



PREVALENCE OF MALOCCLUSION AND ORTHODONTIC TREATMENT NEED IN PRE ADOLESCENT PATIENTS AND ITS ASSOCIATION IN DIFFERENT MALOCCLUSION

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Abstract :

Aim:

The objective of this study is to assess the prevalence of malocclusion and orthodontic treatment needed in preadolescent patients and its association.

Background:

The objective of orthodontic treatment is to accomplish ideal impediment within the framework of function, stability and esthetics. The patients who look for orthodontic treatment are worried about working on their appearance and social acknowledgment, frequently more than they are with working on their oral health. Upgrading these parts of personal satisfaction is a significant rationale in going through orthodontic treatment. Pre adolescent is the ideal age group for undergoing orthodontic treatment treating malocclusion.

Materials and Methods:

The data was collected from Saveetha dental college department. The details of outpatients were collected, with inclusion and exclusion criteria.

Results:

This study shows class I malocclusion with higher prevalence rates when compared with other malocclusion. The need for orthodontic treatment is high between the age group of 11-14 years.

Conclusions: The prevalence of malocclusion is a significant deviation from the normal occlusion and the population requiring orthodontic treatment is high.

Keywords: Age group; Malocclusion; Orthodontic treatment; Prevalence.

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1. Introduction:

The goal of orthodontic treatment is to achieve the optimal obstruction while maintaining stability, function, and aesthetics. Patients who seek orthodontic treatment usually worry more about improving their appearance and social acceptance than they do about improving their oral health.(1) The improvement of these aspects of personal pleasure is a key justification for undergoing orthodontic treatment.(2) The best age range for receiving orthodontic treatment to correct malocclusion is before adolescence.

Regardless of age, general dentists and orthodontists must take into account patients' expectations regarding changes in oral function, aesthetics, social acceptance, and body image when counseling patients about these operations and throughout the course of therapy.(3)Orthodontic anomalies have been associated with psychosocial distress, poor periodontal condition, and impaired masticatory function, and so should be regarded as a health problem.

Orthodontic anomalies should be viewed as a health issue because they have been linked to emotional distress, bad periodontal health, and reduced masticatory performance(4). Although there is evidence that some characteristics, such as a deep overbite,crossbite,exposed incisors, and impacted teeth, may have a negative impact on the longevity of the dentition, it is less clear how dental irregularity is related to periodontal disease, caries, and mandibular dysfunction.(5)(6)

Different opinions about what should be treated and what should be regarded as a mild and harmless variation may exist among clinicians, patients, and

their families. Additionally, there may be differences between different clinical groups as well as between general care referring physicians and specialized orthodontists. (7)There are many social, economic, and other aspects that could affect how someone personally feels about the need for orthodontic treatment.Despite the information regarding orthodontic awareness and treatment requirements, malocclusion is unquestionably a public health issue in young populations. There aren't many studies to determine how many people in India need orthodontic treatment. The foundation of orthodontic therapy is the age range of 10-18-year-old schoolchildren(8)(9). This study proposes to bring out the prevalence of different malocclusion, and the need for orthodontic treatment(20).

Our team has extensive knowledge and research experience that has translate into high quality publications (10–19)(21)

2. Materials and Methods:

The data was collected from Saveetha dental college department.The details of outpatients were collected, with inclusion and exclusion criteria.The data was collected from the outpatient department undergoing orthodontic treatment for malocclusion correction. The data included pre adolescent age groups below 18 years males and females. The data were tabulated and imported to SPSS software. The data were statistically analyzed and results were obtained.

3. Results and Discussion:

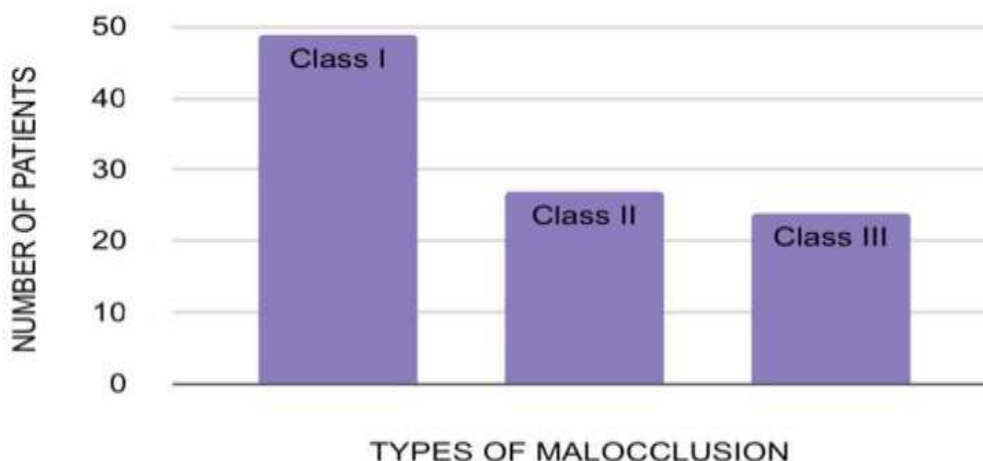


FIGURE 1: The above bar graph shows X-axis with the Types of malocclusion and in Y-axis with Number of patients,In this class -I malocclusion is more predominant than class-II and class-III malocclusion.

