Evidence-based cognitive behavioural therapy for eating disorders: Principles and practice

Glenn Waller

Department of Psychology
University of Sheffield
Outline

• CBT – efficacy and effectiveness
• Therapist drift/stampede
• Recovery goals
• The need for two brains
• Principles of CBT for the eating disorders
• Skills of CBT for the eating disorders
• Recovery goals revisited
First, the shape of things to come

• NICE guidelines are under revision (due in May)

• Cannot talk about what will be in there, as they are not out yet

• But I can comment on the draft that has been out for consultation
  • a general idea about what the evidence base says

• CBT in a strong position
First, the status of CBT-ED

• Where is CBT being recommended, based on the evidence that NICE has examined?
  • adults with non-underweight eating disorders
  • adults with underweight eating disorders
  • adolescents with eating disorders

• More extensively recommended than any other therapy
  • no adjustments for comorbidity, duration, etc.

• But it needs to be the appropriate form
  • evidence-based CBT-ED
  • there are several of these, with similar outcomes
Evidence-based CBT-ED protocols

• Two things to remember...
  • Protocols are not rigid
    • they set our what is to be done, with appropriate flexibility
    • Wilson (1996) puts it rather well...
  • They do not work by osmosis (sadly)
CBT-ED as an efficacious and effective treatment for eating disorders
(a brief tour)
CBT works...

- ‘Efficacy’
- CBT-ED works in research settings
  - e.g., Fairburn et al. (1995); Fairburn et al. (2009)
- More effective than other approaches for non-underweight cases
  - e.g., Poulsen et al. (2014); Fairburn (2017)
- At least as effective as other approaches for underweight cases
  - e.g., Byrne et al. (2016)
- Works just as well when there is comorbidity
  - and reduces that comorbidity
  - Karačić et al. (2011)
CBT works...

- ‘Effectiveness’ in routine clinical settings
- Works just as well as in regular outpatient clinics, with all the complexity that implies...
  - Ghaderi (2006) – case series of bulimic cases
  - Byrne et al. (2011) – transdiagnostic group
  - Peterson et al. (2011) – atypical bulimics
  - Waller et al. (2014) – normal-weight cases
  - Turner et al. (2015, 2016) – transdiagnostic group
  - Knott et al. (2015) – normal-weight cases

- Slightly higher attrition rate
CBT works...

- ‘Effectiveness’ in routine clinical settings
- Unaffected by severity or duration
  - Calugi et al. (2017); Raykos et al., (in preparation)
- Reduces comorbidity
  - Byrne et al. (2011); Turner et al. (2015)
- Works with inpatients
  - Dalle Grave et al. (2013)
- Works with non-underweight adolescents
  - Dalle Grave et al. (2015)
- And it can be done effectively in half the time...
  - Waller et al. (2016)
What stops clinicians using CBT-ED for eating disorders?
So what is the problem...why not just do it...?

• Therapist drift
• Failure to deliver the best therapy for our patients
  • though omission, commission or ignorance
  • Waller (2009); Waller & Turner (2016)

• Proportion of therapists who report delivering any single evidence-based treatment for eating disorders = c. 6%
  • Tobin et al. (2007)

• More likely to stay on track if we are younger, endorse CBT, etc.
  • von Ranson et al. (2011)
Therapist drift, or stampede?

- Why do we drift?
  - Ignorance/lack of training/dislike of ‘constraint’
    * Addis & Krasnow (2000); Meehl (1986); Royal College of Psychiatrists (2013)
  - Clinician anxiety
    * Turner et al. (2014); Waller et al. (2012)
  - Overinflated perception of our own abilities and clinical judgement
    * Grove et al. (2000); Walfish et al. (2012)
  - Overreliance on therapist effects
    * such as the therapeutic alliance
Defining recovery
But assuming that we want to do our best for our patients...let’s aim for recovery

• **Recovery goals**

• Broad agreement on these
  • Noordebos & Seubring (2006); Emanuelli et al. (2012)

