

Cognitive Remediation Therapy (CRT) for anorexia brief introduction

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KING'S
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LONDON

University of London

Examining CRT Outcomes for ASC context

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graph TD; CRT[CRT] --> ASD[ASD]; CRT --> Non-ASD[Non-ASD];
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CRT

ASD

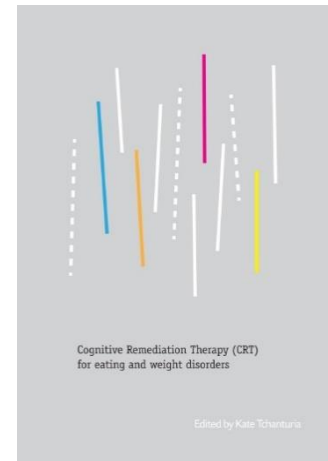
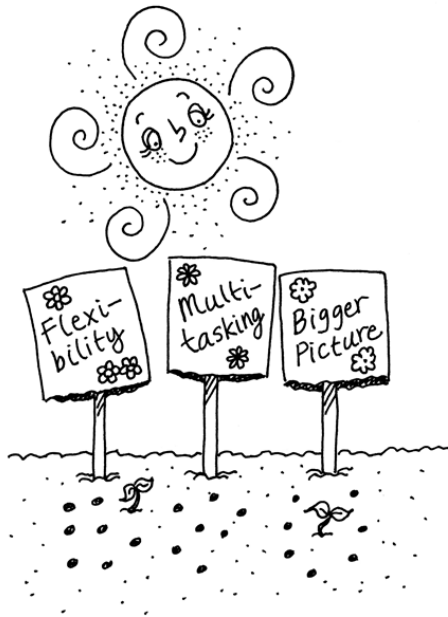
Individual CRT and CREST (10 sessions)

Non-ASD

Both group and individual CRT and CREST facilitates changes

Cognitive Remediation Therapy

Where we can find manuals? Evaluation/s?



Tchanturia, Davies, Reeder, Wykes
2006, 2010 London 2 version

Routledge 2014 London

www.katetchanturia.com

<http://www.national.slam.nhs.uk/wp-content/uploads/2014/03/Cognitive-remediation-therapy-for-Anorexia-Nervosa-Kate-Tchantura.pdf>

We have done work on all our experimental therapeutics collaboratively

Service users

Carrers

- Research
- Qualitative-quantitative

Research evidence

Testing out clinical use

- Developing psychoeducation materials
- Developing experiential exercises

- Patients
- Clinicians

Testing out how it works

Clinicians

First case study CRT for AN 2005



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

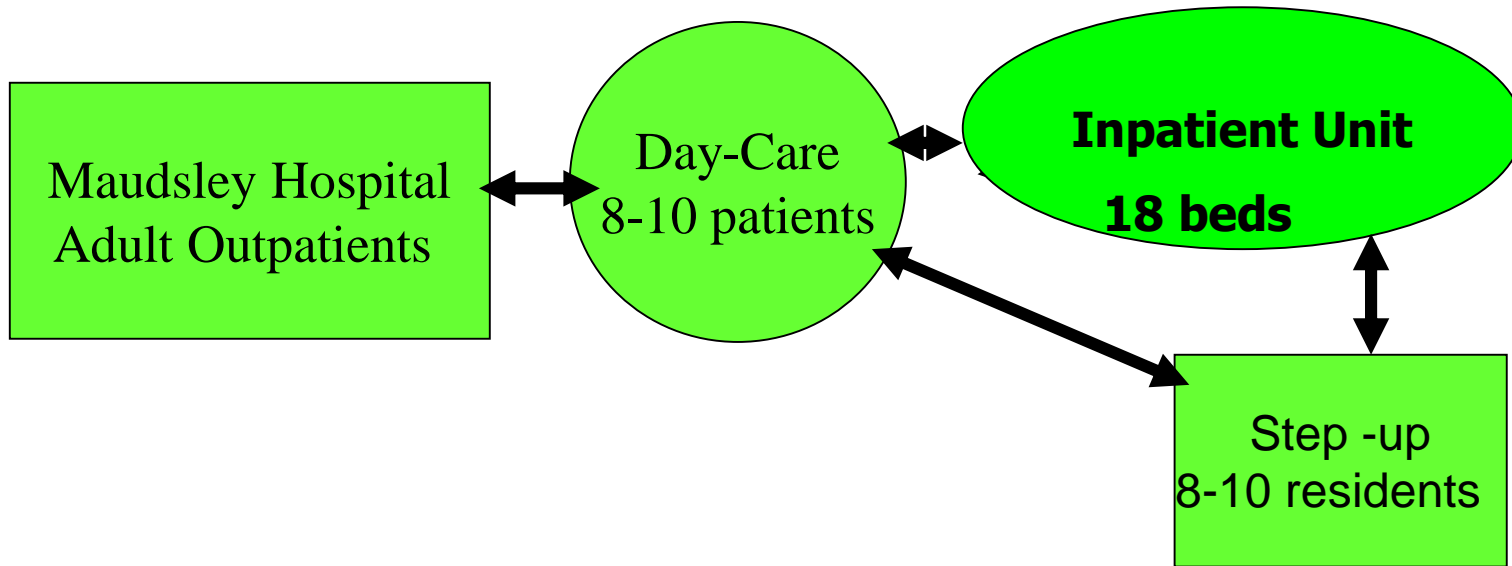
Cognitive Remediation Therapy as an Intervention for Acute Anorexia Nervosa: A Case Report

Helen Davies and Kate Tchanturia*

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

The aim of this case report is to illustrate how cognitive remediation therapy (CRT) can be used as part of the treatment programme in acute anorexia nervosa (AN) to stimulate mental activities and improve thinking skills and information-processing systems when other therapies, for example cognitive behavioural therapy (CBT), may be too complex and intense for the patient to engage in. Furthermore, we hypothesize that CRT may be an effective tool in improving flexibility of thinking in AN, as previous neuropsychological findings have proved that rigidity is one of the maintaining factors in AN. Copyright © 2005 John Wiley & Sons, Ltd and Eating Disorders Association.

**Our clinical service:
Context**

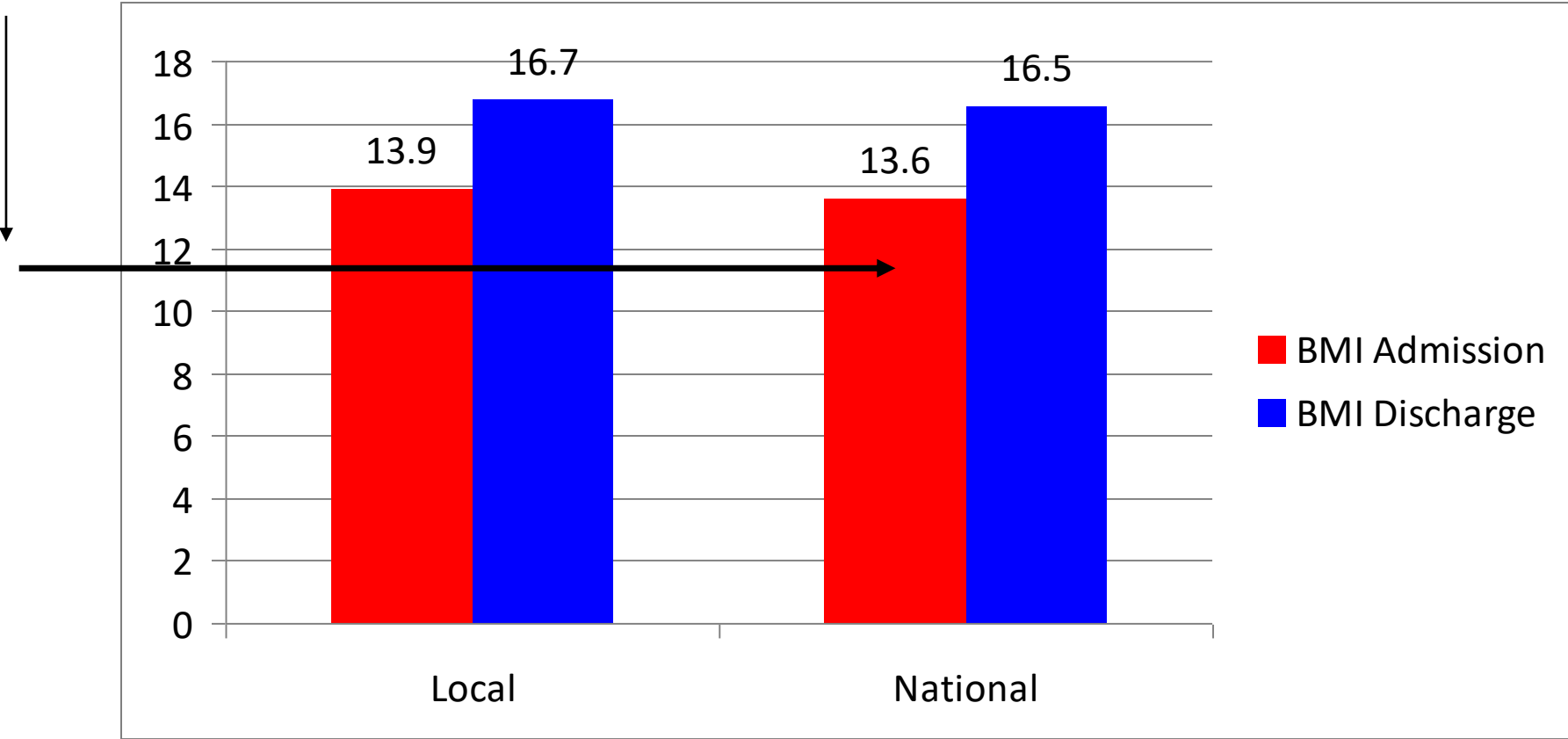


Eating Disorder Service:

South London and Maudsley NHS Trust
Local 2.5m population where CRT for anorexia was tailored and
introduces for the field of eating disorders

Mean Body Mass Index (BMI) Admission and Discharge; Low BMI is challenging for any psychological treatment and treatment engagement

Nutrition Assessments



Who we treat in the inpatient programme

- Length of Illness > 5 years.
- Most common co-morbid problem reported:
Depression and OCD we know now that almost 35% of our inpatients have diagnosable ASD
- Treated under MHAct:
 - Local = 9%
 - National = 36%

NICE 2017 recommends short hospital admissions

We get patients with lower BMI most recently

WHAT?

