

Cognizance among orthodontists towards the treatment and motivation given to the patients in the current scenario of the pandemic.

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ABSTRACT

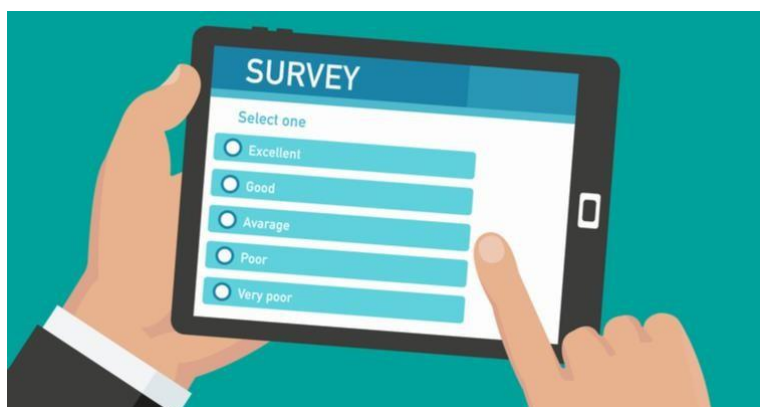
During present situation of the ever-deadly COVID-19 pandemic, there is a mixed emotion of confusion, fear, anxiety and trauma in the mindsets of both the clinicians as well as their patients. The oral hygiene professionals in general and the orthodontists in particular should play an important role in managing and treating the patients with the use of all standard operating protocols. Although there is less production of aerosols in the orthodontic treatment and the rate of spread of the virus is least as compared to other branches still the orthodontists have an essential part in motivating and treating their patients who are apprehensive and scared about the current situation. Hence, proper knowledge and awareness among the orthodontists should be created in order to motivate the patients and cease the fear of the present situation. To assess the awareness among orthodontists, in the treatment and motivation given to the patients in the current pandemic situation.

Received 06 August, 2023; Revised 18 August, 2023; Accepted 20 August, 2023 © The author(s) 2023. Published with open access at www.questjournals.org

I. INTRODUCTION

In the present situation of the deadly COVID-19 pandemic, there is a mixed emotion of confusion, fear, anxiety and trauma in the mindsets of both the clinicians as well as their patients. The main way of transmission is through close contact with infected individual. However, numbers of asymptomatic carriers were reported which increases the possibility of transmission without cautious actions being taken. Although most governments encouraged people to stay and work from home, society is in need for healthcare workers in everyday life and during this pandemic specifically and this put them in high risk.

In particular of all healthcare aspects dental producers require more direct contact with aerosols which resemble even higher possibility of infection. Despite numerous modifications and guidelines that were recommended to dental practice during this pandemic, several dental clinics were closed and only patients with emergency cases could visit their dentist under strict precautions and it was suggested that all other regular treatments should be postponed.



The oral hygiene professionals in general and the orthodontists in particular should play an important role in the management and treating the patients with the use of all the standard operating protocols. Although there is less production of aerosols in the orthodontic treatment and the rate of spread of the virus is least as compared to other branches still the orthodontists have an essential part in motivating and treating their patients who are apprehensive and scared about the current situation.



Hence, proper knowledge and awareness among the orthodontists should be created in order to motivate the patients and cease the fear of the present situation.



