

**A STUDY ON CAUSES, CONSEQUENCES AND POSSIBLE PREVENTIVE  
MEASURES OF TOOTH LOSS AMONG PATIENTS ATTENDING THE DENTAL  
CLINIC AT MOI TEACHING AND REFERRAL HOSPITAL, ELDORET, UASIN  
GISHU COUNTY**

**By**

**Leonard Wasike Wabwile, D.T (KMTC-NAIROBI)**

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## ABSTRACT

### **Background:**

Kenyan oral health and dental services constitute mainly of tooth extractions. Consequently, individuals susceptible to dental caries and periodontal diseases will have a substantial number of missing teeth, which can affect oral function and physical appearance.

### **Objective:**

The main objective of this study was to determine the causes, consequences and possible preventive measures of tooth loss among patients seeking treatment at the dental clinic of Moi Teaching and Referral Hospital, Eldoret.

### **Materials and methods:**

During a period of three months, patients seeking dental treatment at the dental clinic MTRH were recruited for the study. Criteria included age of 20 years and above with one or more missing teeth except for third molars. Participants were interviewed for demographic information, chewing ability, symptoms of temporomandibular disorder and perceived need for replacement of missing teeth. Afterwards the subjects were examined to assess: caries status, tooth mobility, occlusal tooth wear, over eruption of unopposed teeth, and signs of TMJ disorders. Data was analyzed using Statistical Package for Social Sciences (SPSS). For comparison of proportions, chi-square analysis and t test were used. A linear regression analysis was performed, with the chewing ability score as the dependent variable and number of POP as the independent variable

**Results:** A total of 361 subjects with mean age of 40.2 years (s.d. = 14.2, range = 20-93 years) were recruited into the study. About half 175 (48.5%) of the subjects reported some difficulty with chewing. Generally the fewer the occluding pairs present the greater the difficulty in

chewing observed. Subjects with more than 6 posterior occlusal pairs appeared to have little problem in chewing across the whole range of foods. The frequency of signs and symptoms of TMD and excessive tooth wear increased with decreasing number of posterior occluding pairs, being more evident in subjects with less than 3 posterior occlusal pairs remaining. Over a third of the participants had one or more teeth with severe over eruption but none reported impairment of oral function. More than half of the subjects needed replacement for missing teeth

**Conclusion:** From this study, it was concluded that tooth loss was most commonly caused by dental caries followed by periodontal disease. Tooth loss leading to a dentition of 5 to 6 occlusal pairs impairs chewing of hard foods but not soft foods. Extensive loss of teeth leading to very few POP was associated with increased symptoms of TMD and excessive tooth wear of occluding teeth. Need for replacement of missing teeth was high for both anterior and posterior regions with the cost of dentures being the main barrier to replacement of missing teeth.

**Recommendations:**

Dental personnel should make an effort to identify individuals with risk of tooth loss in order to retain a reasonable number of well-distributed posterior occlusal pairs. Further long-term multicenter studies should be carried out to evaluate the causes and consequences of tooth loss and assist in giving a more accurate projection needs for dentures nationwide are required.

**Key words:**

Tooth loss

Causes, consequences and prevention