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Research Article

STATUS OF MALOCCLUSION IN SEMI URBAN AREAS

Prerna Jain^{1*}, Dhanraj² and Marian Anand Bennis³

^{1,2,3}Saveetha Dental College and Hospitals, Chennai - 600077

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ABSTRACT

The aim of the experiment is to assess the oral health status of malocclusion in semi urban areas. This research is to determine the status of malocclusion in semi urban areas. A malocclusion is a misalignment or incorrect relation between the teeth of the two dental arches when they approach each other as the jaws close. Oral health is an integral part of general health and well being. It is now therefore become essential to make people aware of preventive and curative aspects of oral health. This research is done to spread awareness of malocclusion among semi urban population.

Key Words:

Malocclusion, angle classification, skeletal classification, semi urban areas

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INTRODUCTION

A malocclusion is a misalignment or incorrect relation between the teeth of the two dental arches when they approach each other as the jaws close. The term was coined by Edward Angle, the "father of modern orthodontics" as a derivative of occlusion, which refers to the manner in which opposing teeth meet (1)

Malocclusion is the second commonest of the dental diseases in children and young adults, next to dental caries.(2) Social interactions that create a negative effect on self- image, career advancement, and peer-group acceptance have been associated with an unacceptable dental appearance.(3) Children having very severe or handicapping malocclusion should be identified and corrective measures instituted at the earliest, to prevent a widespread impact on their psychological development. (4) There are two groups of malocclusion traits were characterised by a particular high prevalence that subsequently require orthodontic attention. These are space anomalies, in particular anterior crowding and occlusal anomalies, such as distal molar relationship and increased over jet.(5)

Malocclusion can be associated with a number of problems, including crooked teeth, gum problems, the temporomandibular joint (TMJ), and jaw muscles. Some parts such as Teeth, fillings, and crowns may wear, break, or loosen, and teeth may be tender or ache. Receding gums can be exacerbated by a faulty bite. If the jaw is mispositioned, jaw muscles may have

to work harder to bring it into position which may even lead to fatigue and or muscle spasms, which can also cause headaches or migraines, eye or sinus pain, and pain in the neck, shoulder, or even back. Malocclusion can be a contributing factor to sleep disordered breathing which may include snoring, upper airway resistance syndrome, and / or sleep apnea (apnea means without breath). Untreated damaging malocclusion can lead to occlusal trauma. (7) Some of the treatments which can be used for different occlusal problems include protecting the teeth with dental splints (orthotics), tooth adjustments, replacement of teeth, medication (usually temporary), a diet of softer foods, TENS to relax tensed muscles, and relaxation therapy for stress-related clenching. Removable dental appliances may be used to alter the development of the jaws. Fixed appliances such as braces may be used to move the teeth in the jaws. Jaw surgery is also used to correct malocclusion. (8)

Oral health is an integral part of general health and well being. Poor oral health can affect a person physiologically and psychologically irrespective of age group. The dental problems are initially painless but become chronic and destructive later, showing adverse effect on the vital organs of the body. It is now therefore become essential to make the people aware of preventive and curative aspects of oral health.

MATERIALS AND METHODOLOGY

The cross sectional study involved 100 participants of the age group 10 to 60. These dwellers were chosen from the semi

*Corresponding author: Prerna Jain
Saveetha Dental College and Hospitals, Chennai - 600077

urban areas of Chennai city. This study was carried out during December 2016. For the examination of their teeth, sterilised mouth mirrors were used. Their name, age and gender were recorded for classification purposes.

The obtained results were taken according to the following classifications

Angle's classification of malocclusion: (6)

Edward Angle, who is considered the father of modern orthodontics, was the first to classify malocclusion. He based his classifications on the relative position of the maxillary first molar. (6) According to Angle, the mesiobuccal cusp of the upper first molar should align with the buccal groove of the mandibular first molar. The classification is based on

- **Class I:** (Neuroclussion) the molar relationship of the occlusion is normal or as described for the maxillary first molar, but the other teeth have problems like spacing, crowding, over or under eruption, etc.
- **Class II:** Distocclusion (retrognathism, overjet, over bite) In this situation, the mesiobuccal cusp of the upper first molar is not aligned with the mesiobuccal groove of the lower first molar. There are two subtypes:
 - Class II Division 1: The molar relationships are like that of Class II and the anterior teeth are protruded.
 - Class II Division 2: The molar relationships are Class II but the central are retroclined and the lateral teeth are seen overlapping the centrals.
- **Class III:** Mesioocclusion (prognathism, negative overjet, underbite) The mesiobuccal cusp of the maxillary first molar lies posteriorly to the mesiobuccal groove of the mandibular first molar.

Skeletal classification of malocclusion

Skeletal classification takes into account the classification of the facial skeletal pattern and its relationship with the teeth. There are three classes under skeletal classification as well.

Class 1

The bones of the face and the jaw are in harmony with one another and with the rest of the head. The maxilla is slightly ahead of the mandible. The profile is orthognathic.

Class 2

Subnormal distal mandibular development in relation to the maxilla. Maxillary dental arch is narrower than mandibular and there is crowding in the canine region, crossbite and reduced vertical height. Protrusion of the maxillary anterior teeth. The profile is retrognathic.

Class 3

Overgrowth of the mandible and obtuse mandibular angle. The profile is prognathic at the mandible.

RESULTS

The study was carried out and the following results are displayed Their were a total of 52 female and 48 male who participated in the present study. Among the age group 10 to 20, sixteen people participated in the study. 21 to 30, twenty eight of them, 31 to 40, twenty eight of the responders. Their

were twenty and eight people who were in the age group 41 to 50 and 51 to 60 respectively.

From the present study we can conclude that Seventy five patients have class 1, Seventeen have class 2 and eight patients have class 3 Angle classification. Ninety patients have class 1, seven have class 2, and only three of them have class 3 Skeletal classification

DISCUSSION

This malocclusion based survey was conducted in semi urban areas and provides an estimation of the prevalence of malocclusion in semi urban areas. Qualitative and quantitative methods which are available for measuring malocclusion are not truly reliable of all occlusal criteria, (10) (11) thus, an alternative approach was used to register malocclusion by using occlusal characteristics. Angle's classification that is reliable, repeatable, (12) and idealistically oriented for a broad population study. (9)(13)

CONCLUSION

As knowledge about orthodontic treatment has been increasing, so is the demand for the required and necessary treatment. From the present study, we can conclude that class 1 malocclusion in both angle classification and skeletal classification was found to be very common among the semi urban population. This study helps us to create awareness about malocclusion among the general public. It also provided vital information about the prevalence of malocclusion in semi urban areas.

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