An Introduction to CBT for Anxiety

“The alarm is worse than the fire” (Beck, 1976)

Andrew Grimmer
25th June 2016
Aims

• To assess anxiety and its impact
• To formulate a range of anxiety disorders
• To learn and practise CBT interventions for anxiety
  – CBT for anxiety is at least as much a “doing” therapy as a “talking” therapy

• I’m sorry, we won’t be attempting to cover PTSD 😞
Self-evaluate

• In pairs, please discuss:

  – What do I already feel confident about in terms of my understanding of CBT for anxiety?

  – In what ways would I like to develop my knowledge and skills in this workshop?
Terminology (Clark & Beck, 2010)

- **Fear**: a primitive automatic neurophysiological state of alarm involving the *cognitive appraisal* of imminent threat or danger to the safety and security of an individual.

- **Anxiety**: a complex cognitive, affective, physiological and behavioral response system (i.e. *threat mode*) that is activated when anticipated events or circumstances are deemed to be highly aversive because they are perceived to be unpredictable, uncontrollable events that could potentially threaten the vital interests of an individual.

- **Worry**: a repetitive thought process of trying to find certainty in uncertain situations by foreseeing and planning for every conceivable outcome that creates the feelings and emotions experienced as anxiety.

- **Panic**: overwhelming terror in the face of imminent, catastrophic danger.
Normal vs. abnormal anxiety?

• Cognitions: Is the fear or anxiety based on a false assumption or faulty reasoning about the potential for threat or danger in relevant situations?
• Functioning: Does the fear or anxiety actually interfere in the person’s ability to cope with aversive or difficult circumstances?
• Persistence: Is the anxiety present over an extended period of time?
• Triggers: Does the individual experience false alarms or panic attacks?
• Hypersensitivity: Is fear or anxiety activated by a fairly wide range of situations involving relatively mild threat potential?
Comorbidity

• Depression: 76% lifetime - associated with a more persistent course of disturbance, greater symptom severity, and greater functional impairment or disability

• Substance use: 2-4 x more likely: reciprocal and inter-acting influences (not just self-medicating) -> increased suicide risk

• Other anxiety disorders: especially GAD
Context

• Widespread: 25-30% lifetime prevalence
• Women > men: 2:1
• Culture: apprehension, worry, fear, and somatic arousal are common in all cultures but vary in expression
• Chronic course; majority have onset in childhood/adolescence
All of us (in one way or another)

• Write down on a piece of paper what frightens you or makes you anxious
• Put it in the “hat”
• I’ll write them up but you won’t be asked to identify your contribution
LeDoux’s parallel neural pathways in auditory fear conditioning

Memory, reasoning and judgment
Psychophysiology: SNS

- Sympathetic nervous system (SNS) activation: hyperarousal symptoms
  - constriction of the peripheral blood vessels,
  - increased strength of the skeletal muscles,
  - increased heart rate and force of contraction,
  - dilation of the lungs to increase oxygen supply,
  - dilation of the pupils for possible improved vision,
  - cessation of digestive activity,
  - increase in basal metabolism, and
  - increased secretion of adrenaline and noradrenaline from the adrenal medulla
Psychophysiology: PNS

- Parasympathetic nervous system (PNS): conservation-withdrawal symptoms
  - tonic immobility,
  - drop in blood pressure,
  - fainting,
  - decreased heart rate and force of contraction,
  - constricted pupils,
  - relaxed abdominal muscles, and
  - constriction of the lungs
Features: physiological

(1) Increased heart rate, palpitations;
(2) shortness of breath, rapid breathing;
(3) chest pain or pressure;
(4) choking sensation;
(5) dizzy, lightheaded;
(6) sweaty, hot flushes, chills;
(7) nausea, upset stomach, diarrhoea;
(8) trembling, shaking;
(9) tingling or numbness in arms, legs;
(10) weakness, unsteady, faintness;
(11) tense muscles, rigidity;
(12) dry mouth
Thoughts racing
Quick thinking helps us to evaluate danger and make rapid decisions. It can be very difficult to concentrate on anything apart from the danger (or escape routes) when the fight or flight response is active.

Changes to vision
Vision can become acute so that more attention can be paid to danger. You might notice 'tunnel vision', or vision becoming 'sharper'.

Dry mouth
The mouth is part of the digestive system. Digestion shuts down during dangerous situations as energy is diverted towards the muscles.

Heart beats faster
A faster heart beat feeds more blood to the muscles and enhances your ability to run away or fight.