• Aims are (in order of importance):
  1. Reduce overevaluation of one’s own appearance
  2. Reduce weight control behaviours
  3. Reduce psychological, emotional and social impact
  4. Reduce life-threatening consequences
  5. Reduce non-life threatening consequences
Defining ‘recovery’

• So we are going to consider all of these
  • but not in that order

• Linehan (1993)
  • life-threatening behaviours first and always
  • then the therapy-interfering behaviours (patient’s and therapist’s)
  • then the therapy

• Weight regain and reduce weight control behaviours
• Psychological, emotional and social consequences
• Body image and self-esteem
Why are we defining recovery this way?

• It is about true recovery – not relapsing and not hoping that the patient will just ‘get better somehow’ after the therapy

• The patient is less likely to recover/more likely to relapse if the following are true at the end of therapy:
  • Still underweight
  • Poor body image
  • Still using any bulimic behaviours
  • Very negative eating, weight and shape cognitions

• So treatment is going to aim at all of these…
  • and more
The need for two brains: Principles plus Practice
Making the brain work at two levels at once

- **Principles**
  - The stuff that we need to keep running in the back of our brains to remind us what we are doing and why we are doing it

- **Practice**
  - The front of our brains that handles the actual delivery of therapy

- Combining these two makes us more likely to be effective therapists
  - directed, but flexible
Key principles in delivering CBT-ED
1. The eating disorders are not that special...

- We can learn a lot from CBT for other disorders, e.g.:
  - Overlaps with anxiety
  - The importance of early change and sudden change
  - Behavioural change is the lead factor in recovery
  - Necessity of risk-taking
  - Tackle the central problem and the comorbidity reduces
2. Define the core cognitive target

- Following Clark’s approach to CBT…
  - understand what is broken before trying to repair it
  - shape your therapy around that problem

- Two cognitive patterns to address:
  1. Overvaluation (Fairburn, 2008)
  2. Broken cognition (Waller & Mountford, 2015)
    - assumption that even small amount of eating will lead to disproportionate weight gain
    - assumption that any weight gain will be uncontrollable and unstoppable
    - so we are working to rebuild that link
3. CBT-ED is a ‘doing’ therapy (not a ‘talking’ therapy)

- The evidence about CBT for most anxiety and mood disorders?
  - it is the behavioural elements that are most powerful, or even sufficient
  - little benefit of the cognitive, in most disorders (not social phobia, though)

- The same applies in eating disorders
  - start with behavioural change (exposure, behavioural experiments, etc.) and keep on going...
  - the purely cognitive element is not that big

- Cognitive-behavioural therapy, rather than cognitive therapy
4. It is all about food...(initially, at least)

- Start with dietary change, for maximum effect
  - cognitive capacity (less rigid, etc.)
  - emotional stability (serotonin matters)
  - overcoming anxiety (exposure work)
  - enhances quality of life

- Later, use dietary change to shape cognitions
  - behavioural experiments

- Patient accounts back up the initial fear of eating differently, but also the early and longer-term benefits
  - Waller et al. (2013)
5. Start behavioural change early

• Very clear evidence that early change and sudden change are the best predictors of outcome
  • normalisation of eating/early weight gain

• Some early evidence that nearly all change in outpatients happens in the first 10-12 sessions

• So do not waste the patient’s time with early motivational enhancement therapy blocks
  • hint: they do not work anyway
6. The alliance matters, but does not lead

• Necessary for change to happen
  • keeps the patient in therapy (Beck et al., 1979)

• Not sufficient to create change?
  • Raykos et al. (2014); Turner et al. (2016)

• Actually a consequence of symptom change in CBT-ED
  • Graves et al. (2017)

• CBT-ED approach to the alliance (Wilson et al., 1997)
  • “A judicious blend of empathy and firmness”
  • Firm empathy
7. Stop trying to be a therapist

• Our job - deliver CBT-ED at the maximum dose

• Yet we meet the patient for an hour a week…
  • unlikely to be effective

• Aim to get the patient to take on the therapist role
  • our role is to be a coach
  • 168-hour a week therapy