Cognitive Remediation Therapy

CRT

CRT

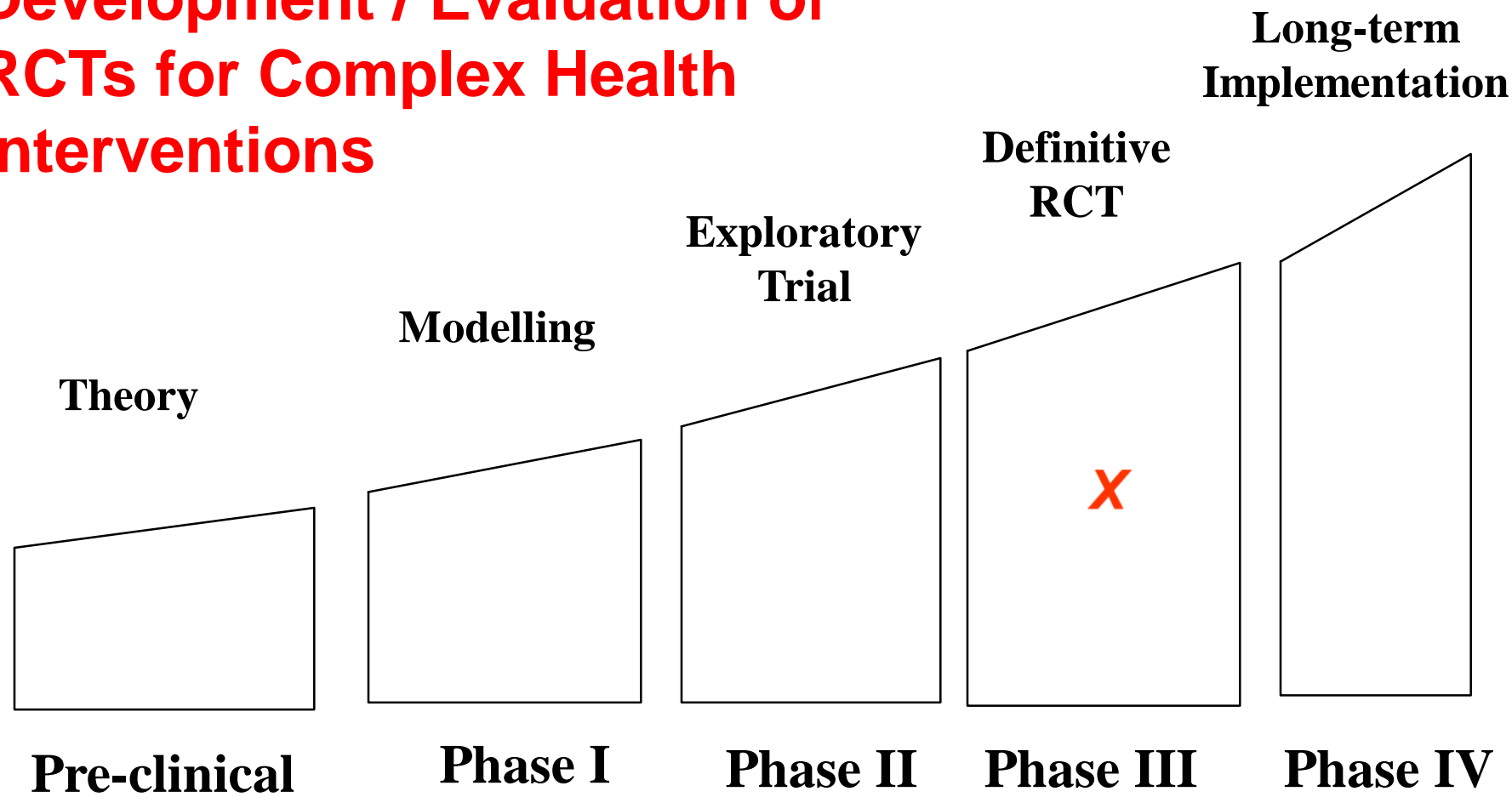
Is a psychological intervention that:

- Consists of mental exercises aimed at improving cognitive strategies.
- Encourages thinking about thinking (Reflection).
- Helps to explore new thinking strategies in everyday life.

Target for CBT reduction in symptoms, CRT thinking skills themselves.



