Virtual reality & body experience in eating disorders

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

Summary

ID

NL-OMON42104

Source
ToetsingOnline

Brief title
VR in EDs

Condition

- Eating disorders and disturbances

Synonym
anorexia nervosa; eating disorders

Research involving
Human

Sponsors and support

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

Intervention

Keyword: anorexia nervosa, body illusions, body image, multisensory input

Outcome measures

Primary outcome

The primary study parameter in the current study is the error in size estimation of the size of the abdomen before and after providing multisensory input. By subtracting these two scores a difference score emerges. This allows for testing whether size estimation changed from pre to post multisensory input, and whether AN patients and healthy controls differ on this variable. In addition, participants will also estimate the size of control body parts (shoulders, hips, height), we do not expect any differences in size estimation error from pre to post multisensory stimulation.

Secondary outcome

The first secondary study parameter is again the difference in size estimation error from pre to post multisensory stimulation. However, not only group differences will be assessed, we will also investigate whether size estimation errors differ between synchronous and asynchronous multisensory stimulation. Based on our previous study we do not expect differences between providing multisensory input synchronously compared to asynchronously.

The second secondary study parameter is the error in size estimation during the follow up measurement. This follow up error can be compared to pre and post size estimation errors. This will indicate whether within either group the change in body size experience after multisensory input is persistent over

time.

Study description

Background summary

Anorexia Nervosa (AN) is one of the most invasive psychosomatic disorders with a relatively high mortality rate. In order to ensure successful treatment it is crucial to understand the underlying mechanisms of AN. One of the central symptoms of AN is a disturbed experience of the own body. To date, not all aspects of this so-called body image disturbance have been investigated fully. Though, research shows that body image disturbances appear to be the key to full recovery of AN. Therefore in the current study we will focus on multisensory input and body size experience.
In one of our previous studies we have found that AN patients overestimate the size of their body compared to healthy controls. After providing participants with multisensory input as part of the Rubber Hand Illusion, AN patients* overestimation of body size decreased (i.e. was more accurate). It appears that multisensory stimulation contributes to changed (more accurate) body size experience in AN.
In our previous study we focused on size experience of the hand only. In the current study we aim to investigate whether multisensory input also affects body size estimation of a more clinically relevant body part. Therefore we will focus here on size experience of the abdomen before and after multisensory stimulation.

Study objective

The main objective of the current study is investigating whether AN patients and healthy controls differ in how they experience (estimate) the size of their abdomen before and after multisensory input is provided (we will compare size estimation errors before and after providing multisensory input between the patient and healthy control group).

A first secondary objective of the current study is investigating whether they way in which multisensory input is provided affects the change in body size experience we expect to find in the AN group. Multisensory stimulation can take place in a synchronous fashion (visual and tactile input are provided simultaneously) or in a asynchronous fashion (visual and tactile input are not aligned).
A second secondary objective of the curren study is investigating whether changes in body size experience in the AN group are persistent over tie. Two hours after multisensory stimulation took place, we will again ask participants

to estimate their body size.

Study design

Quasi-experimental

Study burden and risks

It is not expected, but theoretically possible that the participants experience negative emotions during the study, for example due to tactile stimulation on the abdomen (note that tactile input is provided with a soft brush). However, the chance of experiencing negative emotions is thought to be minimal, since before participation takes place the participants will be informed of the procedures during the study and what will happen during the experiment. From experience with previous (AN) studies we learned that participants understand why certain methods are important for the study, and that explaining these methods to the participants reduces concerns. In addition, the knowledge that will be gained in the current study will not only increase our understanding of body representation disturbances in AN, but will might have implication for treatment of AN.

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

Patients: Female, between 18 and 35 years of age, diagnosed with Anorexia Nervosa, physically non-disabled (i.e. able to perform the tasks during the experiment)

Healthy controls: Female, between 18 and 35 years of age, BMI between 18.5 and 25, no current severe mental health problems, physically non-disables (i.e. able to perform tasks during the experiment).

Exclusion criteria

Patients: Use of medication that may influence task performance due to sedative effects, drowsiness or (psycho)motor impairments, comorbid Borderline personality disorder or contact disorder, pregnancy.

Healthy controls: Use of medication that may influence task performance due to sedative effects, drownsiness, or (psycho)motor impairments, pregnancy.

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:	Diagnostic

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	08-01-2015
Enrollment:	60
Type:	Actual

Ethics review

Approved WMO Date:	01-10-2014
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Utrecht (Utrecht)
Approved WMO Date:	18-02-2015
Application type:	Amendment
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

No registrations found.

In other registers

Register	ID
CCMO	NL49656.041.14