Introduction
Malocclusions are among the most frequent oral alterations, and according to the World Health Organization it is ranked third in terms of oral pathologies after caries and periodontal disease. The Dental Aesthetics Index has been adopted by the WHO since 1997 and is considered an ideal instrument for epidemiological studies in the detection of malocclusions and treatment needs. It consists of a list of features or occlusal conditions in ordered categories and a scale of degrees that allows measuring the severity of malocclusions, this condition makes it reproducible and guides us according to the needs with respect to the orthodontic treatment of the population.

Objectives of the study
- Determine the prevalence of dental malocclusions and the need for treatment in 12 to 15 year-old Mexican schoolchildren using the DAI.
- Identify the frequency of the Angle class malocclusion.
- Identify the frequency of the facial profile.
- Identify the frequency of the type of facial pattern.
- Analyze if there is an association between gender and facial pattern.
- Analyze if there is a correlation between age and at least one dental malocclusion.

Materials and methods
Cross-sectional descriptive, association and correlation survey in 187 public middle school Mexican adolescents between 12 y 15 years old using Epinfo™ 7.2 program.
- Inclusion criteria - Authorization of the parents through consent informed.
- Exclusion criteria - Rejection of the adolescent to the oral review.
- Elimination criteria - Students who have carried out orthodontic treatment or in the middle of the treatment and students with craniofacial anomaly.
- Statistical Analysis - Descriptive statistics, Chi-square test and Pearson’s Correlation.
- Instrument - Dental aesthetics index.

Results
The sample was composed of 187 students, 96 females (50.3%) and 91 males (49.7%), with a mean age of 12.9 and SD of .9 years. The school grade distribution was, 44.5% were in the 2nd grade, 41.4% in 1st grade and 12% in 3rd grade.

Discussion
In relation to the prevalence of class I, II and III malocclusions, out of the 100% of the students of the present study, 49% presented class I malocclusion, very similar to the study by Talley et al. with 52.8% and different from the studies by Garbin et al. and Maffa et al. who obtained the highest results with 37.3% and 68.7% respectively. The need for orthodontic treatment, the results corresponding to a mild malocclusion (≤ 25) were 28.3%, a result similar to the study by Maffa et al., Aleman et al. and Almeida et al. who obtained a range of 32 to 34.4%. Regarding a moderate malocclusion (26-30) it obtained a 27.3%, this means that they only require a slight orthodontic treatment, these results were similar to the study of Cueto et al. with 27.9%, German et al. with 24.4% and Almeida et al. with 32.8%. Respectively to the severe malocclusion (31-35) a high percentage was obtained with 29.4, which requires a highly desirable treatment compared to the studies of Shivakumar et al., Kunal Jha et al. and Garbin et al. which had results of 3.7%, 9.5% and 10.9% respectively and a little similar to the study by Maffa et al. with 20.4%. Finally, the prevalence of invalidating malocclusions (≥ 36) in this study was 15%, a result similar to the studies by Pérez et al., Almeida et al. and Cueto et al. with 13.7%, 15.1% and 15.7% equally.

Conclusion
In this study it was determined that dental malocclusions in junior high school students was high, with predominance of maxillary and mandibular irregularities, which indicates that half of the population requires a highly desirable and priority orthodontic treatment. There was no association with malocclusions and gender, but correlation with age was found, which suggests immediate orthodontic care.

References