

Reliability of clinical attachment level recordings: Effects on prevalence, extent, and severity estimates

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Background: Although unreliability of periodontal measurements is considered mainly to concern attempts to detect true changes in longitudinal studies, it is also a source of variability that may substantially decrease the precision of estimates obtained in cross-sectional studies. This study assessed the effects of measurement errors on estimates of prevalence, extent, and severity of clinical attachment loss. **Methods:** Four examiners performed repeat attachment level recordings in 128, 122, 134, and 133 adolescents, respectively, who participated in a study of clinical attachment loss among 9,162 high school students from Santiago, Chile. A total of 48,954 duplicate recordings were made. Two examiner teams carried out repeat examinations among 292 and 254 subjects, respectively, corresponding to a total number of 51,600 duplicate recordings for interexaminer reliability assessment. **Results:** A sizeable imprecision was noted regarding prevalence estimates, particularly at the ≥ 1 mm level