

# **Cognitive Remediation Therapy: Group CRT for adults with Anorexia Nervosa**

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Hugo



# Cognitive Remediation Therapy (CRT)

## **Cognitive**

The mental process of acquiring knowledge and understanding through thought, experience, and the senses. Includes the mental processes of perception and the function of memory, judgment and reasoning

## **Remediation**

The correction of something deficient

## **Therapy**

Attempted remediation of a health problem (usually following a diagnosis) - the term refers to psychotherapy among mental health care professionals

# Training the Brain....

Credits to: Dr Kate Tchanturia



# Training the Brain....

CRT is originally from the area of Traumatic Brain Injury

“There is substantial evidence to support interventions for attention, memory, social communication skills, executive function, and for comprehensive neuropsychologic rehabilitation after TBI [Traumatic Brain Injury] ”

Alexander Luria

# Training the Brain.... evidence for CRT

One of the most elegant studies of cognitive development in adults is a study by Dr Eleanor Maguire from UCL, London....

... where cognitive functions of black taxi drivers in London were assessed

# Training the Brain.... evidence for CRT

The study found that black taxi drivers in London have a larger hippocampus compared with other people & The more time in the job, the larger hippocampus

Afterwards Eleanor Maguire compared the cognitive functions in black taxi drivers and London bus drivers. Black taxi drivers have a larger hippocampus compared with London bus drivers with similar driving experience

# Training the Brain.... evidence for CRT

Dr Eleanor Maguire:

"The hippocampus has changed its structure [in black taxi drivers] to accommodate their huge amount of navigating experience."



# Research in cognitive characteristics in AN

The vast majority of studies on cognitive function in AN have been conducted in adults

Cognitive deficits in set-shifting and central coherence is often observed in adult patients with anorexia nervosa (Holliday et al, 2005; Lang et al, 2014; Tchanturia et al, 2004, 2011, 2012):

- Set-shifting: The ability to switch between tasks
- Central coherence: A detailed information processing style and poor global integration with difficulty in seeing the bigger picture

Also, perfectionism is found to be strongly present in adults with AN (review Lloyd et al, 2014)

# Research in cognitive characteristics in AN CRT for children and adolescents?

Children and adolescents:

In contrast, the picture is less clear with respect to the cognitive profile of children and adolescents with AN

Several studies have found no or only minor evidence of cognitive inefficiencies in children and adolescents with AN (Kjaersdam Telleus et al, 2015; Buhren et al, 2012; Calderoni et al, 2013; Lang, et al, 2014; Sarrar et al, 2011; Andres-Perpina et al, 2011; Hatch et al, 2010)

# CRT - AN

The cognitive styles may be a factor in relation to maintenance of the AN, contributing to the individuals' difficulties in processing and in engaging in therapy

The purpose of CRT is to increase patients' cognitive flexibility by practicing new ways of thinking and also to make it easier for patients to think in a bigger perspective.

Thus, the purpose is to make patients with AN aware of their ways of thinking

# CRT as a group intervention for AN

CRT is a psychological intervention

- It consists of exercises aimed at improving cognitive strategies
- CRT encourages the patient to think of thinking (reflection)
- Helps explore new "thinking strategies" in everyday life
- CRT aims to change thinking - but the goals for CRT are thinking skills in themselves

# CRT as a group intervention for AN

CRT as a group intervention for AN includes targeted training of cognitive functions with a specific theme for each session

Structure of CRT group intervention targeting (Set-shifting, Central coherence, Perfectionism):

- Session 1: Introduction to CRT and **the brain**
- Session 2: **Bigger perspective thinking**
- Session 3: **Switching**
- Session 4: **Multi-tasking**
- Session 5: **The learned skills**
- Session 6: Summary and reflection

# CRT/Flexibility group

Flexibility group at Unit for Eating Disorders, Aalborg University Hospital and The Anorexia Clinic at Ballerup (Copenhagen), Denmark

- 6 - 8 group members
- 2 therapists
- 6 sessions of 45 minutes each

# The structure of a session

- Reflections on last week's homework task
- Exercises and reflection
- Next week's homework
- Take home message

# CRT/Flexibility group

## Homework

Every week, the group members choose a small homework challenge

The aim is to do a thing in a different way

- Not too difficult/not too easy
- Cannot be associated with ED



# CRT/Flexibility group

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- Cannot be associated with ED

