COMMENT

Letters to the editor

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Jaw restriction

No place in modern treatment

Sir, in relation to the paper by Brunton *et al.*, jaw restriction for weight loss purposes has been evaluated previously with limited success.¹ Several study participants were left with permanent complications such as jaw restriction and periodontal disease whilst others reported psychological complications including suicide.²

The current study has a very low number of participants completing the protocol ($n = 6$), a short follow-up time (two weeks) and, importantly, lacks a control group to account for weight loss attributable to dietary advice and close surveillance, as study participants were started on a very low-energy liquid diet (VLED) together with the implementation of the device. Indeed, the reported weight loss is not different to that previously described following VLED.³ The study also fails to address the fact that individuals with obesity often consume a significant amount of excess calories in liquid form.⁴

The new device includes a safety feature allowing individuals to disengage their jaws, meant to address aspiration during vomiting. Previous studies with fixed devices concluded no risk of aspiration even in patients with history of vomiting but we appreciate the authors' intention to address safety concerns from previous jaw fixation devices. However, this feature defeats the purpose by allowing patients to disengage their jaws, liberating them from restriction at their convenience.

Finally, the authors state that bariatric surgery 'cannot be relied upon to manage the global obesity epidemic'. Morbid obesity is not simply a result of behavioural traits leading to over-eating, but a result of dysregulated energy metabolism and an altered hypothalamic set point. Bariatric

surgery works at multiple levels including changes in vagal signalling, gut hormones, bile acids and the gut microbiome, achieving a new lower set point for weight.⁵ It is proven to be an effective tool in assisting obese patients to change their diet and lose weight by altering the physiological drivers that sustain their obesity. It reduces the burden of obesity-related disease and all-cause mortality and is associated with improved long-term quality of life.⁶ This device fails to address any of the above and only attempts to enforce starvation which we know from the Minnesota Starvation Experiment has a detrimental effect.⁷

In summary, there is sufficient evidence in the literature to suggest that jaw restriction does not lead to clinically relevant and sustained weight loss, but is instead associated with significant and sometimes permanent morbidity. This device has no place in the modern treatment of obesity.

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Promoting stigma

Sir, while Brunton *et al.* address combating the obesity epidemic, their proposed solution promotes stigma and demonstrates poor understanding of the complexity.¹ Obesity is a chronic disease process with a multifactorial aetiology with genetics contributing 70–80%. Assertions that obesity is merely a personal failure mischaracterise the realities.² Labels in the manuscript such as 'obese people' and 'the morbidly obese' perpetuate weight bias and stigma as opposed to the more respectful person-first language (eg 'people with obesity').³ Without a citation, the authors claim the 'main barrier to successful weight loss with dietary advice and restriction is poor patient adherence' and suggest the device's restrictions are the solution.¹

Beyond its stigmatising nature, the device is pragmatically concerning. Although this study tested the device for a two-week period, the authors propose the intervention as a replacement for bariatric surgery and as a long-term solution for the obesity epidemic. The device is portrayed as an advancement from jaw wiring that largely avoids inducing anxiety and psychiatric conditions, but the authors overlook the potency of weight stigma and lack follow-up beyond two weeks in which metabolic adaption will ensue. Moreover, long-term device use, as the authors foresee, presents physical side effects and impracticalities, such as utilising only mouthwash and attending regular hygiene appointments (ie weekly), that are critically unaddressed.

Dentistry operates on a simple principle: oral health is critical for overall health. Indeed, much evidence has linked obesity with periodontal disease, dental caries and tooth erosion; these concerns are inextricably connected and must be addressed in tandem.⁴ However, the authors' device subverts the relationship between oral