

We are all in favour of high-quality research. We accept that Dr Shelley and Professor Horner may feel the study sufficiently flawed that it adds nothing to the knowledge gap, and encourages bad survey practice under non-pandemic circumstances. The question remains as to why public institutions were either disinterested or unable to react quickly to gather this sort of important information at the start of a pandemic. It ought not to be the case that the only data set of COVID symptoms of UK dental professionals from this unique, initial period (pre-vaccination, pre-pandemic infection control measures and immunologically naïve population) is from a group of amateurs. It is our view there ought to have been, as part of any effective pandemic plan, an 'oven-ready' research project, with trained personnel, established methodology (including sampling), funding and ethical approval. Once the novel pandemic appeared, it should have been a matter of pulling the trigger on the study. We accept for some, this may be the only recognisably scientifically valid conclusion from the publication.

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## Smoking cessation

### Smokeless in India

Sir, smokeless tobacco has been reported to present a significant burden of disease, death and disability, particularly in Southeast Asia and India.<sup>1</sup>

India ratified the Framework Convention on Tobacco Control of the WHO in 2004. To that effect, the country has taken significant steps to curb the menace of smokeless tobacco (SLT). The sale and manufacture of 'gutka', a common form of SLT, has been banned in India.<sup>2</sup>

In relation to this, India has implemented: pricing and taxation measures, regulation of emissions and content, labelling and packaging measures which involve SLT products having pictorial health warnings

covering 85% of the main display area, a considerable mass media campaign, a ban on all types of indirect and direct advertisements for SLT products, offering tobacco cessation, tobacco-free rules for television and film which includes SLT, prohibition of the sale of tobacco products to persons below 18 years of age and sales within 100 yards of educational institutions. India also has partial bans on the sale and import of certain forms of SLT and policies in place which ban the usage of tobacco in public places and prohibit plastic sachets for packaging of such products.

Although the prevalence of SLT use increased from 1987 (15%) to 2009 (24.2%), it went down to 19.3% in 2016.<sup>3</sup> It has also been reported that there was an increase in attempts to quit (13.3%) in individuals exposed to mass media campaigns pertaining to SLT control when compared to non-exposed individuals.

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## Prosthetic dentistry

### Quantum computing in dentistry

Sir, harnessing the power of quantum computing (QC) can bring about significant advancements in the management of semi-fixed and removable prostheses, benefiting individuals with Parkinsonism, autism, and Alzheimer's. QC, through advanced computational modelling and simulation, can provide valuable insights into the dynamics of the oral musculature and its interaction with prostheses.<sup>1,2</sup> By incorporating the principles of quantum mechanics into these simulations, researchers can gain a deeper understanding of the intricate forces and movements involved in prosthesis stability. This quantum-enhanced modelling approach can guide the development of prosthetic designs that mitigate dislodgment issues, providing patients with improved functionality and comfort. By integrating QC with technologies such as intraoral sensors or wearable devices, it becomes possible

to gather and process data continuously, allowing for dynamic adjustments to the prosthesis fit and stability and can even modify drug regimens in cases where stability is compromised.<sup>3,4</sup>

In addition to prosthesis management, QC has broader applications that can significantly contribute to the treatment of such neurological conditions. While QC is still in its early stages of development and practical implementation, the strides made thus far are promising. With its unparalleled computational power, capacity for solving complex optimisation problems, and ability to simulate intricate neural networks, QC offers a promising avenue for more effective, personalised therapies.

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## Sleep apnoea

### Implantable pacemaker for tongue-neuromodulation

Sir, I read with great interest the paper 'How can general dental practitioners help in the management of sleep apnoea?'<sup>1</sup> While the article mentions various conventional approaches to treating obstructive sleep apnoea (OSA), it is crucial to acknowledge the overlooked anatomical aspect involving decreased muscle tone of the genioglossus, which can lead to tongue retraction and airway obstruction.<sup>2</sup>

In response to the aforementioned problem a pioneering concept of hypoglossal nerve stimulation was conceived, which focused on delivering targeted motor stimulation to the most important upper airway dilator<sup>3</sup> ie genioglossus muscle of the tongue. By restoring the tone of the tongue muscle and promoting protrusion this technique improves airflow.<sup>4</sup>