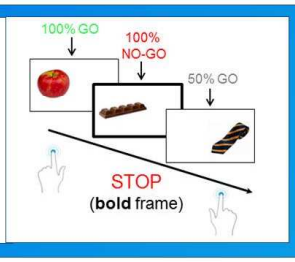
The acceptability and effectiveness of online food response inhibition training for weight loss in a large public sample

Lawrence NS, Javaid M, VanBeurden S, Greaves CJ, Chambers CD, Verbruggen F
Natalia.Lawrence@exeter.ac.uk http://foodtraining.exeter.ac.uk/

Background

- 64% of UK adults are overweight or obese
- Food response inhibition training - stopping key presses to food pictures - reduces food intake, food liking and weight



This Study

- Delivered online training to the public - measured snacking and weight
- Analysed feedback and subjective comments about training

Method

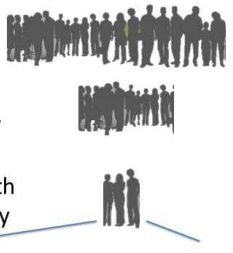
Publish pilot trial (July 2015)

Mail Online, Daily Telegraph, Huff Post & Readers' Digest include a link to online training

People advised to do 4 x 10 min sessions (38% do 1 session)

July- 21 Dec 2015

18,724 try task
↓
7764 do optional pre-training survey
↓
836 also do 1 month post-training survey



Age = **47.1** ± 13.4(16-98)
BMI = **29.26** ± 6.4 (16.3-60)
55% dieting, 15% metabolic disorder
Disinhibited eating* = 10.85 ± 3.4 (gen pop *M*=5.7)
*"Loss of control" from TFEQ Stunkard & Messick ,1985

730 ♀ 106 ♂

Results

Training Effects (pre- to 1-month post)

Snacking (N=836)

20% ↓ from pre- to post-training, *d* = 0.68
M = 22.8 ± 7.4 to 18.4 ± 6.3, *t*(835) = 19.53**
Each food eaten ~ once/week to 1-3/month

Drop in snacking correlated with greater baseline snacking *r*(836) -.59**; higher disinhibition *r* -.22**; more training *r* -.12**; higher BMI *r* -.1**

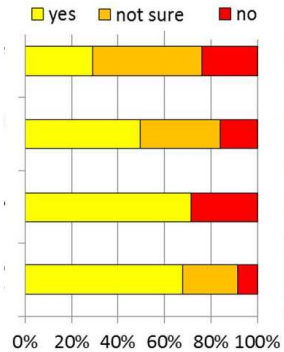
Weight (N=796)

0.9 kg ↓ from pre- to post-training, *d* = 0.35
M = 80.94 kg ± 19.63 to 80.04 kg ± 19.44
t(795) = 9.94**

Reduction in snacking and weight associated *r*(836) = .25**

Feedback about training (N=817)

Closed questions



Did it help you reduce your food intake?

Would you recommend to a friend?

Would you like the app?

Would it be useful to personalise the training? Which foods/drinks?

"I don't really care for chips or crisps, my issue is sweets. Maybe if we can choose our vices, then we can train on avoiding those."

Open-ended

Increased awareness/control
"I do find myself stopping to think before reaching for the biscuits and I think I have more time to make a reasoned decision."

Reduced craving
"One of the big benefits I've had is that powerful cravings have been heavily reduced or disappeared."

Personalisation
"Neither I nor anyone else can lose weight by cutting down on foods we are not eating in the first place!"

Reminders
"I would like to get a daily reminder to do the task, I only remembered to do it about twice."

Themes

Training frequency
"Doing the training every day on an ongoing basis might be more effective than doing it only for the number of days prescribed at the beginning."

Duration of effects
"The effect began to wane after a week or two. I think a personal app would be a great way to keep up with my goals to eat in a healthy way."

This study suggests:

- ✓ High demand for training
- ✓ Easy, low-cost
- ✓ Positive feedback
- ✓ Real-world effectiveness

But:

- × No control group
- × No objective measures
- × No long-term follow-up
- × High attrition

What next?

- Testing personalised App
- Objective long-term measures
- Testing in children, clinical populations