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.

RAW IMAGE FILES

Improving your image...then and now. Digital photography in dentistry

Sharland M. *Dent Update* 2013; **40**: 333–336

Due diligence '...if you want to use patient information such as photographs' (Standards for the Dental Team 4.2.7).

The DSLR (digital single-lens reflex camera), the ring flash and TTL flash metering (the camera measures ambient light through the lens and adjusts output light accordingly) has positioned intra-oral photography at the centre of evidential dental treatment. RAW files should be used for image validity. JPEG files have had several conversions that 'throw away a large amount of the captured data'. The author particularly likes the Canon 100D and 700D cameras (ca. £650, but only with a standard lens) but also those from the Nikon stable. A conventional ring flash is superior to an LED ring flash. An LED ring flash is 'a fraction of the power of [a] ring flash and all your camera settings will be compromised, losing you quality and depth of focus.'

DOI: 10.1038/sj.bdj.2013.1280

COMPOSITE STAINING

The effectiveness of four methods for stain removal from direct resin-based composite restorative materials

Al-Nahedh HN, Awliya WY. *Saudi Dent J* 2013; **25**: 61–67

Although the use of home bleaching will remove stains on resin composite restorations, this may increase surface roughness and, as a consequence, future staining.

There were two research questions: which technique is most effective at removing food stains from three different classes of resin composite and, in establishing the experimental model, which resin composite is most prone to staining? The staining regimen was harsh. It comprised immersing resin composite disk specimens ($n = 20$, for each class of resin composite) for 3 weeks in a solution of cranberry juice, instant coffee and tea. Colour change was quantified using CIELAB. Of those tested, the most resistant to discolouration was 3M™ ESPE™ Filtek™ Z250 Universal Restorative, a proven microhybrid. In contrast, and has been previously reported, Filtek™ Supreme XTE Universal Restorative (nanocomposite) was the most susceptible to staining. This has been attributed to either 1) porosity of the glass filler particles or 2) more probably, the increased proportion of the hydrophilic monomer TEGDMA resulting in increased uptake of water in the Bis-GMA resin. Home bleaching (10% carbamide peroxide) was consistently effective at removing stains, as was the use of Sof-Lex™ discs.

DOI: 10.1038/sj.bdj.2013.1281

QUALITY OF LIFE – DENTAL BLEACHING

Changes in oral health related quality of life after dental bleaching in a double-blind randomized clinical trial

Meireles SS, Goettems ML *et al.* *J Dent* 2013; <http://dx.doi.org/10.1016/j.jdent.2013.11.022>

But there is also tooth sensitivity, particularly when brushing.

In the UK, it has been reported that one in five are unhappy with their tooth shade. In this double-blind randomised controlled clinical trial study, the investigators measured the oral health related quality of life (OHRQOL) before and following three weeks of home bleaching ($n = 92$, aged 18–30 years old). The bleaching regimens were either 10% carbamide peroxide (gold-standard) or 16% carbamide peroxide. This study was carried out in Brazil. The use of both these concentrations of carbamide peroxide are permitted in the United Kingdom (The Cosmetic Products (Safety) (Amendment) Regulations 2012). There is a trade-off between increased satisfaction with dental appearance, and tooth sensitivity, particularly when brushing. The investigators cite another high quality study that found 'whitening treatment did not improve OHRQOL in older adults.'

DOI: 10.1038/sj.bdj.2013.1282

INSIGHT

Levels of agreement between student and staff assessments of clinical skills in performing cavity preparation in artificial teeth

San Diego JP, Newton T *et al.* *Eur J Dent Educ* 2013; DOI: 10.1111/eje.12059

For criteria such as the 'angle of entry' and 'holding instrument', is it really of concern if 'students tend to overrate the quality of their performance when compared with staff ratings'?

'Reflection', 'reflective' and 'self' is referred to over one hundred times in the document *Preparing for Practice* (www.gdc-uk.org). Using five criteria, this study compared what beginners judged their performance when removing simulated occlusal caries in phantom head teeth, with that graded by tutors. There was agreement between the beginners and tutors for the following key cavity preparation criteria: 1) 'Removal of caries from cavity wall' (but in one part only, of this two-part study), 2) 'Removal of caries from cavity floor', and 3) 'Avoiding pulpal exposure'. The authors suggest that 'student demographic characteristics such as age, gender, ethnicity and educational background' could influence their self-ratings. This study only explores one small aspect of a 'clinical' domain. It would be more difficult to set valid measures to compare the performance in the other learning domains of 'communication', 'professionalism' and 'management and leadership'.

DOI: 10.1038/sj.bdj.2013.1283