Letters to the Editor

Send your letters to the Editor,
British Dental Journal,
64 Wimpole Street,
London
W1G 8YS
E-mail bdj@bda.org

Priority will be given to letters less than 500 words long.
Authors must sign the letter, which may be edited for reasons of space.

AESTHETIC PROPORTIONS

Sir, I should be grateful to the editor if he would kindly consider printing my response to Messrs Bukhary, Gill, Tredwin and Moles' article about *The influence of varying maxillary lateral incisor dimensions on perceived smile aesthetics* (*BDJ* 2007; **203:** 687-693).

As the original innovator of the application of the golden proportion to dental aesthetics, as described in my article, *Dental aesthetics and the golden proportion* (*J Prosthet Dent* 1978; **40:** 3), it always gives me great pleasure to assess the numerous studies which evolve as a result of my work. Regrettably, the studies are often negative and usually due to simple misunderstandings of the practical application. Despite this, there are thousands of dentists worldwide who are happily using these principles successfully. I should appreciate the opportunity to respond to this article, as it gives me the chance to set the record straight while there is still time.

Messrs Bukhary, Gill, Tredwin and Moles' interesting study included six identical photographs in which each picture shows a different width of the lateral incisor.

The first part of their study was to find which width looks the best to most people, including dentists.

The second part was to see whether the preferred width was in the golden proportion.

The study suggested that in their Figure 1b, the width of the lateral was 62% of the width of the central (62% is the golden proportion). A digital dental grid, designed precisely in the golden proportion, superimposed on this photograph, shows that the width of the lateral, rated at 62%, is in fact much narrower. It would seem that there was an error in their measurements.

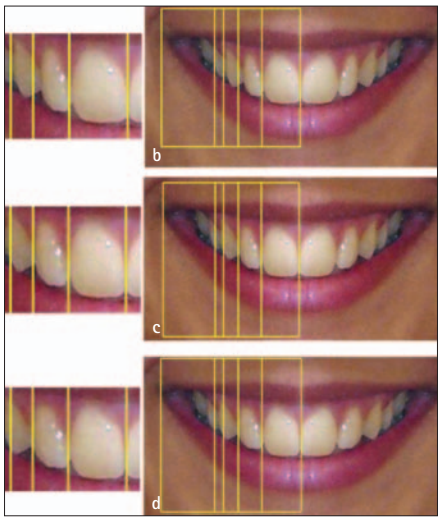

Fig. A A digital grid superimposed on the original photographs Figures 1b-d and adjacent enlarged pictures of the central and lateral

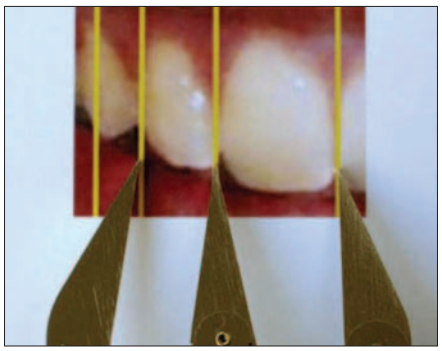

Fig. B A Golden Mean Gauge superimposed on the enlarged section of the central and lateral incisor

The study then showed that Figure 1d was the preferred width and this is precisely in the golden proportion as shown by the following three methods:

Figure A shows digital golden proportion software (The PHI grid) superimposed on the three photographs of the original article Figures 1b-d.

Figure B shows the golden mean gauge superimposed on an enlargement of the same photograph as above.

Figure C shows a transparent overlay superimposed on the same picture as above.

Fig. C A transparent grid superimposed on the Figure 1d of the original article

Fig. D A photograph of a stiff paper grid in the golden proportion for an accurate, but easy evaluation of the golden proportion straight on the upper incisors

The above clearly show, and confirm the observation that, when the lateral is in the golden proportion to the central,

most people say it is the most attractive relationship.

