



# Epidemiology of Dental Caries in Children

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## Abstract

Caries in the teeth has a significant impact on children's overall health and development. In order to evaluate preventative programs and improve oral health, policymakers in the United Arab Emirates (UAE) must have a solid understanding of caries epidemiology. This review aims to compile and present all of the published data on the prevalence of dental caries in children under the age of 13 in the United Arab Emirates. A comprehensive data summary will be provided to dental health planners as a result, facilitating the preparation for and evaluation of dental caries prevention programs. The various published studies in PubMed, Academic Search Complete, and Google, as well as the relevant articles' reference lists, served as sources for the data collection. The search made use of four keywords: dental caries, epidemiology, prevalence, and "UAE" are all included. This literature review included all studies on the prevalence of dental caries in children under 13 years old that were conducted in the UAE as a whole or in any one emirate. Included were studies on factors associated with dental caries and early childhood caries.

**Keywords:** Hodgkin lymphoma; Mononucleosis

## Introduction

The review includes 11 previously published studies on UAE childhood caries. The first study, which was published in 1991, was the most recent one. In children aged 4 to 6 in the United Arab Emirates, the range of decayed, missing, and filled primary teeth (dmft) was 5.1–8.4. The decayed missing and filled permanent teeth (DMFT) of the 12-year-old group ranged from 1.6 to 3.24. For the purpose of planning preventive oral health programs and setting appropriate goals, it is necessary to have access to basic data on oral health as well as a thorough understanding of the factors that lead to dental caries. According to the most recent data on the DMFT and dmft, childhood dental caries remains a serious dental public health issue in the United Arab Emirates that calls for prompt government and policy attention.

It is now well known that oral health is a crucial factor in determining one's overall health and quality of life. Dental caries (cavities) is also well-established to be the most prevalent oral disease. Milk teeth, also known as primary teeth, are just as important to young children as permanent teeth are to adults. In addition to their significance to the child's appearance and sense of self-worth<sup>1</sup>, these teeth are necessary for speaking, chewing, and preserving space for subsequent permanent teeth. Dental caries can affect children's communication and learning abilities in addition to causing pain and discomfort. Additionally, a number of studies have demonstrated that children with caries in their primary teeth are more likely to develop the condition in their permanent teeth. Oral health issues cost more than 50 million school hours annually, according to a recent study in both developed and developing nations<sup>4</sup>.

Indices for assessing dental caries Dental caries is a microbial disease with multiple causes. It affects people of all ages, all races, all socioeconomic classes, and both genders. Cavities form and the hard tissue of the teeth becomes softer as a result. The World Health Organization (WHO) selected two main sets of indices as the most suitable indices for evaluating dental caries in public health surveys. The first is for permanent teeth, and it refers to the DMFT (average number of decayed, missing, and filled teeth) and DMFS (average number of decayed, missing, and filled surfaces per person). The second, dmft (average number of decayed, missing, or filled teeth per person) and dmfs (average number of decayed, missing, or filled surfaces per person), are lowercase letters for primary teeth. In specialized studies,

the DMFS/dmfs ratio is used, but not for the general public health dental survey. Children who do not have treated or untreated dental caries on their teeth are referred to as "caries-free." In general assessments of a population's oral health, the absence of caries is frequently noted. The percentage is recorded. It is only used on kids between the ages of 2. Three main causes of dental caries were identified about a century ago: diet, microflora, and a tooth that is vulnerable. Various local and general risk factors have been identified since that time. These factors include: total sugar consumption, as well as the frequency with which it is consumed, inadequate oral hygiene practices, inadequate fluoride exposure, patterns of familial caries, age, sex, race, location, and social class. In point of fact, the individual's social and cultural environment as a whole may play a role in the onset of dental caries. Local factors include the shape and arrangement of the teeth, salivary flow, and oral hygiene. The prevalence of dental caries in industrialized nations. The prevalence of dental caries has decreased in industrialized nations over the past few decades<sup>15</sup>. The mean DMFT for children aged 12 in Spain is 1.3316. The mean DMFT for children aged 8 to 9 in Germany was 0.7, while it was 0.4 in Hungary for the same age group. The mean DMFT index decreased from in 1989 to 0.8 1.5 in 2004<sup>18</sup> in Italy (Sardinia). In the UK<sup>19</sup>, a dmft value of 0.94 to 2.55 has been reported. A review was conducted by Petersson and Bratthall<sup>20</sup> to determine the reasons for the decline in dental caries over the past decade in industrialized nations. They came to the conclusion that the most significant factor in the decline in the incidence of dental caries was the use of fluoride in its various forms. The prevalence of dental caries has also decreased as a result of increased dental awareness, decreased sucrose consumption, the introduction of dental health education programs, and improved preventive strategies in dental clinics [1-5].

