

## Early Childhood Caries: A Global Oral Health Problem

**Mawlood Kowash\***

*Associate Professor of Paediatric Dentistry, HBMCDM, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, United Arab Emirates*

**\*Corresponding Author:** Mawlood Kowash, Associate Professor of Paediatric Dentistry, HBMCDM, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, United Arab Emirates.

**Received:** December 21, 2016; **Published:** January 18, 2017

Oral health has become a major global issue among children. Dental caries is considered to be the most common chronic childhood disease. Dental caries among children is reported to occur between 5 to 8 times more frequently than asthma. Dental caries in preschool children or Early Childhood Caries (ECC) is a chronic, transmissible infectious disease affecting the primary (milk) teeth. It is defined as the presence of one or more decayed, filled or missing tooth surfaces in any primary tooth in a child below six years of age. It can result in considerable suffering, pain, reduction of quality of life of affected children, disfigurement and can frequently compromise children's future dentitions.

The aetiology of the condition is a combination of: frequent consumption of fermentable carbohydrates as liquids, especially at night, usually as a result of on-demand breast- or bottle-feeding; oral colonization by cariogenic bacteria (especially *mutans streptococci*); poor oral hygiene and poor parenting. In most cases, the aetiology will be a combination of several of these factors.

The prevalence has been reported to vary worldwide from 3 - 94%. Higher prevalence has occurred in children of developing countries and also in developed countries in at-risk population from lower socio-economic backgrounds, migrants and those from ethnic minority populations and special needs.

Despite the decline in caries levels in older children especially in developed countries as a result of several research studies focusing in caries prevention, ECC is still a continuing oral health problem even in countries with a very effective oral health system like Scandinavian countries. Prevention of ECC can be achieved by the education of prospective and new parents, as well as by the identification of 'high risk' children. Strategies have focused on the individual mother and child by preventing transfer of cariogenic bacteria from mother to her infant, using preventive agents such as fluoride and teaching good oral hygiene practices. Community-based approaches have been attempted, we (Kowash., *et al.* 2000) conducted a successful program which investigated the effect of dental health education to mothers of infants and toddlers provided by trained, non-professionals (not dentists) carrying out regular home visits in a low socioeconomic high-caries area in Leeds, UK. The study was able to demonstrate a significantly reduced occurrence of ECC after three years. Various other studies over the past 60 years have tried different approaches to prevent ECC but without long-term major success.

The treatment of ECC is very costly, time consuming and in most cases, requires full dental treatment under general anesthesia by a paediatric dentist. Unfortunately, in many countries, even in the developed world, these carious teeth end up being extracted. In recent years there was a paradigm shift from the traditional surgical approach "drill and fill" to a more biological "seal to heal" approach with no caries removal like "Hall" technique or partial caries removal, however many dentists still using the old approach with no effective preventive programmes and follow up visits. To be fair some dentists may be faced with cavitated active symptomatic carious lesions, which need to be restored. I, as a specialist paediatric dentist spent over 15 years in a country with a high prevalence of ECC and high proportion of open active lesions. Most of these teeth were traditionally treated with pulp therapy and restored with preformed metal crowns.

We do know how to prevent dental caries as over a century of strive especially in recent years has resulted in better understanding of the biology of caries process. We also possess the knowledge of each type of interventions and its indication and application. However, we

failed to enable the parents/caregivers of at risk young children to put into practice the appropriate and effective advice on a long-term basis. We know that if we can prevent caries in the very young population the result will be lasting effects on oral health throughout the whole population life.

We also know that ECC is a preventable disease and in my opinion, the solution to ECC global problem would be to actively involve pregnant mothers, parents and caregivers of at risk young children taking in consideration their socioeconomic status, their beliefs and culture. The dentists should not dictate but be persuasive and give informal, practical and culturally sensitive dental health messages. There should be close cooperation between dental and medical professions especially antenatal clinic staff and paediatricians, who see children from a young age and on a more frequent basis than general or pediatric dentists. Therefore, paediatricians are in a perfect position to evaluate the risk of dental decay, start prevention and refer children who need dental consultation and treatment. However, their knowledge base of oral health should be adequate so that they are confident in their competency to successfully contribute to the role of managing and caring for children's oral health.

**Volume 7 Issue 3 January 2017**

**© All rights reserved by Mawlood Kowash.**