

LETTERS TO THE EDITOR

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DENTAL EDUCATION

Online forums for learning

Sir, traditional university study (particularly for undergraduates) has been largely didactic in nature, comprised principally of the attendance of lectures and the reading of textbooks/research papers to help provide the foundations for independent practice upon graduation. However, in recent years there has been an eruption of online learning resources available to dental practitioners and students alike. Moreover, there has been rapid growth in the number of online forums where dentists can learn from peers, participate in topical discussion, as well as share ideas and clinical cases. The distribution of information via these forums is truly vast given the thousands of dentists and students worldwide who access them every day.

As a final year student myself, I have certainly developed a new habit of reviewing online dental forums on a regular basis. I have found many to be not only inspiring with regards to the presented clinical work, but also intellectually stimulating when reading comments and discussion raised by contributing dentists. With that said, I also feel it would be all too easy to stray into the trap of becoming over-reliant on such material, forgetting the importance of what makes a truly well-rounded, well-informed dental professional: the adoption of quality-assured and evidence-based learning in conjunction with continued self-development and education. I urge undergraduates especially to never forget that these sources are best seen as supplementary. They are not where one can, nor should, determine the 'gold standard'.

J. Gray, Manchester

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Serious concerns in India

Sir, I read with interest the letter by Samuel regarding the dental profession in India.¹ I would like to add my serious concerns regarding this issue. Dental undergraduates are preferring clinical sciences such as orthodontics, conservative dentistry, endodontics and prosthodontics with less enthusiasm for non-clinical specialties such as oral

DIAGNOSTICS

Cluster headache and misuse of paracetamol

Sir, we report here the first case of paracetamol (acetaminophen) misuse and overdose due to an undiagnosed cluster headache.

A 32-year-old man presented himself at a dental emergency service due to an unbearable pain resistant to analgesics in the right maxillary region lasting for two days. He reported severe, intermittent and poorly localised right hemifacial pain evolving for six months. Due to this intensive pain, he ingested 32 g of paracetamol during the night corresponding to 12 hours.

Clinical examination revealed asthenia, dizziness, pallor, sweating and nausea with episodes of bilious vomiting in the morning. Extraoral examination revealed a discrete oedema of the right hemifacial region, a slight ptosis and tearing of the right eye. The intraoral examination and the periapical radiographic examination were unremarkable.

The patient was then hospitalised for paracetamol over-consumption and probable cluster headache. At the entrance examination, the biological analysis showed increased liver enzyme activity (alanine transaminase, gamma-glutamylcyclotransferase and amylases). Breakthrough pains in the right hemifacial region were multi-daily, lasting from 15 minutes to several hours and were not relieved by analgesics. He also reported moderate photophobia for two years. All these elements confirmed the diagnosis of cluster headache.

The treatment initially consisted in the administration of N-acetylcysteine for paracetamol overdose. This allowed the normalisation of biological parameters. Cluster

headache requires special awareness from practitioners and dentists because some patients report only dental or midfacial pain as a primary presentation.¹ The median time to diagnose cluster headache is three years and over 30% of the patients report having consulted a dentist, an otorhinolaryngologist, an ophthalmologist or a neurologist before being diagnosed. More than 16% had a dental, sinus or eye surgery without improvement.²

Thus, it seems necessary for dentists to know the main clinical signs of this pathology.² The differential diagnosis must be made with other primary headaches (shorter, more frequent and responding well to analgesics) and with facial neuralgia (serial short access). Cluster headaches may also be secondary to vascular, tumour, infectious or inflammatory pathologies. Thus, brain imaging is essential.² The treatment consists of administration of sumatriptan (6 mg subcutaneous) in case of breakthrough pain associated to a background treatment including verapamil (120 mg, three times a day) and prednisolone with a decreasing dosage for seven days. This treatment enabled the disappearance of the crises in this case.