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## Discussion

Dental caries in developing nations However, the prevalence of dental caries varies from country to country. For instance, a 2013 literature review revealed that Saudi children's mean dmft score was 5.0 and their DMFT score was 3.521. With a mean dmft of 1.5922, 52% of 5- to 6-year-olds in Nepal have dental caries. In 2006<sup>23</sup>, a 6-year-old Kuwaiti child had a mean dmft of 4.6. However, the DMFT index for 12-year-old children decreased from 1.67 in 1993–1994 to 0.77 in 2006, which is very low by WHO standards, in the Islamic Republic of Iran, which is geographically close to the United Arab Emirates. As a result, its population shares a significant amount of UAE culture, habits, and employment. The United Arab Emirates (UAE) consists of seven independent states: Dubai, Abu Dhabi, Sharjah, Umm al-Qaiwain, Fujairah, Ajman, and Ras al Khaimah are the other cities. The United Arab Emirates (UAE) has grown to be an important player in regional and international affairs despite its small size (83,600 km<sup>2</sup>). The United Arab Emirates has a population of approximately 8 million, consisting of 16.6% Emiratis and 83.4% expatriates from over 200 nationalities. 33.9% of the population is made up of people between the ages of 0 and 14. Researchers have faced difficulties in interpreting study results and planning preventive programs due to the multicultural environment.

The United Arab Emirates and efforts to prevent dental caries Dental caries remains one of the most common health issues in the United Arab Emirates. The United Arab Emirates has done a lot to lower its caries rate. WHO consultants recommended the largest preventive oral health program in the UAE from 1995 to 1996. The alarming rate of dental caries in the United Arab Emirates, the majority of untreated carious lesions in children, and the lack of preventative measures all prompted the creation of the program. The Sharjah Emirate had the most extensive and extensive program, which included many of the components of a successful preventive program.

The program included tooth brushing and oral health education sessions in every school, oral health-related television shows, newspaper cartoons, and dental health booklets<sup>30</sup>. Following this, numerous programs and projects within each emirate, varying in scope and focus, as well as dental schools primarily focusing on tooth brushing and the significance of fluoride, followed. Studies on dental caries in the UAE Prior to 1996, only a few studies were carried out in the UAE to estimate the prevalence of dental caries. However, a number of studies were carried out after this date, particularly following the

establishment of the first Dental Health Teaching Institution in the United Arab Emirates at Ajman University of Science and Technology in 1997–1998. In the UAE, there are currently eight schools that offer dental students degree programs [6–10].

## Conclusion

In order to assist public oral health planners in evaluating their preventive programs and planning future ones, it is urgently necessary to collect all available data on the epidemiology of dental caries in the United Arab Emirates. The first review of the published articles on the epidemiology of dental caries in children under the age of 13 in the United Arab Emirates is presented in this paper. The Ministry of Health in Abu Dhabi has received several unpublished reports on the prevalence of dental caries in the UAE from 1981, 1992, and 1993. Because they have not been published and it is difficult to obtain their full texts, these articles will not be reviewed. In this study, we investigate the causes of dental caries as well as the prevalence, distribution, and evolution of disease severity over time.

## References

1. Shah Mohammad N (2014) Conflict management among secondary school students. *Procedia-Social and Behavioral Sciences* 159: 630-635.
2. Shehzad S, Mahmood N (2013) Gender differences in emotional intelligence of university teachers. *PJSCP* 11: 16-21.
3. Singh DD (2003) *Emotional Intelligence at Work: A professional Guide*. Sage.
4. Sportsman S, Hamilton P (2007) Conflict management styles in health professionals. *J Prof Nurs* 23: 157-166.
5. Tariq VN, Qualter P, Roberts S, Appleby Y, Barnes L (2013) Mathematical literacy in undergraduates: role of gender, emotional intelligence and emotional self-efficacy. *Int J Math Educ Sci Technol* 44: 1143-1159.
6. Thakore D (2013) Conflict and conflict management. *IOSR* 8: 07-16
7. Wafa DS (1997) Malaysian managers: A study of their personality traits and conflict-handling behaviour. *Malaysian Management Review* 32: 573
8. Yadav S (2010) Perceived social support, hope, and quality of life of persons living with HIV/AIDS: a case study from Nepal. *Quality of Life Research* 19: 157-166.
9. Zimet GD, Dahlem NW, Zimet SG, Farley GK (1988) The multidimensional scale of perceived social support. *J Personality Assessment* 52: 304.
10. Zhang SJ, Chen YQ, Sun H (2015) Emotional intelligence, conflict management styles, and innovation performance.