Development / Evaluation of RCTs for Complex Health Interventions



8 papers
Some in progress
More than 100 patients

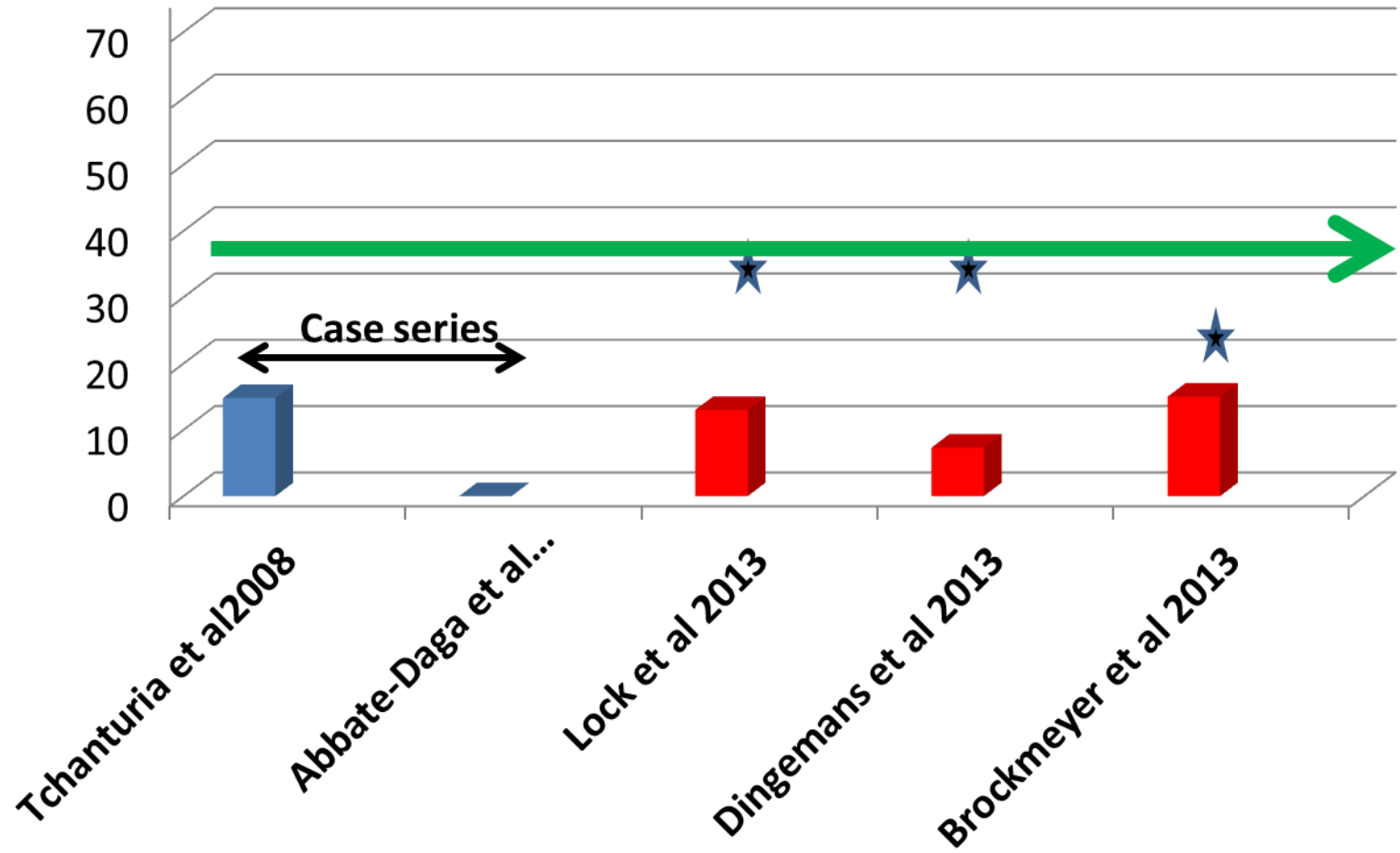
4 patients

93 patients Individual therapy
97 Group format 15 groups

Tchanturia et al 2013,2014,2017

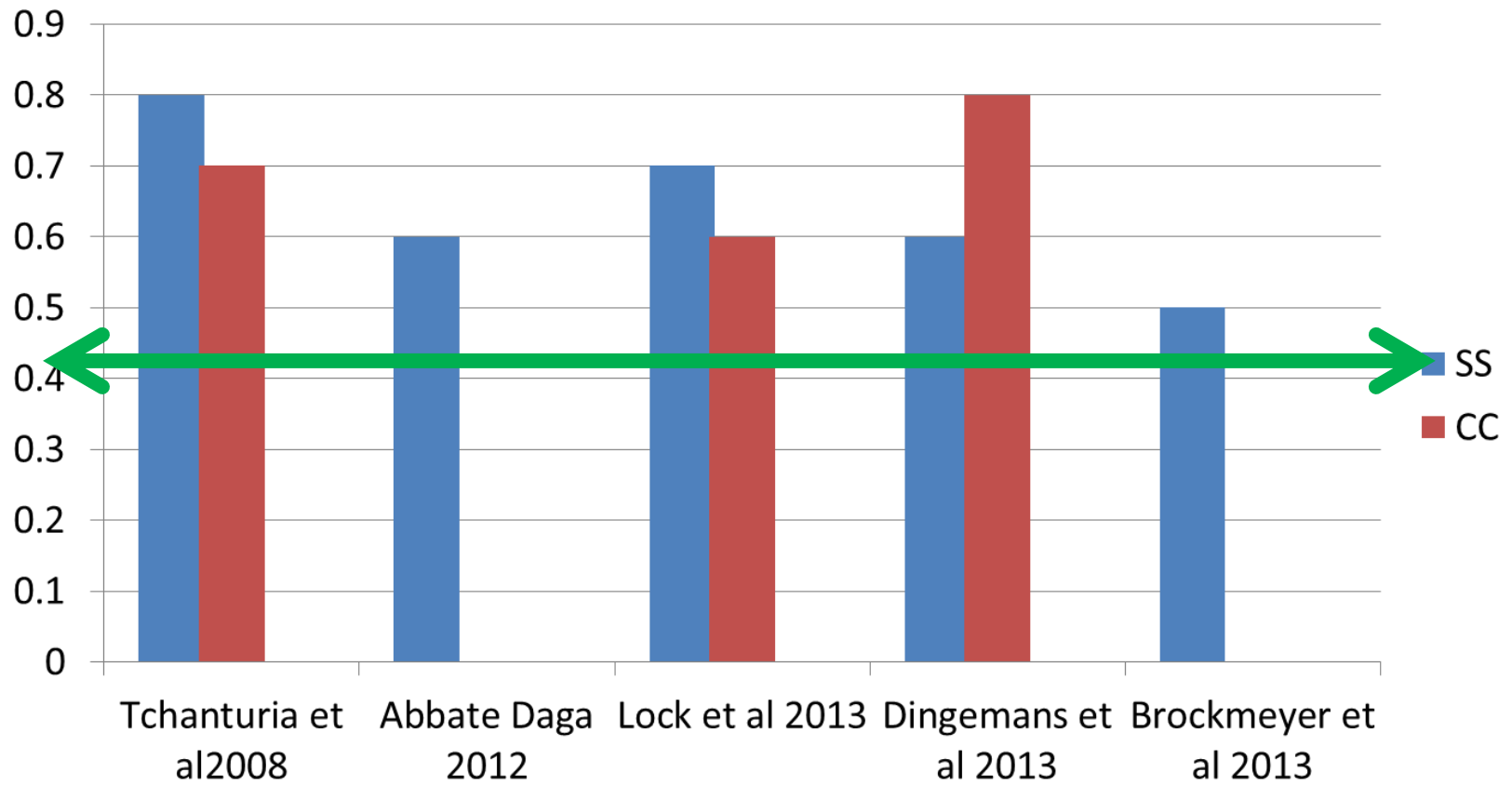
Drop out from the treatment (psychological and psychopharmacological 35-65% reported in the past studies before 2004)

From available evidence drop out from CRT is low! (0-15%)



Does cognitive performance improve?
Previous study Tchanturia et al 2004 negligible changes in SS

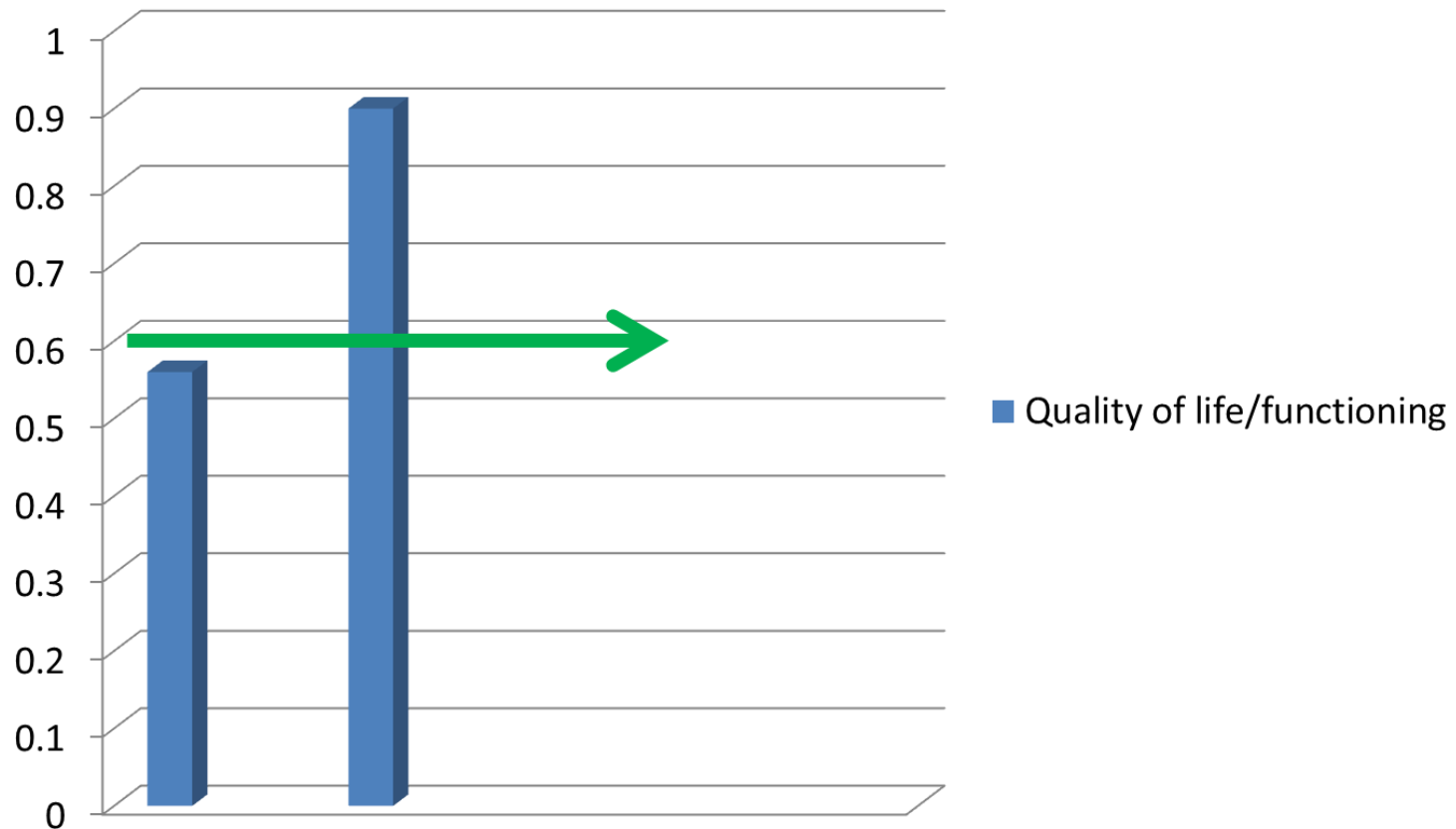
New studies consistently show improvement on SS and some studies report CC improvements!



Anything else?

Quality of life more than symptoms improve in
Schizophrenia what about AN?

Evidence for QoL improvement from one case series and
one RCT trial!



How AN CRT is different?

