

reported case, some patients could be very sensitive to their occlusal changes and show a variety of psychosomatic symptoms.⁵ Therefore, we agree with the authors' conclusion highlighting that minimal intervention should be considered initially, not invasive irreversible treatment.

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References

- Byrne M J, Taylor C L. Composite psychological distress. *Br Dent J* 2022; **286**: 287.
- Jagger R G, Korszun A. Phantom bite revisited. *Br Dent J* 2004; **197**: 241–243.
- Tu T T H, Watanabe M, Nayanar G K *et al*. Phantom bite syndrome: Revelation from clinically focused review. *World J Psychiatry* 2021; **11**: 1053–1064.
- Kelleher M G, Sarasatnam L, Djemal S. The paradoxes of Phantom Bite Syndrome or occlusal dysaesthesia ('dysesthesia'). *Dent Update* 2017; doi: 10.12968/denu.2017.44.1.8.
- Watanabe M, Hong C, Liu Z *et al*. Case Report: Iatrogenic Dental Progress of Phantom Bite Syndrome: rare cases with the comorbidity of psychosis. *Front Psychiatry* 2021; doi: 10.3389/fpsy.2021.701232.

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Pain management

Percussion therapy in dentistry

Sir, in recent times, there has been an increase in percussion therapy massage devices on the market. This involves rapid vibrations and pulsing movements penetrating overworked muscles after workouts; however, there is currently very little scientific evidence on their effectiveness.¹

The COVID-19 pandemic has been incredibly tough for everyone; adults have had less social interaction, more people are working from home, children have uncertain and confusing futures. This period has led to diminished dental health leading to TMD, bruxism and myofascial pain.² Current treatment involves painkillers, soft occlusal bite guards and relaxation techniques. We question whether percussion therapy could be used to soothe the muscular pain in the head and neck. Evidence from 20 years ago suggested excellent results in the management of facial pain.³

For obvious reasons, one would not normally suggest applying repetitive forces anywhere near the cranial region; however, many of these devices allow softer attachments, reduced vibrations and lighter force which could be altered for treatment of the muscle of mastication. As with any medical device, appropriate instructions

would need to be provided to patients to ensure they are using the device correctly, and are aware of the potential side effects of failing to follow guidance. Although rare, serious complications have been associated with these devices.⁴

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References

- Konrad A, Glashüttner C, Reiner M M, Bernsteiner D, Tilp M. The acute effects of a percussive massage treatment with a hypervolt device on plantar flexor muscles' range of motion and performance. *J Sports Sci Med* 2020; **19**: 690–694.
- Emodi-Perlman A, Eli I, Smardz J *et al*. Temporomandibular disorders and bruxism outbreak as a possible factor of orofacial pain worsening during the COVID-19 pandemic – concomitant research in two countries. *J Clin Med* 2020; doi: 10.3390/jcm9103250.
- Vibration therapy for pain. *Lancet* 1992; **339**: 1513–1514.
- Chen J, Zhang F, Chen H, Pan H. Rhabdomyolysis after the use of percussion massage gun: a case report. *Phys Ther* 2021; doi: 10.1093/ptj/pzaa199.

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Oral health

New Japan dental policy

Sir, Prime Minister Kishida in Japan will launch a new policy of requiring all Japanese citizens to undergo dental checkups.¹ All citizens in Japan will receive a dental checkup once a year, which is currently mandatory through high school. However, a serious problem with mandatory dental checkups for all citizens is that dental checkups alone do not improve health. Dental checkups and treatment can improve health. In other words, the mandatory policy should include dental checkups and treatment.

The COVID-19 pandemic added to the problems of dental care and interfered with dental patient visits.² The latest study in Japan showed that the COVID-19 pandemic has been disturbing dental checkups.³

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References

- Nikkei. Mandatory dental medical examination, clearly stated in the bold policy plan. 2022. Available at: <https://www.nikkei.com/article/DGXZQOUA315CK0R30C22A500000/> (accessed June 2022).
- Ahmed M A, Jouhar R, Ahmed N *et al*. Fear and practice modifications among dentists to combat novel coronavirus disease (COVID-19) outbreak. *Int J Environ Res Public Health* 2020; doi: 10.3390/ijerph17082821.
- Oshima K, Miura H, Tano R, Fukuda H. Factors associated with regular dental checkups' discontinuation during the COVID-19 pandemic: a nationwide cross-sectional web-based survey in Japan. *Int J Environ Res Public Health* 2022; doi: 10.3390/ijerph17082821.

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Vaping misrepresentations

Sir, we read with interest a recent research paper¹ and 'Research Insights' summary² on the erosive potential of 'vapes'.

We were disappointed to see several basic errors and misrepresentations. We would like to correct the five most major errors:

- E-cigarettes do not contain tobacco and should not be categorised as such³
- The authors incorrectly claim that nicotine causes a 'high risk of oral and whole-body health complications'. They cite a WHO poster which presents the effects of whole tobacco smoke on health, not the effect of nicotine. Nicotine has been used in the form of NRT for over 30 years, including in pregnant women, and is regarded as extremely safe, even for long-term use
- The authors claim that e-cigarettes are associated with cancer. The supporting reference does not make this claim and in fact states 'no long-term evidence related to oral and systemic health effects exist'
- The authors state that 'diacetyl is found in most flavoured vapes'. Again, the supporting reference is inappropriate and did not assess diacetyl levels in any way. Moreover, diacetyl is banned as an ingredient from e-cigarettes and e-liquids in the UK
- The authors grossly misrepresent the public health guidance on e-cigarette use as a smoking cessation device. For example, they cite a 12-year-old WHO document (a lifetime in e-cigarette policy!) There is a lack of balance in the material cited; the positions of PHE and NICE on the usefulness of e-cigarettes in smoking cessation, and their relative safety compared to tobacco cigarettes, are not acknowledged.

The experiment itself appeared technically sound. It was encouraging that the nicotine containing e-liquids (used by the vast majority of vapers) had an alkaline pH.

A major limitation of the study is that it is not representative of the real-life scenario. The data should not be over-interpreted, and further *in vitro* modelling studies and clinical studies are needed. Our research group has previously explored this subject using a state-of-the-art research vaping machine, designed to simulate human use. Preliminary data showed minimal changes in pH even after prolonged vaping sessions (data unpublished).