

TEETH EXTRACTION FOR ORTHODONTIC PURPOSES

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Abstract

The success of therapy by means of tooth extraction is provided by a correct diagnosis, timely treatment and by leading towards a favourable outcome through complementary orthodontic treatment. In many cases the extraction / non-extraction option is proving a difficult decision to make. The incidence rate of dento-maxillary anomalies with crowding in the communities surveyed is 53.33%. The highest share occur in the group of children aged over 12 years, namely 48.12%

Key words: Maxillary-dental anomaly, malocclusions incidence rate, extraction for orthodontic purpose .

INTRODUCTION

Malocclusion is the abnormal positioning of the teeth or jaws. It is a variation of growth and development and it can affect a person's bite, ability to clean teeth properly, gingival health, jaw growth, speech development, and appearance (Cunningham et al, Boboc, Campeanu).

The relative high incidence of malocclusion cases among children aged 6 to 16 years and disorders deriving from these require a thorough knowledge of the aetiology, manifestations methods, the evolution, complications and treatment of these anomalies. (Kim, Clinch). The need for teeth extraction depends on anatomical and morphological conditions occurred because of disturbances throughout dental development and the early loss of temporary teeth. (Glavan, Cocarla, Serbanescu) Tooth extraction aims at achieving a balance between alveolar arches and teeth, and between arches. (Fratu, Dorobat)

The aim of this paper is to highlight common dental crowding, and dento-maxillary incongruence cases present both in children with mixed dentition and those with permanent dentition.

MATERIAL AND METHOD

We have surveyed a group of 300 children, aged between 5-7 years old, 8 to 12 years old, and over 12 years. They were examined, they were drafted observation sheets, study designs and pattern measurements were performed. The survey was conducted from October 2011 to June 2012, on three age categories, namely: 5-7 years, 8-12 years, and over 12 years old.

We examined the three groups of children in the city of Oradea, as follows: the first group aged 5-7 years from the Kindergarten no. 36, the second group of 8-12 years old enrolled in Dacia primary and low-secondary school, and the 3rd lot and of over 12 years enrolled in the Mihai Eminescu National College (high-school).

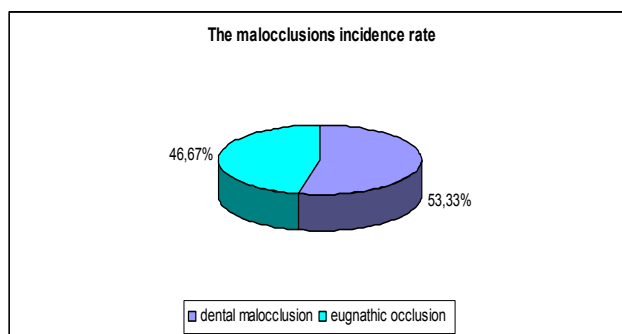
The three lots amount a total of 300 children, of which 120 boys and 180 girls. Out of the all children examined, 160 shows malocclusion cases, representing 53.33% of total. By gender, one observes a higher frequency of malocclusions at boys namely 65% and 45.55% at girls. One may observe in *Table no. 1* the malocclusions incidence rate at the children examined.

Table no. 1

	Number of children examined	Boys	Girls
Total	300	120	180
With ADM	160	78	82
Percentage	53,33%	65%	45,55%
Without ADM	140	42	98
Percentage	46,67%	35%	54,45%

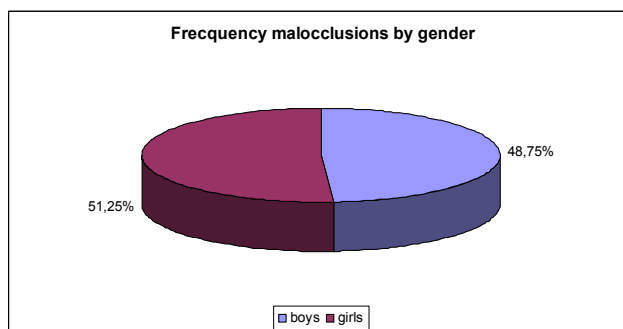
Monitoring the eugnathic occlusion (bite) type on the three lots of children we have found that it has a rate of 46.67% while the malocclusions incidence rate is 53.33% (see *Chart no. 1*).

Chart no. 1



Analyzed the data in the table no.1, we have seen – in terms of malocclusion distribution by gender as from children with dental malocclusion the girls abnormalities rate – 51,25% with abnormalities are higher than the boys abnormalities rate – 48,75% (*See chart no.2*)

Chart no.2



By desegregating data according to the three target groups one may observe that the highest incidence rate of malocclusions is in the case of children of over 12 years old. (see Table no. 2).

