

Evaluation of the Awareness and Knowledge of Orthodontics and Orthodontic Treatment among Patients of the Central India Population

Krushna Vilasrao Mule, Sameer Parhad, Pawankumar Dnyandeo Tekale*, Kapil Fafat and Vinay Umale

Department of Orthodontics and Dento-facial Orthopedics, Dr Rajesh Ramdasji Kambe Dental College and Hospital, Akola, Maharashtra, India

***Corresponding Author:** Pawankumar Dnyandeo Tekale, Department of Orthodontics and Dento-facial Orthopedics, Dr Rajesh Ramdasji Kambe Dental College and Hospital, Akola, Maharashtra, India.

Received: July 31,2023; **Published:** August 21, 2023

Abstract

Objective: The aim of this study was to evaluate the awareness and knowledge of orthodontics and orthodontic treatment among Central India Population.

Methods: In this descriptive simple cross sectional epidemiological survey was conducted on the patients coming to the outpatient department of dental colleges located in central India population. A pre-structured questionnaire consisting of twelve questions was given to random 500 patients after obtaining their informed consent. The questions included in the survey helped to assess the awareness of patients toward dentist and orthodontic treatment.

Results: The results indicated that evaluation of the patient's perception and knowledge regarding orthodontic treatment.

Conclusion: Present study was undertaken by assessing patients visiting to the Dental colleges located in central India. Within limits of this study, it may be concluded that there is awareness regarding orthodontic treatment among the patients.

Keywords: *Dentist; Malocclusion; Orthodontist; Orthodontic Treatment; Patient's Perception*

Introduction

Malocclusion is the most common oral and dental health problem malocclusion is defined as the disorder that occurs with the loss of normal occlusal relationship between the teeth while the upper and lower jaws are closed [1,2].

Most common complaints of individuals regarding chewing, speaking and aesthetic problems. Orthodontic treatment may be requested depending on the person's knowledge and awareness of orthodontic treatment to improve functioning and aesthetics [3,4].

Aim of the Study

Evaluation of the awareness and knowledge of orthodontics and orthodontic treatment in patients visiting dental college and hospitals among central India Population.

Materials and Methods

A descriptive simple cross-sectional epidemiological survey was conducted Among dental colleges & hospitals in Central India Population.

The patients’ personal details were collected After obtaining ethical clearance from the Institutional Ethical Committee.

This simple cross-sectional survey was conducted on the patients coming to the outpatient department to estimate awareness.

A pre-structured questionnaire consisting of twelve questions was given to random 500 patients after obtaining their informed consent. The questions included in the survey helped to assess the awareness of patients toward dentist and orthodontic treatment. A few questions assessed whether the patients faced any problems during marriage proposals due to mal-aligned teeth. The responses of the patients to the questions were recorded on a 3-point Likert scale (a. Yes, b. No, and c. Don’t know).

Inclusion criteria

1. Patients in the age group of 18 - 25 years
2. Patients may or may not be taking orthodontic treatment in the age group of 18 - 25 years, who may or may not have taken orthodontic treatment.
3. Patients who have had undertaken orthodontic treatment in the past.

Exclusion criteria

1. Mentally compromised patients.
2. Patients not fitting in the desired age group.

Statistical analysis

1. Data were coded and entered Excel sheet.
2. To maintain the data quality (validity), rechecking and cross-checking were done during the data entry phase.
3. Statistical analysis was done using SPSS 21 version. Basic descriptions were presented in the form of percentages. Proportional bar graphs were used to depict the discrete data for different outcome responses.

Results

A pre-structured questionnaire consisting of twelve questions was given to random 500 patients after obtaining their informed consent.

Results of the first three questions (Table 1)

A total of 12.2% of people have not heard of an orthodontist before; 5.8% people have not noticed other people having irregular teeth and 27.3% do not know the ill effects of irregular teeth.