Nausea and 'butterflies' in the stomach
Blood is diverted away from the digestive system which can lead to feelings of nausea or 'butterflies'.

Hands get cold
Blood vessels in the skin contract to force blood towards major muscle groups.

Muscles tense
Muscles all over the body tense in order to get you ready to run away or fight. Muscles may also shake or tremble, particularly if you stay still, as a way of staying 'ready for action'.

If we don't exercise (e.g. run away or fight) to use up the extra oxygen then we can quickly start to feel dizzy or lightheaded

Dizzy or lightheaded

Breathing becomes quicker and shallower
Quicker breathing takes in more oxygen to power the muscles. This makes the body more able to fight or run away.

Adrenal glands release adrenaline
The adrenaline quickly signals other parts of the body to get ready to respond to danger.

Bladder urgency
Muscles in the bladder sometimes relax in response to extreme stress.

Palms become sweaty
When in danger the body sweats to keep cool. A cool machine is an efficient machine, so sweating makes the body more likely to survive a dangerous event.
## Biological concomitants of anxiety

<table>
<thead>
<tr>
<th>Biological factors</th>
<th>Cognitive sequelae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevated tonic autonomic activation</td>
<td>Increased salience of threat-related stimuli</td>
</tr>
<tr>
<td>Slower habituation rate</td>
<td>Sustained attention to threat</td>
</tr>
<tr>
<td>Diminished autonomic flexibility</td>
<td>Reduced ability to shift attention</td>
</tr>
<tr>
<td>Genetic predisposition for negative emotionality</td>
<td>Hypervalent schemas of threat and danger</td>
</tr>
<tr>
<td>Subcortical fear potentiation</td>
<td>Preconscious fear stimulus identification and immediate physiological arousal</td>
</tr>
<tr>
<td>Extensive cortical afferent and efferent pathways to subcortical emotion-relevant circuitry</td>
<td>Cognitive appraisal and memory influence fear perception and modulate fear expression and action</td>
</tr>
</tbody>
</table>
Features: cognitive

(1) fear of losing control, being unable to cope;
(2) fear of physical injury or death;
(3) fear of “going crazy”;
(4) fear of negative evaluation by others;
(5) frightening thoughts, images, or memories;
(6) perceptions of unreality or detachment;
(7) poor concentration, confusion, distractible;
(8) narrowing of attention, hypervigilance for threat;
(9) poor memory;
(10) difficulty in reasoning, loss of objectivity
Cognitive triad

• World is dangerous
• Self is vulnerable and helpless
• Future is uncertain
Features: behavioural

(1) avoidance of threat cues or situations;
(2) escape, flight;
(3) pursuit of safety, reassurance;
(4) restlessness, agitation, pacing;
(5) hyperventilation;
(6) freezing, motionless;
(7) difficulty speaking
Features: affective

(1) nervous, tense, wound-up;
(2) frightened, fearful, terrified;
(3) edgy, jumpy, jittery;
(4) impatient, frustrated
Five aspects model: Padesky & Mooney
Woozles?
Assessment: what’s the problem?

- **5Ws**
  - What
  - When
  - Where
  - Why
  - With whom

- **FIDO**
  - Frequency
  - Intensity
  - Duration
  - Onset

- **Impact**
  - Occupational/financial
  - Domestic/self-care
  - Social
  - Personal interests
  - Relationships

- **Features**
  - Physiological
  - Cognitive
  - Behavioural
  - Affective
Video exercise

• Dr Wright and Gina:
  – Assessing Symptoms of Anxiety
Small group exercise

• In groups of five
  – Compare what you learned about Gina
  – Discuss what else you think it would be helpful to know
ADSMs

• GAD-7: general anxiety measure
• SPIN (Social Phobia Inventory): social anxiety
• OCI (Obsessive Compulsive Inventory): OCD
• PDSS (Panic Disorder Severity Scale): Panic disorder
• MI (Mobility Inventory): Agoraphobia
• PSWQ (Penn State Worry Questionnaire): GAD
• HIA (Health Anxiety Inventory): Health anxiety
Functional analysis: “one thing leads to another”

- Boxes: content
- Arrows: process

Antecedents (external and internal) → Behaviour (safety-seeking and/or avoidant) → Consequences (reinforcement)
Two-factor theory (Mowrer)

- Acquisition: classical conditioning
- Persistence: negative reinforcement

Traumatic event (classical conditioning) → Avoidance → Negative reinforcement
Two-factor theory: problems