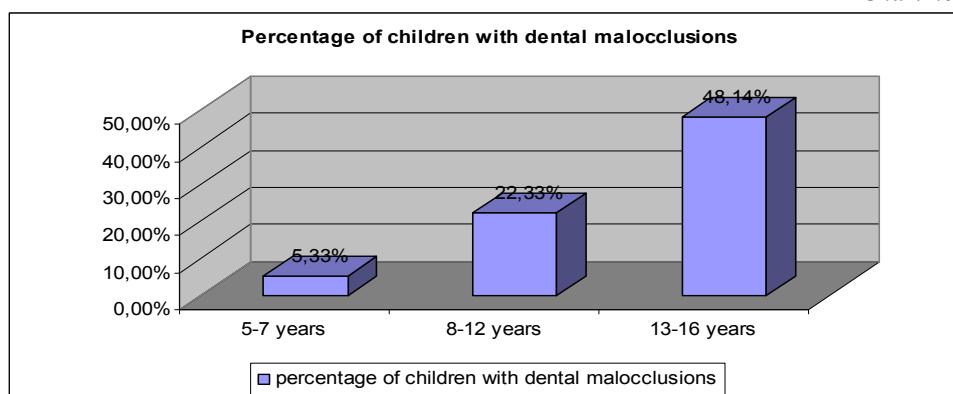
Table no. 2

Age groups	Number of children examined	Boys with dental malocclusion	Girls with dental malocclusion	Percentage of children with dental malocclusion
5-7 years	16	10	6	5,33%
8-12 years	67	30	37	22,33%
13-16 years	77	38	39	48,12%

Subsequently to Table no. 2 data analysis, we have noticed - in terms of occlusions types' distribution by age groups - an exponential growth rates corresponding to increasing age timeframe for the children lot surveyed.

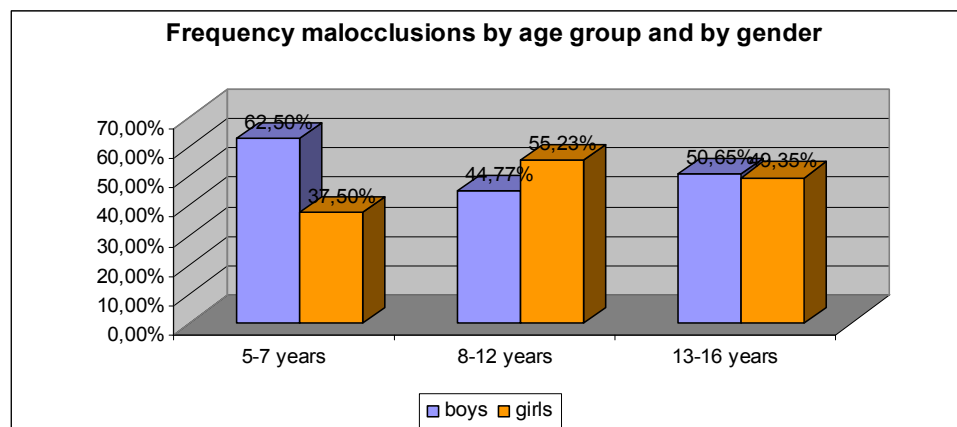
The ratio differences between the lot of children aged >12 years old as against the lot of children aged 8-12 is two times higher, while the age group 5-7 years old reaches a rate of only 5.33% (see Chart no. 3)

Chart no. 3



Analyzed the data in the table no.2, we have seen that in the 8-12 years group there is a maximum rate of dental malocclusion at girls and a minimum rate of dental malocclusion at boys (*Chart no.4*).

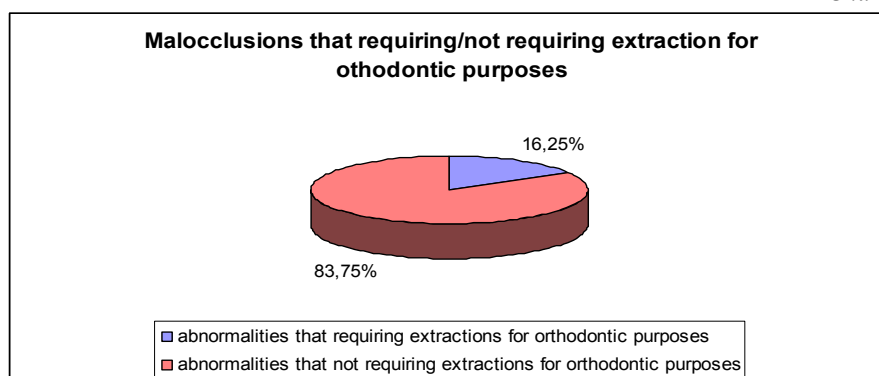
Chart no.4



The most common malocclusions requiring extraction for orthodontic purposes are the primary and secondary dento-maxillary incongruence cases. Out of the 160 children examined, which showed malocclusions, 26 children showed primary and secondary dental incongruence cases requiring extractions for orthodontic purposes. By rate, in this category there we have included 16.25% of the cases examined, and 83, 75% showed abnormalities not requiring extractions for orthodontic purposes. (see Chart no. 5).

Out of these 160 children, 20 showed secondary dento-maxillary incongruence cases.(*See chart no.5*)

Chart no.5



CONCLUSIONS

Dento-maxillary anomalies incidence rate with crowding within the surveyed is 53.33%.

The highest share is in the age group > 12 years, namely 48.12%, and the lowest incidence rate occurs in the group aged 5-7 years old.

Dento-maxillary anomalies detected early can be treated with interceptive treatment, with a good prognosis, and no longer requiring a specialised orthodontic treatment at a later stage.

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