

**Republic of Iraq
Ministry of Higher Education
and Scientific Research
University of Baghdad
College of Dentistry**



The Impact of Intelligence Quotient on Selected Oral Variables in Relation to Oral Habits and Nutritional Status among Children in Karbala city/Iraq

A Thesis

Submitted to the Council of the College of Dentistry at University
of Baghdad in Partial Fulfillment of the Requirements for the
Degree of Master of Science in Pediatric Dentistry

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2020 A.D.

1442 A.H.

Abstract

Background: Intelligence is a mind's capability to attain expertise so as to adapt to new settings. The practicing of oral habits might be a pattern which is correlated with the level of intellectuality of a person.

Aims of the study: The present study aimed at assessing the relation of intelligence quotient (IQ) to selected oral variables (number and stage of eruption of permanent teeth, prevalence of enamel defects and selected oral habits) and to determine the relation of nutritional status to the eruption of permanent teeth. In addition it intended to estimate the impact of IQ and the nutritional status on permanent teeth eruption amongst 6-7 years children.

Subjects and Methods: The colored progressive matrices of Raven's test (1998) were utilized for the assessment of IQ. The state of nutrition was evaluated with the Body Mass Index for age (Z score) calculated by the anthropus software by **World Health Organization (2007)**. Questionnaires answered by the parents were used for collecting information regarding the presence of the selected oral habits (thumb sucking and nail biting). The modified developmental enamel defects index by **World Health Organization (1997)** was utilized for the purpose of recording the enamel defects. Eruption of permanent teeth was inspected and documented as mentioned by **Pahkala et al. (1991)**.

Results: Concerning the relation between the eruption of permanent teeth and IQ, outcomes of the present study displayed that the intellectually superior children had the highest number of erupted permanent teeth yet with no statistical significant difference.

As to the association of the eruption of permanent teeth and the nutritional status, results of the present research showed a direct and highly significant relation between them ($p < 0.01$), and upon linking the eruption of permanent teeth, nutritional status and the IQ together; almost neither new findings (other than the above-mentioned) were obtained or statistical significance.

For the relation of IQ and enamel anomalies it was found that there was a direct and highly significant relation between them ($p < 0.01$).

As for the relation of IQ and the selected oral habits; it was observed that the intellectually superior children had the least prevalence of both habits (thumb sucking and nail biting) yet with no significant significance.

Conclusions: The outcomes of the present study stated that the highest number of erupted permanent teeth was found amongst the highest category of IQ, the same result was found among the highest category of the nutritional status. Increasing level of intelligence was associated with increased prevalence of developmental defects of enamel and decreased practicing of the selected oral habits.