

ABSTRACT

Objective: To assess the morphological and functional traits of malocclusion. **Design:** Cross-sectional study. **Setting:** Moshi Municipality, Kilimanjaro region, Tanzania. **Subjects:** Examination for occlusal traits was done on 372 randomly selected 3-5-year olds (157 males and 215 females). **Results:** The overall prevalence of malocclusion was 26.9%. Females had significantly more occlusal anomalies than males. The flush terminal plane (93.8%) was the commonest anteroposterior relation. Excessive maxillary overjet and deep-bite occurred in 5.1% and 21.5% of the children respectively. Reverse overbite (1.9%), frontal open-bite (1.6%), lateral open-bite (0.8%) and posterior cross-bite (0.3%) were relatively rare. Harmful oral habits were uncommon in this population. The sample mean for inter canine width in the maxilla was 31.1mm (SD \pm 2.72) and for the mandible 25.3mm (SD \pm 2.46). Lack of natural spacing in the anterior segment of the maxilla occurred in 34.4% of the children and 33.6% in the mandible. **Conclusion:** Generally, females had significantly more occlusal anomalies than males. The flush terminal plane was the commonest anteroposterior finding. Lack of natural spacing in the anterior segments and deep bite were common.