

Letter to the Editor

Dear Sir,

I wish to draw attention to certain omissions that occurred in a paper published in Volume 31 of the *Journal of Clinical Periodontology* by McCracken et al. (Vol. 31, pp. 805–812).

The authors continually refer to a “typical oscillating/rotating powered toothbrush” and “a conventional manual brush”, neither of which is identified in the Materials and Methods. Yet the toothpaste used was identified and both the Introduction and Discussion contain references to toothbrush studies, identifying products and manufacturers.

From experience we know that there are several different oscillating/rotating products on the market, some using rechargeable batteries and some disposable. Our experience has shown that not all perform to the same level (Van der Weijden et al. 1996, 2002) and hence it does not help the published literature to omit reference to the product or manufacturer. Especially since this study has been sponsored by a toothbrush company and the authors are using this study to question a systematic review of the literature.

One of the reasons that there are only a few published studies that evaluate the effect of powered toothbrushes in periodontitis patients is the need, in this particular patient population, for interdental cleaning. Additional oral hygiene aids such as floss and interdental brushes are a prerequisite in order to maintain periodontal health; it is therefore impossible to evaluate the effect of the powered toothbrush alone. In this periodontal patient population a separate analysis of the free surfaces (mid lingual and mid vestibular) would have provided some indication of the effectiveness of the toothbrush. Because this was not presented, the conclusion of the paper is inappropriate. More suitably it could have read: *...used either an oscillating/rotating powered toothbrush or a conventional manual toothbrush both in combination with floss and interdental brushes. A difference in gingival bleeding was detected in favour of the patients that used a manual toothbrush with additional interdental aids.*

ating/rotating powered toothbrush or a conventional manual toothbrush both in combination with floss and interdental brushes. A difference in gingival bleeding was detected in favour of the patients that used a manual toothbrush with additional interdental aids.

Reference

- van der Weijden, G. A., Timmerman, M. F., Pijns, M., Ijzerman, Y. & van der Velden, U. (2002) A clinical comparison of three powered toothbrushes. *Journal of Clinical Periodontology* **29**, 1042–1047.
- van der Weijden, G. A., Timmerman, M. F., Reijerse, E., Snoek, C. M. & van der Velden, U. (1996) Elimination of the plaque dentaire comparaison de deux brosses a dents electriques. *Journal de Parodontologie & d'Implantologie Orale* **15**, 365–371.

Yours sincerely

G. A. van der Weijden

Reply

Dear Sir,

Thank you for forwarding the letter to the editor from Dr. van der Weijden for comments.

We are more than happy to identify the brushes compared in this study, although this did not appear to be a concern to either reviewer of this paper at submission. The brushes were the Oral B Advantage manual toothbrush (Oral-B Laboratories, Boston, MA, USA) and Philips Sensiflex 2000 powered toothbrush (Koninklijke Philips Electronics N.V., Amsterdam, the Netherlands).

We disagree with Dr. van der Weijden's comments on the validity of the conclusions.

Firstly, smooth surface data are presented in Table 2 and show no difference

between groups for any of the three parameters at the sites he identifies.

Secondly, this study sought to compare two toothbrush designs that might be suggested to patients to use for daily plaque removal in combination with supplemental interdental cleaning aids. This we feel constitutes a realistic clinical situation for periodontal practice. The results of this study are in support of those of Haffajee et al. (2001), and suggests that there is little evidence to suggest an advantage in using an oscillating rotating design powered toothbrush over a manual toothbrush in this group of patients.

Finally, with regard to relative efficacy of oscillating/rotating design powered toothbrushes. Our group has promoted the discussion of clinical effectiveness linked to statistical differences. Dr. van der Weijden cites a study reported in 2002. This reports no difference in plaque removal efficacy between two oscillating/rotating designs of powered toothbrush one of which was the brush used in this study. We therefore suggest that these designs are comparable for plaque removal. The study reports a statistical difference for gingival inflammation but the distribution of this difference is not discussed nor is the clinical significance of the difference.

I hope that our comments clarify the issues raised by Dr. van der Weijden.

Reference

- Haffajee, A. D., Thompson, M., Torresyap, G., Guerrero, D. & Socransky, S. S. (2001) Efficacy of manual and powered toothbrushes (I). Effect on clinical parameters. *Journal of Clinical Periodontology* **28**, 937–946.

Yours sincerely

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