• And if patients do no work between sessions?
  • what would a coach say to an athlete?
8. Endings matter

• If we do not have a clearly stated plan, then therapy that is not going well will go on and on without getting better

• So how long do we go on offering CBT for a patient who is not doing well…? (Cowdrey & Waller, 2015)

• Make therapy continuation dependent on actually doing therapy
  • e.g., review at 4-6 sessions, and only extend if the patient has actually made substantial progress
  • otherwise, we train the patient to believe that therapy failed
Skills in delivering CBT-ED
Have a structure in mind – you will need it...

- Relapse prevention
- Reducing emotional triggers to behaviours
- Body image work, as appropriate to the case (avoidance = exposure; checking and comparison = behavioural experiments; mind-reading = surveys)
- Reducing bingeing and purging - exposure work
- Changing eating – Behavioural experiments
- Changing eating - Exposure
- Psychoeducation and cognitive restructuring
- Maintaining alliance and motivation (reinforcement for change)
- Monitoring risks and safety
- Measurement of outcome, discussion with patient, response to no change
- Engage; assess maintaining factors
What to aim for, en route to recovery?

• Early on (first six sessions)
  • physically stable
  • dietary change
  • reduction in purging behaviours
  • getting past therapy interfering behaviours
    • e.g., attendance, recording intake, other homework

• By the end
  • normalization of weight (avoid magic numbers…)
  • cessation of behaviours
  • normalization of cognitions
    • especially body image
  • all contribute to lowered risk of relapse
Risk assessment and management

• This is NOT ‘somebody else’s problem’

• **Important issues to look out/test for**
  • Severe restriction of food/fluid
  • Electrolyte imbalance
  • Bone deterioration
  • Physical damage
    • e.g., tears to oesophagus; blood in vomit
  • Alcohol/drug intake
Risk assessment and management

- Urgent signs to look out for in the session
  - Muscular weakness
    - SUSS test
  - Problems in breathing/deterioration of consciousness
  - Cardiac signs
    - ectopic beats, tachycardia, bradycardia, low blood pressure
- Rapid weight loss
- Not low weight per se
- Risky behaviours
  - e.g., suicidal intent; risk to others (e.g., driving)
Keeping the patient on track

• Always focus the patient on doing the basics
  • Food diaries
  • Being weighed
  • Making changes (especially early in therapy)
  • Doing homework
  • Attending on time
  • Taking responsibility for the therapy

• Any failure to do these makes the therapy less likely to work
  • go in hard and fast
  • be open about the low chance of success
  • shift responsibility to the patient for making treatment work
    • that shift becomes an asset at the end of therapy
Weighing: Why is it vital?

• *See Waller & Mountford (2015) for detail on this*

• Assessing and managing risk

• Repairing the broken cognitive link
  • testing out predictions about changes in weight with changes in eating

• No weighing = not CBT-ED

• Ask patient to predict change in weight
  • plot cumulative change
  • plot four-week median line
  • don’t attach importance to changes over short periods
Diaries and measures

• Early: to discover patterns
  • e.g., restriction during day followed by bingeing in evening
  • emotional triggers to ED behaviours
  • emotional consequences of ED behaviours

• Later: repairing the broken cognitive link
  • tracking dietary changes, and their impact on weight
  • in combination with weight changes
  • test predictions
    • e.g., 'If I eat 1 rice cake extra per day, I will gain 3kg in a week'
Develop a formulation?

