Emotion processing in anorexia nervosa: what happens in the brain?

Published: 06-12-2013
Last updated: 19-03-2025

The primary aims of this study are firstly to identify the brain regions involved in the appraisal of ambiguous affective stimuli in anorexia nervosa patients, and secondly to compare their responses with those of healthy control participants. The...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Eating disorders and disturbances
Study type	Observational invasive

Summary

ID

NL-OMON38444

Source
ToetsingOnline

Brief title
Emotion processing in anorexia nervosa

Condition

- Eating disorders and disturbances

Synonym
Anorexia Nervosa

Research involving
Human

Sponsors and support

Primary sponsor: Altrecht GGZ (Den Dolder)
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: Anorexia Nervosa, brain activity, cogntive functioning, Emotion-processing

Outcome measures

Primary outcome

Neural activation (BOLD signal change) in response to ambiguous affective

stimuli.

Secondary outcome

1) Emotion processing 2) (Negative) emotions

Study description

Background summary

In many psychiatric disorders difficulties/ abnormalities in appraising affective situations are linked to the maintenance of disorders and in relapse after treatment. This is also the case in anorexia nervosa (AN), where growing research shows poor emotion recognition and emotion regulation impairments in AN patients. Moreover, the majority of AN patients report high levels of negative emotions (e.g. anxiety), particularly in response to uncertain situations and events. There is research suggesting that these emotion processing difficulties may hinder treatment. Since treatment for AN is suboptimal, and relapse rates are high, there is an urgent need for a better understanding of the aetiology and pathophysiology of this illness. Neural responses to processing ambiguous emotional stimuli are understudied but can provide important information about the emotion problems found in AN patients.

Study objective

The primary aims of this study are firstly to identify the brain regions involved in the appraisal of ambiguous affective stimuli in anorexia nervosa patients, and secondly to compare their responses with those of healthy control participants. The second aims of this study are to firstly assess emotion processing in AN patients, secondly, to assess the effects of ambiguous affective stimuli on levels of (negative) emotions in AN patients, and thirdly, to assess the association between measures of executive and cognitive function and emotional and neural responses to ambiguous affective stimuli in AN

patients.

Study design

This is a case-control trial where AN patients and healthy control participants are asked to complete a number of questionnaires and computer tasks and one task in the scanner.

Study burden and risks

On the study day participants will have a (30-minute) MRI session during which they will do two emotion processing tasks. This type of paradigm poses no risk. Functional MRI is a commonly used technique which is considered to be safe. Additionally, measurements will be done to assess relevant clinical characteristics along with a computer task to assess cognitive functioning. This task has been used in AN patients and is not considered to be a burden; it is even perceived as amusing to do. In summary, the risk associated with participation is assessed as low and the burden as minimal.

Contacts

Public
Altrecht GGZ (Den Dolder)

Wenshoek 4
Zeist 3705 WE
NL
Scientific
Altrecht GGZ (Den Dolder)

Wenshoek 4
Zeist 3705 WE
NL

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Anorexia Nervosa group: female anorexia nervosa patients, age 18-35 yr, BMI < 17.5 kg/m2 ;Healthy Control group: healthy women, age 18-35, BMI 20-25 kg/m2

Exclusion criteria

Anorexia Nervosa group: - Contra-indications to MRI scanning on the basis of the MRI screening form (e.g. claustrophobia, metal objects in the body incompatible with MRI scanning). - Having a history of medical or surgical events that may significantly affect the study outcome, such as brain surgery. - Excessive smoking (e.g. > 15 cigarettes a day).;Healthy Control group: - Contra-indications to MRI scanning on the basis of the MRI screening form (e.g. claustrophobia, metal objects in the body incompatible with MRI scanning). - Having a history of medical or surgical events that may significantly affect the study outcome, such as brain surgery. - Excessive smoking (e.g. > 15 cigarettes a day).;patients, age 18-35 yr, BMI < 17.5 kg/m2 ;Healthy Control group: healthy women, age 18-35, BMI 20-25 kg/m2

Study design

Design

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

Primary purpose: Other

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	26-01-2014

Enrollment:	30
Type:	Actual

Ethics review

Approved WMO Date:	06-12-2013
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Utrecht (Utrecht)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

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

ID: 21380
Source: Nationaal Trial Register
Title:

In other registers

Register	ID
CCMO	NL45093.041.13
OMON	NL-OMON21380