



MENTAL HEALTH OF PATIENTS WITH METAL AND CERAMIC BRACKETS IN SOUTH INDIANS DURING COVID PANDEMIC

Orthodontics

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ABSTRACT

Aim: To assess the mental health and perception of patients undergoing orthodontic treatment during the COVID outbreak. The current study was aimed at comparing the psychological status of patients wearing metal brackets and ceramic brackets during the covid pandemic

Methodology: A questionnaire containing 6 multiple choice questions were virtually given to patients bonded with conventional brackets and the scores were assessed using mental health questionnaire (anxiety scale) during the COVID outbreak.

Results: In accordance to the scale, patients with Metal brackets were more inclined towards Score 4 and patients with ceramic brackets towards score 3.

KEYWORDS

anxiety, brackets, esthetics, malocclusion

INTRODUCTION

Coronavirus disease 2019 (COVID-19) was first reported in Wuhan, China, in December 2019. With increase in COVID positive cases, it became global health emergency of international concern. On March 11, 2020, the World Health Organization declared COVID-19 as a global pandemic. During the pandemic, cities were locked down with residents staying at home to avoid disease transmission. Because of the extended lockdown, people are falling prey to loneliness, which could further develop into depression and anxiety¹. Among these people, a definitive focus should be on dental patients. In a dental clinic setup, the patients as well as dentists are exposed to the aerosol and blood droplets generated from high-speed handpiece or ultrasonic instruments to the surroundings. Since COVID-19 were transmitted by droplet and close contact, delivery of orthodontic treatment is questionable.²⁻⁴

The aim of the study is to comparatively evaluate the mental health status of patients with conventional brackets and ceramic brackets during the corona virus outbreak.

MATERIALS AND METHODOLOGY

A descriptive cross sectional survey was carried out with a mean age of 13-30 years.

The participant was chosen by the convenience sample method in south indian population

QUESTIONNAIRE

As the investigator could not reach the participants, an anonymous online questionnaire consisting of 6 multiple choice questions in Google forms were virtually sent through whatsapp messenger (whatsapp Inc)

Patients were also asked to answer the set of 6 questions, to describe about their own mental health during the quarantine and social distancing period, on the basis of mental health questionnaire (anxiety scale)³ was sent through Whatsapp Messenger App (Whatsapp Inc) in July, 2020, pertaining to the same study and the mental health was compared between the two groups. The questionnaire was prepared in English.

STUDY POPULATION

The link was forwarded to 200 patients (100 patients bonded with conventional brackets and 100 patients bonded with ceramic brackets) and the 100 responses for both groups were recorded in a span of 3 weeks. Group 1 - patients bonded with twin bracket (MBT prescription, 0.022 inch slots)

Group 2 - patients bonded with ceramic brackets
The responses of both groups were recorded in a span of 3 weeks
The mental health was compared between the two groups.

QUESTIONNAIRE

Anxiety Scale

The responses were recorded in
Score 1-0-14 days
Score 2-none
Score 3-don't know
Score 4-refused

- Over the last 2 weeks, how many days have you been anxious?
- Over the last 2 weeks, how many days have you been able to stop worrying
- Over the last 2 weeks, how many days have you had trouble relaxing
- Over the last 2 weeks, how many days have you been restless
- Over the last 2 weeks, how many days have you been irritable
- Over the last 2 weeks, how many days have you been annoyed

RESULTS

The responses were recorded as below

Anxiety scale - patients with metal brackets

S no	0-14 days	None	Don't know	Frustrated
1	10	15	20	55
2	10	10	15	65
3	2	3	10	85
4	10	5	15	65
5	20	10	3	67
6	10	10	8	72

We found patients with metal brackets were more inclined towards Score 4

Anxiety scale-patients with ceramic brackets

	0-14 days	None	Don't Know	Frustrated
1	10	20	65	5
2	3	2	90	5
3	20	20	58	2
4	2	8	87	3
5	0	5	92	2
6	0	10	88	2

We found that patients with ceramic brackets responded more positively towards score 3

DISCUSSION

Psychological intervention for patients infected with COVID-19 is needed for timely prevention of inestimable hazards from secondary mental health crisis. The aim of psychological crisis intervention helps in managing the disease and also helps to assess the psychosocial health of the individual.⁴

In low and middle income countries with a low rate of mental health service ,inaccessibility of digital technology and health service for individuals with low socioeconomic status online mental health service or virtual consultation should be considered⁵

LIMITATIONS

The main limitations of this study is a small sample size and lack of awareness on mental health in the current COVID pandemic.

CONCLUSION

It is essential to strengthen the mental health of the patients undergoing orthodontic treatment during the pandemic.

REFERENCES

1. Sone T, Nakaya N, Sugawara Y, Tomata Y, Watanabe T, Tsuji I. Longitudinal association between time-varying social isolation and psychological distress after the Great East Japan Earthquake. *Soc Sci Med.* 2016;152:96–101
2. Choobineh A, Neghab M, Hasanzade J, Rostami R. Comparative Assessment of Dentists' Psychological Health Status in Shiraz with Their Physicians Counterparts Using General Health Questionnaire (GHQ-28). *Journal of Dental Medicine-Tehran University of Medical Sciences.* 2013;25(4):290–96.
3. Asgari I, Ebn-Ahmady A, Khoshnevisan M-H, Eslampour F. Evaluation of the patient-based indices for orthodontic need assessment in the 13 to 18 year-old adolescents in Isfahan. *Journal of Dental Medicine-Tehran University of Medical Sciences.* 2012;25(2):124–134.
4. Khadem P, Maroofi V, Ghasemi D. The relationship between oral and dental health and quality of life based on DIDL index. *Journal of Research in Dental Sciences.* 2011;7(4):41–35
5. Kiyak HA. Does Orthodontic Treatment Affect Patients'Quality of Life? *J Dent Educ.* 2008;72(8):886–894.