- Useful to engage the patient and to tell us if we are missing something
- Not clear that it helps with therapy outcomes
- Can use this template?
  - Slade (1982)
Changes in eating
Preliminary changes in eating

- Aim for biological stabilization and exposure
  - aid thinking and mood stability
  - allow the individual to learn to tolerate anxiety without using safety behaviours (e.g., restricting)

- Deal with our own anxiety about this stage
  - e.g., patients do keep coming; refeeding syndrome is very rare

- Sequencing of change
  - Start with structure, then move on to content
  - Amount depends on anxiety levels and aims
    - weight stability or gain?
Eating as a skill

• This element of CBT is sometimes neglected
  • while it is included in exposure and in behavioural experimentation, remember that it is a skill

• Need to teach the patient basic rules and how to operationalize them in their lives

• Tools needed:
  • a healthy eating plan
  • an ‘Eatwell’ plate or equivalent
  • experience of shopping, meal planning, etc.
  • knowledge of the approximate number of calories needed to gain weight…
Eating as a skill

• What sort of food to eat?
  • food groups rather than specifics
  • never be fazed by specific food preferences
    • veganism; clean eating; etc.
  • but challenge the general ones…
  • macronutrients, rather than micronutrients

• How much to eat?
  • rigidity of rules tends to cause fights, but common purposes get alliance

• And always be ready to answer the ‘Why’ question
  • Katie – “I don’t see why I need to eat carbohydrates”
Exposure (with response prevention)
Exposure

• Two elements, each of which is essential
  • elevation of anxiety
    • cannot learn if there is no anxiety
  • avoidance of safety behaviours
    • to reduce escape/avoidance conditioning
    • and this takes time…

• Beware of methods that are intended to reduce the anxiety or to make it more tolerable
  • relaxation, distraction, mindfulness work

• These can have the effect of making the exposure less effective
  • works more rapidly when the anxiety is higher
  • but that makes us more anxious, so...
Examples of exposure

• Change in pattern and content of eating
  • needs to start early in treatment
  • eating ‘forbidden’ foods

• Body image work using mirror exposure

• Testing out body checking, comparison, etc.

• Fill in the diary when you get the urge to binge
  • make bingeing an active choice

• Reducing compensatory behaviours
  • waiting for 30-40 minutes after eating to allow the anxiety to subside
Behavioural experiments
What is a behavioural experiment?

• Trying out changes in a systematic way, to learn the outcome

• Use of planned behavioural change to:
  • test existing beliefs about the self, others and the world
  • develop and test more adaptive beliefs

• The purpose – change in cognitions (Beck, 1979)

• Commonly used to address eating, weight and shape cognitions
  • e.g., weight gain if I change eating; impact of body checking
  • also valuable in working with other cognitions
    • e.g., interpersonal issues, perfectionism and failure
Going through the steps

1. Establish the current belief
2. Rate the strength of this belief
3. Establish the alternative belief
4. Rate the strength of this belief
5. Behavioural manipulation to test the two beliefs
6. Agree a timeframe to be sure that either belief has support
7. Assess the outcome – which belief was right?
8. Revisit and re-rate the beliefs

- If you have not taken all these steps, it is not likely to work…
Vignette: Eating, weight and shape

Belief to test out

• “If I don’t weigh myself three times a day, my weight will go out of control” (100%)

Alternative belief

• “Maybe weighing myself is not affecting my weight, but is making me more anxious” (5%)

Possible methods

• Reduce weighing frequency, and see if my weight goes up as a result, or if my weight stays the same, but I get less anxious
Cognitive restructuring
Preliminary work

• Nutritional adequacy (ignore this and fail…)
  • free up the thinking
  • stabilise the mood

• Psychoeducation, e.g.:
  • role of vomiting
  • difficulty of weight gain
  • energy requirements
  • normal weight fluctuations

• Basics of self-monitoring
  • food diaries and regular weighing
Explaining the role of safety behaviours

• Explaining the reason that the patient holds onto her behaviours

• Doing the behaviour used to be seen as an asset
  • e.g., positive ‘buzz’ from weight loss

• Now, afraid of the consequences of not doing the behaviour
  • e.g., restricting because of fear of weight increase

• Use that example of playing the lottery
  • what stops people from stopping?
Change the strength of the belief first

• Aim to enable the patient to amend her initial (distorted) thought
  • based on a review of the evidence

• Generate an alternative, balanced thought
  • not ‘positive thinking’

