

Other journals in brief

A selection of abstracts of clinically relevant papers from other journals.

The abstracts on this page have been chosen and edited by Dr Trevor Watts.

PERIODONTICS; OBESITY

Obesity and periodontitis in 60–70-year-old men

Linden G, Patterson C *et al. J Clin Periodontol* 2007; **34**: 461–466

Obesity was associated with periodontitis, when the stronger effects of smoking were taken into account.

Obesity is associated with cardiovascular disease, type 2 diabetes, some tumours and also periodontitis. The present study investigated 2,010 men from a cohort study of myocardial infarct, and 1,362 were examined periodontally. Two levels of periodontitis were categorised as low or high threshold.

Normal BMI (<25 kg/m²) was present in 336 men, 728 were overweight (25–30) and 298 were obese (>30). Over the last 10 years, prevalence of obesity had increased 115%. Smoking had the strongest effects on periodontitis, but there was an association between current BMI and low threshold periodontitis (OR = 1.8; *P* = 0.004). BMI at age 21 was unrelated to current periodontitis.

DOI: 10.1038/bdj.2008.5

PUBLIC HEALTH; BEHAVIOURAL SCIENCE

Attitudes to oral health among adolescents with high caries risk

Hattme K, Folke S *et al. Acta Odont Scand* 2007; **65**: 206–213

It may help to know what adolescent patients think when they are given preventive advice.

Attitudes are based on cognition and emotion, and are believed to influence behaviour. This study was an exploration of attitudes in 15–19-year-olds at high risk of caries; 45 attending a Swedish public health clinic were invited to participate, and 16 did so. Interviews contained 10 open-ended questions, leading to further expansion and clarification. A qualitative content analysis was then used to process the responses.

Subjects who accepted the invitation appeared to be those who were interested in oral health, and knowledge was generally consistent. They knew about such things as the effects of diet and oral hygiene (fluoride toothpastes and rinses) on caries, but appeared to have difficulty in following their knowledge by suitable action. Emotional factors in attitudes appeared often to be negative, such as feelings of inadequacy, and frustration that efforts to prevent disease did not reap their due reward. It seemed that some subjects relied on the dentist to provide continued supervision of their oral health.

DOI: 10.1038/bdj.2008.7

ORAL HYGIENE

Effects of toothbrushes with tapered and cross angled soft bristle design on dental plaque and gingival inflammation: a randomized and controlled clinical trial

Ren Y-F, Cacciato R *et al. J Dent* 2007; **35**: 614–622

These brushes were more effective.

Toothbrush design has played a part in improving plaque control. In this study, 3 types were compared without giving patients any instruction. The designs were: a standard ADA toothbrush (ST), a brush with 6 rows of taper-ended bristles and 4 rows of cross-angled round-ended bristles (TCB), and a similar brush with all bristles tapered (TB). The trial started with 90 subjects randomised to the 3 designs, and 84 completed it. At baseline, groups did not differ. After a 1 wk washout period with a different brush, subjects abstained from brushing for 12 hrs, and then used the prescribed brush for 30 days.

The trial was completed by 19 subjects using ST, and 17 each using TCB and TB. In these respective groups, mean plaque scores were 2.4, 2.5 and 2.4 at baseline, and 2.4, 2.2 and 2.1 at day 30 (*P* = 0.02). Respective gingival index scores were: 1.3, 1.3 and 1.2, and 1.2, 1.1 and 1.1 (*P* = 0.02). The authors conclude that TCB and TB are a useful advance in design.

DOI: 10.1038/bdj.2008.6

PREVENTIVE DENTISTRY

Effectiveness of fluoride in preventing caries in adults

Griffin SO, Regnier E *et al. J Dent Res* 2007; **86**: 410–415

Contrary to some recent reviews, there is good evidence that fluoride prevents caries.

The authors note that no previous systematic reviews had found fluoride effective in preventing adult caries. From an initial 489 articles identified, 50 were reviewed against specific criteria, and finally 20 were included in the analysis.

Studies included fluoride delivery by water supply, mouthrinses, dentifrices and professional application. Analysis of annual coronal caries increments gave a difference of 0.64 surfaces (*P* < 0.05) for a total of 11 studies with 4,809 participants. In 5 studies of root caries with 1894 participants, annual difference was 0.22 (*P* < 0.05). Lifetime exposure to fluoride in water gave a figure of 35% prevention of caries.

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