments, as well as the impact of restrictions put on patients concerning visiting their orthodontists in times of need.¹¹ Understanding whether patients realize the importance of regular follow-ups, feel the need for orthodontic treatment to be regarded as emergencies, or assess the reasons for fear or inconveniences in the minds of patients undergoing orthodontic treatment in a time where they are entirely restricted to the confines of their homes are grey areas that are left unexplored.¹² The present study was conducted to assess problems faced by orthodontic patients during COVID-19 pandemic.

In present study, age group 14-22 years comprised of 16 males and 20 females and 23-30 years had 14 males and 10 females. Bustati et al¹³ assessed the challenges faced by patients receiving orthodontic treatment and their preferred solutions to overcoming these challenges during this pandemic. An online questionnaire was developed and sent to patients receiving orthodontic treatment at a public or private clinic. A total of 388 responses were analyzed: mean age 20.4 years, 75% (291) female, and 58% (226) received their treatment at a public clinic. Of all participants, 27.3% (106) were still unable to attend

their appointments and 69% (244) stated that closing of the clinic was the main reason for missing their appointments. Depending on their type of appliance, the patients faced different problems and chose multiple ways to deal with them. Most participants had fixed appliances, 84% (327), and only 21% (64) of them stated that they had no problem compared with 39% (11) and 36% (8) for removable appliance and clear aligner groups, respectively.

We found that 13% patients did not stop visiting Orthodontist whereas 87% had not visited since >2 months. Reason for not visiting orthodontist was clinic was closed by 56%, fear of COVID-19 spread by 20% and above both by 14%. Problems faced by patient was pricing of wires in 20%, ulcers due to wires in 35% and bracket breakage in 28%. Shenoi et al¹⁴ assessed the impact of the COVID-19-related lockdown on the treatment and psychology of patients undergoing orthodontic treatment. A self-designed online exploratory questionnaire of 15 questions was distributed to 500 potential responders selected from obtained lists through messages and emails. It was mandatory to answer all questions and the survey was anonymized and did not contain any identifying information. The response rate was 81.6%. The study revealed that the majority of patients were affected by the lack of access to orthodontic visits. The reasons for the same were attributed to fear of increased treatment duration, inconveniences caused by poking wires, broken brackets, etc., and lack of communication between the orthodontists and patients, among the various other reasons. The importance of orthodontic appointments was also understood by patients.

We found that 35% did not communicate, 50% communicated once in a week and 15% once in a

month with orthodontist. Mode of communication was phone call in 62%, SMS in 28% and mail in 10%. 45% were strongly disagree, 20% disagree, 5% were somewhat disagree, 10% were neutral, 7% were somewhat agree, 5% were agree and 8% were strongly agree regarding closing the dental clinics to minimize the spread of COVID-19. Caprioglio et al¹⁵ and Suri et al¹⁶ in their study mentioned the possible orthodontic emergencies with simple do-it-yourself solutions such as cutting of distal ends of wires with nail cutters, use of over the counter disclosing wax for relief, and the importance of virtual assistance in such times.

The severity and seriousness of the spread of disease should be clearly explained to all patients, making them aware of the importance of social distancing and the need for personal protection even after the lockdown has been lifted. If at all patients plan on rushing to their dentists, it should be made sure these patients are symptomless and are visiting hospitals only for emergencies.¹⁷

CONCLUSION

Authors found that most patients undergoing treatment were concerned about their restriction to orthodontic clinic visits.

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