Figure D shows that the easiest way of assessing the golden proportion is simply with a hygienic, disposable card grid, straight onto the upper incisors. More information on the golden proportion in dental aesthetics can be found on www.goldenmeangauge.co.uk.

In summary, this interesting study actually confirms that the preferred measurement is the golden proportion.

This study also suggests that the aesthetic relationship of lateral to canine could be as important as central to lateral because in Figure D the dominant line of the canine including the canine tip falls exactly on the golden proportion grid line for the canine.

E. I. Levin
By email

The authors respond: We would like to thank Dr Levin for his interest in the article but would like to address several of the points that he has made:

(1) Careful inspection of the paper shows that Figure 1 photograph c and not photograph b as proposed by Dr Levin is actually the golden proportion. Unfortunately despite much work done by Dr Levin he has incorrectly misread the paper and used the wrong photograph. However, he is indeed correct in his conclusion that the photograph he has used is much narrower than 62%, with the lateral being 57% of the width of the central incisor.

(2) Figure 1d represents the lateral incisor being 67% of the width of the central incisor and is not the golden proportion as suggested. Assuming that there is a measurement error of up to 1 mm and the width of a central is 10 mm, it is reasonable to expect a measurement error of up to 10%. With such a measurement error it is quite conceivable that Mr Levin's measurements are at variance from ours. However, we took the precaution of conducting our measurements under magnification using high resolution images. These measurements were verified by three of the authors. The publication process inevitably means that the images reproduced in the BDJ *are of lower resolution and magnification than those used in our research.*

Mr Levin should not be too upset that most people preferred the 67% lateral as this is only 0.05 mm wider than suggested by the golden proportion.

(3) While the golden proportion makes a useful starting point what the results of our study have shown is that it is possible that patients may actually prefer a proportion that is close to but not exactly the golden proportion.

(4) It was not the intention of this study to be negative about the golden proportion, which has served as a useful and pragmatic guide for many years. However, our results have shown that rigid application of principles by dentists/technicians to a set formula are not always what the patient prefers. Concepts such as 'beauty' or 'aesthetics' are social constructs and cannot be standardised according to a system of universal norms. They have been shown to vary both between cultures and over time. Contemporary clinical practice places an increasing focus on patient-centred outcomes and accordingly we recognise that successful treatment will heed and incorporate our patients' views and preferences.

DOI: 10.1038/sj.bdj.2008.304

ADDITIONAL QUALIFICATIONS

Sir, thank you for the editorial *Degrees of separation* about the GDC agreeing in principle at a public meeting in December 2007 to abolish the current system for adding dental professionals' additional qualifications to its registers. I think it is really important that the profession is aware of this and I thank you wholeheartedly for notifying the profession of this change.

Did the GDC actually inform any of us directly or was it just left for us to find this out by visiting their website?

I successfully completed my part 2 of the MFGDP qualification last June and was told that after ratification by the Royal College in October 2007 the GDC would be informed of the decision and that the qualification would be listed after my name on the register.

I recently relocated and in the process of applying for jobs I was challenged by a prospective employer as to why the MFGDP qualification was not recorded on the GDC register? I think he thought I had just made it up to look good on my CV! I then checked the register myself and right enough no additional qualification was there. I contacted the FGDP and they said that the GDC was being a bit funny about accepting additional qualifications! What – from the Royal College of Surgeons? I was told to contact the GDC.

I tried phoning on several occasions and didn't have the time to wait in the queuing system, so I sent an email, to which I have not as yet received a reply. Eventually being refuelled with determination after reading your article I tried again. I could not get to speak to Moragh Loose, but was told to write and to send copies of my qualification and because I completed the qualification before the agreement in principle there may be a chance that the qualification will be recorded.

So if this agreement in principle, as you say is inevitable as death and taxes and it is going to happen, then what will happen to all these recorded additional qualifications that they have so far? Will these all be wiped off so that only our primary qualification will be shown or is it just that qualifications achieved after December 2007 are not worthy to be recorded? The person I spoke to at the GDC did not know.

