

Occlusal characteristics and orthodontic treatment need in Black adolescents in Salvador/BA (Brazil): An epidemiologic study using the Dental Aesthetics Index

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Editor's abstract

In Brazil, the variable “ethnicity” is related to some health problems, including some of oral problems that are often influenced by differences in socioeconomic conditions. Considering malocclusion as a public health problem, it is necessary to access the epidemiological situation in order to plan and rationalize the required resources for orthodontic treatment provision to the poorest population. Thus, the aim of this study was to identify the prevalence and severity of malocclusion among black ethnicity by means of the evaluation of school children in Salvador/BA (Brazil) city. Additionally, the objective was to determine the orthodontic treatment need in this group according to age and sex, contributing to the development of oral health programs.

The epidemiological design was cross-sectional, and the reference population comprised school children aged between 12 and 15 years old (n=220,300), enrolled in public and private, first and second degree schools.

A total of 2,100 schools located in the Bahia State were drawn through a multistage probabilistic sample, and 486 individuals were classified as belonging to Black population. The subjects answered a questionnaire registering demographic characteristics and all data on the malocclusion were collected by six previously calibrated examiners ($\kappa=0.89$), using the Dental Aesthetic Index (DAI). The significance level for all statistical analysis was 5%.

A small need for orthodontic treatment in 76% of the sample was observed, while 24% showed a condition of severe malocclusion with a strong need for orthodontic treatment. The main occlusal characteristics found in the group with high need of orthodontic treatment were dental crowding and increased overjet. There was a tendency for an increase of dental crowding and decrease of the overjet in older individuals. It was emphasized the importance of the development of public politics for inclusion of orthodontic treatment among procedures of public health programs, leading to a development of specialized oral health centers.

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