

Abstracts on this page have been chosen and edited by Dr Trevor Watts

Behavioural science; dental health; metabolic medicine

Self-efficacy as a common variable in oral health and diabetes adherence

Knecht MC, Syrjälä A-MH et al.
Eur J Oral Sci 1999; 107: 89-96

Compliance was similar for behaviours aimed at oral and diabetic health in patients with both problems, and related to patients' perspectives on the tasks.

People are more likely to perform behaviour which they perceive they can manage (perceived self-efficacy), than that with which they feel they cannot cope. Metabolic control in diabetics and oral health both depend on specifically-targeted behaviour. Whilst it is known that poorly-controlled diabetics have increased levels of periodontal diseases, it is not known whether these patients fail to comply with required behaviour in respect of both problems. In this study, diabetic data were obtained for 149 patients, 80% of whom agreed to have an oral examination and answer questions.

Subjects were asked to rate self-efficacy by how well they thought they could cope with specific instructions in respect of diabetes and oral health. Analysis showed that these two assessments each correlated with the level of the disease concerned, and with each other. Dental self-efficacy was associated with diabetic metabolic control, but diabetic self-efficacy was not so closely associated with oral health. The authors considered that good dental self-efficacy had a positive influence on diabetic compliance.

Paediatric dentistry

Clinical behaviour of glass ionomer restorations in primary teeth

Espelid I, Tveit AB et al.
J Dent 1999; 27: 437-442

Resin-modified glass ionomer was superior to silver cermet glass ionomer over a 3 year evaluation in deciduous proximal cavities.

In 43 patients with matched pairs of primary molars with proximal caries, one of each pair was restored with resin-modified cement and the other with the cermet. Average age was 7.8 years, and by 36 months about half the teeth had been lost. US Public Health Service criteria were used to evaluate restorations.

By 3 years, 1 resin-modified and 13 cermet restorations had failed. In the former type of restoration and 6 of the latter, failures were due to secondary caries. The other 7 had marginal failure. Median survival time was calculated as 37 months for the cermet and > 42 months for the resin-modified restorations ($P > 0.001$). The authors recommend the resin-modified glass ionomer cement.

Behavioural science; periodontics

The relationship between tooth cleaning behaviour and flexibility of working time schedule

Abegg C, Marcenes W et al.
J Clin Periodontol 1999; 26: 448-452

Greater flexibility of working time related to better plaque control.

In a Brazilian city, 518 workers were invited to participate in a study of work factors related to oral hygiene behaviour. The response rate was 92.5%. An indicator of personal schedule freedom from the job strain model of Karasek *et al.* (*Am J Public Health* 1981; 71: 694-705) was used to measure flexibility of the schedule. Periodontal, socio-economic and behavioural parameters were measured.

When age, gender, socio-economic status and marital status were taken into account, there was still a significant association between greater schedule flexibility and higher tooth cleaning frequency (adjusted odds ratio 2.2), wider range of oral hygiene aids (2.8) and lower plaque level (2.0). The authors conclude that less flexible working time, which is known to be associated with health risks such as smoking, also adversely affects oral hygiene behaviour.

Orthodontics; otolaryngology

Breathing obstruction in relation to craniofacial and dental arch morphology in 4-year-old children

Löfstrand-Tideström B, Thilander B et al.
Eur J Orthod 1999; 21: 323-332

Obstructed nocturnal breathing is associated with a different facial morphology at the age of 4 years.

Parents of all 644 children born over a 16 month period in a small Swedish town were invited to participate in this study of their children, and the response rate was 95.5%. There were minor gender differences in enuresis and sucking habits, but otherwise the reported behaviour was similar. Regular snoring (a marker of breathing obstruction) was reported in 6%, occasional snoring in 46%, and constant mouth-breathing in 9%. The latter behaviour was 10 times as common in snorers than in the other children.

Breathing obstruction was diagnosed in 28 children, and 6 had sleep apnoea. An 'obstructed' group of 21 children was compared with 40 'ideal' controls, and differences were found in cranial base angles, and facial height ratios. The former children had smaller ratios of posterior to anterior facial height — 'high angle faces'. 'Obstructed' children had a narrower maxilla, deeper palatal height, shorter lower dental arch and higher prevalence of lateral crossbite.