

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



**Oral Health Status and Treatment Needs in Relation
to Nutritional Status among Institutionalized and Non
Institutionalized Orphan Children in Baghdad City**

A Thesis

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

By

**Aseel M. Abdul Majeed
B.D.S.**

Supervised by

**Prof. Dr. Zainab Al-Dahan
B.D.S., M.Sc.**

Baghdad-Iraq

2016 A.D.

1438 A.H.

Abstract

Background: Nutritional condition was reported as one of the factors affecting the oral health status, particularly among underprivileged groups. Orphans are one of the known high-risk groups.

Aims of the study: The aims of this study were to investigate and compare the dental knowledge, behavior and attitude among the institutionalized, non-institutionalized orphans and controls, then to assess the nutritional status of those children, and its impact on the oral health status and treatment needs.

Materials and Methods: Five-hundred children aged 6-12 years old: institutionalized, non-institutionalized orphans and controls were participated in this study. Questionnaire was used to determine oral health risk factors. Nutritional status assessed according to body mass index –age Z score (BMI)-age. Plaque and gingival health assessment were done according to criteria of Silness and Loe (1964) and Loe and Silness (1963) respectively. Ramfjord index teeth were examined for the calculus assessment. Diagnosis and recording of dental caries and treatment needs were done according to the criteria of WHO (1987).

Results: there were significant differences regarding dental behavior and attitude and non-significant differences concerning dental knowledge among the three groups. The body mass index–age for institutionalized orphans was significantly differ than non-institutionalized orphans and highly significant than controls, while the non-institutionalized orphans was significantly differ than controls.

The plaque and gingival indices of each institutionalized and non-institutionalized orphans were highly significant elevated than controls, while significant high mean rank calculus index was found for non-institutionalized orphans than each of institutionalized orphans and controls. The mean rank of

dmfs for non-institutionalized orphans was significantly higher than both institutionalized orphans and controls, while of DMFS for non-institutionalized orphans was highly significant increased than controls. Regarding dental treatment needs mean rank, the high values for the institutionalized orphans, were space maintainer and preventive care, while the non-institutionalized orphans were one surface filling and pulp care and for controls were fissure sealant and preventive care.

According to body mass index-age indicators of both orphan groups, it was found that thinness group among institutionalized orphans with significant elevated mean values of Plaque Index, and high one surface filling need mean rank with significant negative relation and significant pulp care need, however, among thinness grades of non-institutionalized orphans there was significant high dmfs and missing surfaces (MS) means rank and high mean rank extraction need, with significant negative relation.

Conclusions: This study reflected that nutritional status is a relative factor; that may affect the oral health status of children, and the Non-institutionalized orphans with high treatment needs than other groups indicted they need more attention concerning dental care and educational programs.