Cognitive Behavior Therapy for Anxiety Disorders

Outline

- Types of anxiety disorders
- CBT – Principles and Aims
- Theories behind CBT
- Various CBT procedures for anxiety disorders
- Efficacy
- Summary

Types of Anxiety Disorders

- **Specific phobias** – MC, fear of animals, insects, situations, enclosed spaces, blood/injection etc. – causing SOF impairment
- **Panic Disorder** – multiple discrete episodes of intense anxiety a/w at least 4 physiological symptoms (rapid heart rate, chest pain, cold chills or hot flashes) and/or cognitive symptoms (fear of death/losing control) and anticipatory anxiety/concerns about such attacks
- **Agoraphobia** – avoidance to prevent experiencing another panic attack (loss of physiological or behavioral control); may also occur d/t fears of other experiences

Types of Anxiety Disorders

- **Social Anxiety Disorder** – fear of embarrassment/criticism from others – performance situations/interpersonal interactions - fear of positive and negative evaluation with decreased positive affect
- **Generalized Anxiety Disorder** – excessive, uncontrollable worry about minor and major matters – less autonomic physiological response, more related to stress (sleep disturbance, muscle tension, irritability)

Cognitive Behavior Therapy

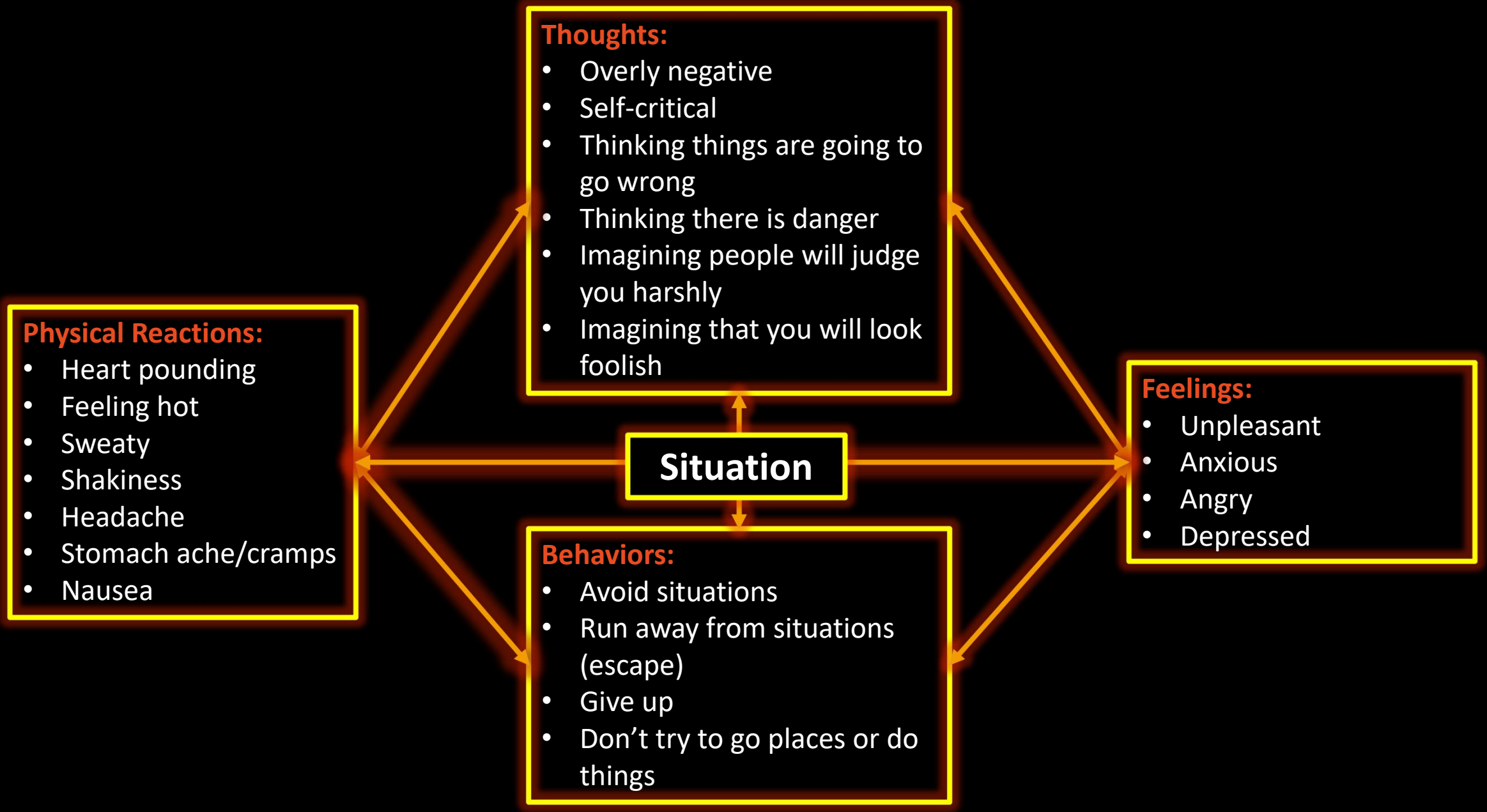
- **Cognitive Behaviour Therapy** - mixture of **cognitive** (thought processing) and **behavioural** techniques to examine links between person's environment, thoughts, feelings and behaviours and the impact of these on their health and functioning
- **Cognitive techniques** - address **thoughts and thought patterns** which may be 'unhelpful' and may trigger and/or increase anxiety
- **Behavioural techniques** - address **behaviours** which may be used by a person to reduce their anxiety or avoid it altogether