II. AIM & OBJECTIVES

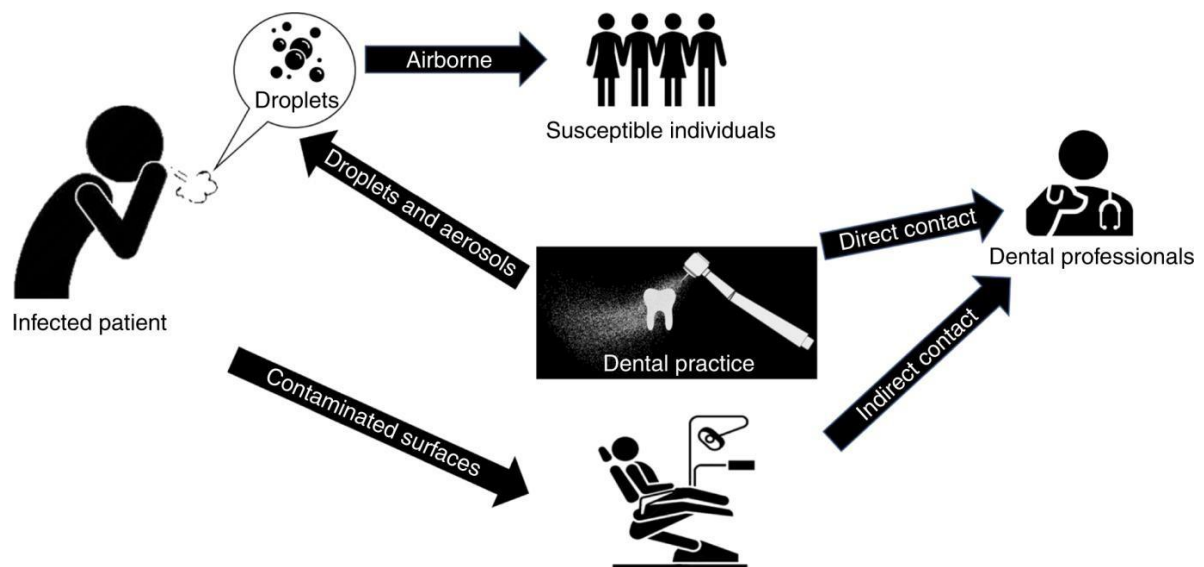
The present survey is to assess the awareness among orthodontists, in the treatment and motivation given to the patients in the current pandemic situation.

III. MATERIALS AND METHODS

A questionnaire was prepared with 18 questions where the participants(orthodontists) had to fill up the answers through google forms. The number of participants were based on the number of forms filled. The total number of forms filled was 46. The question were in multiple choice format with 4 choices having 'yes, no, maybe, not sure'. The last question was about the different suggestions given by the participants.

The questions were as follows -

- 1) Designation
- 2) Average Hours of clinical work
- 3) No of Patients treated during the COVID 19 pandemic/ ongoing treatment
- 4) Attitude of the patient towards the treatment?
- 5) Do you follow the proper COVID sterilization protocol for the ongoing treatments?
- 6) Do you think patients are more worried about their treatment than the thought of getting infected by COVID19?
- 7) Would you motivate your patients for taking the orthodontic treatment during this pandemic times?
- 8) According to your knowledge which methods would you follow for the motivation of your patients?
- 9) Would you use aerosol generating procedures for treating a patient?
- 10) Would you advice your patient to manage any minor post treatment complications at home to reduce the exposure of the patient?
- 11) According to you, which of the following procedures can be managed at home?
- 12) Do you follow the stress reduction protocol while treating your patients?
- 13) Do you instruct your patients to maintain a proper oral hygiene?
- 14) Does orthodontics involve any emergency treatments?
- 15) Do you feel that the orthodontic treatment can be delayed due to the ongoing pandemic situation?
- 16) Do you think following proper sterilization protocol and motivating a patient the clinician can go ahead with the treatment during pandemic?
- 17) Would you motivate your patients to reduce their anxiety levels during the treatment?
- 18) Any Other Suggestions.





IV. RESULTS

Results were obtained according to the statistical analysis. Data was tabulated and analysis of results were done using SPSS version 21 software. Pearson Chi-square test was used to find out the difference between responses of study subjects. The p value was < 0.05.

