

changes in brain activity, allowing medical professionals to tailor treatment plans and medication regimens to individual patients' needs. This personalised approach to therapy has the potential to optimise medical resources and improve patient outcomes.² For individuals with Alzheimer's disease, BMIs offer a unique opportunity to enhance communication and overall quality of life. Studies have shown that BMIs can detect and identify denture trackers in edentulous Alzheimer's patients, enabling clearer expression of their needs.^{3,4} Additionally, AI-powered brain implants could potentially allow patients to convey their thoughts and emotions without the need for language, further improving their quality of life.

The history of BMIs can be traced back to Hans Berger's invention of the electroencephalogram in 1924. However, it was not until the 1970s that the term 'Brain Machine Interface' first appeared in scientific literature. Since then, the field has progressed significantly, with companies such as Neuralink, founded by Elon Musk,^{5,6} working towards the goal of enhancing human cognitive and sensory capabilities.

In conclusion, AI-powered neural implants have the potential to transform the field of medicine, particularly in the realm of Alzheimer's disease treatment. By enabling early diagnosis and tailored treatment plans, these devices have the potential to improve patient outcomes and overall quality of life.

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Holistic dentistry

A partnership between occupational therapy and dentistry

Sir, it is clear that the dental environment and procedures can make a visit to the dentist an unpleasant and challenging experience for autistic children and adolescents and act as a barrier to care. Sensory sensitivities associated with autism can also pose challenges for the dental team, impacting the provision of dental care.¹ As a result, autistic children and adolescents are more likely than their neurotypical peers to receive treatment under general anaesthesia.¹

Our team is collaborating with Stacey Venner, occupational therapist (OT) and experienced dental nurse who encountered first-hand the barriers to dental engagement for those from the autistic community and identified a need for multi-professional working that incorporates an occupational therapy perspective. Occupational therapy could be an ideal profession to assess and, where required, to provide a care plan for specific care needs of patients prior to dental visits.

The particular characteristics of occupational therapy could be of benefit to improving the delivery of person-centred dental care:

- Occupational therapy is a profession that is focused on identifying a person's emotional, social, and physical needs and facilitating changes to improve their overall health and wellbeing. OTs have the skills to provide appropriate strategies to increase independence and promote health and wellbeing
- OTs seek to analyse and support the participation of people in daily activities including self-care. This can include identifying the barriers to good oral health and access to dental care. They can provide support in relation to many areas associated with oral health, including brushing teeth and diet
- OTs are aware of sensory needs and sensitivities. They are well placed to advise on reasonable adaptations that can improve the environment for children and adolescents with sensory differences.

Traditionally, OTs use a person-centred, holistic approach whereby they work together with the service user to help tackle barriers and facilitate personal goals. In addition, OTs are skilled to offer universal, targeted and specialist levels of service including training,

mentoring, consultation and group work, working collaboratively across services and external agencies, thus having a positive impact on the wider community.

The authors are unaware of any services in the UK where OTs have partnered with dental services. However, studies conducted in the US have shown that such a collaboration may help in reducing some of the barriers that autistic people have in relation to dental care by adapting the dental environment.² We propose that further work in the UK is warranted to fully explore how OTs and dental teams can work together for patient benefit.

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Dental memberships

Nothing misleading

Sir, we have the greatest of admiration for Professor Nairn Wilson whose contribution to the dental profession has been consistently outstanding and beyond anything that most of us could hope to achieve. Nevertheless, we would, respectfully, like to put an opposing view in response to his letter 'Updating postnominals' in this journal.¹

Many general dental practitioner colleagues spent countless hours, over years and months, to pass fellowship and membership examinations of the former FGDP(UK). Professor Wilson writes that continuing use of the associated postnominals, 'could be considered misleading, specifically to patients, and to contravene the GDC's guidance on advertising'. It could, however, be argued that it is unprofessional not to inform patients of appropriate professional achievements.

Professor Wilson's letter appears to represent his opinion but where is the evidence that there is anything unprofessional or illegal about informing patients, via postnominals, of professional examinations which have been passed and hard earned? We are not aware that this has ever been