Reflect
Practice
Change
Maintain
Generalise

Flexibility module
was modified
and tailored

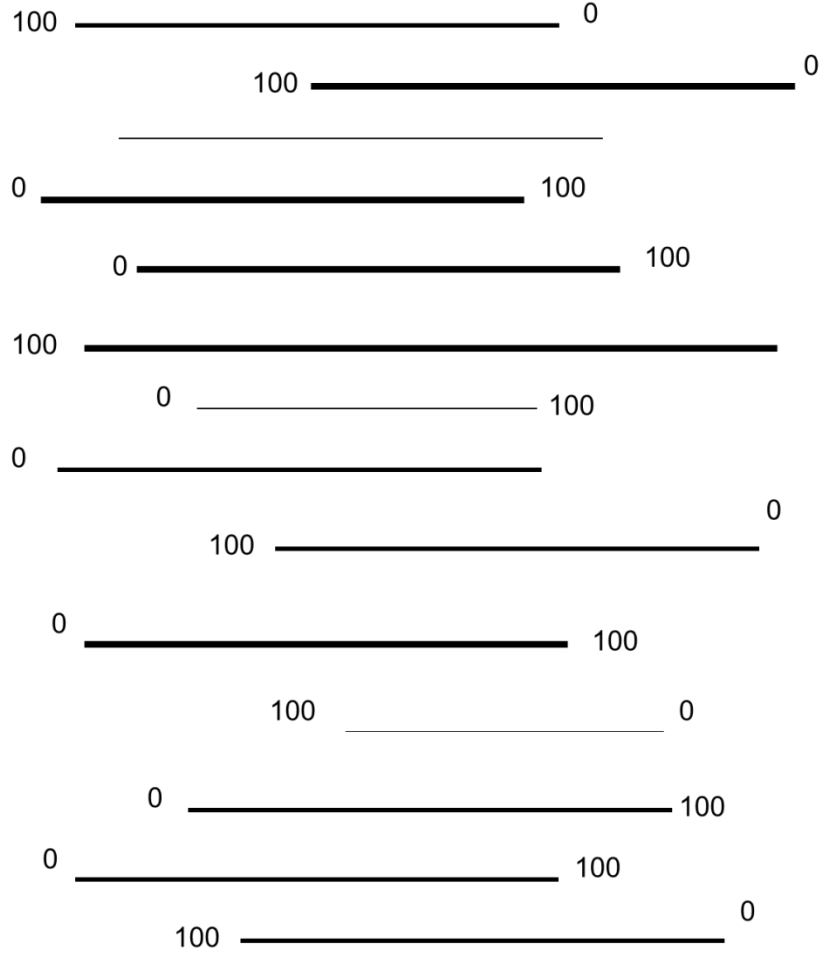
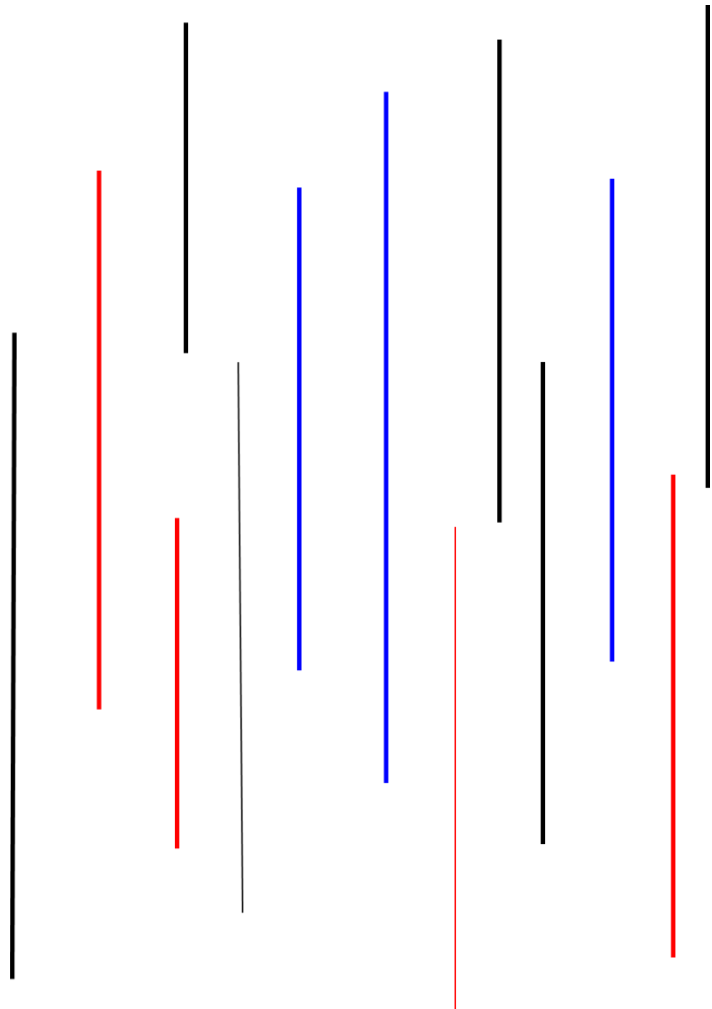
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graph TD; A[Flexibility module was modified and tailored] --- B[few tasks were added]; A --- C[few modified for our purposes]; A --- D[few are the same but the emphasis is different]
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few tasks were
added

few modified
for our purposes

few are the same
but the emphasis is
different

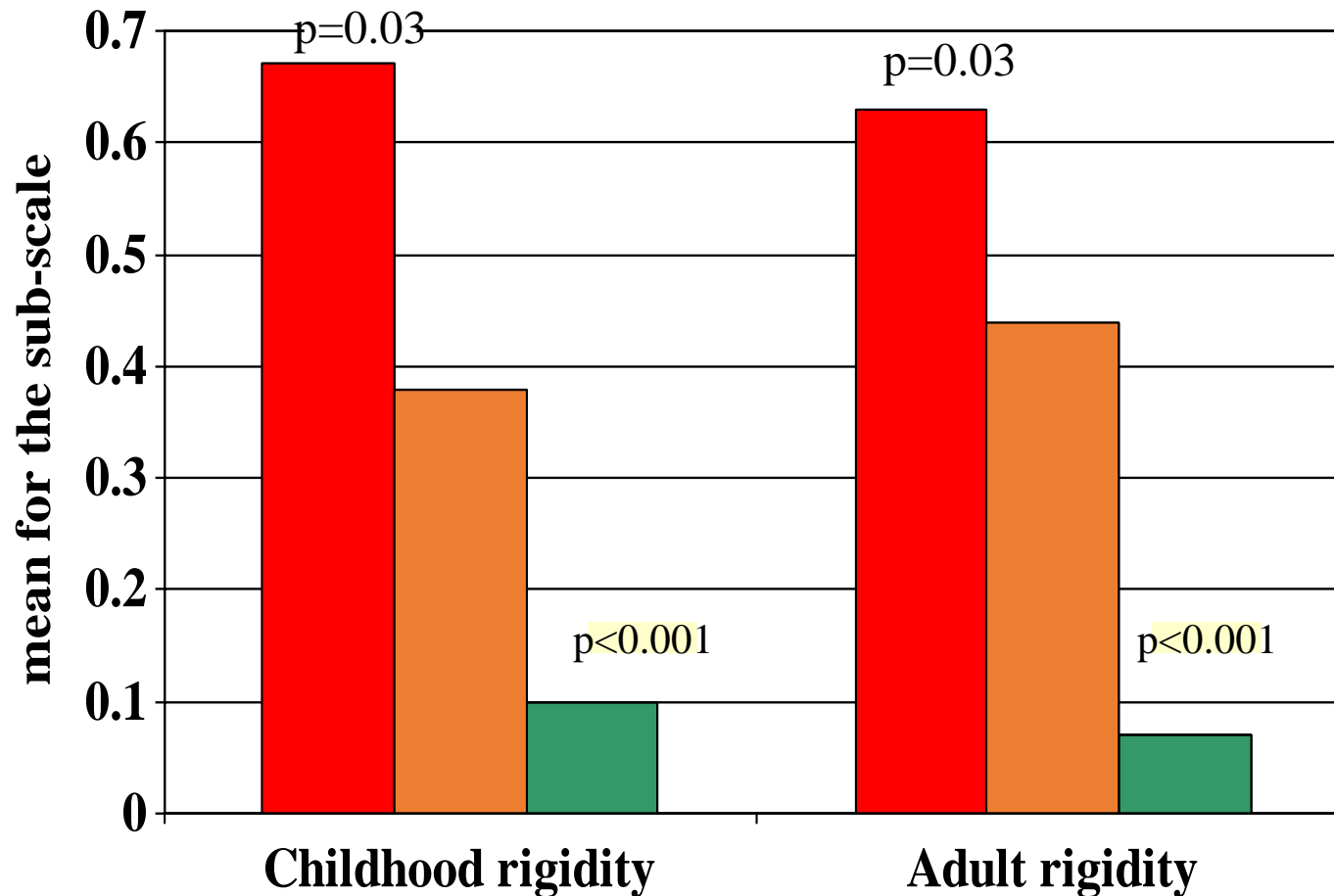
Estimation



WHY?