50 responses were analysed of which the percentage of clinicians who had participated in the survey was 62.2% where as the percentage of Post graduate students was 37.8%. (Fig 1)

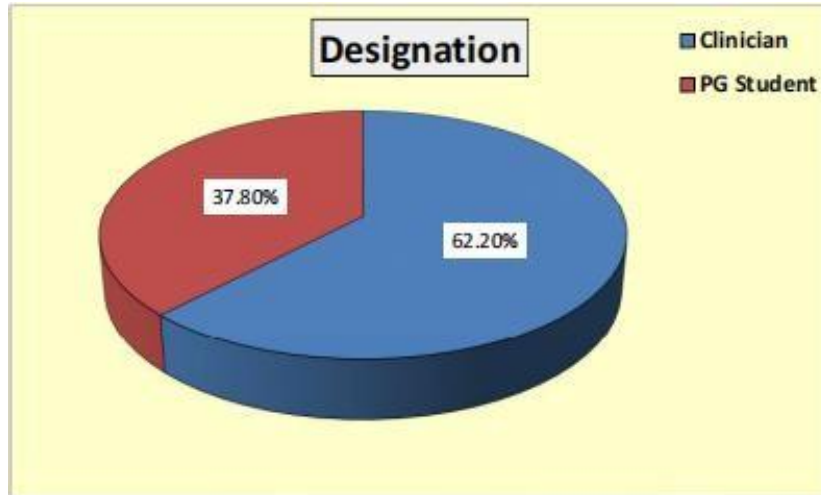


Fig 1

The average hours of clinical work was < 4 hrs for 58.8% of Post Graduate students. 41.1% of the post - graduate students worked for an average of 4-6 hours as compared to 14% of the clinicians. 21.4 % of the clinicians worked for an average of 6 hours and 64.2% of clinicians worked for an average of 6-12 hours during the pandemic situations. Therefore there was a highly significant difference seen in both group when intragroup comparison was done.(Table 1 , Fig 2)

	Clinician n (%)	PG Student n (%)	p value
< 4 hours	0 (0%)	10 (58.8%)	p<0.001**
4-6 Hours	4 (14%)	7 (41.1%)	
6 Hours	6 (21.4%)	0(0%)	
6-12 Hours	18 (64.2%)	0 (0%)	

Table 1

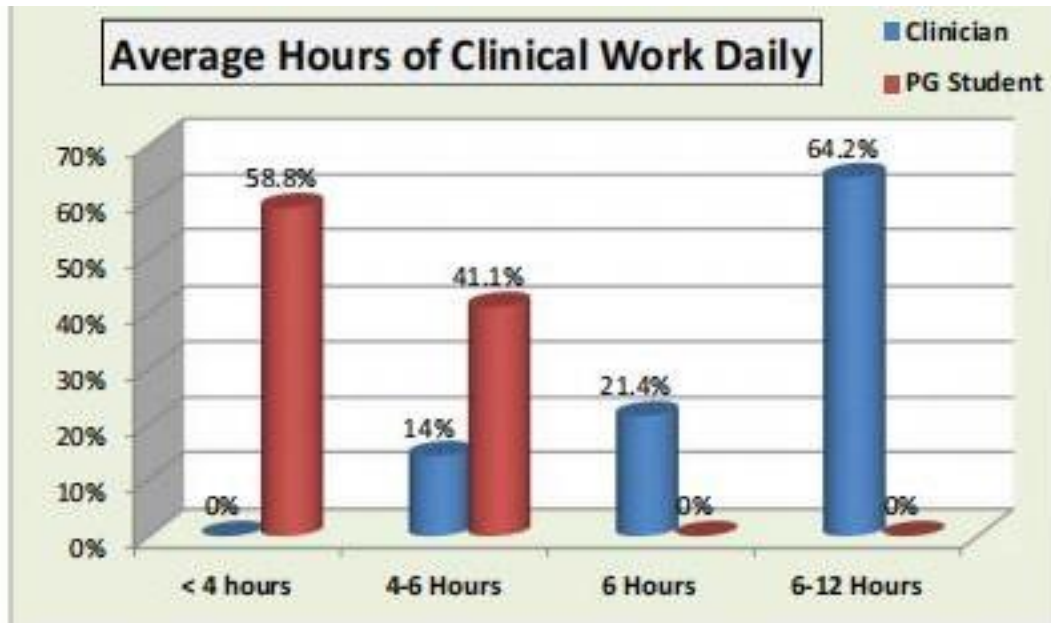


Fig 2

On intragroup comparison among the number of patients treated during the pandemic scenario between both the groups, results showed that 94.1% of post graduate students worked on less that 5 patients when compared to the clinicians (64.2%) whereas on the other hand 35.7% of clinicians worked for more than 5hours when compared to 5.9% of post graduate students. (Fig 3)

