

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 FEAR

Empirical evidence of the relationship between parental and child dental fear: a structured review and meta-analysis

Themessl-Huber M, Freeman R *et al.* *Int J Paediatr Dent* 2010; **20**: 83–101

There is a significant association between parental and child dental fear, particularly in younger children.

This is a learned and insightful narrative synthesis including elements of a meta-analysis. From a total of 977 publications, 43 met the inclusion criteria. Eighty percent of studies identified a 'significant relationship between parental and child dental fear' although the authors did point out that anxiety is difficult to quantify. When considering age of the child, 'dental fear of children under the age of 8 is significantly related to parental dental fear'. Such a relationship is less clear in those over this age. The fail-safe *N* was calculated because of the risk of publication bias ('non-significant studies end up in the desk drawer instead of in the public domain'). The authors 'reported 'at least ten times the number of negative studies would need to have been conducted...to overturn the positive result.'

DOI: 10.1038/sj.bdj.2010.365

ZIRCONIA

Zirconia implant abutment fracture: clinical case reports and precautions for use

Aboushelib MN, Salameh Z. *Int J Prosthodont* 2009; **22**: 616–619.

The metallic screw arrangement that is used to fix the zirconia framework to the implant would appear to be associated with ceramic fracture.

The fabrication 'of accurate and complex zirconia frameworks requires little more than a few keyboard clicks.' In addition, the white framework provides superior dental aesthetics. In this study, five fractured zirconia abutments (Procera Zirconia, Nobel Biocare™) were retrieved and examined using fractographic analysis. This technique consisted of identifying the site of critical failure using oblique light and then SEM examination. All samples demonstrated 'friction and abrasion marks on the internal surface of the zirconia abutments' together with damage to the heads of the fixation screws. The location of each critical crack was at the site of where the ceramic abutment contacted the metallic screw-nut. Two of the fractures however, appeared as a consequence of over-reduction of the zirconia abutments.

DOI: 10.1038/sj.bdj.2010.366

DENTAL EROSION

Dental erosion protection by fermented shrimp paste in acidic food

Chuenarrom C, Benjakul P. *Caries Res* 2010; **44**: 20–23

'...shrimp paste can reduce the erosive potential of tamarind juice...'

The authors argue '...it is difficult to imagine' how the consumption of low-pH beverages or foods would be reduced for reason of dental health. A pragmatic approach therefore, maybe to consume erosive food that contains high levels of protective chemicals, such as calcium. This *in vitro* study used profilometry and microhardness measurements of enamel specimens. The investigators reported that fermented shrimp paste (SP), when combined with erosive tamarind juice (TM), reduced the erosive potential of TM and 're-hardened softened enamel'. Shrimp paste, which comprises fermented salted whole tiny shrimp, when combined with TM is an important ingredient in Southeast Asian and Southern Chinese cooking. Interestingly, the authors quote others that showed the erosive potential of these ingredients, as with drinks containing calcium, decreased at elevated temperatures 'unlike that of simple acid solutions'. The authors do not state that tamarind is rich in calcium.

DOI: 10.1038/sj.bdj.2010.367

DENTAL FEAR

Heritability of dental fear

Ray J, Wide Boman U *et al.* *J Dent Res* 2010 **89**: 297–301

Dental fear would appear to have a genetic component and there may be differences between boys and girls.

The aim of this study was to compare 1) 'Dental Fear and Anxiety' and 2) 'Dental Fear Intensity' in monozygotic and dizygotic twins using probandwise concordance ('twins that have been pre-selected to have one affected member and then during the course of the study, another non-affected member become affected'). This study was carried out after recruiting over 2,000 twins born in Sweden between May 1985 and December 1986. Data were collected when the participants were 13–14 years old and then three years later. When considering 'Dental Fear and Anxiety', probandwise concordance 'was markedly higher for monozygotic girls than their dizygotic counterparts' but not for boys. The latter finding could be as a consequence of lack of power. When considering 'Dental Fear Intensity', only intraclass correlation coefficients were stated.

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