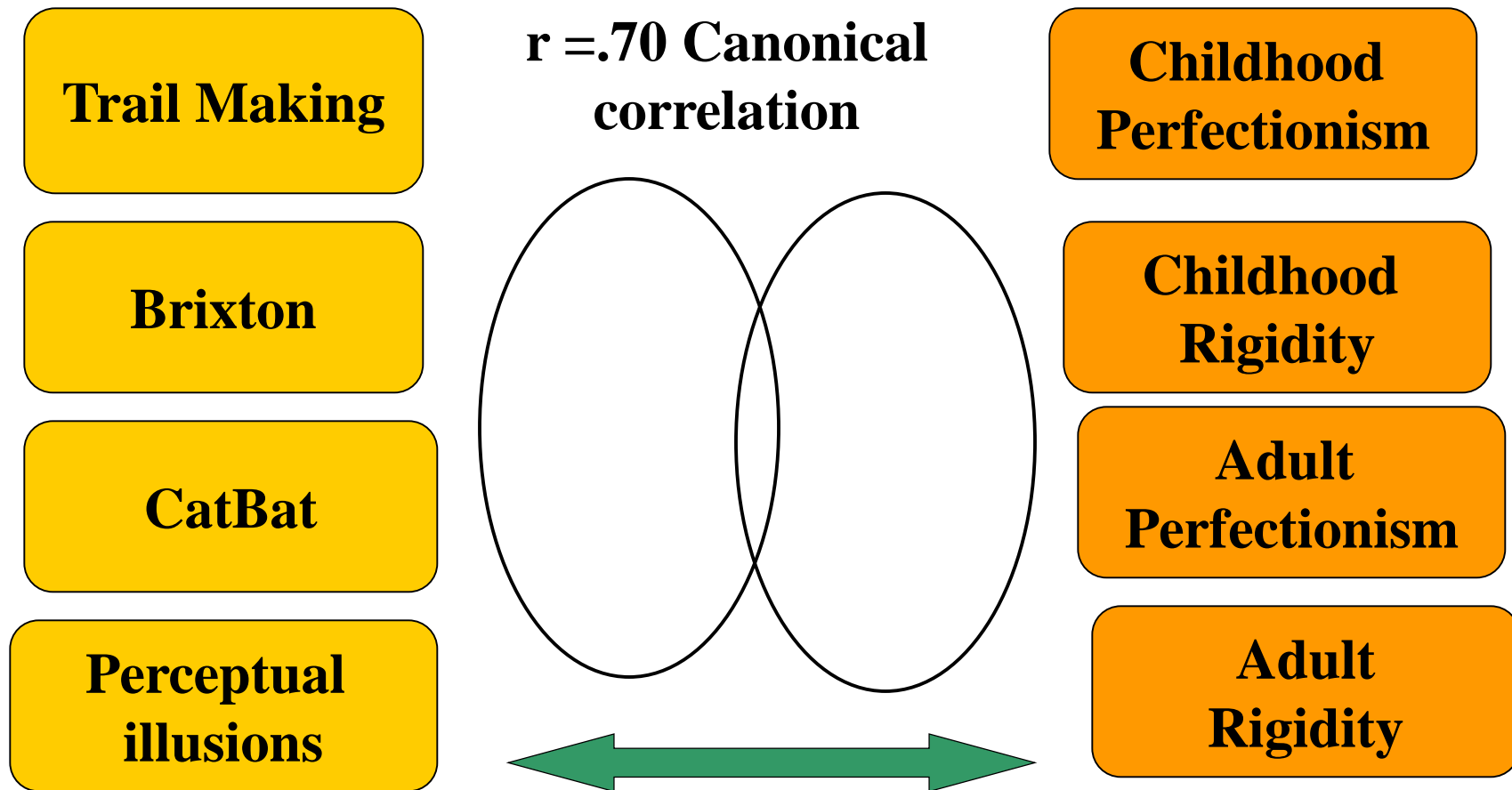
CRT for Anorexia?

Life-time Rigidity



a,e p<0.001
b,c,d p<0.05

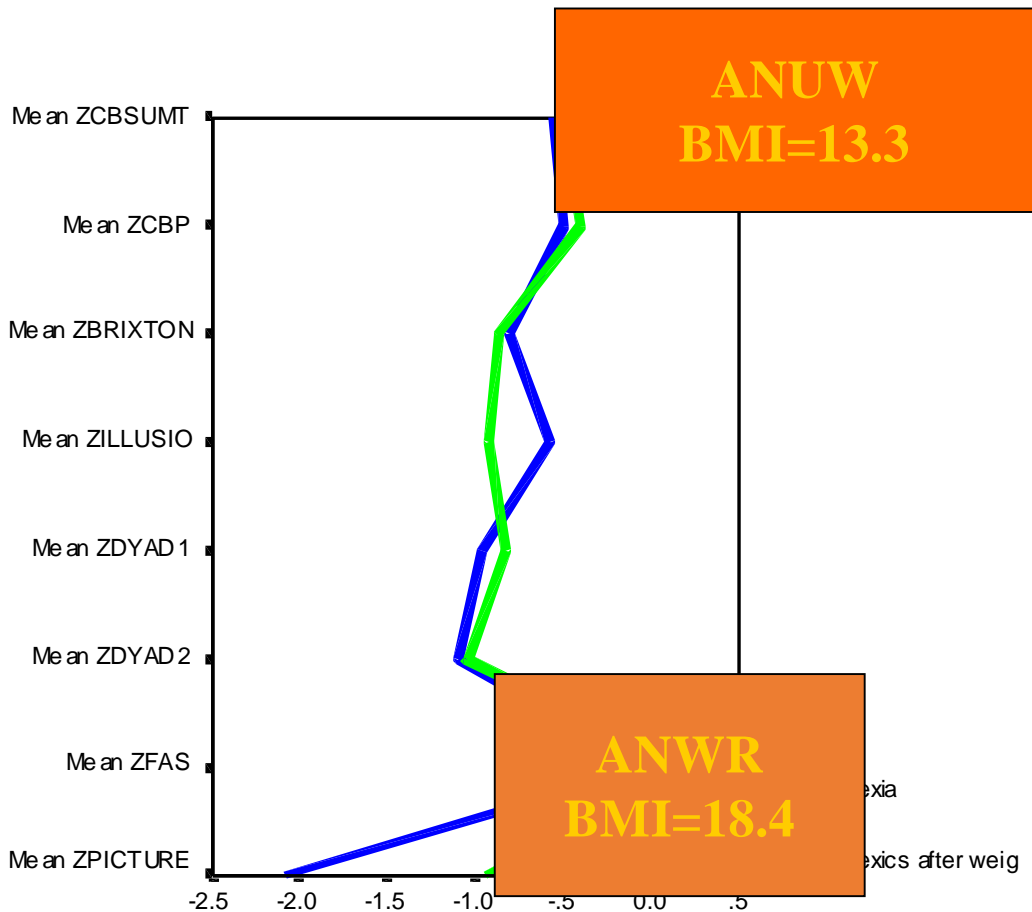
Associations between personality and neuropsychology measures in AN



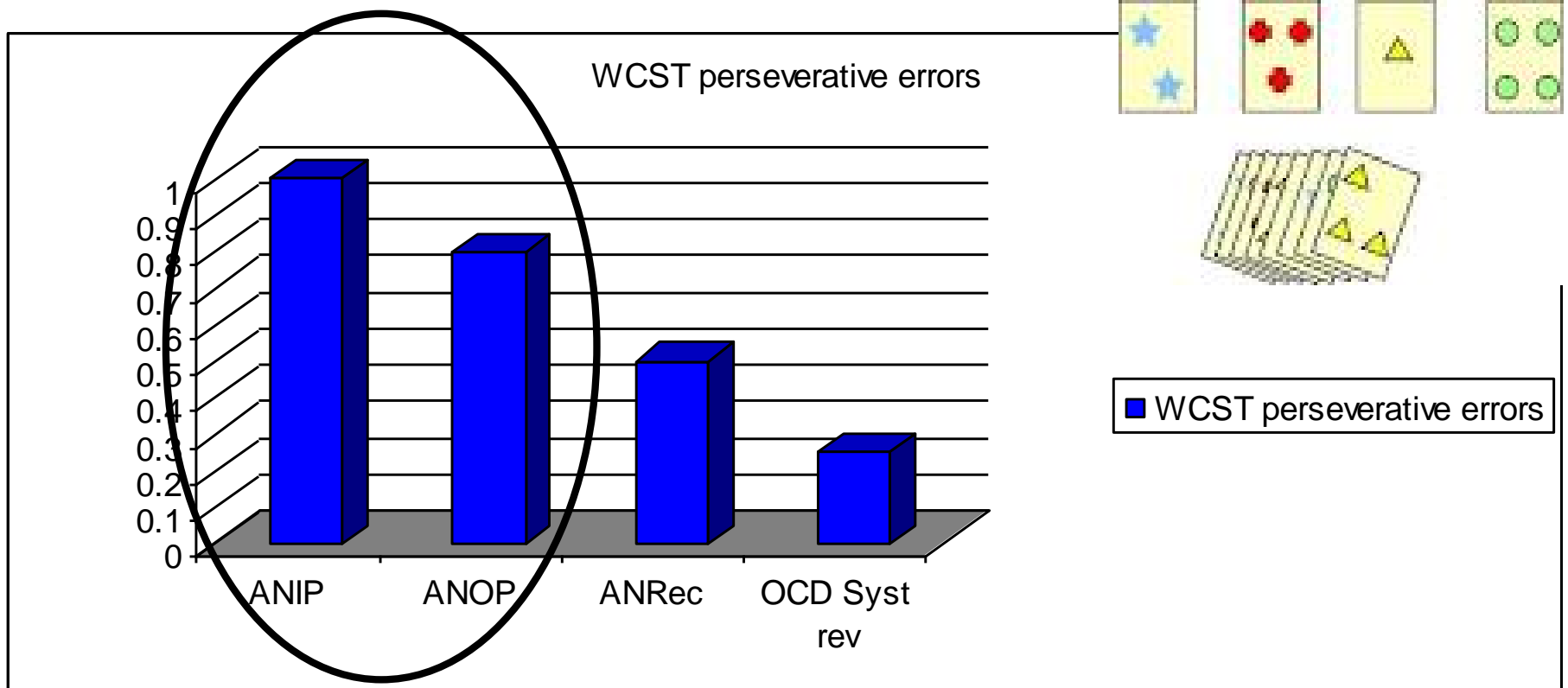
Tchanturia et al., 2004 Journal of Psychiatric Research, Vol 38, 545-552.

