

Assessment of Oral Health Status and the Effect of Implementing a Dental Health Education Program in a group of Deaf Children

Thesis

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Dedication

To my Family

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ABSTRACT

The aim of this study was to assess the dental health status and the effect of implementing a dental health education program on oral health status in a group of deaf children. Forty one Egyptian deaf children attending Al Amal School in Abbasia, Cairo shared in this study, their ages ranged between 9-13 years old. The data were collected in cooperation with school teacher. Clinical examination of all the study children was conducted at baseline and every month for a period of three successive months after implementation of the program, clinical examination was carried to assess the child's dental caries and oral health status. The results showed that seventy percent of the examined children had dental caries and an improvement in oral hygiene status is noticed following the dental health education program.

Keywords: Dental Health Education Program, Deaf Children, Oral Hygiene Index Simplified, Carton Video Film, Posters.

Introduction

Introduction

Dental caries and inflammatory periodontal diseases are complex disease states that require the colonization of bacteria. None will occur in the absence of microbial plaque thus, its control is an essential component of any program designed for the prevention of these dental diseases. Where once the focus in dentistry was on restorative procedure and surgical interventions, today the emphasis has shifted for preventing oral diseases and maintaining oral health (**Devore and Dean, 1994**).

Good oral health and hygiene are essential parts of general health and quality of life as they contribute to the ability to eat, speak and socialize.

Children with special health care needs are those who have or are at increased risk for a chronic physical, developmental, behavioral or emotional condition and who also require health and related services of a type or amount beyond that required by children generally (**Mc Pherson et al, 1998**).

Children with special health care needs form a section of the community. There were about 500 million people with special health care needs worldwide (**Barriers, 2000**) and the children with hearing impairment constitute one of the major population groups of children with special health care needs.

Special health care needs children especially the deaf have a great need for oral healthcare. **Jain et al in 2008** reported that young people with impaired hearing have a high prevalence of dental caries, poor oral hygiene and extensive unmet need for dental treatment.

Oral health programs have a positive significant effect on the prevalence of caries and various risk factors for caries development (**Wenhall and Martensson, 2005**).

Application of an oral health program for the deaf people especially children is mandatory to achieve a good oral health and hence general health condition for such population. This requires good communication between the dentist and the child. This effective communication can be achieved by the help of sign interpreters.

This study was planned to assess the effect of implementing a dental health Educational program on oral health status of a group of Egyptian deaf children.

Review of literature

Review of literature

Oral health is an integral part of overall health, oral cavity plays a vital role in the life of human beings, through functions like mastication, esthetics, phonetics, communication, emotional expressions. It is highly essential to safe guard oral health of all children from childhood otherwise poor oral health will lead to various dental diseases like dental caries, periodontal diseases which adversely affects the overall health, **(Kote, 2005)**.

Children with special health care needs:

Children with special health care needs are those who have or are at increased risk for a chronic physical, developmental, behavioral or emotional condition and who also require health and related services of a type or amount beyond that required by children generally **(Mc Pherson et al, 1998)**. The special health care needs patient differ from normal patients with regard to professional relationship between patient and the dentist, therefore with adequate training and understanding of the various medical complications and handicapping conditions and with adequate alteration in the dentists treatment protocol these patients can be managed well, **(Nandini, 2003)**.

Children with special health care needs having serious psychological, physical and intellectual problems should

obtain special preventive care in dental office, **(Mc Donald, 1988)**.

Oral hygiene in children with special health care needs:

The level of untreated dental diseases in children with special health care needs is higher than in normal children, **(Swallow, 1965 and Murry and Mcleod, 1973)**. The lack of coordination and understanding in special health care needs children is a factor in the difficulty of their oral hygiene maintenance, the most obvious reason for the poor oral hygiene of special health care needs children is their physical inability to adequate cleaning of the oral cavity, therefore in most instances the disabled child depends on others for oral hygiene care, **(Kay and Locker, 1998)**.

Al-Qahtani and Wyne, 2004 stated that the dental health of blind, deaf and mentally retarded children is very important for several reasons. These children usually have associated medical problems in addition to their primary condition, and any oral or dental problem may further compromise their general health. A poor dental health and esthetics results in a diminished quality of life. It also affects their psychological status, which is already compromised in many of those children.

Poor level of oral hygiene for Children with special health care needs was revealed through a number of studies.

Al-Qahtani and Wayne, 2004 carried a study on two hundred eighteen children from special schools for the blind, the deaf and the mentally retarded female children (6-7 and 11-12 years old) in Riyadh, Kingdom of Saudi Arabia to determine their caries experience and oral hygiene status. They found that the caries prevalence and experience as well as oral hygiene status in all the three groups of children i.e blind, deaf and mentally retarded were very high.

Kote, 2005 conducted a study on seventy hundred and nineteen children with special health care needs (orthopaedic, blind, deaf and dumb and compound handicapped) (6-15 years old) attending various special schools for the handicapped in Davangere, Karanataka, India to assess the prevalence of dental caries and oral hygiene status. He found in his study that out of 719 children with special health care needs 49.4% (355) had dental caries with mean DMFT 0.87 (SD±1.38) and mean dmft 0.33 (SD±0.99), the prevalence of dental caries was high in blind group (72%) and least in deaf and dumb group (41.2%). The overall oral hygiene status recorded as good in 43.2%, fair in 47.9% and poor in 8.9% of the study population. He concluded that the dental profession should be aware of its responsibilities and be prepared to play its