ABSTRACT

Objectives: This research was conducted to evaluate relationships between common oral hygiene behavior and the occurrence, intraoral distribution, and severity of gingivitis among adults.

Methods: 984 volunteers age 18-65 were included in the cross-sectional study. After informed consent, subjects completed a detailed survey on oral hygiene practices, perceived oral health status, dental utilization and other factors. Whole mouth gingivitis (GI) and disclosed plaque (PlI) scores were measured by two calibrated examiners. Intraoral distribution of gingivitis and plaque was mapped by site and region. ANOVA was used to compare clinical assessments (GI or PlI) to reported oral hygiene behaviors and perceived oral health status. Correlation coefficients were calculated to compare clinical parameters (gingivitis, bleeding and plaque).

Results: Mean age was 36.5 years. Means for GI and PlI were 0.66 and 2.61, 72% reported brushing at least twice per day, and subjects averaged 19.4 bleeding sites. Gingivitis and bleeding scores were highest on the mandibular anterior facial and lingual sites, and maxillary posterior facial sites. Bilateral symmetry was evident, and proximal sites were most commonly affected. Individuals having higher reported frequency of brushing or flossing had significantly (p < 0.05) lower GI and bleeding scores. GI and bleeding site means were 0.754 and 24.2 with QD brushing, compared to 0.621 and 17.5 with BID brushing. Mean GI and bleeding were highest (0.788 and 27.1 sites) without flossing and lowest (0.529 and 13.1 sites) with daily flossing. GI and bleeding were also significantly (p < 0.0001) related to subject perceived occurrence, frequency and severity of bleeding upon brushing.

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CONCLUSION

Common oral hygiene practices contribute to measured differences in gingivitis and bleeding, with noticeable bleeding serving as a significant indicator of disease occurrence and severity.