Weight gain alone does not change the flexibility of thinking

Tchanturia et al., (2004) Journal of Psychiatric Research, Vol 38, 545-552.



Inflexibility WCST - Tchanturia et al 2012 Plos one compared to OCD data available from the literature

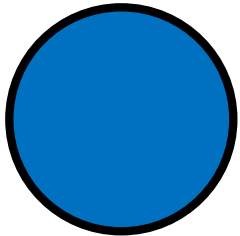


Henry J (2006) A meta-analytic review of Wisconsin Card Sorting Test and verbal fluency performance in obsessive-compulsive disorder. Cog Neuropsych 2: 156-176.

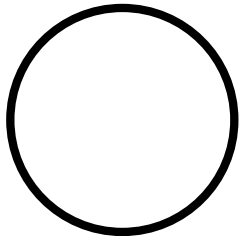
Brixton Task

Burgess PW, Shallice T;
The Hayling and Brixton Tests (1997)

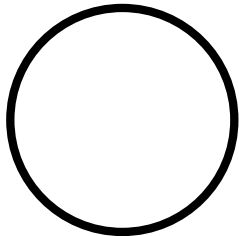
- Task- predicting the movement of a blue dot on a computer screen
- Outcome measure- number of errors made (in 56 trials)



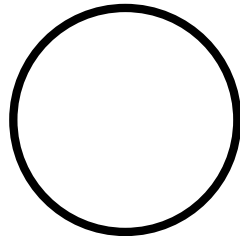
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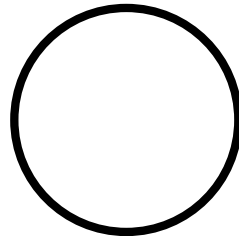
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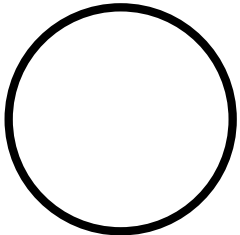
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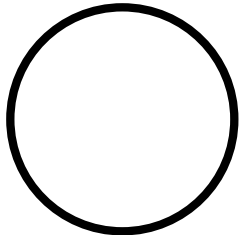
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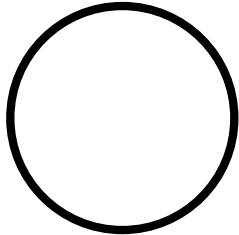
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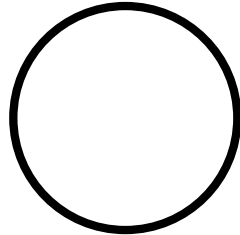
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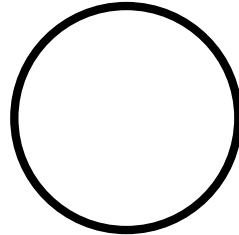
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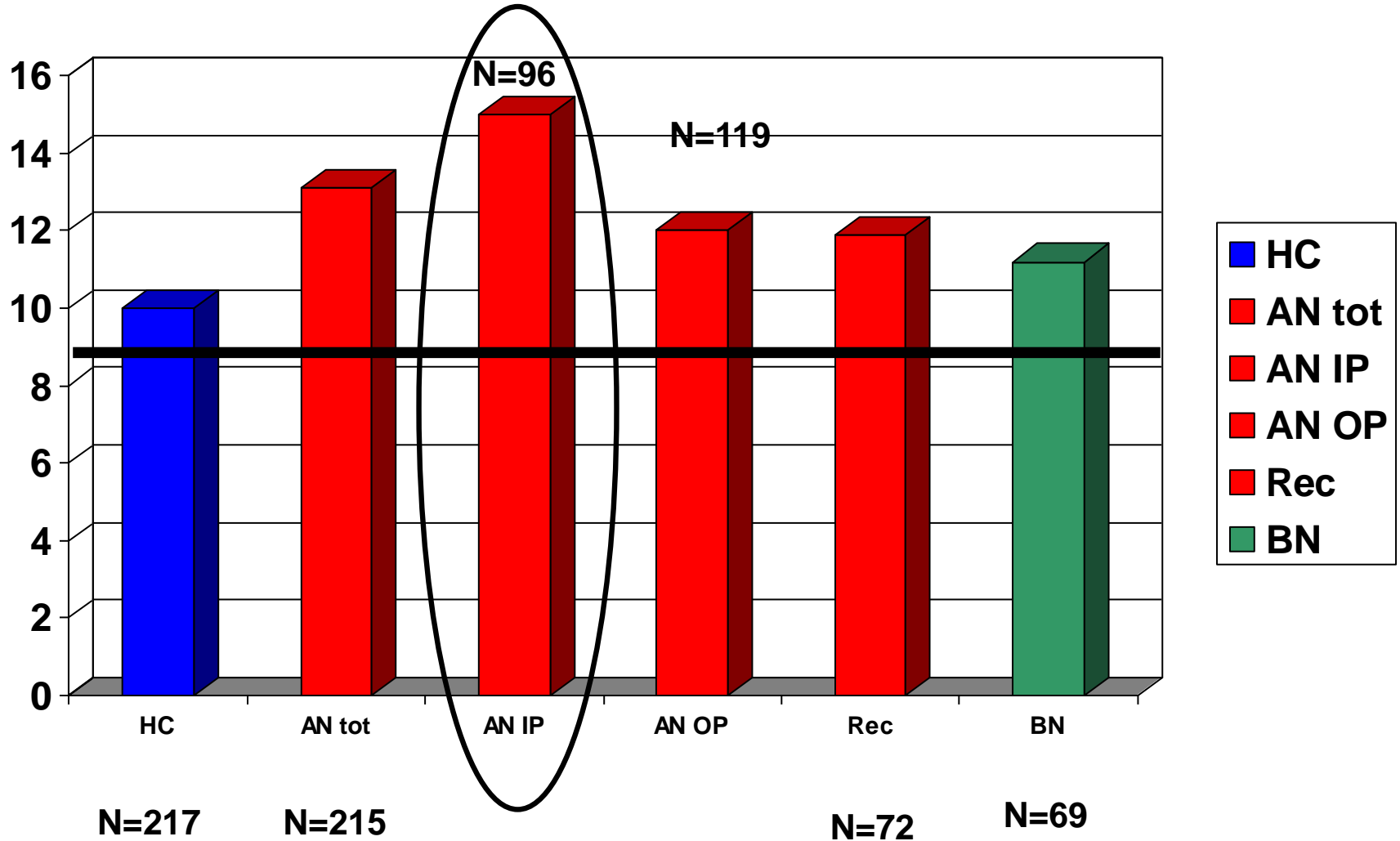
9



10

Flexibility in HC and ED groups Brixton task-example

(Tchanturia et al 2011 Plos one online publication)



How we address flexibility in CRT for AN

Exercise examples



BUS



Spider



Camel



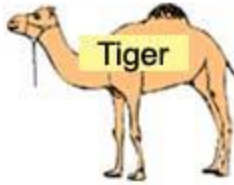
Bird



Cow



Horse



Tiger



Elephant



Fish



Snake



Zebra



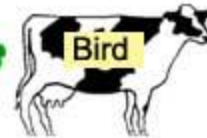
Bear



Giraffe



Penguin



Bird



Bee



Spider



Camel



Pig

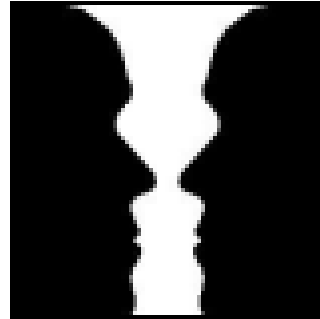


Chicken



Snake

What can you see?
Can you see anything else?



Exploratory questions

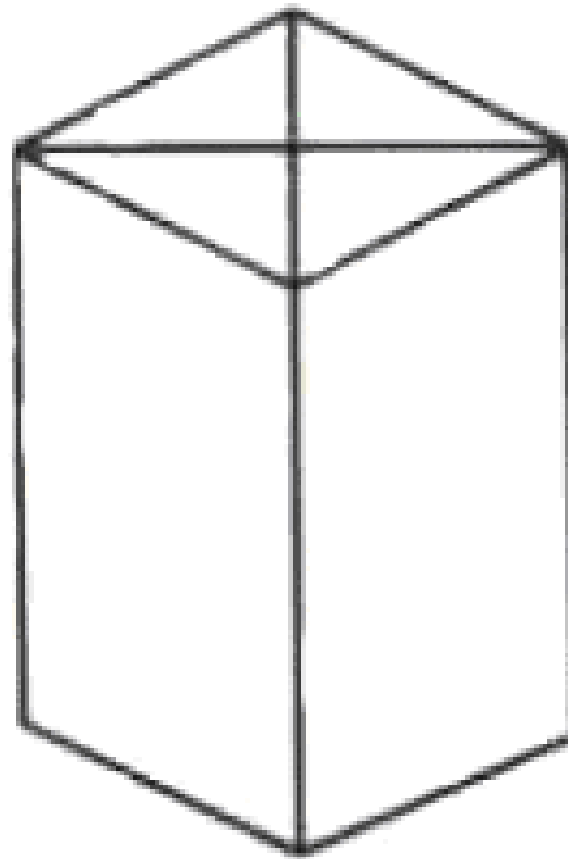
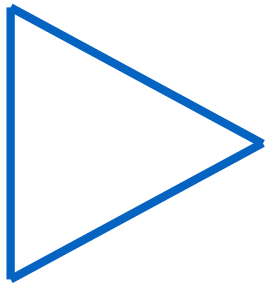
- ✓ *What did you learn from these tasks?*
- ✓ *What they show you about your thinking style?*
 - ✓ *How they relate to real life?*
- ✓ *How might you apply this in the future? (sessions 9-10)*

Attention to detail vs Gestalt

People with AN perform better in tasks which require focus on details e.g. block design, matching familiar figure task.