C. Egloff, F. Camelot, E. Pape, J. Scalabertola, K. Yasukawa and C. Clément Nancy, France

1. Van Vliet J A, Eekers P J E, Haan J, Ferrari M D, Dutch RUSSH Study Group. Features involved in the diagnostic delay of cluster headache. *J Neurol Neurosurg Psychiatry* 2003; **74**: 1123-1125.

2. Silberstein S, Olesen J, Bousser M-G et al. The International Classification of Headache Disorders, 2nd edition (ICHD-II) - revision of criteria for 8.2 Medication-overuse headache. *Cephalalgia* 2005; **25**: 460-465.

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pathology and microbiology, oral medicine, radiology and public health dentistry for postgraduate education. Consequently, private dental colleges in India are planning to close postgraduate education in non-clinical dental subjects. After gaining recognition for undergraduate and postgraduate

courses, they then remove their teaching staff abruptly leading to vacant staff positions for a considerable time.²

The Dental Council of India have also implemented continuing dental education points which is mandatory for undergraduates and postgraduates without analysing

the present situation of the dental profession in India.³

The Government should not entertain proposals to start new dental colleges without adequate dental manpower and infrastructure for the next ten years. Oral health policy needs to be implemented as a priority in India, with an emphasis on strengthening dental care services under public health facilities.⁴ It may be inferred that the current situation of the dental profession is because of poor implementation of government public health policies and not because of a lack of dental professionals in India.⁴

Thorakkal Shamim, Malappuram, India

1. Samuel S R. Dental education: Too many graduates in India. *Br Dent J* 2016; **220**: 219.
2. Dental Council of India. Policy Decision; Staff & Infrastructural facility. Available at: http://www.dciindia.org.in/Admin/NewsArchives/policy_decision.pdf (accessed April 2016).
3. Shamim T. Continuing dental education (CDE) points: serious concerns. *Indian J Med Ethics* 2016; **13**: 64.
4. Shamim T. Oral health policy amicable for the South Asian Association for Regional Cooperation Nations. *Iran J Public Health* 2014; **43**: 1589–1590.

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ORAL HEALTH PROMOTION

Oral health or social scourge

Sir, in the paper on the economic benefits to the NHS on increased use of sugarfree gum in the UK¹ savings are projected of between £1.2 and £8 million depending on what you want to believe. That of course is always assuming that the target population do not buy the sugared Juicy Fruit variety...

The authors are conveniently ignoring the social costs of cleaning up discarded gum. The clean-up costs nationally are estimated to be some £60 million as suggested by the Local Government Association.² The LGA suggest that the average piece of gum costs about 3p to buy – but 50 times that to clean up (£1.50). Most chewing gum never biodegrades and once it is trodden into the pavement requires specialised equipment to remove. Indeed they have asked, in vain, that gum manufacturers should also be switching to biodegradable and easier-to-remove chewing gum.

So the net overall cost to other parts of the public purse may be quite different. Six hundred and eighty-five thousand children aged 12 – say 20% – chew gum twice a day. Let's say 274,000 increased chewing gum events and 20% of that gum is disposed of in a public place (they are 12-year-olds, after all). This suggests about 55,000 unwanted chewing gum disposal events, PER DAY, equating to an anticipated clean-up cost burden of £30 million.

A stated saving of up to £8 million

translates into a net burden to the public purse of some £22 million.

And then I read the Conflict of Interest. 'Funded by a chewing gum manufacturer Oral Healthcare Programme.' Shame on the *BDJ*. I am amazed Professor Kay would lend her name to such a blatant pseudo-ethical marketing ploy.

C. Lister, Romsey

1. Claxton L, Taylor M, Kay E. Oral health promotion: the economic benefits to the NHS on increased use of sugarfree gum in the UK. *Br Dent J* 2016; **220**: 121–127.
2. Local Government Association. Chewing gum manufacturers urged by councils to pay for clear-up of gum-spattered streets. 22 November 2014. Available at: http://www.local.gov.uk/media-releases/-/journal_content/56/10180/6745145/NEWS (accessed 15 March 2016).

