

Abstract

Prevalence and Risk Factors for Early Childhood Caries in Children Less Than 6 Years Old: A Systematic Review

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Abstract

Background: Early childhood caries (ECC) is a very common multifactorial bacterial infection. It negatively impacts children's psychological status and quality of life. Therefore, the World Health Organization (WHO) global oral health goals for 2000 were established stating that 50% of 5-6-year olds would be free of dental caries.

Objective: To describe ECC prevalence and severity among children less than 6 years old in Egypt and compare it with other countries in other regions, to investigate risk factors associated with ECC, and to determine areas for future research.

Methods: The search included published studies of any design in PubMed database, and Google scholar with the key words dental caries, prevalence, children, childhood, risk factors. The inclusion criteria required that selected children should have deciduous dentition and the method used for caries assessment should be either decayed, missed/extracted, or filled tooth index, or decayed, missing, and filled surface index for children less than 6 years old.

Results: The search identified initially 300 articles of which 22 studies published between 2001 and 2017 were included in the review (19 cross sectional, two case control and one interventional). The prevalence of ECC in the reviewed studies ranged widely (16% - 89%). The median prevalence was highest 76% (IQR: 72.5%, 82.5%) in the Middle East Region followed by Asia which was 48.3% (IQR: 32%, 52%) while it was observed to be the least (20.7% - 24.9%) in developed countries. However, in Egypt, it was 66.8% (IQR: 63%, 71%). Some factors were statistically significant with ECC development as age (6 out of 11 studies), parental education and sugar intake (5 out of 6 studies) while gender was not statistically significant (11 out of 14 studies).

Conclusions: WHO global target is still far away in Egypt. Enhancing community oral health programs is necessitated to address the gaps and leading initiatives of preventive actions.

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