I will wait to see if Moragh Loose will answer my query and live in hope that my MFGDP will be recorded.

If you want to add your views contact Moragh yourself at the GDC or at mloose@gdc-uk.org.

J. Maclean
By email

DOI: 10.1038/sj.bdj.2008.305

DON'T BE DISCOURAGED

Sir, your editorial *Degrees of separation* (*BDJ* 2008; **204:** 49) questions the Council's proposal not to list dental professionals' additional qualifications on our registers any longer.

Are we genuinely consulting on the issue? We certainly are. We are asking:

- Are there clear benefits to patients in listing dental professionals' additional skills or qualifications on our registers?
- Which would it be more helpful to patients to list – skills or qualifications?

- How can we ensure that any qualifications we do list are quality-assured and demonstrate continuing competence?

Whatever the outcome of the consultation, in due course dental professionals shouldn't be discouraged from taking further additional qualifications, or undertaking continuing professional development. However, we have to ensure that information on the registers is robust and of clear benefit to patients. The consultation allows us to consider all the issues.

We encourage constructive debate on this issue and *BDJ* readers will find our consultation document on the GDC website at http://www.gdc-uk.org/News+publications+and+events/Consultations/ The closing date for responses is 9 May 2008. Tell us what you think.

D. Rudkin
GDC Chief Executive and Registrar
DOI: 10.1038/sj.bdj.2008.306

DENTAL ENGINEERS

Sir, the public and profession have recognised the importance of formalised training for all dental team members. Dentists, nurses, therapists, hygienists and technicians will soon all need to be registered with the GDC and undergo continuing professional development. However, I believe there is one important group in the wider dental team for whom there is no formal training pathway, or proof of competence: dental engineers play an essential role in the safe installation and maintenance of our increasingly complex equipment. Some of the larger companies have apprenticeships and training pathways but even amongst these there are few that supply the full range of dental equipment. Communication and training between manufacturers and suppliers is not all that it could be. Recently we purchased a washer disinfector from our local supply company. The salesman from the manufacturer was not aware of the need for a water softener for this equipment for our area, and it took several attempts by the engineers to get the plumbing right. A quick search of the web would indicate that courses and update training for engineers are not widely available. Additionally, it would be helpful to offer educational advice for those interested in pursuing this important career.

As dentists ultimately bear the responsibility if a piece of equipment malfunctions, a recognisable qualification held by dental engineers would help us make sure that they are competent to install equipment safely. I may be misinformed, and if such qualifications or training pathways exist, I would be very grateful if members of the industry could inform us, through your journal.

P. Thornley
Sutton Coldfield
DOI: 10.1038/sj.bdj.2008.307

SUBMUCOUS FIBROSIS

Sir, we enjoyed reading the recent paper on the management of patients with reduced oral aperture and mandibular hypomobility (*BDJ* 2008; **204:** 125-131). In addition to the causes of mandibular hypomobility discussed in the paper, we feel it is important to remind readers of an important and common cause of mandibular hypomobility not mentioned, namely oral submucous fibrosis. Oral submucous fibrosis is a potentially malignant disorder mainly seen in South-East Asia, Taiwan, Southern China and Polynesia.[1] It is also found elsewhere in the world amongst people of Asian descent, including in the UK.[1] This condition is predominantly due to the chewing of the areca nut which causes a submucosal fibrosis and consequent limitation of opening of the mouth.[2] Worldwide, it is estimated that approximately 600 million people chew areca nut daily.[3] In India the number of cases of oral submucous fibrosis has risen rapidly over recent years, which is thought to be due to an upsurge in the popularity of commercially prepared areca nut preparations by young people.[3,4]

Cessation of areca nut consumption remains an important public health goal, both in Asia and in communities of Asian descent in the UK and elsewhere in the world. Should consumption continue to increase, then it is likely that many dentists will come into contact with cases of oral submucous fibrosis in the future. Dentists should be aware of this important cause of mandibular hypomobility.