• Change is unlikely to be immediate
  • introducing a seed of doubt
  • possible the initial thought may not be 100% accurate
  • facilitate behavioural change (experiments, etc.)
Working with beliefs about weight

• Address beliefs about the accuracy of weight estimates
  • also see body image/body checking

• Graph cumulative weight estimates
  • get predictions and strength of predictions

• Is the patient any good at estimating whether her weight has gone up or down?
  • consider with her why she is poor at this
Working with beliefs about food

- **Forbidden foods vs OK foods**
- Consider the origins of ‘forbidden foods’
  - e.g., parental rule; peer pressure?
  - Consider whether the rule has to apply now

- Change the headings
  - ‘Liked’ vs ‘Disliked’ vs ‘Don’t know’
  - this task on its own can cause a lot of confusion
    - confusion is a good thing here…

- Then save those lists for more behavioural experimentation...
What about body image?
Already addressed some key skills here

• Psychoeducation
  • do this early on, e.g.:
    • function of body
    • accuracy of body image

• But we also need to address body-related safety behaviours
  • checking
  • comparison
  • avoidance
  • mind-reading

• What ones to address? Depends on what ones the patient uses...
Behavioural experiments

• Used to address body checking and body comparison

• Each behaviour is used to relieve anxiety in the short term

• Each makes body image worse in the medium to long term

• So we address the belief that checking/comparison is a good thing
  • one week on the behaviour, one week off
  • determine how each makes the patient feel
  • usually, one experiment is plenty...
Exposure with response prevention

• Used to reduce body avoidance

• Full length mirror exposure for about 40 minutes

• Scary at the time (for patient and therapist), but a very rapid drop in distress over the next couple of times

• Single strongest tool that we have in CBT-ED for addressing body image disturbance
Surveys

• Used to address mind-reading
  • e.g., “I know that they think I am fat, but they would never tell me that”

• Test patients’ beliefs about what other people consider important
  • particularly useful where the individual has a lot of social anxiety

• Collecting data through:
  • observation of events
  • interviewing other people

• Technique adapted from CBT for social phobia
Cognitions to look out for

• Anything that involves vulnerability cognitions regarding how others see/judge the patient, e.g.:
  • “They think I look fat”
  • “People will notice my belly/double chin/etc.”
  • “I am always going to be seen as the ugly one in my group of friends”
  • “People think I look normal now, so I cannot possibly put weight on”
  • “People admire me for my skinny body”
  • “They will think I looked much better last year before I put all this weight on”
Going through the steps

- Establish the current belief about what other people think
- Set up questions that will allow that belief to be tested (e.g., photos)
- Get the patient’s beliefs about what the responses will be
- Choose the appropriate people to ask
- Gather the data
- Compare with the patient’s ratings
- Revisit and re-rate the beliefs

If you have not taken all these steps, it is not likely to work…
Ending therapy
Recovery goals revisited

• Kept the patient alive
  • medical and psychiatric monitoring and intervention

• Kept the patient on track
  • addressed therapy-interfering behaviours
  • put the patient in charge

• Normalised eating and weight
  • psychoeducation
  • structure and content of intake
  • exposure
  • behavioural experiments
Recovery goals revisited

- Improved psychological, emotional and social functioning
  - reduced starvation effects
  - cognitive restructuring
  - exposure
  - behavioural experiments

- Normalised body image
  - cognitive restructuring
  - exposure
  - behavioural experiments
  - surveys
Finishing off and saying goodbye

- Final sessions
- Handing over the responsibility and power to the patient
- The therapy blueprint

- Used at follow-up sessions to review how the patient is progressing
  - problem-solving, own therapy sessions, etc.
Therapy blueprint: Headers

• What were my problems when I was first referred?
• What did I do to change?
• What changes do I still want to make, and how will I achieve them?
• What might lead to a setback in the future?
• What will be the symptoms of a setback?
• How will I overcome the setback?
• What if that doesn’t work?
Background reading