### Examples:

- Take another route to work/school
- Sleep on the other side of the bed
- Change one of the daily routines
- Brush your teeth with your non dominate hand
- Choose another television or radio channel

# CRT/Flexibility group

Challenges and pitfalls when running CRT groups:

The therapist's stance/behaviour

- Playful
- Willing to make mistakes
- Not too therapeutic

It is important to be true to the manual

# CRT/Flexibility group

Responses from the group members:

- Scared of making mistakes
- Become aware of new aspects of the AN
- Realising that some habits were easier to change than expected

Therapist observations:

- Tendency to choose homework that relates to AN

# CRT - AN

*European Eating Disorders Review*  
*Eur. Eat. Disorders Rev.* 13, 311–316 (2005)

## *Cognitive Remediation Therapy as an Intervention for Acute Anorexia Nervosa: A Case Report*

Helen Davies and Kate Tchanturia\*

*Institute of Psychiatry, King's College, University of London, UK*

The aim of remediation programme activities and systems where therapy (CBT) engage in. effective to previous new one of the

### REVIEW

## **Cognitive Remediation in Anorexia Nervosa and Related Conditions: A Systematic Review**

Kate Tchanturia<sup>1,2,3\*,†</sup>, Naima Lounes<sup>1,4†</sup> & Sue Holttum<sup>4</sup>

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### Abstract

Research evidence for cognitive remediation therapy's (CRT) effectiveness for anorexia nervosa (AN) has been gathering. This approach is also increasingly being implemented in other disorders including major depressive disorder, obsessive-compulsive disorder and autistic spectrum disorder that share commonalities with AN in neuropsychological profiles and clinical presentations. This systematic literature review identified and appraised the current evidence base to see whether evidence from related conditions could be integrated into the theoretical understanding of CRT for AN as well as future AN treatment developments and research.

Overall, CRT studies in AN report promising findings, and CRT appears to be associated with improvements in set-shifting and in central coherence. Cognitive remediation approaches in other conditions also show promising evidence in associated improvements in areas of executive functioning and information processing; links are made between AN treatment and what future treatment developments could consider. Copyright © 2014 John Wiley & Sons, Ltd and Eating Disorders Association.

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### Keywords

cognitive remediation; systematic review; anorexia nervosa; mood; autistic spectrum disorder

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# The longitudinal effect of CRT in a group setting for patients with AN – a Danish study

The aim of this study:

To examine the long-term effect of CRT

To investigate whether patients who have received CRT achieve an increased flexibility after treatment in group-CRT

# The longitudinal effect of CRT in a group setting for patients with AN

## Method:

The study is ongoing with a longitudinal design with both qualitative and quantitative data

In- and outpatients in treatment for AN (AN or OSFED, - AN, atypical according to DSM-5) in the two participating centres (Department of Eating Disorders at Aalborg University Hospital and the Anorexia Clinic at Rigshospitalet, Copenhagen)

Six sessions of group-CRT according to the manual for group-CRT (the Maudsley & Bethlehem Treatment Manual, by Dr Kate Tchanturia)

Assessed at baseline, end of treatment and at six-month follow-up

# The longitudinal effect of CRT in a group setting for patients with AN

Assessment: Baseline, end of treatment and follow-up (6 months)

Physical assessment:

- Height, weight, Body Mass Index (BMI)

Assessment of AN:

- EDE-Q

Assessment of motivation and flexibility:

- DFlex and Motivational ruler

Qualitative assessment (six-month follow-up ):

- Interview of 10-15 patients who attended CRT-group treatment; 2-3 open-ended questions

# The longitudinal effect of CRT in a group setting for patients with AN

## Ethical aspects

- The study was conducted in accordance with the Helsinki Declaration
- Approved by the scientific committee (DK)
- Data protection agency (DK)



# The longitudinal effect of CRT in a group setting for patients with AN

Preliminary results:

Currently 31 patients between 21 and 54 years of age are included in the study

# The longitudinal effect of CRT in a group setting for patients with AN



# The longitudinal effect of CRT in a group setting for patients with AN

Preliminary results:

Twelve patients have participated in a qualitative interview

The first process in the thematic analysis, exploring patients experiences participating in group CRT, points towards several temporary themes including going from a self-focus, control and details to larger perspective, from a narrow-minded to broad-minded thinking and to get freedom from AN

Together the themes unify participant's experiences of becoming more flexible with regard to thinking and behavior connected to AN

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