

Abstract for presentation of this research to the Kenya Dental Association Scientific Conference.

Title:

Prevalence and Pattern of Malocclusion Among Pediatric Patients at Moi University School of Dentistry Clinic, Uasin Gishu County, Kenya

Type of presentation:

Oral presentation

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Abstract body

Introduction and Background

Malocclusion is the third most prevalent oral condition globally after dental caries and periodontal disease. It poses esthetic, functional, and psychosocial burdens, particularly in children. This study aimed to determine the prevalence and pattern of malocclusion and associated oral habits among pediatric patients at Moi University School of Dentistry (MUSOD), Kenya.

Methods

A retrospective cross-sectional study was conducted using patient records of children aged 7–17 years who presented at the MUSOD clinic between January 2022 and January 2023. The study site was MUSOD pediatric dental clinic. Data on age, gender, type of malocclusion (classified by Angle's classification), traits and oral habits present in those with malocclusion were also recorded. Descriptive statistics were used to analyze the prevalence and distribution of malocclusion and associated traits using Excel and STATA.

Results:

Out of 126 reviewed files, 88 met inclusion criteria. In this study, normal occlusion was defined as any Angle's class I first permanent molar relationship without any traits. Malocclusion then included class I with traits, class II and class III malocclusion. The overall malocclusion prevalence was 65 (73.9%), with Females 38 (84.4%) having a higher prevalence of Malocclusion compared to males 27 (62.8%). The 13-17 year olds had a higher prevalence of Malocclusion 39 (89.7%) than the 7-12 year olds 26 (66.1%).

Angle's Class I was the most common with 46 (70.8%), followed by Class II at 12 (18.5%) and Class III 7 (10.8%). Common traits that were recorded included open bite 16 (20%), deep bite 15 (19%), and crowding 13 (12.6%). With regards to Oral habits, thumb sucking 25 (36.8%) and bruxism 18 (31.6%) were the most common oral habits with tongue thrusting being the least at 5 (5.3%).

Conclusion:

About three quarters of paediatric patients at MUSOD presented with some form of Malocclusion, with a majority having with Class I Malocclusion, open bite/deep bite traits and the thumb sucking habit. This data underscores the importance of early orthodontic screening, habit detection and intervention, and public education to mitigate long-term functional and psychosocial impacts of Malocclusion.

Keywords:

Malocclusion, Pediatric Dentistry, Angle's Classification, Orthodontics, Oral Habits