YENEPOYA UNIVERSITY

EVALUATION OF ROLE OF BODY MASS INDEX (BMI) WHILE PREDICTING NORMAL MAXIMUM MOUTH OPENING USING THREE FINGER INDEX METHOD – A CROSS SECTIONAL STUDY

By

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ABSTRACT

Background: Normal range of mouth opening may vary among different population. Studies conducted on different population also proved this fact. The frequency, with which restricted mouth opening is encounter in clinical practice, makes it essential to establish what constitutes the normal opening for the population. Possibility exists that there may be geographical and ethnic variation in the range of maximum mouth opening. A few studies have been conducted in co-relation of maximum mouth opening with that of body mass index showing varying results. In present study to evaluate the normal range, the maximum incisal distance between maxillary and mandibular central incisors at the midline was measured with use of Vernier Caliper. This study tries to evaluate the role of BMI and normal maximum mouth opening.

Aims & Objective: To study the role of BMI while predicting normal maximum mouth opening using three finger index.

Materials & Methods: 520 Subjects for the study were chosen from Patients reporting to our department equally distributed among the sexes i.e. 260 Males & 260 Females. Height and weight of the subject was measured and BMI was calculated. Maximum Mouth Opening and Three Finger width was measured using Verneir Caliper. Based on BMI, subjects were categorized into 4 groups respectively and were subjected to ANOVA for statistical analysis.

Results: BMI and the mean maximum mouth opening of the subjects did not show any significant value. When the subjects were divided based on their BMI into Underweight, Normal, Overweight and Obese, the results did not show any variation.

Conclusion: This study demonstrated that mean Maximum Mouth opening of an individual does not correlate with the individual's BMI. Individuals in all the 4 groups were able to vertically align their 3 fingers between the upper and lower central incisors, thus is a convenient index for assessing normal Mouth Opening.

KEYWORDS: Body Mass Index, Maximum Mouth Opening, Three finger Index, Vernier Caliper, Mangalore population.