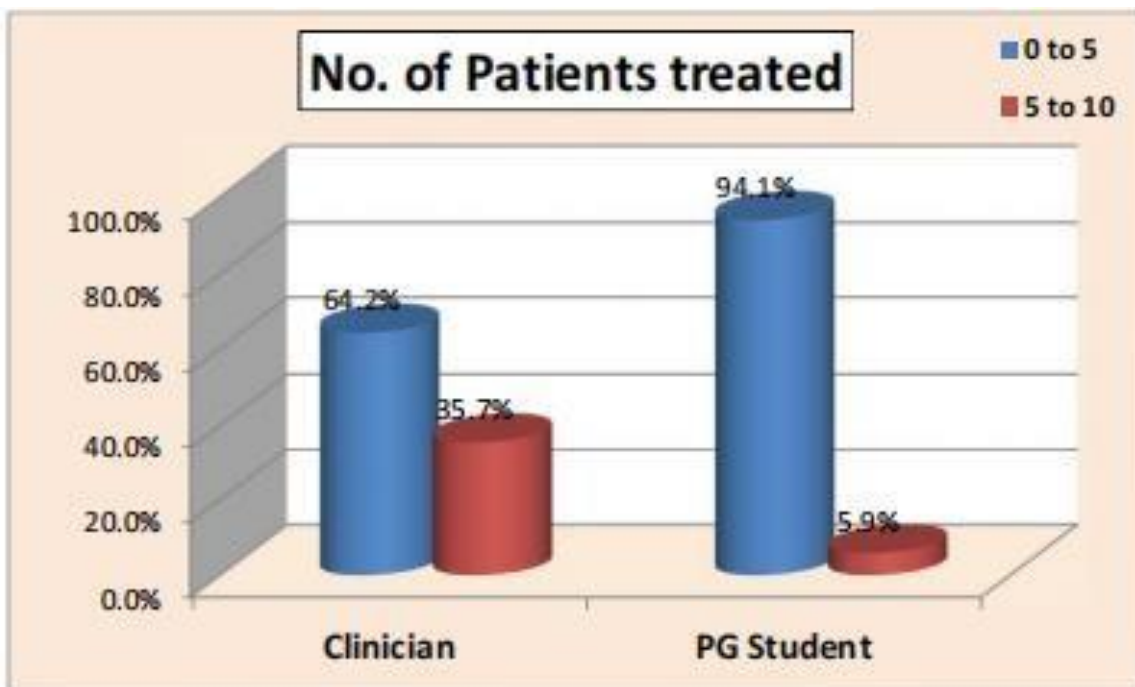


Fig 3

On comparison of different attitude of the patients treated by both the group there was no statistically significant difference seen among both the groups. 29.4 % of PG students treated patients who were scared where as 14 % of the clinicians treated scared patients. 7.1% of clinicians treated apprehensive patients as compared to 5.9% of PG students. 10.7% of clinicians had confused patients where as 5.9% PG students had confused patients. 67.8% of clinicians treated easy going patients s compared to 58.8% of PG students. (Table 2)

	Clinician n (%)	PG Student n (%)	p value
Scared	4 (14%)	5 (29.4%)	p = 0.216
Apprehensive	2 (7.1%)	1 (5.9%)	
Confused	3 (10.7%)	1 (5.9%)	
Easy Going	19 (67.8%)	10 (58.8%)	

p>0.05 – no significant difference

Table 2

There was no significant difference seen between both the group on intragroup comparison when different questions were asked such as whether they follow proper covid 19 sterilization protocol for the ongoing treatments. 100% of the both the group followed sterilization protocol for the ongoing treatment.

Further on asking whether they think that patients are more worried about their treatment than the thought of getting infected by COVID19, there was no statistically significant difference found as both the groups has equal data.

