

**Time of Emergence of Permanent Teeth and
Impact of Nutritional Status among 4-15 Years
Old Children and Teenagers in Basrah City /Iraq**

A Thesis

Submitted to the College of Dentistry

University of Baghdad

In Partial Fulfillment of Requirements for the
Degree of Master of Science in Pediatric Dentistry

By

Hiyam S. Ahmed

B.D.S.

Supervised by:

Prof. Dr. Zainab Al-Dahan

B.D.S.,M.Sc.

2015

1437

Abstract

Background: The timing of eruption of permanent teeth is of considerable importance to the dental health planning for diagnostic, preventive and therapeutic measures for children and teenagers . The aims of this study were to determine timing of maxillary and mandibular permanent teeth emergence (except third molars) and to evaluate the effect of nutritional status (by anthropometric measures) on the eruption time of permanent teeth, investigations had been done according to jaw and gender variations.

Materials and Methods: This study was conducted among four to fifteen years old children and teenagers from kindergarten, primary and secondary schools in Basrah city in the south region of Iraq. The total sample composed of (1807) students that were collected randomly from kindergartens, primary and secondary schools from Basrah city . The data were statistically analyzed by using probit model in order to compute the median 5th and 95th percentile range of emergence.

Results: The results of the present research showed significant differences ($p < 0.05$) between the timing of maxillary and mandibular teeth emergence in girls and boys, with earlier emergence in girls , also the mandibular teeth emerge before their maxillary opposing teeth in both genders except for the premolars .

The prevalence of malnutrition according to height for age, weight for age , and weight for height nutritional status indicators were found to be 7.4 % stunting and 1.9% sever stunting , 3.7 % and 0.4% sever underweight, 1.5% wasting and 1.6% sever wasting respectively.

The results of the present study also showed that among acceptable children and teenagers described by height for age nutritional status indicator , most teeth were significantly erupted earlier than stunted except the lateral incisors which erupted earlier in stunted boys than acceptable boys but the result was not significantly accepted. The greatest difference of median eruption age of permanent teeth between acceptable and stunted found in girls in the second molar tooth.

Conclusions: Results indicated that the Iraqi children exhibit variation in their times of permanent teeth emergence when compared with other studies, and the findings of present study showed that nutritional status play an important role in the emergence time of permanent teeth with an earlier eruption time of permanent teeth in acceptable than stunted children and teenagers.