

EVALUATING THE KNOWLEDGE, AWARENESS AND PERCEPTION OF ORTHODONTIC TREATMENT FROM THE POPULATION OF RAICHUR –A QUESTIONNAIRE STUDY

Orthodontics

Dr. Sidharth Ravi Pillai

Department of Orthodontics and Dentofacial Orthopedics, AME'S Dental college

Dr. Srinivas kumar

Professor, Department of Orthodontics and Dentofacial Orthopedics, Ame's Dental college

Dr. Gautam Raj Pillai

BDS Department of Orthodontics and Dentofacial Orthopedics

ABSTRACT

The current study's objective is to learn more about how the population of Raichur, perceive, feel, and are aware about different orthodontic therapies. It is a questionnaire survey to evaluate their knowledge and attitude toward orthodontic treatment. The questionnaire was prepared and circulated among patients using online google forms. The online responses were collected and tabulation of the data was done in excel sheets. Data was analysed based on the statistical software. In the current study 100 individual sample has been selected based on sample estimation.

KEYWORDS

questionnaire, awareness, knowledge, orthodontics,

INTRODUCTION

Malocclusion is characterized as any deviation from the ideal formation and positioning of teeth within the oral cavity. Such misalignments can lead to considerable social and psychological consequences, manifesting as lowered self-esteem, diminished quality of life, and challenges in daily interactions.

Extensive research has consistently demonstrated that both parents and children recognize the potential of orthodontic treatment to significantly boost self-confidence and enhance social acceptance in affected individuals.

The primary aim of orthodontic treatment is to meticulously align the teeth, achieving a harmonious arrangement that not only enhances visual appeal but also optimizes functional capabilities. This alignment ensures the proper distribution of biting forces across the dental arch, which is crucial for maintaining the health and integrity of the teeth, gums, and underlying bone structures. Strong evidence indicates a profound relationship between the aesthetic appearance of teeth and overall facial features, with age emerging as a more impactful factor than gender. It is clear that the outcome of orthodontic treatment in adult patients is largely contingent upon a variety of patient-related factors, including motivation and compliance.

A substantial body of prior research has been devoted to improving adult patients' understanding of the essential nature of orthodontic treatment. These studies are designed to elevate awareness regarding the specific oral health issues patients may face. For example, in a comprehensive study conducted in South Wales, researchers engaged with parents and children to explore their preferences and knowledge regarding orthodontic care. Participants answered questions that delved into their awareness of different types of orthodontic appliances, their perceptions regarding pain during treatment, and their expectations regarding the duration of the orthodontic process. It is widely acknowledged that patients and their guardians have significant expectations from orthodontic procedures, anticipating marked improvements in the aesthetic appeal of their smiles, as well as enhancements in overall oral health and functional capacity. Nevertheless, research conducted by Yao et al. indicates a critical gap in the literature regarding the effects of dental misalignment on overall dental health and the effectiveness of orthodontic treatments. Furthermore, a study by Shrestha et al. explored the knowledge and attitudes of Nepalese patients towards orthodontic treatment, revealing noteworthy differences in perceptions based on gender. This underscores the necessity for a comprehensive examination of these diverse factors within the framework of orthodontic care and treatment.

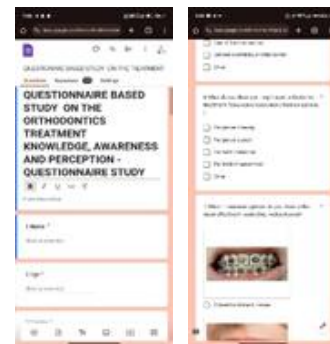
MATERIALS AND METHODS

Source Of The Data

- Google form consisting of 23 questions based on multiple choice and data will be collected by questionnaire through WhatsApp Application and QR Code.

Material Required

- Smartphone device with internet services along with WhatsApp enabled/ camera for scanning the QR code



Inclusion And Exclusion Criteria

Inclusion

- Age group between 18-30 years
- Raichur population
- Smartphone users with internet connectivity

Exclusion

- Age other than between 18-30 years
- Non-Resident individuals of Raichur.

METHODOLOGY

A questionnaire-based survey including 23 questions which is divided into two sections, was conducted for 100 participants from Raichur population and samples were taken into the study from (Lvd college, BRB college and Vidhyanidhi PUC college).

A Google form with multiple choice questions was created through Google form which consisted of automatic collection of the response of the data and represented in the graphical representation to assess the knowledge, awareness and perception towards conventional braces, self-ligating braces, aligner treatment and lingual braces.

Statistical Analysis

Statistical analysis is performed using Statistical Package for Social Science (SPSS) version 21 for Windows (SPSS Inc Chicago, IL).

