

Evaluation of Decayed, Missing Due to Caries, and Filled Teeth Index in Children with Phenylketonuria in Comparison to Normal Population

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We read the case-control study by Ghasemi et al,¹ "Evaluation of Decayed, Missing due to Caries, and Filled Teeth Index in Children with Phenylketonuria in Comparison to Normal Population," published in the July 2023 issue of the *Turkish Archives of Pediatrics*. Ghasemi et al¹ investigated dental caries (DC) in Iranian children with phenylketonuria (PKU). They found that the average decayed (D), missing (M) secondary to caries, and filled (F) teeth index did not differ significantly in both case and control groups. Moreover, none of the studied indicators had a significant correlation with each other. They also found a significant correlation between phenylalanine levels in saliva, blood, and pH, as well as between phenylalanine levels in saliva with D and M components due to caries and F teeth.¹ In addition to the few study limitations mentioned by Ghasemi et al,¹ we hereby present the following limitation. It is important to note that apart from the World Health Organization (WHO) instrument, which is widely used, there are numerous instruments to assess DC, namely, caries assessment spectrum and treatment (CAST) and International Caries Detection and Assessment System (ICDAS). A critical review of these instruments has shown the following: the WHO instrument could be used as a screening tool; the CAST instrument is encouraging, however, it needs more field evaluation before it could be regarded as a completely approved DC-assessment tool in the epidemiological field; and finally, the ICDAS instrument does not have adequate validity and requires time to be used properly.² As a result, the review recommended the following: the estimation of DC prevalence ought to be relied upon the demonstration of cavitated dentine carious lesions; the prevalence of enamel carious lesions must be recorded independently; and finally, the dmf/DMF index should not be utilized in its present sort. There must be awareness among dentists and researchers about the advantages and limitations of each DC-assessment instrument, and DC prevalence estimation must not rely upon the dmf/DMF index but rather on cavitated dentine carious lesions (d/D-component), since the M- and F-components of the index do not highlight the disease stage.² In the study methodology, Ghasemi et al¹ mentioned that the DMFT index score was estimated for all PKU patients. However, they regrettably did not state which DC instrument was used. As a result, this methodological limitation might distort the validity of the study results. Regardless of the study limitations, the study findings reported by Ghasemi et al¹ really support the recently published observation that PKU patients have a higher risk to develop DC, enamel defects, and periodontitis.³

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Declaration of Interests: The author has no conflict of interest to declare.

Editor's Note: Despite repeated emails, no response received from Ghasemi et al.

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