



OP-5 구연

The Use of Skeletal Parameters as Predictors of Growth in the Timing and Modality of Orthodontic treatment among 7-17 year old Filipino Students

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In the field of orthodontics, the diagnosis and treatment planning of a patient in the adolescent stage requires an evaluation of the individual's growth rate. It is through the assessment of growth and development that the orthodontist can find out the reasons for the existence of a malocclusion and decide when is the most appropriate time to begin any form of treatment. Because of the variable growth patterns known to exist among individuals, chronological age is not a good indicator of growth status. Growth is best studied on the basis of skeletal maturation, which is the degree of ossification of bone.

The hand-wrist radiograph finds its usefulness in the assessment of skeletal maturation. The ossification of the carpal and sesamoid bones, the metacarpals of the hand, and the phalanges of the fingers form a chronology of skeletal development. It is thus the gold standard for skeletal maturation assessment.

Recent studies however have shown that the development of cervical vertebrae as seen on the lateral cephalogram have also shown a chronology of events leading to skeletal maturation. A positive correlation between both methods of skeletal assessment could imply an alternative use of the lateral cephalogram in the assessment of the growth and development of the individual.

This study was done to verify if indeed such a correlation between the 2 methods of skeletal assessment could be observed in a Filipino sample. A total of 139 male and female students from the University of the Philippines Integrated school took part in this study, each having a lateral cephalogram and hand wrist radiograph taken to evaluate their skeletal maturity. It was found that both methods of skeletal maturity assessment generally agreed with each other starting in the acceleration stage of skeletal maturity or upon onset of the ossification of the adductor sesamoid bone.

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Applicability of two non radiographic methods of mixed dentition analysis for Sri Lankan Sinhalese children

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Introduction; Mixed dentition analysis to predict the mesio-distal dimensions of unerupted canines and premolars is an essential part of orthodontic diagnostic procedures which is carried out to determine the amount of space available for the accommodation of erupting permanent teeth. The Moyers probability tables and Tanaka Johnston equations are non radiographic methods of predictions.

Objectives; As it has been well established in the literature that mesio-distal tooth sizes varies considerably between different racial groups, the purpose of the present study was to determine the applicability of Moyers probability tables and Tanaka Johnston prediction equations for mixed dentition analysis for Sri Lankan Sinhalese orthodontic patients.