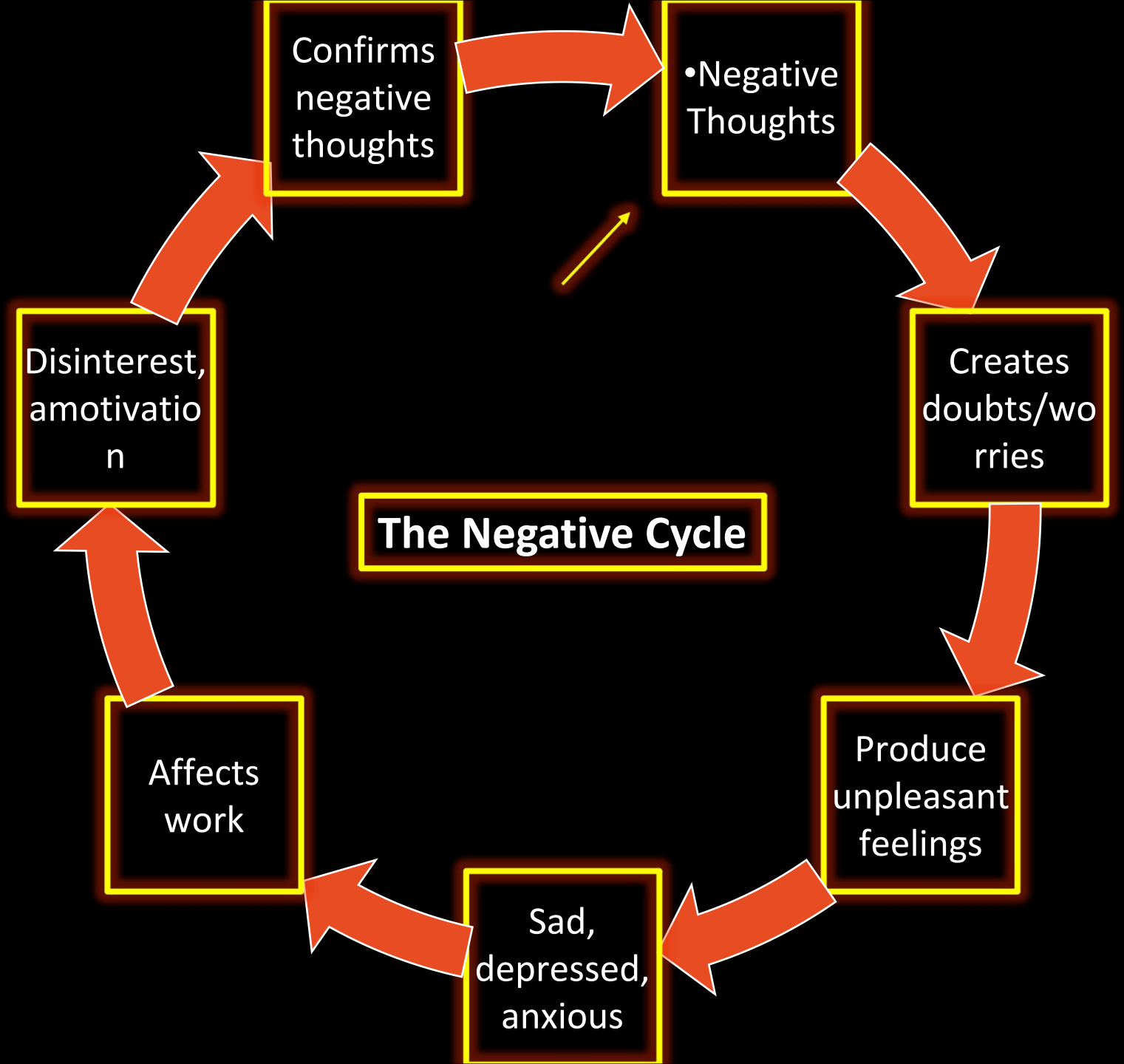
Cognitive Behavior Therapy

- Effective for wide variety of mental health disorders including anxiety disorders
- Improves quality of life in anxiety patients
- Short-term, skills-focused treatment aimed at altering maladaptive emotional responses by changing the patient's thoughts, behaviours, or both
- 1950s – origins of CBT by researchers like **B.F. Skinner** and **Joseph Wolpe** – pioneered behavioural therapy movement
- BT - changing behaviours - change in emotions and cognitions such as appraisals
- BT evolved – includes cognitive psychotherapy (Albert Eilis and Aaron T. Beck)

Principles of CBT

- Person's **environment**, **emotions**, **thoughts** (cognitions) & **behaviours** - linked
- Thoughts, ideas, mental images, beliefs & attitudes - 'errors' – unhelpful - emotional disturbances & physical reactions – behavioural patterns intended to:
  - **Reduce** anxiety (safety and escape behaviours) or
  - **Avoid** anxiety-provoking situations (avoidance behaviours)
- Longer term – worsen symptoms; create vicious cycles


Thoughts:
• Overly negative
• Self-critical
• Thinking things are going to go wrong
• Thinking there is danger
• Imagining people will judge you harshly
• Imagining that you will look foolish
Physical Reactions:
• Heart pounding
• Feeling hot
• Sweaty
• Shakiness
• Headache
• Stomach ache/cramps
• Nausea
Situation
Feelings:
• Unpleasant
• Anxious
• Angry
• Depressed
Behaviors:
• Avoid situations
• Run away from situations (escape)
• Give up
• Don’t try to go places or do things


Confirms negative thoughts
•Negative Thoughts
Creates doubts/worries
Produce unpleasant feelings
Sad, depressed, anxious
Affects work
Disinterest, amotivation
The Negative Cycle

Aims of CBT

1. Increase self-awareness
2. Encourage better self-understanding
3. Recognize ‘negative traps’ or ‘vicious cycles’ one gets caught in
4. Improve self-control by developing more appropriate cognitive & behavioural skills

Emotional Processing Theory

- Edna Foa and Michael Kozak
- **Cognitive fear structure** – representations of stimulus, response, and meaning – serves as blueprint for avoiding/escaping from danger
- Environmental stimuli activate matching information in the fear structure – spreading of activation throughout rest of the fear structure via associative connections – activation of fear structure
- **Adaptive fear structure** – stimuli objectively harmful – responses represented lead to avoiding, escaping or coping with threat
- **Pathological fear structure** – associations among stimulus, response and meaning do not accurately represent reality; harmless stimuli/responses interpreted as being dangerous