1. Some stimuli produce a fear-response more easily than others (snakes vs. flowers)
2. Often no recall of traumatic event
3. Non-associative learning: vicarious/informational
4. Not all traumatic events produce a conditioned fear response
5. Some phobias are more common than others (spiders vs. dentists)
Fear module (Öhman & Mineka, 2001)

• “A relatively independent behavioral, mental, and neural system that is specifically tailored to help solve adaptive problems encountered by potentially life-threatening situations in the ecology of our distant forefathers”
  – Selectively sensitized: preferential access to certain cues/stimuli
  – Automaticity: preconscious activation
  – Encapsulation: impenetrable to conscious influences
  – Specific neural circuitry: amygdala prioritisation
Generic cognitive model (Clark & Beck, 2010)
Anxiety feedback loops

1st appraisal: threat
2nd appraisal: vulnerability

Situation/trigger

Behaviour

Physical Emotional Cognitive effects

Generalises

Confirms

Focuses

Sensitises

Amplifies
Anxiety equation

Anxiety = \frac{\text{Probability} \times \text{Awfulness}}{\text{Coping} + \text{Rescue}}
Early experiences  
(making you vulnerable to OCD)

Critical incident(s)  
(what started OCD off)

Assumptions, general beliefs  
(e.g. not preventing disaster is as bad as making it happen; better safe than sorry)

Intrusive thoughts, images, urges, doubts

Neutralising actions  
(rituals, reassurance mental argument)

Attention and reasoning biases  
(looking for trouble)

Misinterpretations of significance of intrusions – responsibility for action

Counterproductive ‘safety’ strategies  
(thought suppression, impossible criteria, avoidance)

Mood changes  
(distress, anxiety, depression)
Belief: “I have brain cancer”

Trigger: hearing a news item about cancer

Frequent headaches
Feeling ill
Scared, upset
Rumination about illness and death
Seeking reassurance from health professionals

confirms

fails to disconfirm
Role play

• In trios:
  – Client: role play an anxious client that you have worked with (or make one up)
  – Therapist: explore a specific recent incident of an episode of anxiety using the anxiety equation/feedback loops
  – Observer: make a note of what the therapist elicits against each of the categories
<table>
<thead>
<tr>
<th>Anxiety disorder</th>
<th>Threatening stimulus</th>
<th>Core appraisal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panic disorder (with or without agoraphobia)</td>
<td>Physical, bodily sensations</td>
<td>Imminent fear of dying (“heart attack”), losing control (“going crazy”) or consciousness (fainting), having further panic attacks</td>
</tr>
<tr>
<td>Health anxiety</td>
<td>Physical, bodily sensations</td>
<td>Fear of having a life-threatening illness</td>
</tr>
<tr>
<td>Generalized anxiety disorder (GAD)</td>
<td>Stressful life events or personal concerns</td>
<td>Fear of possible future adverse or threatening life outcomes</td>
</tr>
<tr>
<td>Social phobia</td>
<td>Social, public situations</td>
<td>Fear of negative evaluation from others (e.g., embarrassment, humiliation)</td>
</tr>
<tr>
<td>Obsessive–compulsive disorder (OCD)</td>
<td>Unacceptable intrusive thoughts, images, or impulses</td>
<td>Fear of losing mental or behavioral control or otherwise being responsible for a negative outcome to self or others</td>
</tr>
</tbody>
</table>
Anxiety carousel

- Specific phobia
- Blood-injury-needle phobia
- Panic disorder
- Agoraphobia
- Emetophobia
- Social anxiety disorder
- Generalised anxiety disorder
- Obsessive compulsive disorder
- Body dysmorphic disorder
- Health anxiety

- You have 5 minutes (approx) to:
  - Identify the trigger(s)
  - Identify the core appraisals of threat and vulnerability
  - Identify avoidance and safety behaviours
  - Check out the impact
General principles

• Agenda: prioritising
• Feedback: clarifying understanding
• Pacing: working at the client’s speed
• Collaboration: cooperating as a team
• Emotion: helping the client to regulate distress, modelling that anxiety is unpleasant but not dangerous
Guided discovery

• Informational questions: explore all facets of the problem (5 areas: boxes and arrows)

• Summarise: help the client retain and focus on relevant information

• Express empathy: demonstrate you understand and appreciate the client's distress

• Synthesise: elicit and consolidate learning
# Anxiety-specific treatment principles

