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DENTAL STUDENT'S PERCEPTION OF MALOCCLUSION AND COMPARISION WITH LAYMAN IN HYDERABAD

Dental Science

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ABSTRACT

Introduction: The relationship between physical appearance and perception of an esthetic deviation, and the impact of such deviation on self-esteem and body image are important issues in determining the benefits of orthodontic treatment.

Aim: To assess dental student's perception of Malocclusion and comparing it with General Public.

Materials and Methods: A total of 230 undergraduate dental students of Government Dental College and Hospital, Afzalgunj, Hyderabad Telangana formed the study group. Each classroom of the participants was visited, and self-administered questionnaire was given. An analysis of variance was done between the groups to test for statistical difference. Categorical variables were evaluated using a Chi-square test with the level of significance of $P < 0.001$.

Results: About 75% of the students were aware of their dental esthetics. About 75% of females were satisfied with the attractiveness of their teeth when compared to 69% in males. House surgeons had more positive attitude compared to the 1st year students.

Conclusion: The dental students had good knowledge about the orthodontic treatment and had a positive attitude toward it. Females had very good knowledge, satisfaction and positive attitude compared to the males regarding dental esthetics and treatment. House surgeons were much more aware, very much satisfied and had a more positive attitude than 1st year students.

KEYWORDS

Perception, dental students, satisfaction, Malocclusion

INTRODUCTION

"Your smile will give you a positive countenance that will make people feel comfortable around you by Les Brown." An important facet of orthodontic treatment is to improve facial aesthetics by correcting malocclusion and enhance the well-being of patient. The psychological benefits of treatment often prevail in improvements in function and oral health. [1]

It is also observed that children with less dental consciousness tended to be dissatisfied with their dental appearance and perceived a greater need for orthodontic treatment. [2] Without estimatimating the need and demand for treatment, it is very difficult to provide favorable orthodontic services.[3]

The main goal of orthodontic treatment is to providing Jackson's triad. Structural integrity, functional efficiency and esthetic needs. The orthodontist routinely evaluates and prescribes treatment plans to their patients in order to satisfy the stated goals. While the first two considerations have been researched and are continually discussed in all the specialties of dentistry, the last aspect dental esthetics has escaped research attention.[4] The lack of research material in this area is not due to a lack of interest in the subject but to the difficulty of measuring exactly what "Dental esthetics" actually means. Esthetics is judgmental commodity, and the assumed variability in individual judgments (beauty is in the eye of the beholder) makes it difficult to make generalized statements.[5-7]

The aim of this study was to assess the self-perception of dental appearance among dental students. The objectives of this study were to assess the knowledge and attitude towards malocclusion and comparing between different class groups and sexes.

MATERIALS AND METHODS

The study participants were 197 layman & 329 dental students of Government Dental College and Hospital, Afzalgunj, Hyderabad Telangana. The study group comprised 200 males and 337 females of I, II, III, IV B.D.S. students, House surgeons and lay people aged between 17 and 23 years.

The data for this study were collected visiting to the class-rooms of subjects and were requested to complete a structured questionnaire. The questions were prepared as follows: 19 questions about their attitude toward malocclusion and need for orthodontic treatment. Each question had two possible answers, ranging from the positive response to a negative response, and these answers were given scores ranging 0–1, the highest score to the best and the lowest to the worst. The test items assessed the subject's ability to recognize the presence or absence of mal-occlusion, knowledge to perceive the impact of mal-occlusion and attitude about orthodontic treatment. Statistical analysis of the data set was performed by grouping the answers to each of the questions into two categories: A negative response and a positive or favorable response. Categorical variables were evaluated with a Chi-square test. Statistical significance was set at $P < 0.05$.

RESULTS

Around ninety six percent of the subjects were aware of their dental esthetics, and four percent were not aware of esthetics at all. About 95% of females had very good knowledge about dental esthetics compared to 80% of males. However, the differences are statistically not significant. Self-satisfaction with the attractiveness of their teeth indicated a fairly objective evaluation of their own dental malocclusion situation. About 67.87% of the subjects were satisfied with the attractiveness of their teeth, 32.2% of the subjects reported negative feeling toward their teeth.

