The relationship between food-related attentional processing, food craving, and eating behavior in female binge eaters.

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Ethical review	Approved WMO
Status	Recruiting
Health condition type	Eating disorders and disturbances
Study type	Observational non invasive

Summary

ID

NL-OMON33872

Source
ToetsingOnline

Brief title
Food cue-reactivity and binge eating.

Condition

- Eating disorders and disturbances

Synonym
Bulimia nervosa / binge eating disorder, food addiction

Research involving
Human

Sponsors and support

Primary sponsor: Erasmus Universiteit Rotterdam
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Attentional bias, Binge eating, Event-related potentials, Food craving

Outcome measures

Primary outcome

The main study parameters to assess whether there are differences in the attentional processing of food stimuli, food cue-elicited craving and eating behavior in women with and without food binges are:

- Visual dot probe task: average reaction time to a probe when this probe appears at the position of a food picture (congruent trials), relative to the average reaction time to the probe when the probe appears at the position of a neutral picture (incongruent trials). The difference score is the congruency effect (index of attentional bias).

- Eye-tracking: total fixation time, total fixation frequency and average glance duration towards pictures of food (relative to neutral pictures)

- Event-related potentials (counting task): amplitude of the P3 and LPP components (indices of motivated attention) elicited by pictures of food (relative to non-food-related pictures).

- Self-report questionnaire scores with regard to (pretest + posttest) food craving and hunger

- Food diary: pretest and posttest energy intake

Secondary outcome

Other parameters of interest / possible confounders are:

- Scores on self-report questionnaires with regard to eating behavior and eating disorder symptoms, affect and depressive symptoms;

- Valence and arousal ratings of the used pictorial stimuli

- Body Mass Index [body weight (kg)/length (m)^2]

- Age

- Educational level

Study description

Background summary

Binge eating is a core diagnostic criterion of bulimia nervosa and binge eating disorder. Long-term treatment of binge eating behavior is complicated and relapse rates are high. More knowledge of the maintaining mechanisms of binge eating is necessary to improve treatments. Based on addiction models, the present study investigates whether an attentional bias towards food stimuli might be a maintaining mechanism underlying food binges. The enhanced attentional processing of food stimuli in the environment is believed to elicit intense food craving and (binge) eating behavior in binge eating patients, even in the absence of hunger.

Study objective

The primary objective is to examine whether binge eating females demonstrate an (enhanced) attentional bias towards food-related stimuli as compared to females who are not familiar with food binges. This will be investigated by means of three measures which are related to attention allocation: a visual dot probe paradigm (behavioral task), eye tracking (physiological measure), and event-related potentials (brain activity / electrophysiological measure). Another important objective is to examine whether an attentional bias to food elicits further food cue-reactivity in binge eating females (and not or less pronounced in non-binge eaters), such as self-reported food craving and (binge) eating behavior.

Study design

The present study is an observational study, including one experimental session, which takes place at Erasmus University. After written informed consent is obtained, the participant is asked to fill in some questionnaires concerning her affective state, eating behavior, and eating disorder symptoms, as well as a 2-day food diary. Before the start of the experiment, the participant is asked to abstain from food for 3 hours. At arrival in the Erasmus Behavioral Lab, the participant is required to fill in some short

questionnaires concerning affect, food craving and hunger. Hereafter she will do a visual dot-probe (computer) task while her eye-movements are recorded. Subsequently, EEG electrodes will be attached, followed by a task, in which the participant has to count the number of pictures of a certain category. At the end of the experiment, subjects will again be asked to complete some questionnaires. Participants will receive a financial reward for their participation.

Study burden and risks

Participation in this study will take 2 - 2.5 hours in total, spread over two days (1.5 hours in the lab + 30 minutes to 1 hour at home, see study design). There are no risks involved with participation. There are also no direct benefits for the participants, but the scientific benefits may be extensive.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

Female; age 18+;
Patients: meet the DSM-IV criteria for bulimia nervosa or binge eating disorder;
Controls: no current (or past) diagnosis / treatment for eating disorders as defined by DSM-IV; report no food binges.

Exclusion criteria

(1) Indications of severe psychopathology (other than the eating disorder in the patient group);
(2) a history of drug abuse;
(3) a history of neurological problems;
(4) current use of any medication that might influence eating behavior, body weight or EEG activity;
(5) color blindness and poor vision
(6) not wanting to be informed about unexpected EEG-findings

Study design

Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	01-12-2009
Enrollment:	80
Type:	Actual

Ethics review

Approved WMO Date:	26-03-2009
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL25498.078.08