<table>
<thead>
<tr>
<th>Cognitive tenets</th>
<th>Treatment implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exaggerated threat appraisals</td>
<td>Recalibrate threat; increase tolerance for risk and uncertainty</td>
</tr>
<tr>
<td>Heightened helplessness</td>
<td>Increase self-confidence to deal with threat and uncertainty</td>
</tr>
<tr>
<td>Inhibitory processing of safety</td>
<td>Improve processing of safety cues; reduce safety-seeking</td>
</tr>
<tr>
<td>Impaired constructive or reflective thinking</td>
<td>Cognitive restructuring skills (controlled effortful thinking skills); tackle worry</td>
</tr>
<tr>
<td>Automatic (1ry) and strategic (2ry) processing</td>
<td>Behavioural and experiential exercises</td>
</tr>
<tr>
<td>Self-perpetuating process</td>
<td>Correct misinterpretations of anxiety symptoms</td>
</tr>
</tbody>
</table>
## Monitoring

- **Diaries:**
  - think about what you want the client to learn

<table>
<thead>
<tr>
<th>Day/time</th>
<th>Anxiety (0-10)</th>
<th>Thoughts, concerns or worries</th>
<th>Behaviour (avoidance or safety-seeking)</th>
<th>Consequences (+ &amp; -)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weds 5pm</td>
<td>7/10</td>
<td>What if I mess up at work – I’ll look like an idiot</td>
<td>Worry Phoned Mum</td>
<td>Worry made problem seem even bigger Felt reassured, only lasted 30 minutes</td>
</tr>
</tbody>
</table>
Understanding

• Formulating
  – Idiosyncratic formulation:
    • use the anxiety equation for generic presentations; check out idiosyncratic models for specific disorders
  – Cognitive rationale:
    • make sure you understand the role of anxious appraisal (threat/vulnerability) and avoidance/safety behaviours

• Psychoeducation
  – Anxiety symptoms:
    • practise explaining fight, flight, freeze response
Exposure: prolonged and repeated

• Based on principle of habituation
  – Graded: construct a hierarchy based on SUDs (subjective units of distress) – start with at least 30%
  – Response prevention: inhibit response until anxiety diminishes by at least 50%
  – In-session: practise exposure in-session
  – In vivo: accompany clients on “field trips”
  – Interoceptive: panic induction (see CCI Panic Stations)
  – Imaginal:
    • First person, present tense, worst case scenario
    • Coping imagery: walk through the frightening situation in imagination
When we avoid situations because we get too anxious or distressed, if we think about or find ourselves in those situations, our anxiety rises sharply, stays on a level for a while, then slowly starts to decrease gradually.

Length of Time

If we didn’t avoid the situation, just do it anyway and stick with it, then the first time will be the worst. Each time after that, we’ll find that we won’t be quite so anxious as the time before, and the anxiety will start to pass a little quicker than the previous time, so the diagram might look something like:
Behavioural experiments

- Testing assumptions:
  - “if...then...” propositional statements

<table>
<thead>
<tr>
<th>Thought to be tested: “If...then...”</th>
<th>Experiment: what when, where, with whom</th>
<th>Prediction (if thought is true)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obstacles/barriers to overcome</td>
<td>Solutions/strategies to overcome barriers</td>
<td></td>
</tr>
<tr>
<td>What happened?</td>
<td>What did I learn (about the thought to be tested)?</td>
<td></td>
</tr>
</tbody>
</table>
## Verbal reattribution: Theory A vs. Theory B

<table>
<thead>
<tr>
<th>Theory A</th>
<th>Theory B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The problem is ...</strong></td>
<td>The problem is <em>worry</em> that ...</td>
</tr>
<tr>
<td><strong>Evidence</strong></td>
<td><strong>Evidence</strong></td>
</tr>
<tr>
<td>What do I need to do if Theory A is true?</td>
<td>What do I need to do if Theory B is true?</td>
</tr>
</tbody>
</table>
## Theory A vs. Theory B: health anxiety

<table>
<thead>
<tr>
<th>Theory A</th>
<th>Theory B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The problem is ...</strong></td>
<td><strong>The problem is worry that ...</strong></td>
</tr>
</tbody>
</table>
| *I have brain cancer* | *I have brain cancer*

### Evidence

<table>
<thead>
<tr>
<th>Theory A</th>
<th>Theory B</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>I have these symptoms:</em></td>
<td><em>Doctor tells me it is not cancer</em></td>
</tr>
<tr>
<td>Headaches</td>
<td>The headaches are worse when I am stressed</td>
</tr>
<tr>
<td>Dizziness</td>
<td>Focusing on my symptoms makes them worse</td>
</tr>
<tr>
<td>Vision goes blurry sometimes</td>
<td>Reassurance makes my symptoms better</td>
</tr>
<tr>
<td></td>
<td>I’ve had these symptoms a long time and they have not got any more serious</td>
</tr>
</tbody>
</table>

### What do I need to do if Theory A is true?

- Go to the doctor and insist that they treat me straight away - brain cancer is serious!