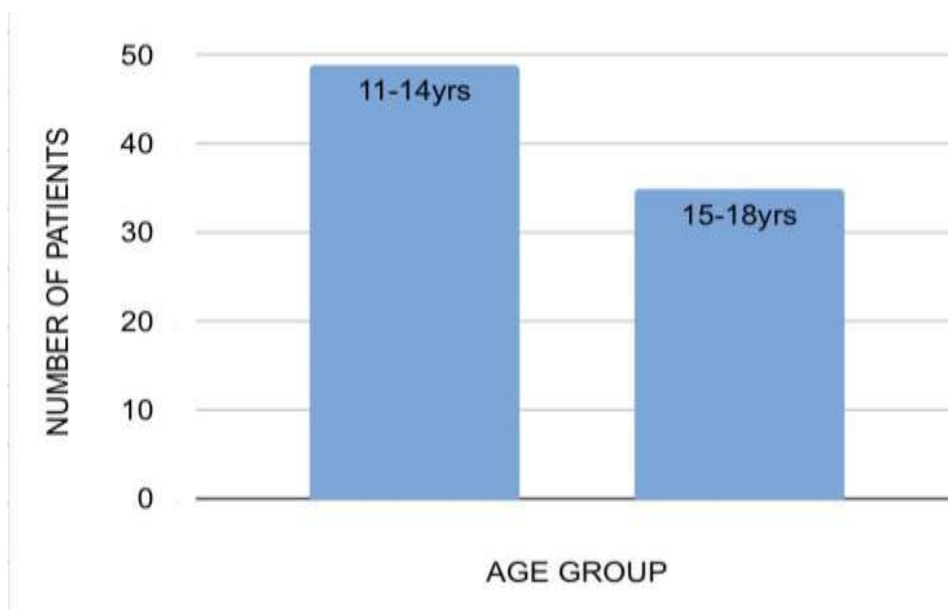


FIGURE 2: The above bar graph shows X-axis with Age group and Y-axis with Number of patients, which denotes that 11-14 years of age group was more predominant than 15-18 years of age group undergoing orthodontic treatment.

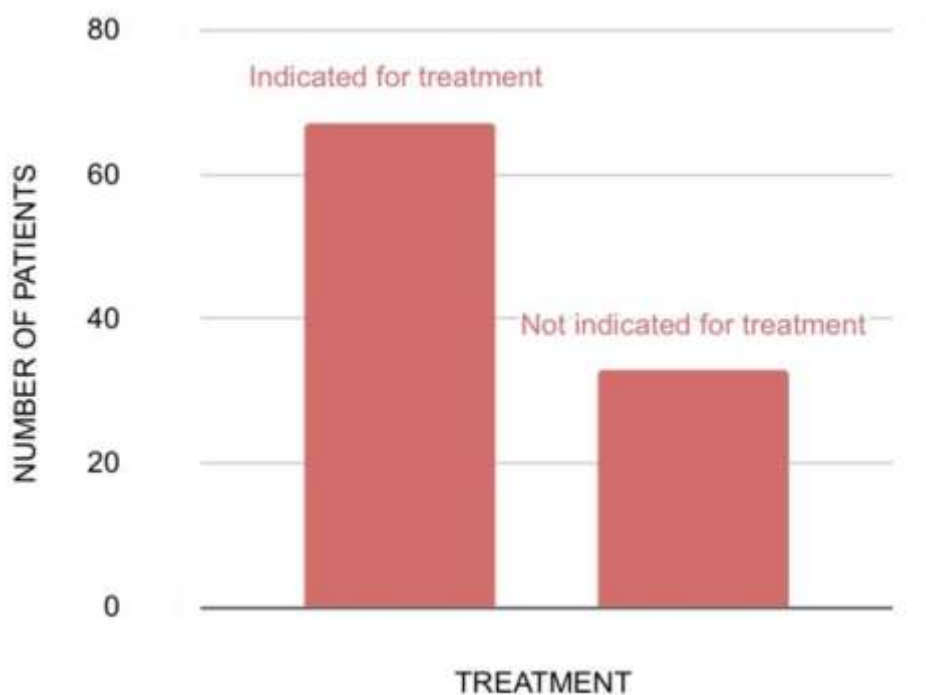


FIGURE 3: The above bar graph shows X-axis with patients' status of treatment and in Y-axis with Number of patients, which denotes that the number of patients indicated for orthodontic treatment is more when compared with not indicated for treatment.

