

**Republic of Iraq
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College of Dentistry**



**Clinical and Microbiological Effects of Thumb
Sucking Habit in 3-5 Years old Children in Hilla
City/ Iraq**

A thesis submitted to the College of Dentistry, University of
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Master Science in Pedodontics

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Abstract

Oral habits such as thumb sucking may be a risk factor for the development of malocclusions and occurrence of recurrent oral infection because it provides a portal of entry for different microorganisms into to the oral cavity of children.

An observational cross sectional study of thumb sucking habit conducted by using a multistage sampling technique. Firstly a total of 780 child, 374 girls and 406 boys, aged 3-5 years old and attending 25 kindergartens in Hilla city/ Iraq had been surveyed for the history of thumb sucking habit.

Fourty child; 18 males and 22 females, had no history of any oral habit matching in age and gender a group of fourty children continues on thumb sucking habit had been chosen to be a control for the purposes of comparison in decayed, missing and filling index, malocclusions and changing in normal oral flora.

The results showed that the prevalence of thumb sucking habit in the total surveyed sample was 8.46%.

The statistical analysis showed a significant difference ($p < 0.05$) in the dental caries experience and a highly significant difference ($p < 0.01$) in the occurrence of anterior open bite, increased over jet and the occurrence of oral infection between study group and control group.

The microbiological identification demonstrates a 29 different microbial type in study group comparing with 17 microbial type in control group.

Candida albican was the most predominant microbial type detected in study group while *Sphingomonas paucimobilis* was the most predominant microbial type for the control group.

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.