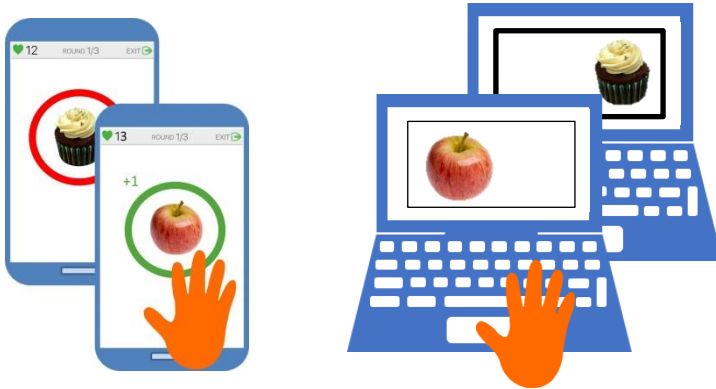


food-specific inhibition training on food choice, liking and approach bias when delivered by smartphone or computer

Porter L., Button, K. S., Adams, R. C., Pennington, C. R., Chambers, C. D., van Beurden, S., Johannsson, O., Powell, S., Townsend, B., Chong, S., Follett, C., Zingman, A., Goldie, R., Smith, L., Marlowe, H., Watters, E., Evans, N., Mastrogiannopoulou, M., Roy, J., Lipskis, B., & Lawrence, N.

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used to change **choice, intake, and liking of energy-dense foods**, and can even aid weight loss^{1,2}.

In a reaction time “game”, users must respond (tap/key press) on **Go** trials (**fruit/veg/neutral**) and inhibit on **No-Go** trials (**energy-dense foods**). In this study, the Go/No-Go response was indicated by **green/red** circles (app) and **thin/bold** border (computer).

Research with the public shows that for weight loss and snacking reduction, **effect sizes are larger when FSIT is delivered by computer** compared to a smartphone app³.

Aims

- to conduct a non-inferiority trial comparing computer-FSIT versus smartphone-FSIT
- to describe effect sizes for comparison/powering future studies

Hypotheses

Compared to the Control group, FSIT (computer AND app) would lead to

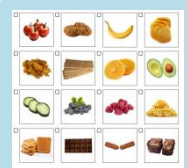
- Greater choice of healthy foods
- Reduction in liking for energy-dense foods
- Reduction in approach tendencies to energy-dense foods

No significant differences between computer/smartphone FSIT groups were predicted.

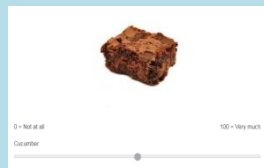
Method

Sample: 331 participants (259 female) aged 18-36 ($M = 20.12$) were recruited across the Universities of Bath, Cardiff, Exeter and the West of England as part of the GW4 consortium⁴. They were **randomised to FSIT-app ($n = 110$), FSIT-computer ($n = 111$) or non-food Control training ($n = 110$)**. The study had 3 (training group) x 2 (time point: pre vs. post) design.

Session 1



Impulsive choice task
Choose 8 foods in 20 seconds



Food liking rating task
Rate 8 energy-dense foods for liking of taste on a scale from 0-100



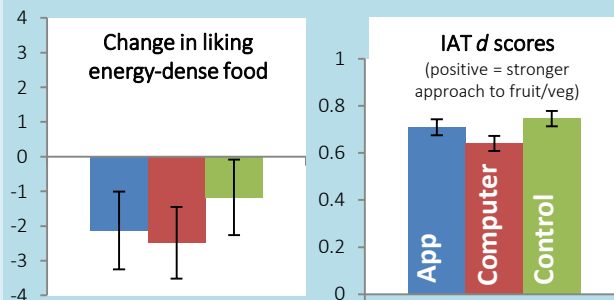
Approach/avoid bias (IAT)
Categorise 8 fruit/veg & 8 energy-dense foods with approach/avoid words

Results & Discussion

Data from 247 participants were analysed (FSIT app $n = 76$, FSIT computer $n = 90$, Control $n = 81$). Reasons for exclusion included attrition and not completing tasks as intended.

The analyses found that FSIT led to...

- No effect on food choice (ANCOVA controlling for baseline scores)
- No effect on energy-dense food liking (repeated measures ANOVA)
- No effect on approach tendencies to energy-dense food (ANCOVA controlling for baseline scores).



Why null effects?

Public samples often include those who are overweight and motivated to lose weight². Here, **most participants were young students with a healthy BMI (78.1%)** and baseline IAT d scores indicated pre-existing healthy eating habits. This sample was different from community samples, and may have had less to “gain” from training. **Future research should aim to get more representative samples into the lab.**

Session 2 (1-4 days later)