Questions	Yes	No	I don't know
Awareness about irregular teeth/oral habits?	83.9%	10.2%	5.8%
Have you heard of an orthodontist before?	85.5%	12.2%	2.2%
Do you know the ill effects of irregular teeth?	67.9%	27.3%	4.8%

Table 1

In table 2

1. A total of 84.7% of the people have seen other people wearing braces; 64.7% of people know the duration for braces is longer than any other dental treatment (Table 2).
2. 43% of people have not felt the need to wear braces.
3. 2.4% of people know that oral habits can be treated using braces; 46.6% of people know the cost of orthodontic treatment is high.

Questions	Yes	No	I don't know
4. Have you seen people wearing braces?	84.7%	11.6%	3.6%
5. Do you know the duration for braces is longer than other dental treatments?	64.7%	28.7%	6.6%
6. Have you felt the need to wear braces?	43.0%	51.0%	6.0%

Table 2

In table 3

1. Total 80.7% of people believe that proper alignment of teeth is important for facial appearance (Table 3).
2. Extraction protocol during orthodontic treatment.
 - a. 75.1% of people are aware about the removal of teeth is required during orthodontic treatment.
 - b. Whereas only 8.4% of people do not know about extraction during orthodontic treatment.
3. 33.9% of people are not aware of the use of a retainer after orthodontic treatment.

Questions	Yes	No	I don't know
7. Do you believe that teeth should be properly aligned for a better facial appearance?	80.7%	13.3%	6.0%
8. Are you aware that sometimes few teeth may have to be removed for aligning irregular teeth?	75.1%	16.5%	8.4%
9. Are you aware of wearing retainers after aligning teeth?	65.9%	33.9%	0.2%

Table 3

In table 4

Nearly .4% of people faced problems during marriage proposals due to mal-aligned teeth and nearly 59.4% of people noticed a change in their personality after orthodontic treatment.

Questions	Yes	No	I don't know
10. Did you face any problems during marriage proposals due to misaligned teeth?	26.70%	73.3%	0%
11. Are you aware that orthodontic treatment is costly?	79.50%	20.1%	0.4%
12. After orthodontic treatment did you notice any change in your personality?	59.40%	20.7%	19.9%

Table 4

Discussion

The study is aimed to evaluate awareness and knowledge of orthodontics and orthodontic treatment in patients visiting outpatient departments of different Dental Colleges and Hospitals in central India to improve functioning and aesthetic among them. There are geographical, historical, economic, social, and cultural differences between the different parts of Central India. Facial and dental appearance has a significant impact on one's life before and during adolescence and plays a major role in all stages of human life. This is because individuals develop increased self-awareness of their external appearance [5,6].

Raising awareness constitutes the basis for planning oral health. Today, various social programs, school programs, and media such as television and the internet provide opportunities for people to acquire information. In this way, people can learn about orthodontic problems, mismatched Jaws, and consequences of malocclusion and its treatment and can increase their awareness. Determining the patient's level of awareness about orthodontic treatment is an important issue and is necessary. Since orthodontic treatment in the early period (preventive and interceptive) can help to prevent malocclusion, it is of great importance to inform patients about orthodontic treatment.

There have been reports of an increase in the awareness of orthodontics worldwide, a specialty of dentistry in children and adults. Similarly, there has been an increase in orthodontic treatment in some countries. Malocclusion is still not considered a dental problem in developing countries [7,8]. More priority is given to the treatment of tooth decay and periodontal diseases due to pain. Most cases of malocclusion are still untreated due to other factors such as lack of information about malocclusion, lack of resources, literacy rate, and socio-economic status of patients and parents. The level of oral-dental health knowledge, positive dental health attitude, and dental health behavior are interrelated and are associated with education and income level, as demonstrated by the previous studies. Attitudes and perceptions toward dental appearance and esthetics differ among populations and individuals [9,10].

In the present study, there was a comparative lack of awareness among people in rural areas regarding advances and various techniques in orthodontic treatment. Although people are concerned regarding their facial appearance, a lack of awareness regarding this field makes them unapproachable to an orthodontist [11-13].

