

# A cognitive reappraisal intervention for the reduction of anxiety in eating disorders: an experimental study with exposure in virtual reality

Published: 08-02-2023

Last updated: 21-12-2024

The current study investigates the effectiveness of an intervention that focusses on the adaptive emotion regulation strategy cognitive reappraisal for people with EDs in the reduction of anxiety. This intervention will be compared to a control task...

<b>Ethical review</b>	Approved WMO
<b>Status</b>	Completed
<b>Health condition type</b>	Eating disorders and disturbances
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON53983

### Source

ToetsingOnline

### Brief title

Anxiety, emotion regulation and eating disorders in virtual reality

### Condition

- Eating disorders and disturbances

### Synonym

Eating disorders, eating problems

### Research involving

Human

### Sponsors and support

**Primary sponsor:** GGZ Rivierduinen Eetstoornissen Ursula

**Source(s) of monetary or material Support:** Onderzoeksbudget GGZ Rivierduinen

## Intervention

**Keyword:** Anxiety, Eating disorders, Emotion regulation, Virtual reality

## Outcome measures

### Primary outcome

The primary outcome focuses on the change in subjective anxiety for all participants during the experiment.

### Secondary outcome

The secondary outcome focuses on change in physical measures of anxiety, and investigates if these are similar to the subjective measures.

## Study description

### Background summary

Eating disorders are serious psychological disorders that often involve the experience of anxiety. Many individuals with eating disorders (EDs) use ED behaviours (i.e. dieting, purging or bingeing) to regulate anxiety. Over time, ED behaviours will function as an emotion regulation (ER) strategy. Empirical studies suggest a greater use of maladaptive ER strategies and a reduced utilization of adaptive ER strategies in populations with EDs compared to a healthy population. Related to the important role of adaptive ER strategies in the regulation of anxiety it appears crucial to train these strategies to people with EDs. Most existing experiments that train adaptive emotion regulation strategies for the reduction of anxiety are however conducted by showing pictures and videos of anxious situations in a laboratory setting. This limits the interaction between the individual and environment, resulting in a reduced induction of anxiety. Virtual reality (VR) provides an alternative to this exposure by reproducing a real life environment, and stimulating an individual's presence and interaction with that environment. Although there are several benefits of VR in inducing anxiety and practicing adaptive ER strategies like reappraisal, these elements are not combined in a study in the ED field. Evidence from related psychological fields indicates that training ER techniques in VR can be effective in the reduction of anxiety. These findings have implications for ED research, by proposing that cognitive reappraisal

strategies can be effective in the reduction of anxiety when exposed to anxious situations in VR.

## **Study objective**

The current study investigates the effectiveness of an intervention that focusses on the adaptive emotion regulation strategy cognitive reappraisal for people with EDs in the reduction of anxiety. This intervention will be compared to a control task. Anxiety will be induced by exposing people with EDs to a VR restaurant setting. Furthermore, the severity of the eating disorder and existing emotion regulation strategies and the subtype of the eating disorder will be examined to identify for which persons the intervention is effective in the reduction of anxiety.

## **Study design**

The study will have an experimental design. The experimental group will be exposed to a cognitive reappraisal intervention in a VR restaurant. In the control group people will be exposed to the same restaurant setting but they will do a suppression task.

## **Intervention**

Burdens are remained at an acceptable level since participants\* engagement in the study includes a single session and takes approximately two hours. It is possible that participants experience nausea during the experiment. To prevent this, participants sit in the normal and the VR environment. When participants participant in the experiment, they receive a Bol.com €10 gift card and travel allowance

## **Study burden and risks**

Burdens are remained at an acceptable level since participants\* engagement in the study includes a single session and takes approximately two hours, and the questionnaire focussing on EDs can be completed at home. It is possible that they experience nausea and some stress during the experiment. To prevent this, participants sit in the normal and the VR environment. When participants complete the experiment, they receive a Bol.com €20 gift card and travel allowance.

## **Contacts**

### **Public**

GGZ Rivierduinen Eetstoornissen Ursula

Sandifortdreef 19  
Leiden 2333 ZZ  
NL  
**Scientific**  
GGZ Rivierduinen Eetstoornissen Ursula

Sandifortdreef 19  
Leiden 2333 ZZ  
NL

## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### Age

Adolescents (16-17 years)

Adults (18-64 years)

### Inclusion criteria

- 1) 16 years or above
- 2) diagnosed with an eating disorder (Anorexia Nervosa, Bulimia Nervosa or Eating Disorder Not Otherwise Specified) according to the DSM5

### Exclusion criteria

- 1) hearing or vision related problems
- 2) suicidal behaviors, psychosis, or severe depression

## Study design

## Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active
Primary purpose:	Treatment

## Recruitment

NL	
Recruitment status:	Completed
Start date (anticipated):	01-11-2022
Enrollment:	48
Type:	Anticipated

## Ethics review

Approved WMO	
Date:	08-02-2023
Application type:	First submission
Review commission:	METC Leiden-Den Haag-Delft (Leiden)
	metc-ldd@lumc.nl

## 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	NL81312.058.22