S. Goru
M. N. Pemberton
Manchester

1. Gupta P C, Ray C S. Epidemiology of betel quid usage. *Ann Acad Med Singapore* 2004; **33 (Suppl):** 31S-36S.
2. Ranganathan K, Uma Devi M, Joshua E, Kirankumar K, Saraswathi T R. Oral submucous fibrosis: a case-control study in Chennai, South India. *J Oral Pathol Med* 2004; **33:** 274-277.
3. Nair U, Bartsch H, Nair J. Alert for an epidemic of oral cancer due to use of the betel quid substitutes *gutkha* and *pan masala*: a review of agents and causative mechanisms. *Mutagenesis* 2004; **19:** 251-262.
4. Tilakaratne W M, Klinikowski M F, Saku T, Peters T J, Warnakulasuriya S. Oral submucous fibrosis: review on aetiology and pathogenesis. *Oral Oncol* 2006; **42:** 561-568.

DOI: 10.1038/sj.bdj.2008.308

PROFOUND BIAS

Sir, I read with interest R. Johns' response (*BDJ* 2007; **203:** 496-497) to my letter *Downsides of implants* (*BDJ* 2007; **203:** 228-229).

I would like to reiterate that I am not saying 'don't do implants' but that we should be aware that they cannot reproduce the original physiological situation and in particular in restoration of edentulous cases this is a point of future concern and ongoing study. There simply has not been enough direct research nor time elapsed to offer the 'no worries' approach yet.

The literature points out that jaw motor inputs from oral implants have only been examined to a limited extent.[1] Edentulous patients in particular have been studied and an absence of a physiological 'silent period' in jaw closing muscles after tapping on the upper implants was noted. Direct studies are few and lacking to show that electrical and/or mechanical stimuli are transmitted via implants.

But there may be other concerns too. Neurosensory disturbances after immediate loading of implants in the anterior jaws have been noted and are being published.[2] Experts are now recommending high resolution magnetic resonance imaging as a precautionary preoperative protocol in order to avoid disturbance of neurosensory complexes and thus avoid as much as possible risk of a pain-complex after surgery.[3]

In summary, there are significant differences physiologically between

implants and natural teeth and data are still coming in to show this. It would thus seem premature to merely say that adaptation centrally can occur. After all, what nature has done to maintain over many tens of thousands of years (as can be evidenced from the beautiful micro-CT-based scans shown on the front cover of the *BDJ* recently) must have a purpose and to simply dismiss that would appear presumptuous at this point. Clinicians ought to warn their patients they are treading out on uncharted ground and that the 'no worries' approach is really not offering unbiased and fair informed consent as judged by today's somewhat litigious world.

J. A. Loudon
Sydney

1. Van Steenberghe D, Jacobs R. Jaw motor inputs originating from osseointegrated oral implants. *J Oral Rehabil* 2006; **33:** 274-281.
2. Abarca M, Van Steenberghe D, Malevez C, De Ridder J, Jacobs R. Neurosensory disturbances after immediate loading of implants in the anterior mandible: an initial questionnaire approach followed by a psychophysical assessment. *Clin Oral Invest;* in press.
3. Jacobs R *et al.* Neurovascularization of the anterior jaw bones revisited using high-resolution magnetic resonance imaging. *Oral Surg Oral Med Oral Path Oral Radiol Endod;* in press.

DOI: 10.1038/sj.bdj.2008.309

VIRUS CHALLENGES

Sir, issues concerning dentists carrying a blood-borne virus continue to challenge regulatory authorities worldwide. We have a recent case in Australia which may help inform your current debate regarding management of the infected dental health care worker.