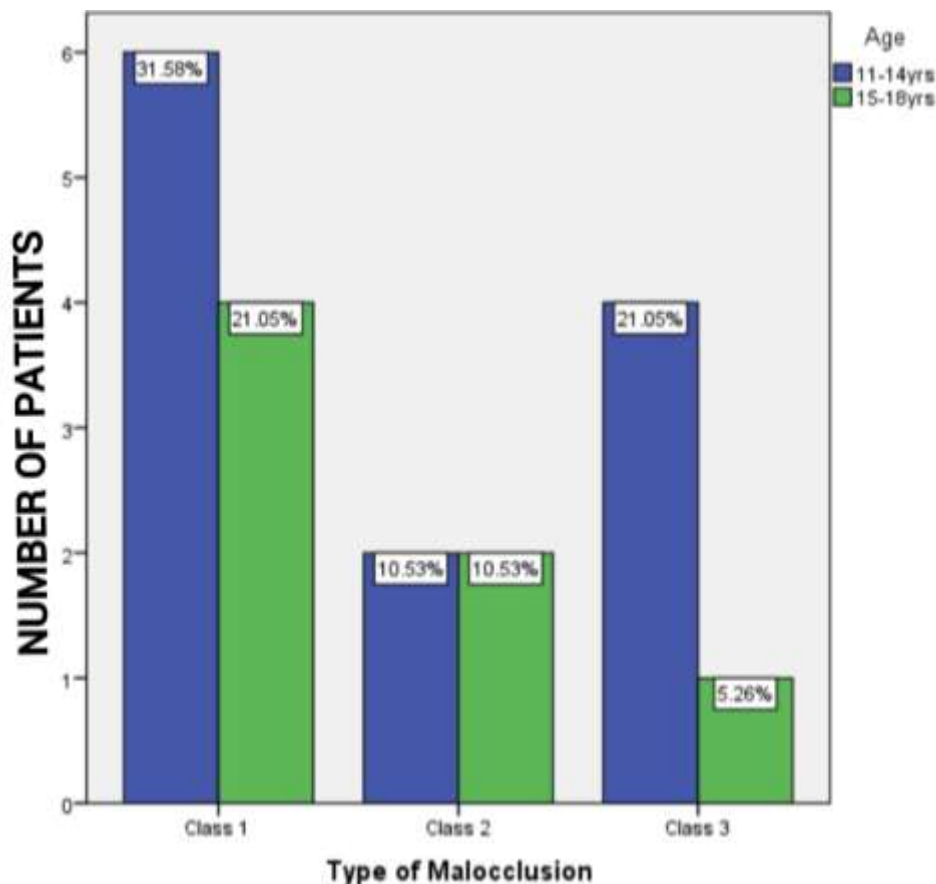


FIGURE 4: The above bar graph shows correlation between the types of malocclusion and age group with X-axis with Type of Malocclusion and in Y-axis with Number of patients, which denotes blue colour age of patient between 11-14 years and green colour between 15-18 years. Age groups between 11-14 years are affected most with class -I type of malocclusion.

4. Discussion:

The development of a uniform method of epidemiological assessment and grading of malocclusion has been of interest for several decades. An orthodontic index is a numerical scale that is derived by scoring specific features of a malocclusion to objectively assess some parameters such as how far a malocclusion varies from an ideal occlusion(22). In this study, class I malocclusion shows greater prevalence when compared with other malocclusion between the age group of 11-14 years undergoing treatment is also high. (23) Several studies have been published to describe the prevalence and types of malocclusions in different populations. Comparisons of these findings must be done cautiously, because different methods and indices were used in varying age and race of populations. Comparing various studies of prevalence of malocclusion in India, it was found that it is in not agreement with many studies which showed a range of 14.4–96.5%. Most of the studies done did not use any internationally acceptable indices for the purpose of the study. The prevalence of 53.7% malocclusion is a significant deviation

from the normal occlusion and 32.8% of the population requires orthodontic treatment.

5. Conclusion:

Malocclusion in children aged between 11 to 14 years age group demonstrate significantly more impact when compared with minimal malocclusion groups. Groups of children who need orthodontic treatment exhibit significantly higher impacts on their social well-being. In this study, Class-I malocclusion shows higher prevalence between the age group of 11-14 years when compared with other age group children. The prevalence of malocclusion is a significant deviation from the normal occlusion and the population requiring orthodontic treatment is high.

Author Contributions

Dr. Harini B collected data for the study and authored the report after conducting the requisite statistical analysis.

Dr. Remmiya Mary Varghese assisted in the topic development, engaged in the study design, statistical analysis, and oversaw the paper production.

All authors discussed the results and contributed to the final manuscript.

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Conflict of Interest:

There was no potential conflict of interest.

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