There was significant difference between both the groups for the questions such as whether they motivate patients for taking the orthodontic treatment during this pandemic times (p=0.005), use of aerosol generating procedures for treating patients (p=0.018) and advice their patients to manage any minor post treatment complications at home to reduce the exposure of the patient. (p=0.034) (Table 3)

	Clinician n (%)	PG Student n (%)	p value
Follow the proper COVID sterilization protocol for the ongoing treatments	28 (100%)	17 (100%)	p =1.000
Think patients are more worried about their treatment than the thought of getting infected by COVID19	18 (64.2%)	11 (64.7%)	P=0.816
Motivate patients for taking the orthodontic treatment during this pandemic times	24 (85.7%)	8 (47%)	p =0.005*
Use aerosol generating procedures for treating a patient	22 (78.5%)	9 (52.9%)	P =0.018*
Advice patient to manage any minor post treatment complications at home to reduce the exposure of the patient	19 (67.8%)	15 (88.2%)	P=0.034*

p>0.05 – no significant difference *p<0.05 – significant **p<0.001 – highly significant

Table 3

On further asking other questions to both the groups such as if they followed the stress reduction protocol while treating patients, if they instructed patients to maintain a proper oral hygiene, are orthodontics involved in any emergency treatments and whether orthodontic treatment can be delayed due to the ongoing pandemic situation there was highly significant difference seen between both the groups.

	Clinician n (%)	PG Student n (%)	p value
Follow the stress reduction protocol while treating your patients	22 (78.5%)	7 (41.1%)	p <0.001**
Instruct your patients to maintain a proper oral hygiene	25 (89.2%)	8 (47%)	p <0.001**
Orthodontics are involved in any emergency treatments	21 (75%)	5 (29.4%)	p <0.001**
Orthodontic treatment can be delayed due to the ongoing pandemic situation	9 (32.1%)	14 (82.3%)	p <0.001**
Proper sterilization protocol and motivating a patient the clinician can go ahead with the treatment during pandemic	26 (92.8%)	13 (76.4%)	p =0.083
Motivate your patients to reduce their anxiety levels during the treatment	23 (82.1%)	10 (58.8%)	p =0.026*

p>0.05 – no significant difference *p<0.05 – significant **p<0.001 – highly significant

Table 4

	Clinician n (%)	PG Student n (%)	p value
Directly speaking to the patients through tele conversation	3 (10.7%)	5 (29.4%)	p =0.417
Demonstrating the previous pre and post treatment cases through photographs and models	0 (0%)	0 (0%)	
Reassuring the patients	10 (35.7%)	3 (17.6%)	
Using strict safety and sterilization protocol so that the patient is not worried about the transmission of the virus	15 (53.5%)	9 (52.9%)	

p>0.05 – no significant difference

Table 5

	Clinician n (%)	PG Student n (%)	p value
Irritation of lips/cheeks from brackets	16 (57.1%)	11 (64.7%)	p =0.163
Ligature has become loose from bucket	5 (17.8%)	4 (23.5%)	
Broken or loose elastic chain	7 (25%)	2 (11.7%)	
Swallowed pieces of appliances or a bracket	0 (0%)	0 (0%)	

p>0.05 – no significant difference

Table 6

V. DISCUSSION

Globally, the COVID-19 pandemic has been the main concern among society since many limitations have occurred to the everyday life. Therefore the orthodontists are in a state of dilemma about the status of the treatment given to the patient. This particular survey showed the results which depicted that most of the Post Graduate students as well as the Clinicians had the knowledge and proper attitude to treat and motivate their patients with utmost care and belief. The clinician worked for an average of 6-12 hours whereas the PG students worked for an average of less than 4 hours. The attitude of the patients were mostly easy going and the patients were mostly motivated about the treatment. The awareness and knowledge of orthodontists towards the treatment planning and motivation to the patients were found to be significant.

VI. CONCLUSION

The COVID-19 pandemic has a significant impact on orthodontic treatments. Therefore more such questionnaires and surveys are needed to be inculcated in the field of orthodontics to avoid the confusion among patients as well as the clinicians.

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