About 60.87% of the subjects were expected to have orthodontic treatment 61% felt their teeth could be better if aligned better. Twenty percent people tried to avoid smiling because of appearance.

Perception versus Need

When asked about how many students were un-satisfied about their dental attractiveness and had a positive attitude toward orthodontic treatment-77% of subjects were un-satisfied of which 55% had a positive attitude toward orthodontic treatment. This is highly statistically significant ($P < 0.01$).

When compared among different class groups about the knowledge of dental esthetics, House surgeons were very much aware of it followed by final year students. However, there was no statistical significance found among the various classes. 1st year students were not aware of dental esthetics very much.

When asked among different class groups about satisfaction of dental esthetics, House surgeons were very much satisfied about their teeth followed by final years and laymen All the class groups were happy with their attractiveness almost equally. However, the House surgeons and layman were not happy with their dental esthetics. This was not statistically significant. The most influencing variable was found that, the teeth affect the way their face looks, and this was considered to be the most influencing factor among all the classes.

DISCUSSION

The importance of patients' perceptions regarding orthodontic treatment cannot be underestimated as it is the patients who receive treatment and need to gain satisfaction from improved esthetics and function.[7] It had been hypothesized that increased experience with and availability of orthodontic service should be translated into differences in esthetics rating and perception of treatment need.[8] Similar results have been obtained in our present study where 97% of the dental students who were having knowledge about orthodontic treatment were aware of dental esthetics. We may postulate that females had very good knowledge about dental esthetics compared to the males. Regarding self-satisfaction about their teeth, the study indicates that the subjects did make fairly accurate self-evaluation of their own malocclusions (Crooked Teeth). The unsatisfied subjects with their dental esthetics had a positive attitude toward orthodontic treatment. The satisfied subjects with their dental esthetics were aware of the attractiveness of their teeth.

This is also highly statistically significant. The sex difference is probably due to the fact that the standards for acceptable facial form are more clearly delineated for females and thus deviations in dental form that adversely influence facial outline are more important to females than males. Similar results were obtained by Goel[9] The subjects who had malocclusion and did not report to the orthodontic clinic seems to believe that teeth do not affect their esthetic value and this appeared to be more of an ignorance that teeth does significantly affect facial appearance and lack of knowledge was the main factor that kept away from treatment[9]

Kerosuo *et al*. study concluded that access to free of cost orthodontic treatment was likely to affect the treatment rate, whereas it did not seem to influence the self-perceived need for treatment.[10] Similar study conducted by Helm *et al*. suggested that certain malocclusions especially conspicuous occlusal and space anomalies may adversely affect body image and self-concept not only at adolescence but also in adulthood.[11] It is in the strongest association with study conducted by Birkeland *et al*. that both children and parents rate pleasant esthetics as an important factor for psycho-social well-being.[12] In accordance to Bentele *et al*., Index of Orthodontic Treatment Need is an promising teaching aid for improving educational outcomes for orthodontic referral when sufficiently prepared to dental students to diagnose malocclusion and make appropriate referrals of potential orthodontic patients.[13][14]

The limitation of this study is that the dental students may not represent the general population of the society. Further cross-sectional studies are required to include more numbers of participants of different age groups.

SUMMARY AND CONCLUSION

A questionnaire study evaluated the awareness about teeth, level of self-satisfaction, attitude toward orthodontic treatment and the overall perception of dental appearance among a group of dental students. From the study done it was found that the subjects had:

- Good knowledge about the orthodontic treatment and positive attitude toward orthodontic treatment
- The teeth affect the way their face looks, dental attractiveness the most influencing variable to perceive orthodontic treatment
- Females had very good knowledge, satisfaction and positive attitude compared to the males regarding dental esthetics and treatment
- House surgeons were much more aware, very much satisfied and had a more positive attitude than Layman

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