A 44-year-old dentist was discovered to be carrying the Hepatitis C virus genotype 1 (7 log IU/ml) following a routine insurance blood test. The dentist had no known risk factors. The dentist immediately restricted practice by ceasing to perform exposure-prone procedures, and notified the local regulatory authority (Dental Practice Board of Victoria). Shortly after this, the State Health Department was also notified by the dentist's medical practitioner and the pathology laboratory.

The Health Department's initial plan was to require cessation of practice and patient look-back. An inspection of the practice revealed compliance with Australian Infection Control Guidelines. At a Health Panel meeting, consisting of a dental infection control expert, an infectious diseases physician, the dentist and a representative of the Dental Practice Board of Victoria, the dentist offered a series of modified work practices to the regulatory authority, which included not performing exposure prone procedures, using higher-quality gloves, and forwarding a report at regular intervals to the Board from the treating physician. The Health Panel and the Health Department noted that the international literature does not demonstrate transmission of Hepatitis C from a dental practitioner.

It was agreed by all that, according to the Australian Infection Control Guidelines, the definition of what constitutes an exposure prone procedure can be determined by a profession's expert body. For this particular practitioner, exposure-prone procedures were defined as surgical extractions, dento-alveolar surgery, implant surgery and periodontal surgery.

To its credit, the Health Department reconsidered its initial view, and agreed the Board should continue to manage this dentist under the suggested restriction. No look-back was carried out for the practice's patients. The dentist is not obliged to inform patients of this condition. Hundreds of patients have been saved from unnecessary testing and concern, and a competent practitioner continues to function in the community providing dental services.

G. D. Condon
President, Dental Practice Board of Victoria

DOI: 10.1038/sj.bdj.2008.310

RELOCATING CONDYLS

Sir, I heartily concur with the sentiments and suggestions by Nusrath *et al.*, that all dental students should be taught how easy it is to relocate a dislocated TMJ (*BDJ* 2008; **204:** 170-171).

Many years ago I was taught by the late (great) Hugh Walters how simple it actually is to place thumbs on the occlusal surface of the lower molars and 'lever' the mandibular angle downward whilst exerting rotating pressure to relocate the condyls. In my 25 year GDP career I have relocated four condyls, all within a matter of minutes after dislocation because as observed by Nusrath, if you wait too long then the muscles of mastication go into spasm and make relocation almost impossible without considerable pain. Contrary to their suggestion however, it is not wise to spend time taking (and diagnosing) the dislocated condyls on an OPT, or injecting and hoping for effective LA before relocation.

If you wait, then the muscles will go into spasm and then the only effective way to reduce the problem painlessly is with muscle relaxing drugs such as intravenous benzodiazepam.

No written description in a manual of dentistry can give the effective confidence to do this very simple and quick procedure. It is far better taught to all undergraduates on a skull, before the skill is totally forgotten in general practice, and dental school is the correct place to teach it.

R. Kitchen
Bristol

DOI: 10.1038/sj.bdj.2008.311

BULLDOG TENACITY

Sir, letters from Sir Winston Churchill to his dentist Sir Wilfred Fish went on sale at Bonhams on 18 March 2008 (see page 425). With one letter Sir Winston enclosed a set of dentures with the request to 'tighten them up a little for me'.

I am privileged to know that Sir Winston favoured gold partial dentures. This nugget of information came from a lady domiciliary patient I treated many years ago. She was in constant personal communication with him because of the sensitive nature of her war time work, a claim substantiated by the neat piles of letters from him still on her table 30 years after the end of the war. Even in the rigours of battle he found time to advise her to insist on gold dentures from her dentist. CDS funding did not stretch to following his advice and chrome-cobalt replacements sufficed.

Perhaps Sir Wilfred had copy working models for such an illustrious patient, and was able to restore the clasps and thus maintain the appearance of bulldog tenacity without Sir Winston leaving his war desk.

P. Miller
Bristol

DOI: 10.1038/sj.bdj.2008.312