IMPACT OF REPEATED SWEET AND NON-SWEET FOOD CONSUMPTION ON SUBSEQUENT SWEET FOOD PREFERENCES AND INTAKE

Protocol, Analysis Plan and Updates

Clinicaltrials.gov ID: NCT03427658

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PROTOCOL (December 2017)

This study will investigate the effects of dietary exposure to sweetness and subsequent preference for sweet foods. Participants will be young, healthy adult men and women (n=48). They will be recruited on the basis that they are willing to alter the proportion of sweet food and drink consumed in their diet. One group will be asked to increase and another group to decrease the proportion of sweet food and drink consumed for one week. For example, high-sweet group participants might add sweetener or additional sweetener to their tea and coffee, and substitute a sweet food (e.g., flapjack) for a savoury food (e.g., crisps) at lunchtime, etc. The low-sweet group might forgo their usual sweetener in tea and coffee and consume a savoury food instead of their usual sweet food with lunch, etc. The dietary changes will be discussed and agreed individually with participants to accommodate individual preferences. The changes will be designed to maintain daily energy intake at individual participant's current level. On the day before (baseline) and the day after the intervention participants will eat their breakfast and lunch in the Nutrition and Behaviour Laboratory, where their liking, desire for and ad libitum intake of an array of sweet and savoury foods and drinks will be measured. The question for the study is whether dietary exposure to sweetness increases desire for sweetness (i.e., increases a person's 'sweet tooth') or satisfies desire for sweetness (i.e., causes 'sensory-specific satiety'), or neither.

ANALYSIS (December 2019)

Data on all outcomes will be analysed using descriptive analyses – means and standard deviations. Differences between groups will be investigated using ANOVA to test for differences between the two groups over time from baseline to week 1. Significance will be set at p=0.05.

UPDATE (September 2022)

Resource limits hampered the original study to result in low recruitment rates, and additional participants could not subsequently be run as a result of the COVID-19 pandemic. Following the removal of restrictions as a result of the pandemic, a decision was made to extend recruitment to the original study at the partner institution Bournemouth University, to allow the original research question to be addressed. The complete study was registered in January 2023 under Clinical Trials ID: NCT05672017.

UPDATE (April 2024)

All data for the complete study has now been collected and analysed together. The statistical plan and results for the complete data set are available under the registration for Clinical Trials ID: NCT05672017.