Harish., *et al.* reported that the awareness of orthodontic malocclusion and the need for orthodontic treatment is becoming more common in society [3]. The demand for orthodontic treatment is becoming more prominent in dentistry with the increasing interest in oral health. In this study, it was found that there is awareness regarding orthodontic treatment among the patients.

But there is a lack of awareness related to the advances in orthodontics, extraction protocol, and retention period among the central Indian population.

Conclusion

There are lots of studies available regarding the awareness of orthodontic treatment among people:

1. Present study was undertaken by assessing patients visiting Dental Colleges and hospitals among the central Indian population. Within the limits of this study, it may be concluded that there is awareness regarding orthodontic treatment among patients in central India.
2. But there is a lack of awareness related to the advances in orthodontics, extraction protocol, and retention period.
3. Although people are concerned regarding their facial appearance, a lack of awareness regarding this field makes them unapproachable to an orthodontist.

Limitations of the Study

This study may benefit those undertaking similar studies in the future to broaden their views regarding orthodontics and undertaking various measures to make teachers aware of problems arising due to irregular teeth and ways to treat them.

Financial Support and Sponsorship

Nil.

Conflicts of Interest

There are no conflicts of interest.

Bibliography

1. Mane PN, *et al.* "Evaluation of the awareness and knowledge of orthodontics and orthodontic treatment in patients visiting the School of Dental Sciences, Karad". *Journal of Oral Research and Review* 10.2 (2018): 62.
2. Cigerim SC and Erhamza TS. "Evaluation of awareness and knowledge of orthodontic treatment among primary and secondary school students: A cross-sectional epidemiological school study". *APOS Trends in Orthodontics* 11.2 (2021): 140-147.
3. Harish A, *et al.* "Survey on awareness about orthodontic treatment in the general population of Nagpur district". *International Journal of Advanced Research* 5 (2017): 500-504.
4. Dhar V, *et al.* "Prevalence of gingival diseases, malocclusion, and fluorosis in school-going children of rural areas in Udaipur district". *The Journal of Indian Society of Pedodontics and Preventive Dentistry* 25 (2007): 1035.
5. Walther DP, *et al.* "Walther and Houston's Orthodontic Notes". 5th edition. Oxford: Wright (1994).
6. Kenealy P, *et al.* "An evaluation of the psychological and social effects of malocclusion: Some implications for dental policy making". *Social Science and Medicine* 28 (1989): 58391.
7. Mandeep KB and Nirola A. "Malocclusion pattern in orthodontic patients". *Indian Journal of Dental Sciences* 4 (2012): 20 22.
8. Mahajan BK. "Social environment. Textbook of Preventive and Social Medicine". 1st edition. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd (1991): 827.
9. Ashley FP. "Role of dental health education in preventive dentistry". In: Murray JJ, editor. *Prevention of Dental Disease*. 3rd edition. Oxford: Oxford University Press (1996): 406.
10. Wright FA. "Children's perception of vulnerability to illness and dental disease". *Community Dentistry and Oral Epidemiology* 29 (1982): 32.
11. Sahu A, *et al.* "Awareness, perception and practice regarding orthodontic practice and principles among non-orthodontic specialists- Exploratory research". *Journal of Family Medicine and Primary Care* 9.2 (2020): 585-589.
12. Chukwuebuka, *et al.* "Awareness of Orthodontic Treatment in The Management of Malocclusion Amongst Selected Higher Institution Students in Imo State, Nigeria". *IRE Journals* 6.2 (2022): 84-89.
13. Adyasti K, *et al.* "The awareness level of orthodontic treatment among early adolescents (a survey among students of 111 public Junior High Schools, Jakarta)". *Journal of Dentomaxillofacial Science* 6.1 (2021): 5-9.

Volume 22 Issue 9 September 2023

© All rights reserved by Pawankumar Dnyandeo Tekale., *et al.*