Assessment of partial-mouth periodontal examination protocols for periodontitis surveillance

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This study aimed to evaluate bias associated with nine identified partial-mouth periodontal examination (PMPE) protocols in estimating periodontitis prevalence using the periodontitis case definition given by the Centers of Disease Control and Prevention and American Academy of Periodontology (CDC/AAP). Prevalence from full-mouth examination was determined in a sample of 3667 adults ≥30 years old from the National Health and Nutrition Examination Survey (NHANES) 2009-2010. Prevalence, absolute bias, relative bias, sensitivity and inflation factor were derived for these protocols according to the CDC/AAP definition and half-reduced CDC/AAP definition as ≤50% of sites were measured. Bias in moderate and severe periodontitis prevalence ranged between 11.1-52.5% and 27.1-76.3% for full-mouth mesiobuccal-distolingual protocol and half-mouth mesiobuccal protocol respectively; according to the CDC/AAP definition. With half-reduced CDC/AAP definition, half-mouth four sites protocol provided small absolute bias (3.2%) and relative bias (9.3%) for the estimates of moderate periodontitis prevalence; corresponding biases for severe periodontitis were 1.2% and 10.2%. Periodontitis prevalence can be estimated with limited bias when a half-mouth four sites protocol and a half-reduced CDC/AAP case definition are used in combination.

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Comparison of self-perceived oral symptoms and periodontal parameters among habitual shamma-chewers, gutka-chewers and non-chewers

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There are no studies that have (a) compared self-perceived oral symptoms and clinical and radiographic periodontal parameters (plaque index [PI], bleeding on probing [BOP], clinical attachment loss [AL] and marginal bone loss [MBL]) among shamma-chewers (SC) and gutka-chewers (GC); and (b) assessed periodontal parameters among SC. The aim was to compare the self-perceived oral symptoms and periodontal parameters among SC, GC and controls. Information regarding demographic characteristics and self-perceived oral symptoms was gathered using a structured questionnaire. Odds ratios were computed for self-perceived oral symptoms and periodontal parameters and compared between the groups. Level of significance was set at p<0.05. Forty-seven SC, 45 GC and 41 control individuals were included. Group comparisons for pain in teeth, pain on chewing, bleeding gums and burning sensation in the mouth showed no statistically significant difference among SC and GC. These symptoms were significantly higher in SC (p<0.01) and GC (p<0.01) than controls. PI, BOP, PD (4 to 6 mm and >6 mm) and clinical AL were significantly higher in SC (p<0.05) and GC (p<0.05) than controls. There was no statistically significant difference in PI, BOP, PD (4 to 6 mm and >6 mm) and clinical AL among SC and GC. There was no statistically significant influence of daily frequency of ST consumption and duration of placement in the mouth on the severity of periodontal parameters. Self-perceived oral symptoms and periodontal parameters were worse among SC and GC than controls with no statistically significant difference when comparing these findings between SC and GC.

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