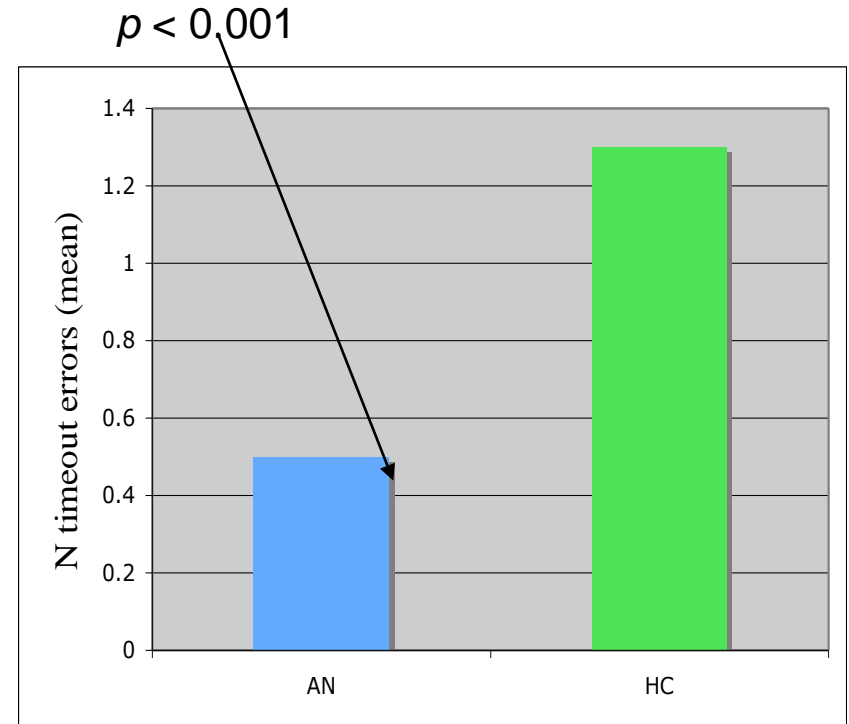
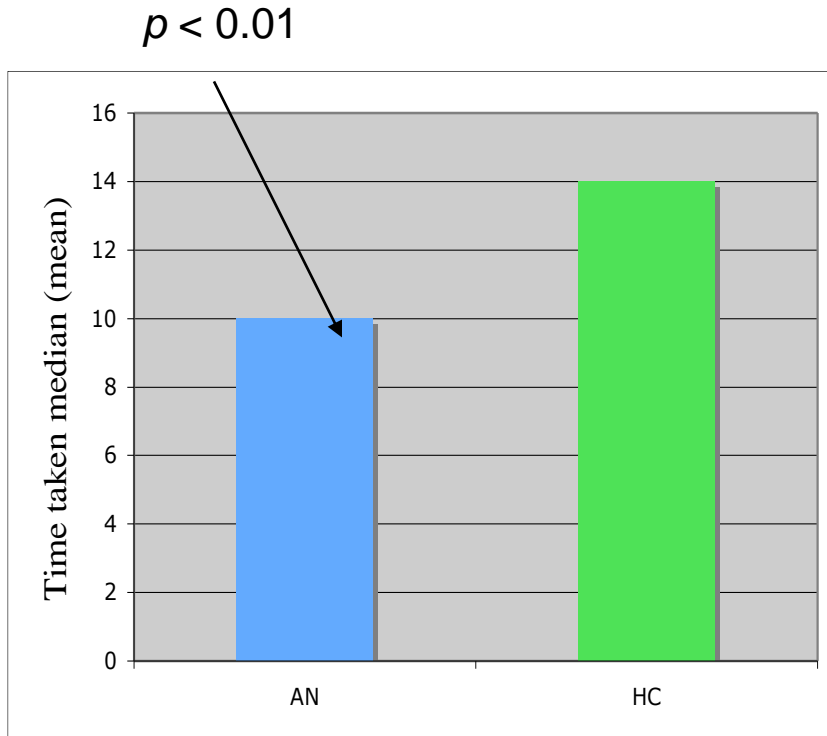
Looking at your thinking style...



**How quickly could
you find the
embedded figure?**

Embedded Figures Test

Lopez, C., Tchanturia, K., Stahl, D., Happe, F., Booth, R., Holliday, J., & Treasure, J. (2008). An investigation of central coherence in women with anorexia nervosa. *International Journal of Eating Disorders*, 41(2), 143-152.



N = 42 (AN) and 42 (HC)

What is going on in this picture....?



very

- It's a busy street scene
- shops, restaurants, cinema
- lots of people shopping in the street
- cars buses and bicycles on the road

Therapist

- of City setting. Bussy roads,
A bicycle, a bus, a taxi and a car passing at that
moment. Road works are taking place,
close to a hot dog trolley. People seem to be
in a rush and extremely anxious. There are lots
of shops in the area such as a clothing shop, Books
shop, a restaurant a gym and even a cinema.
In contrast there is a little corner in the bussy
road where on old lady is feeding pigeons sitting
on a bench in a little park with grass, trees
and a fountain.

Patient

Attention to Detail ✓

“... Now I can kind of take a step back and say it’s a tiny detail and it doesn’t really affect my entire life ... Like you don’t have to be so precise in absolutely everything that you do. You can just be content with the overall picture.” (Participant 3)



Bringing it together

Mind maps

Letters

Ending Letters

- To mark the end of the sessions, letters can be exchanged that have been written by yourself and the patient.



Key Points about mindmaps

Mind Mapping is an extremely effective method of taking notes.

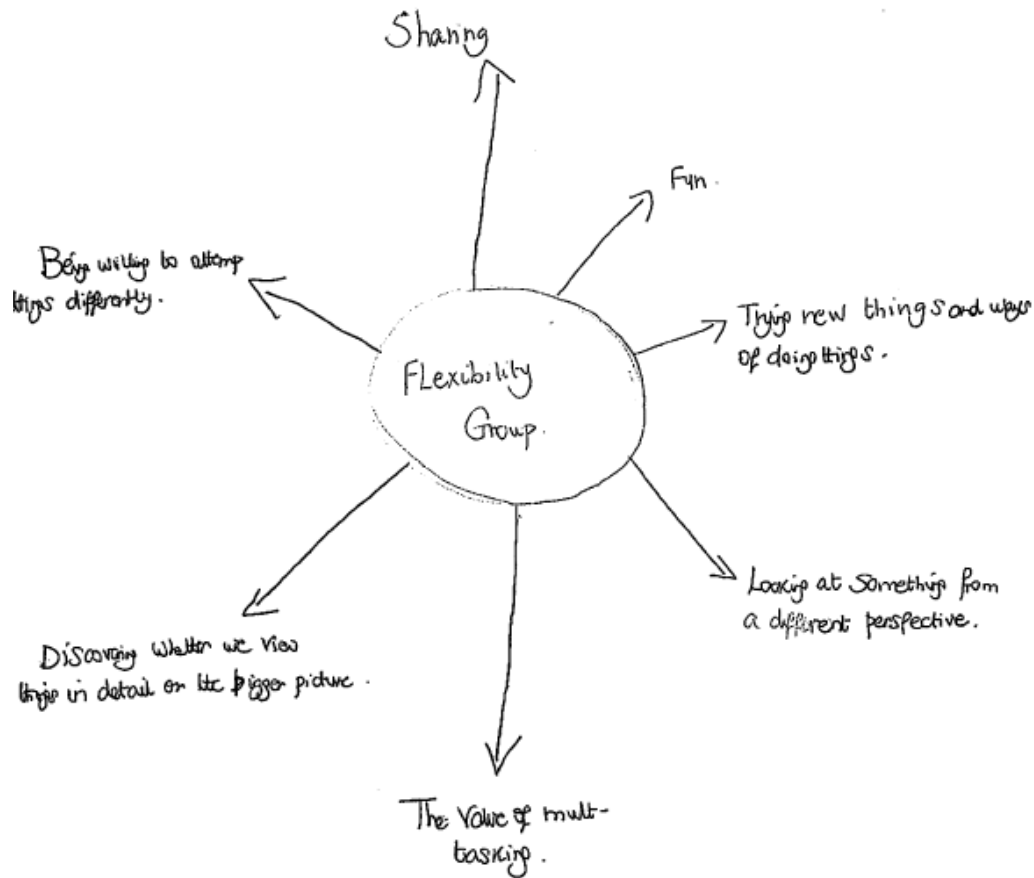
Mind Maps show not only facts, but also the overall structure of a subject and the relative importance of individual parts of it.

They help you to associate ideas and make connections that you might not otherwise make.

If you do planning, thinking:

Try experimenting with Mind Maps.

'Mind map': How this piece o work fits to your understanding and journey to recovery?



