



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

**Impact of Thumb Sucking and Nail Biting on Oral Health  
Status and Malocclusion among 6-10 Years Old Children  
in Hilla City**

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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**2021 A.D.**

**1442 A.H.**

### Abstract

**Background:** Bad oral habits are negatively affected oral and dental health and may have a significant effect on the state of the occlusion.

**Aims of the study:** The present study aimed at assessing the relation of bad oral habits (thumb sucking and nail biting) to selected oral variables (dental caries, gingival health condition and malocclusions) among group of primary school children from 6 to 10 years old in Hilla city.

**Subjects and Methods:** Questionnaires answered by the parents were used for collecting information regarding the presence of the selected oral habits (thumb sucking and nail biting). World Health Organization (1997) was utilized for the purpose of recording the Dental caries (**WHO 1997**). Gingival health condition was done by examine the indexed teeth using the gingival index (GI) according to **Löe and Silness (Löe and Silness, 1963)**. Dental plaque was recorded by the indexed teeth using plaque index (PII) according to the criteria reported by **Silness and Löe (Silness and Löe, 1964)**. Malocclusion was evaluated by using the index of orthodontic treatment need (IOTN) (**Brook, 1989**).

**Results:** Concerning the relation between the bad oral habits (thumb sucking and nail biting) to oral health (dental caries, gingival health, plaque index) and malocclusion and the relation of bad habits to other variables as preterm birth, baby, weight at birth, the student birth rank, type of feeding, occurrence of recurrent oral infection, Family history of thumb sucking, Mother's education, Mother's occupation and socioeconomic status.

Outcomes of the present study displayed that children with bad oral habits had the highest number in caries experience, gingival index, plaque index, malocclusion and occurrence of recurrent oral infection.

As to the association of the bad oral habits and dental caries, gingival health, dental plaque, malocclusion, Family history of thumb sucking and occurrence of recurrent oral infection results of the present research showed a direct and highly significant relation between them ( $p < 0.01$ ).

There is no significant difference was found between the children with bad oral habits and those without oral habits regarded to preterm birth, baby, weight at birth, the student birth rank, type of feeding, Mother's education, Mother's occupation and socioeconomic status.

**Conclusions:** With regard to the deleterious effects of thumb sucking habit, Pediatricians and Pedodontists should work together in order to early diagnose, treat and prevent this habit in cooperation with other specialist such as psychological consultant, orthodontists as well as the child and parents.



جمهورية العراق  
وزارة التعليم العالي والبحث العلمي  
جامعة بغداد  
كلية طب الاسنان

تأثير مص الأصبع وقضم الأظافر على حالة صحة الفم وسوء الإطباق لدى  
الأطفال في عمر 6-10 سنوات في مدينة الحلة

رسالة مقدمة الى  
مجلس كلية طب الاسنان / جامعة بغداد  
كجزء من متطلبات نيل شهادة الماجستير  
في طب اسنان الأطفال

من قبل  
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