

The effects of transcranial direct current stimulation (tDCS) on food craving, food reward, and subjective appetite in those with binge-type eating behaviour [abstract only]

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nutritional deficiencies. The British Obesity & Metabolic Surgery Society (BOMSS) have published recommended guidelines for post-operative care and monitoring upon discharge from the bariatric centre.

A general practice database in Oxford was searched to identify patients registered as active members of the practice with a history of bariatric surgery. Data on the patient demographics, which surgical procedure they received (laparoscopic adjustable gastric bypass (LAGB), Roux-en-Y bypass, or sleeve gastrectomy), and what follow-up tests and prescriptions they were receiving in line with the BOMSS guidelines were collated.

9 patients in total were identified, 4 with a LAGB, 3 with a sleeve gastrectomy, and 2 with a Roux-en-Y bypass. None of the patients had been seen 1 year after discharge from the bariatric service by a general practitioner. 4 of the 5 patients eligible for B12 injections were regularly receiving treatment, and 2 of those patients were receiving regular blood tests alongside. 5 of the patients were receiving repeat dispensing prescriptions of calcium and/or multivitamins.

There is currently a lack of adequate follow-up upon discharge from the bariatric service. Education and reminders of how and what follow-up is required should be provided for all members of the practice, as well as clear communication between the bariatric and primary care service teams, to provide a better flow of care for bariatric patients and prevent further complications.

Disclosures: None

P61

Planning, Hot Food Takeaways & COVID-19: perceptions of the impact of regulations on access to healthy food environments

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Planning regulations can be used to improve food environments by preventing the over-proliferation of hot food takeaways (HFTs). In March 2020 the UK Government introduced temporary changes in planning regulations across England to help mitigate the effects of lockdown. These changes allowed food retailers to trade as takeaway services without needing to apply for planning permission. The aim of this research was to better understand the impact of these regulations on relevant professional groups.

Between January to March 2021, a focus group and interviews were conducted with 15 professionals across seven of the 12 North-East local authorities (LAs). Professionals included Planners, Public Health Leads, Environmental Health Officers, and Town Centre Managers. A year later, (March 2022), follow-up interviews and focus groups were conducted with a sample of North-East based professionals ($n = 16$), (including several from the original cohort) to further understand how the situation had developed. Data was analysed using a codebook thematic analysis approach.

General consensus was that most businesses who utilised temporary regulations did not notify their LA, despite it being a legal requirement. LAs were unaware of any formal data collection taking place, and one year on the role of collecting this data still appeared to be unassigned, with services continuing to play catch-up over time lost due to Covid-19. Professionals were concerned about the potential long-term health consequences (especially obesity-related outcomes) and the challenges of reversing the uptake of the regulations, including a sense that businesses may ignore the end of the regulations if they are not actively enforced.

The food environment is constantly evolving; with the recent increase in 'dark kitchens' and online delivery services (e.g., Deliveroo), the ending of the regulations may have been partially nullified, as the line which defines a takeaway from a restaurant becomes increasingly blurred.

Disclosures: None

P62

The effects of transcranial direct current stimulation (tDCS) on food craving, food reward, and subjective appetite in those with binge-type eating behaviour

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Transcranial direct current stimulation (tDCS) has been shown to attenuate reward response to food, reducing food cravings and consumption. Those displaying eating behaviour traits suggesting susceptibility to overconsumption (e.g., binge eating behaviour) appear most responsive to the modulatory influence of tDCS. The present work explored the impact of tDCS in those with subclinical binge-type behaviour, and whether an eating behaviour trait-dependent effect is present.

Seventeen female participants (23 ± 7 years, 25.4 ± 3.8 kg·cm⁻²) displaying mild-to-moderate binge eating behaviour completed two sessions of double-blind, randomised and counterbalanced active or sham tDCS over the dorsolateral prefrontal cortex at 2 milliampere for 20 minutes. Subjective appetite visual analogue scales, the Food Craving Questionnaire-State, and Leeds Food Preference Questionnaire were completed at baseline, immediately post-tDCS and after a standardised meal (cheese sandwich providing 30% resting metabolic rate). Data were compared using analysis of variance to 0.05 alpha level.

Baseline hunger was significantly different between conditions ($p = 0.035$). There were no difference in pre- and post-tDCS scores across subjective appetite and food craving measures when comparing tDCS conditions ($p \geq 0.127$). Explicit liking ($p = 0.016$) and wanting for high-fat sweet foods ($p = 0.008$) were significantly different, with increased scores following active tDCS. These differences were eradicated when controlling for baseline hunger (liking: $p = 0.161$; wanting: $p = 0.138$). Inclusion of post-meal scores in analyses showed a similar pattern of effects.

Our data may suggest the eating behaviour traits displayed by participants were below the threshold required to be responsive to tDCS. Prior work suggests clinically-relevant binge eating behaviour results in modulation of eating behaviour through tDCS, indicating subclinical populations may be unresponsive to tDCS. Future work should directly compare the effects in clinical and sub-clinical populations displaying eating behaviour traits susceptibility to overconsumption.

Disclosures: None

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Neurobehavioral markers of food preference and reward in fasted and fed states and their association with eating behaviors in young Chinese adults

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Adverse neurobehavioral responses to food could be one of the contributing factors to obesity in China, which is a major public health issue. There is a need for methodologies to better understand the cognitive processes and neural mechanisms underlying eating