### What do I need to do if Theory B is true?

- Learn how to deal with my worry
Verbal reattribution: P3R Plan (after Padesky)

• An experiment to test out fears and overcome avoidance
  – Specify what you’ve been avoiding
  – Rate how anxious the thought of it makes you feel (0-10)

<table>
<thead>
<tr>
<th>Predict: what bad things might happen if you did this?</th>
<th>Prepare coping responses: what could you do when this happens?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practise your responses (when, where, how, with whom)</td>
<td>Reflect: what have you learned about your vulnerability?</td>
</tr>
</tbody>
</table>
Calming/refocusing techniques

• Physiological
  – Progressive muscle relaxation
  – Breathing retraining

• Mindfulness:
  – defusing from the anxious thought/experience:
    • “The awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment.” John Kabat Zinn
    • quicksand metaphor; demons on the boat

• Attention training: Adrian Wells
Worry strategies

• Worry strategies
  – Worry diary:
    • Hypothetical scenario vs. a current concern
    • Make a specific prediction
  – Worry time: to teach that worry is controllable
    • Set aside a specific amount of time each day for worrying
    • If you do not want to use your worry time for worrying, use it for something else
  – Worry tree (plus problem solving):
    • Is there anything I can usefully do?
    • If “yes” when should I do it?
    • Let go of worry
## Intolerance of uncertainty: Dugas

<table>
<thead>
<tr>
<th>Uncertainty and change in behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date:</strong></td>
</tr>
<tr>
<td>Description of the action chosen:</td>
</tr>
<tr>
<td>Discomfort during the action</td>
</tr>
<tr>
<td>Thoughts during the action</td>
</tr>
<tr>
<td>Observations after performing the action</td>
</tr>
</tbody>
</table>
Intolerance of uncertainty: example

**Uncertainty and change in behaviour**

**Date:**

**Description of the action chosen:**

I will check my e-mail only twice per day (to combat repeated checking).

**Discomfort during the action:**

I feel terrible when I can’t check my e-mail. I feel feverish and nervous. I really want to go check my e-mail right now.

**Thoughts during the action:**

I think I’m going to miss something important. I’m afraid people will think I’m not diligent in my work. A client could have a problem and I wouldn’t be able to help.

**Observations after performing the action:**

The first day was very difficult. After a few days, I realized it was getting easier and there was no drama or catastrophe.
Worry questions

- What are you worrying about?
- What is it about it that concerns you?
- What is the very worst that could happen?
  - And what makes that so awful?
- What is the realistic likelihood of it occurring?
  - How much would you bet on it?
- Make a specific prediction (worry hates specifics)
  - How confident are you (out of 10)?
  - How anxious does that make you feel (out of 10)?
- If your prediction came true, what could you do to deal with it?
  - How would it look in 5 years?
- Who could you turn to for help?
  - How would they help you?
- Is there anything you can or should do about your concern?
- If yes, when should you do it?
Resources

- Get Self Help: www.get.gg
- Psychology Tools: http://psychology.tools
- Therapist Aid: http://www.therapistaid.com
- Living Life to the Full: http://www.lltff.com
- Centre for Clinical Interventions: http://www.cci.health.wa.gov.au
- Mood Gym: https://moodgym.anu.edu.au/welcome
Role play

• In trios:
  – Client: role play an anxious client that you have worked with (or make one up)
  – Therapist: choose a strategy based on the client's presentation and try it out
  – Observer: make a note of what the therapist elicits against each of the categories
Final thoughts

• In your original pairs: revisit your original answers
  – In what ways do I feel more confident about my understanding of CBT for anxiety?
  – How could I apply what I have learned from this workshop in my practice?
Contact details

• www.bristolcbt.co.uk
• bristolcbt.email@gmail.com
• +44 (0) 780 609 3773