Descriptive qualitative data is used. Data normality is checked by using Shapiro-Wilk test. Confidence interval is set at 95% and probability of alpha error (level of significance) is set at 5%. Power of the study is set at 80%. Overall intergroup comparison among two groups is done using chi-square test.

DISCUSSION

The majority of participants were aware of orthodontic treatments,

such as braces and the general benefits of straightening teeth. This high awareness could be attributed to the widespread presence of media, advertisements, and increased awareness of aesthetic dental care.

However, it is notable that despite the general awareness, there remains a lack of awareness about specific treatment types, such as self-ligating brackets and clear aligners and even Lingual braces, which were seen by only a small proportion of participants. This suggests that participants are familiar with traditional treatments.

Additionally, the belief that orthodontic treatment is painful might also discourage individuals from seeking care, particularly among some people in Raichur population who may have heightened concerns about discomfort and treatment duration.

The high familiarity with metal braces (73%) reflects their long-standing position as the most commonly used orthodontic treatment. However, fewer participants were aware of more aesthetic alternatives such as ceramic braces (1%) and clear aligners (2%) and lingual braces (1%). This disparity in awareness suggests that marketing and public education campaigns need to focus more on promoting these newer, less visible treatment options, where access to specialized orthodontic care may be limited.

The understanding of malocclusion as "irregular teeth" (85%) demonstrates that participants have a clear basic understanding of the term. However, the perceived causes of malocclusion revealed interesting trends, with most participants attributing malocclusion to trauma or injury (81%), followed by hereditary factors (9%). These responses reflect the general misconceptions among the public regarding the causes of dental malocclusions, which could be addressed through targeted educational efforts by dental professionals to explain the range of contributing factors, such as dental habits and developmental issues.

The willingness to consider orthodontic treatment (71%) and the high recognition of its benefits reflect a strong positive attitude toward improving one's smile. This supports the notion that cosmetic considerations are a driving force for orthodontic treatment. Additionally, the overwhelming response (87%) regarding the treatment of jaw problems and cleft lip/palate further demonstrates the public's general knowledge of the broader applications of orthodontics, beyond just aesthetic purpose. One notable finding is the high level of awareness towards general concept of the Orthodontic treatments. Most of the participants of Raichur population were more familiar with Metal Braces and shown more stronger preference than other aesthetics form of treatment such Clear aligners, Self ligating braces and Lingual braces. The expectations of the patients at the end of the Orthodontic treatment were an overall improvement in the facial appearance with satisfactory oral functions.

CONCLUSION

- This study provides valuable insights into the knowledge, awareness, and perceptions of orthodontic treatment in teenagers and young adults from Raichur Population.
- The findings suggest that while general awareness of orthodontics is high, there is a significant gap in the awareness of newer treatment options such as self-ligating brackets and clear aligners and Lingual braces in the population of the Raichur.
- The study also highlights the major role that Cost and Duration of the Treatment play in influencing treatment decisions. Despite this, there is a high level of willingness to undergo orthodontic treatment, especially for aesthetic purposes.

REFERENCES

1. Chopra, S., & Gupta, A. (2020). Barriers to orthodontic treatment in rural India: A cross-sectional study. *Journal of Indian Society of Orthodontic Research*, 22(4), 301-308. <https://doi.org/10.4103/jisor.2020.049>
2. Jones, M., & Lee, A. (2018). Awareness of orthodontic treatments in urban and rural populations: A comparative study. *American Journal of Orthodontics and Dentofacial Orthopedics*, 154(2), 234-239. <https://doi.org/10.1016/j.ajodo.2018.03.019>
3. Jones, R. D., & Smith, H. P. (2020). Economic barriers to orthodontic care in low-income settings: A global perspective. *Journal of Global Health*, 10(1), 010601. <https://doi.org/10.7189/jogh.10.010601>
4. Kaur, P., & Jain, M. (2019). Factors influencing orthodontic treatment decisions in India: A survey among teenagers. *Journal of Dental Sciences and Research*, 33(2), 185-190. <https://doi.org/10.1007/s40940-019-00253-z>
5. Kumar, S., & Prakash, A. (2017). The role of orthodontics in improving facial aesthetics and self-esteem: A survey of Indian youth. *Indian Journal of Dental Research*, 28(6), 499-505. https://doi.org/10.4103/ijdr.IJDR_567_17 Muthu, M. S., & Singh, R. (2021). Awareness and perceptions of clear aligners among Indian adolescents: A regional study. *Orthodontic Journal of India*, 31(4), 18-22. https://doi.org/10.4103/ortho.ortho_500_21