Emotional Processing Theory

- **Exposure therapy** - systematically confront feared but otherwise safe stimuli in a manner that promotes eventual fear reduction
- Changes in pathological element of fear structure causing long term fear reduction and resolution of anxiety disorder
- 2 conditions:
    1. Fear structure activated through match with environmental stimuli/symbolic means
    2. New information incompatible with pathological aspects of fear structure must be available and incorporated, hence altering the structure and creating a realistic/non-fear structure via new associations

Belief Disconfirmation Approach

- **Aaron T. Beck** et al
- Thoughts and beliefs lead to emotions and behaviours (cognitive therapy)
- Explicit discussions, contrived “experiments,” and experiential exercises - used to dispel maladaptive beliefs the patient holds that are not realistic.
- Doesn’t explain implicit learning, conditioning, habituation, or extinction
- Integration of cognitive therapy with behavioural therapy and emotional processing theory = Cognitive Behaviour Therapy

Inhibitory Learning Approach

- **Michelle Craske** et al
- Fear - pairing of neutral stimuli with an aversive stimulus (classical conditioning)
- Fear “unlearned” through both habituation and extinction (exposure) - inhibition of association
- Associations not replaced; may be reactivated when inhibitory processes weaken/fail - relapse

Common Faulty Thinking

Common Faulty Thinking	Remarks
Black & white thinking	Situations either good or bad, with no middle ground
Predicting catastrophe	Expecting negative future outcomes, without considering other more likely or less negative possibilities
Awfulising	Making negative assumptions and interpreting events in a negative way. Perceiving that the very worst is happening or has happened
Personalising	Assuming that other people's responses are directed at oneself – that if people behave in certain ways, it means that you are at fault
Shoulds	Holding rigid, inflexible beliefs about how people (self and others) should behave, and overestimating how bad things are if those expectations are not met
Labelling	Putting a global label on oneself or others on the basis of specific behaviours or characteristics (eg. self or others may be perceived as 'bad', 'defective', 'incompetent', 'a failure', 'stupid' or 'a misfit')
Mind reading	Assuming one knows what others are thinking; often that they are making negative judgments about you

Common Faulty Thinking

Common Faulty Thinking	Remarks
Emotional reasoning	Assuming that something must be true because you 'feel' it so strongly, ignoring evidence to the contrary
Overgeneralization	Making sweeping negative conclusions that go far beyond the current situation. For example, 'bad things always happen to me', 'doctors just want to make money – they are not interested in helping their patients'
Filtering	Paying undue attention to one negative detail instead of seeing the whole picture
Discounting the positive	Assuming that positive experiences, deeds or qualities don't count
Comparing	Using other people's behaviour or achievements as a basis for assessing one's own circumstances
Jumping to negative conclusions	Interpreting events in a negative way; assuming the negative, in spite of insufficient evidence

CBT Procedures for Anxiety Disorders

- Assessment, patient education, and specific treatment planning
- Actual treatment procedures involve at least one of the four components:
    1. **Exposure** to thoughts, objects, situations, and physiological sensations - not dangerous, yet feared, avoided, or endured with great distress
    2. **Training** in general anxiety or stress management techniques
    3. **Use** of cognitive therapy techniques
    4. Training in **specific skills**

Assessment

- Assessment of patient's **presenting complaints** using empirically validated assessment procedures
- Self-reported and interviewer rating measures for **diagnosis** & assessment of **severity** for each anxiety disorder
- Assessment of **related psychopathology**, such as depression and general anxiety, worry-related metacognitions in GAD and anxiety sensitivity in panic disorder
- Repeated assessments during the course and in the end for establishing diagnosis and monitoring and evaluating outcome

Psychoeducation & Treatment Planning

- **Psychoeducation** – pts. provided with cognitive-behavioural formulation of their specific diagnosis
- Related treatment rationale that serves as a guiding framework for future treatment sessions
- Therapist & pt. - identify specific targets for treatment - work out details of **treatment plan**
- **Homework** between sessions to increase mastery of therapy skills and self-monitoring procedures for symptoms