The authors Matthew Taylor, Lindsay Claxton and Liz Kay respond: Thank you for sharing your concerns.

The study sought to specifically assess whether sugarfree gum, based on its proven and recognised clinical benefits,^{1–7} may play a role in helping to reduce the economic burden of tooth decay to the NHS. For the purposes of the analysis and, as per most economic models, it is necessary to work from set assumptions and parameters in relation to the specific question being asked. Therefore, the potential impact of littering was not reviewed; however, neither was the important impact that improving oral health has on an individual's quality of life and well-being, such as avoiding pain and infection, missing school/college days and parents losing work days, nor the lifetime impact of having caries as a child.

We do, however, agree that littered gum is a concern that should not be ignored. Whilst the majority of people who chew gum do the right thing, a minority of people dispose of it irresponsibly and these consumers need to dispose of their litter properly. The gum manufacturing industry and campaign groups such as Keep Britain Tidy have dedicated significant resources to understanding the impact of littered gum and tackling it. They are agreed that the only long-term sustainable solution to this issue is through education and behaviour change to ensure the minority of chewers who continue to drop their gum do the right thing and put it in the bin. Over the last decade, significant resources have been dedicated to understanding the impact of littered gum and there has been considerable investment in programmes and initiatives focused on driving long-term sustainable behavioural change.

Although funded by gum manufacturers, the research was undertaken independently by the York Health Economic Consortium (part of the University of York) and Plymouth

University (in Liz Kay's capacity as a Professor of Dental Public Health). Prior to publication in the British Dental Journal, the research underwent rigorous independent peer review in order to ensure it met the required standards of scientific validity for publication.

Caries is one of the most common, largely preventable, problems in the UK, and we know that early decay has a life-long effect on health and wellbeing. With over a third (34%) of 12-year-olds in the UK showing signs of obvious decay in their permanent teeth,⁸ we believe it is important that we examine all potential avenues for prevention and seek innovative new solutions to minimise the health and economic impact of caries.

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2. Leach SA, Lee GT, Edgar WM. Remineralization of artificial caries-like lesions in human enamel in situ by chewing sorbitol gum. *J Dent Res* 1989; **68**: 1064–1068.
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4. Beiswanger B B, Boneta A E, Mau M S, Katz B P, Proskin H M, Stookey G K. The effect of chewing sugar-free gum after meals on clinical caries incidence. *J Am Dent Assoc* 1998; **129**: 1623–1626.
4. Szöke J, Bánóczy J, Proskin H M. Effect of after-meal sucrose-free gum-chewing on clinical caries. *J Dent Res* 2001; **80**: 1725–1729.
5. Oral Health Foundation. Caring for teeth – sugar-free chewing gum. Available at: <http://www.dental-health.org/tell-me-about/topic/caring-for-teeth/sugar-free-chewing-gum>.
6. FDI World Dental Federation. Oral health worldwide: A report by FDI World Dental Federation. Available at: http://www.worldoralhealthday.com/wp-content/uploads/2014/03/FDIWhitePaper_OralHealth-Worldwide.pdf.
7. Health & Social Care Information Centre. Child Dental Health Survey 2013, England, Wales and Northern Ireland [NS]. 19 March 2015. Available at: <http://www.hscic.gov.uk/catalogue/PUB17137>.

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SUGAR TAX

Caries is the disease

Sir, the BDA should congratulate George Osborne on imposing a tax on sugary drinks in the recent budget in an attempt to reduce the incidence of a major disease in the UK. Unfortunately, he gave that disease the wrong name. It should have been dental caries rather than obesity! This is the one disease where evidence supports sugars having a contributory role.

Obesity, however, is not a disease, but a disorder with just one cause, calorie intake exceeding calorie expenditure.

Hopefully at the legislative stage, the tax will refer to 'non-milk extrinsic sugars' and not just 'sugar'. An error then might result in a tax on milk!

J. A. Beeley, Glasgow

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