Refinement of the Modified Navy Plaque Index to Increase Plaque Scoring Efficiency in Gumline and Interproximal Tooth Areas

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To improve the assessment of plaque present on teeth, a new index, based on the original Modified Navy Plaque Index, has been developed. The primary modifications to the original Modified Navy Plaque Index were: (1) extending areas F (distal) and D (mesial) into the region just below the interproximal contact point, and (2) extending areas C and A so as to increase the gumline (or marginal gingiva) region. The new index assesses the amount of plaque in the tooth area bounded by the tooth contact, the free gingival margin, and mesial or distal line angles. The use of this new index enables the examiner to evaluate and record both the gumline (or marginal areas) and interproximal areas of the tooth, thus giving these anatomical areas an increased importance.

A pilot clinical assessment study was conducted to utilize this new index in evaluating the plaque removal efficacy of five manual toothbrushes. The results from this pilot study indicated that, when the new plaque scoring index was used, significant differences between pre-toothbrushing and post-toothbrushing plaque scores (as well as among toothbrush groups) could be demonstrated. Further, these differences (plaque removal efficacy) were demonstrated on an interproximal (mesial and distal) basis and a gumline (or gingival margin) basis, as well as on a whole mouth basis.

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