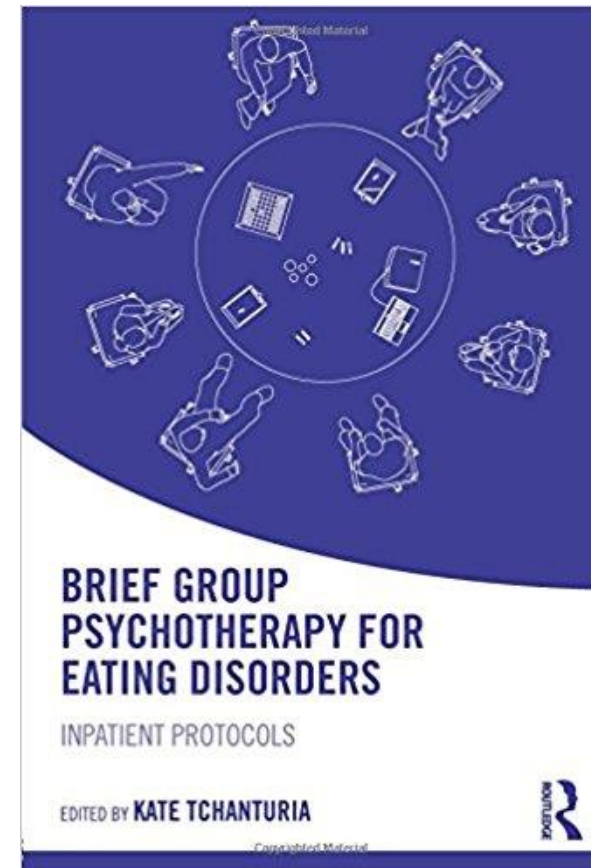
Patients feedback

- “My experience of CRT has been very **positive** and I can really see the **benefits** of using this approach as an **introduction to other types of therapy**”
- “I also **identified** my predisposition to **relate to things rationally and practically in a very action orientated way**”
- Without CRT it would have taken me a much **longer time** to accept these tendencies, but now **I feel confident** to explore these issues further in psychology”

Whitney and Tchanturia 2008 IJED

Why deliver CRT in a group?

- Fun and interactive – can engage even the most avoidant patient
- Group members can support (and challenge) each other
- Encourages social interaction
- Involve other members of the team in encouraging flexibility on the ward
- Good distraction post meal times



'Flexibility Group-workshop'

- Structured (but of course flexible!)
- Format for each session:
 - Introduce session topic
 - Interactive exercises
 - Reflections
 - Link to everyday life
 - Set in between session experiments

Session 1: Introducing CRT

- Psychoeducation about neuropsychology, key themes:
 - Starvation and the brain
 - Thinking styles
 - Pros and cons
 - Brain plasticity
- Homework – explore benefits of cognitive exercises

Session 2: Bigger picture thinking

- Example exercise:

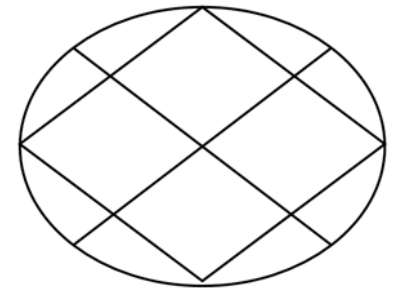
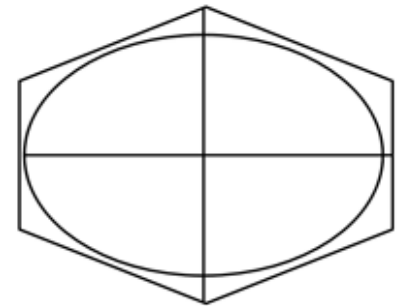
- Describing task

- Summarise a newspaper article

- Reflections
- Link to everyday life

Giving directions to a passer by, writing a text message, writing an essay, passing on a message

- Set in between session experiments

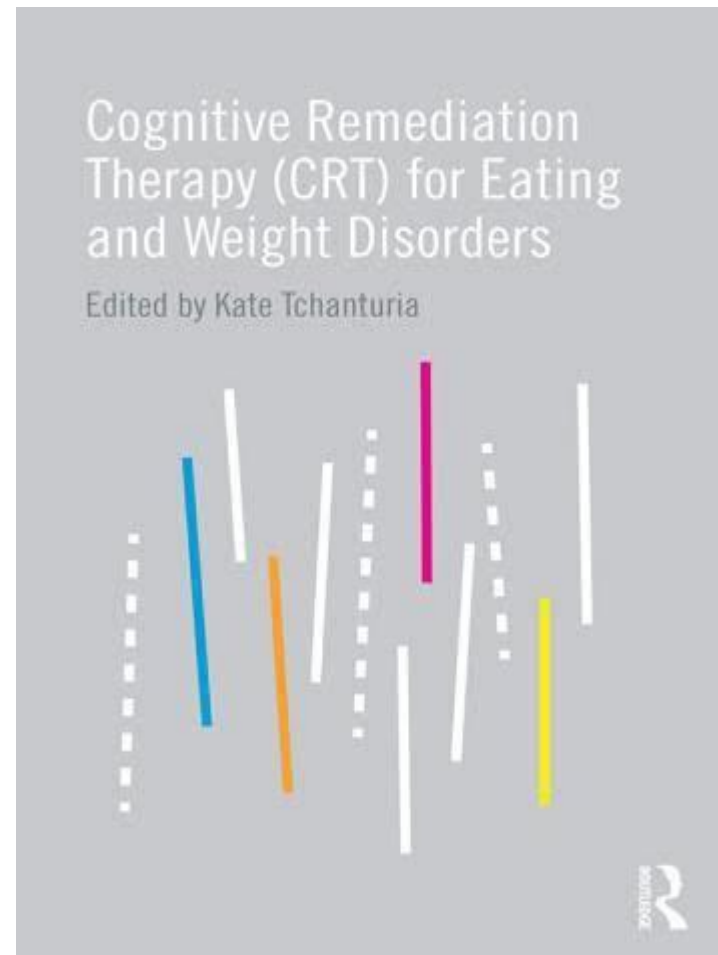
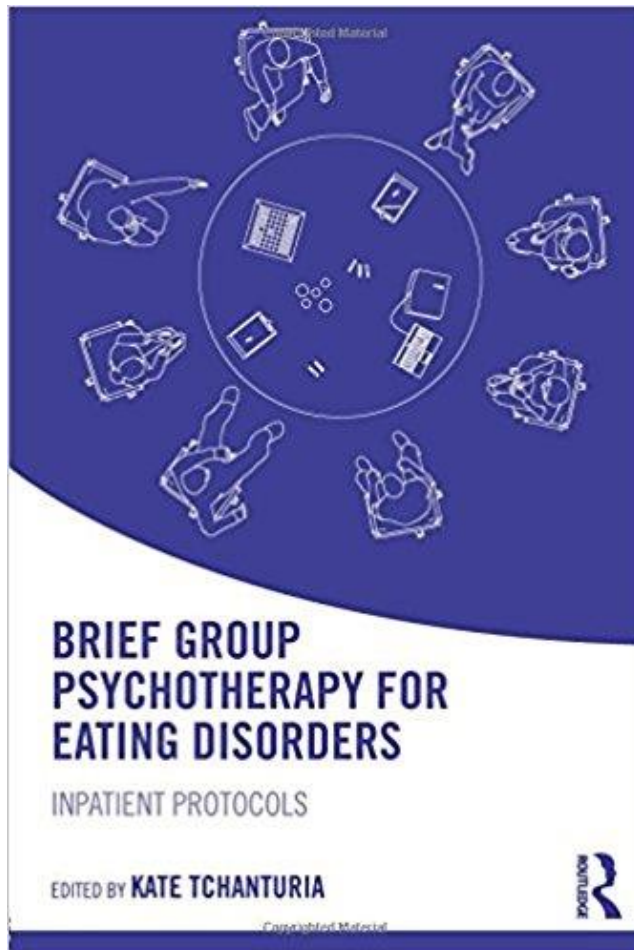


Session 4: Multi-tasking

- Review experiments
 - Example exercise:
 - Pat your head and rub your tummy
 - Play snap and have a conversation
 - Irish snap
 - Reflections
 - Link to everyday life
- Having a conversation whilst eating, listening to music whilst doing a craft activity
- Set in between session experiments



References



Thanks to

MRC

Medical
Research
Council

Schweizerische Anorexia Nervosa Stiftung
Fondation Suisse d'Anorexie Nerveuse
Fondazione Svizzera d'Anoressia Nervosa



 @PEACE_Pathway

Maudsley
Charity

For manuals and more information visit:

www.katetchanturia.com

Research gate

If we have time for questions?

If not email me:

Kate.Tchanturia@kcl.ac.uk

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LONDON

University of London

Medical
Research
Foundation

References and Manuals on

www.katetchanturia.com

<https://kclpure.kcl.ac.uk/portal/kate.tchanturia.html>

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- **Whitney J. Easter, A. Tchanturia K (2008)** The patients experiences in cognitive exercise intervention for anorexia nervosa: Qualitative findings. *International Journal of Eating Disorders* 41(6):542-50
- **Tchanturia K, Harrison A, Davies H, Roberts M, Oldershaw A, Nakazato M, Morris R, Schmidt U, Treasure J (2011)** Cognitive flexibility and clinical severity in Eating Disorders. *Plos one* 6(6):e20462 (open access) free online