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 John R. Radford.

DENTAL BEHAVIOUR MANAGEMENT PROBLEMS

Dental behaviour management problems: the role of child personal characteristics

Gustafsson A, Broberg A *et al.* *Int J Paediatr Dent* 2010; **20**: 242–253

As children with DBMP (dental behaviour management problems) get older, their fear component becomes stronger.

The purported condition 'dental behaviour management problems', is ascribed to children whose dental treatment is delayed or cancelled as a consequence of this disorder. However, the characteristics that comprise DBMP are not accepted universally. Despite this, the aim of the study was to examine the role of dental fear and other personality characteristics in DBMP. Questionnaires were used to measure features of this condition in 230, 7.5 to 19-year-olds with DBMP and 248 matched controls. Logistic regression and tree-based modelling showed that those with DBMP had 'significantly higher scores on fear and anxiety, behavioural symptoms, and temperamental reactivity' compared with the control group. The authors suggest that 'as children grow older the relationship between DBMP and more externalizing problems weakens, whereas the relation of DBMP to fear and internalizing problems gets stronger.'

DOI: 10.1038/sj.bdj.2010.1103

SHADE MATCHING

Metameric effect between natural teeth and the shade tabs of a shade guide

Corcodel N, Helling S *et al.* *Eur J Oral Sci* 2010; **118**: 311–316

Shade matching should not only be carried out in daylight conditions but under other light sources.

In this study, the tooth colour of 49 teeth was measured and compared with corresponding shade tabs (3D-Master) under 1) reference daylight, 2) incandescent light (light bulb) and 3) store/office light (Philips TL84 cool white fluorescent). The investigators found that colours 'may match when chosen in daylight conditions but may not under other lighting conditions'. The methodology underpinning this study would appear robust. Colours were measured under standardised conditions using an intra-oral spectrophotometer (VITA Easyshade Compact). Colour space values were calculated adopting CIE L^* , a^* , b^* . Differences between tooth and tab colour relative to reference daylight were identified using a modified metamerism index and hue-angle ratio.

DOI: 10.1038/sj.bdj.2010.1104

TOOTH BLEACHING

Effects of bleaching agents on human enamel light reflectance

Markovic L, Fotouhi K *et al.* *Oper Dent* 2010; **35**–4: 405–411

Bleaching agents alter the optical properties of enamel.

Many dentists have noted that what is referred to colloquially as 'toilet bowl teeth', cannot result solely as a consequence of the traditionally held chromophore action (splitting of chromogenic agents) of bleaching agents. In this study, the reflectance of enamel slabs from extracted teeth was measured before and after different bleaching regimens. The samples of enamel were from unerupted teeth that had been extracted (absence of extrinsic staining) and from those teeth extracted from 'seniors', presumably with an abundance of staining. Regardless of the concentration of bleaching agent (10% or 15% carbamide peroxide and 35% hydrogen peroxide) or the origin of the enamel sample, the reflectance increased significantly after bleaching. The investigators conclude 'that tooth whitening is not only related to the "chromophore effect" but also to additional changes in the optical properties of human enamel.'

DOI: 10.1038/sj.bdj.2010.1105

'NATURE VERSUS NURTURE'

Rare chromosomal deletions and duplications in attention-deficit hyperactivity disorder: a genome-wide analysis

Williams NM, Zaharieva I *et al.* *Lancet* 2010; DOI:10.1016/S0140-6736(10)61109-9

'ADHD is not purely a social construct'

A recent study has reported that those children with attention-deficit hyperactivity disorder (ADHD) had significantly higher caries experience in primary teeth. Such dental problems are important, but pale in significance when compared with the behavioural aspects of ADHD. Genome analysis of large, rare chromosomal deletions and duplications were carried out on 410 children with ADHD and 1,156 unrelated matched controls. There was a significantly increased rate of chromosomal aberrations in those with ADHD. In addition, in some children there was enrichment for a specific chromosomal locus implicated in autism and schizophrenia. Although this study suggests that ADHD has a genetic basis, the weight afforded to this compared with other putative causative factors such as, for example, the 'Southampton six' (food dyes) and organophosphates has to be elucidated.

DOI: 10.1038/sj.bdj.2010.1106