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Childhood Caries: A Global Concern

Mawj Alalawi, BDs¹, Haider Al-Saffar*, MPharm, BDs², Muhammad Hassaan Tahir, BDs³,
Rasha Alafaleg, BDs, MSc, PhD, AFHEA⁴

^{1,2,3}Foxland Dental Surgery, Stockport, SK8 4QB, UK

⁴Alqaseem University, Buraydah 52571, Saudi Arabia

ABSTRACT

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The letter highlights childhood caries remaining a widespread issue, with prevalence varying globally. Evidence emphasizes optimal fluoride use, regular brushing, and water fluoridation as key preventive measures. Addressing low fluoride levels in Middle Eastern water supplies through public health initiatives and education is essential to reduce caries rates.

KEYWORDS:

caries, mena, fluoride.

Sirs, childhood caries is a prevalent disease that every dental clinician encounters. In fact, the 2022 oral health survey found 29.3% of 5-year-old children in England are diagnosed with dental caries and a more shocking percentage of up to 99% in children aged 0-6 within the Middle East¹.

In an analysis of data from the National Diet and Nutrition Survey of Children (UK) Aged 1.5-4.5 Years, evidence found that regular brushing [twice a day] may reduce caries progression more effectively than restricting sugary foods. Whilst it remains essential to advise patients and parents to reduce the frequency of sugar exposures throughout the day, emphasizing optimal brushing regime with fluoridated toothpaste, especially before sleeping due to the circadian rhythm of salivary flow rate, is vital.

Delivering Better Oral Health UK (DBOH) guidance encourages frequent exposure to fluoride throughout the day. Recent research supports this by concluding that fluoridated water, at the recommended levels, can reduce the risk of caries due to free sugar exposure². The recommended fluoride concentration in water for caries prevention is at least 0.7mg/l³ however a study conducted in Saudi Arabia found that the fluoride levels in water samples are <0.065ppm⁴ and most of the main drinking water in UAE bottled water contain similar low levels⁵. Data from Babil, Iraq, also revealed

deficient levels of fluoride in both tap and bottled water. Improvements in preventive dental practice across the Middle East are necessary for public dental health.

Improvements include:

- Encourage private and public water suppliers in the Middle East to fluoridate water to at least 1mg/l, similar to the UK's public health initiative by the Department Of Health and Social Care.
- A widespread public awareness campaign to educate and dispel any negative connotations surrounding fluoride in water.
- A petition by dentists practicing within the Middle East to encourage water fluoridation.

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Corresponding Author: Haider Al-Saffar

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