Exposure Therapy

- Intentionally **confronting** feared but otherwise not dangerous objects, situations, thoughts, memories, and physical sensations - reduce fear reactions and avoidance associated with same/similar stimuli.
- **Systematic desensitization** - gradual imaginal & in vivo **exposure** & **relaxation** – 1st exposure therapy technique – not practiced nowadays
  - Relaxation – unnecessary
  - Systematically progress up the hierarchy – unnecessary
  - Not useful for OCD or agoraphobia
- Exposure therapy - in vivo, imaginal, interoceptive

In Vivo Exposure

- **Directly confront** feared objects, activities and situation – **graduated** manner as per a mutually agreed upon hierarchy
- **Social Anxiety Disorder** – pts. asked to make explicit, specific predictions before exposure - engage in conversations and other interpersonal situations – focus attention outwards, drop safety behaviours during exposure, receive feedback from those they interacted with and review videotapes of their interaction
- **Panic Disorder** – pts. expose themselves to situations (eg: elevators) in which they fear having panic attacks
- **GAD** - no standard in vivo exposure - not usually a specific source of fear

Imaginal Exposure

- Pt. close their eyes, **imagine** feared stimuli as vividly as possible
- **Flooding** – pt. imagines the worst possible scenario repeatedly – helps the pt. process fear, which is often avoided behaviourally, cognitively and emotionally
- Help patients confront feared thoughts, images, and memories in order to process them – reduces emotional reactivity to scenarios – helps pt. differentiate between thoughts and reality
- **Social Anxiety Disorder** – extreme distress over thoughts of being rejected
- **Phobias** with clear traumatic cause – pt. asked to revisit his/her memory of the traumatic event

Interoceptive Exposure

- Most recent form of exposure therapy - induce feared **physiological sensations under controlled circumstances** – find activity that produces similar sensations which pts. find distressing and try to avoid it (mimicking core panic symptoms) – habituation of fear
- Aim –Intentional induction of feared sensations – pt. learn that these sensations do not cause harm – dissociate sensations from danger – control over anxiety
- Panic disorder and certain specific phobias

Interoceptive Exposure

- **David Barlow et al** – specific exercises developed to induce panic-like situations
  - Breathing through thin straw – sensation of not getting air – hyperventilation
  - Spinning in chair/place – dizziness & mild nausea.
  - Aerobic exercise – rapid heart rate, shortness of breath
  - Mild stimulants/spicy food – rapid heart rate, shortness of breath

Cognitive Therapy

- Identify unhelpful cognitions & cognitive distortions and modify them
- Three of the most common traditional cognitive therapy procedures are:

1. **Socratic dialogue:** Series of questions – help pt. identify and challenge unhelpful beliefs/uncover evidence disconfirming fear-related beliefs
2. **Downward-arrow technique:** Therapist helps uncover deeper beliefs and meanings by repeatedly asking for greater clarification
3. **Thought records:** Pt. record automatic beliefs, list evidence for and against those beliefs, review potential cognitive errors in those beliefs and generate more realistic and helpful beliefs.

Examples of Socratic Dialogue Questions

Clarifying questions

What do you mean by _____?
What is your main point?
How does ____ relate to ____?
Could you put that another way?
Let me see if I understand you; do you mean _____ or _____?
Could you give me an example?
Could you explain that further?
Could you expand upon that?

Assumption questions

- What are you assuming?
- What could we assume instead?
- You seem to be assuming ____.
- Do I understand you correctly? You seem to be assuming ____.
- How would you justify taking this for granted?
- Is it always the case?
- Why do you think the assumption holds here?
- Why would someone make this assumption?

Reason and evidence questions

- How do you know?
- Why do you think that is true?
- Do you have any evidence for that? What difference does that make?
- What are your reasons for saying that?
- Can you explain how you logically got from ____ to ____?
- Do you see any difficulties with your reasoning here?
- What would change your mind?
- What would you say to someone who said ____?
- Can someone else give evidence to support that response?
- By what reasoning did you come to that conclusion?
- How could we find out whether that is true?

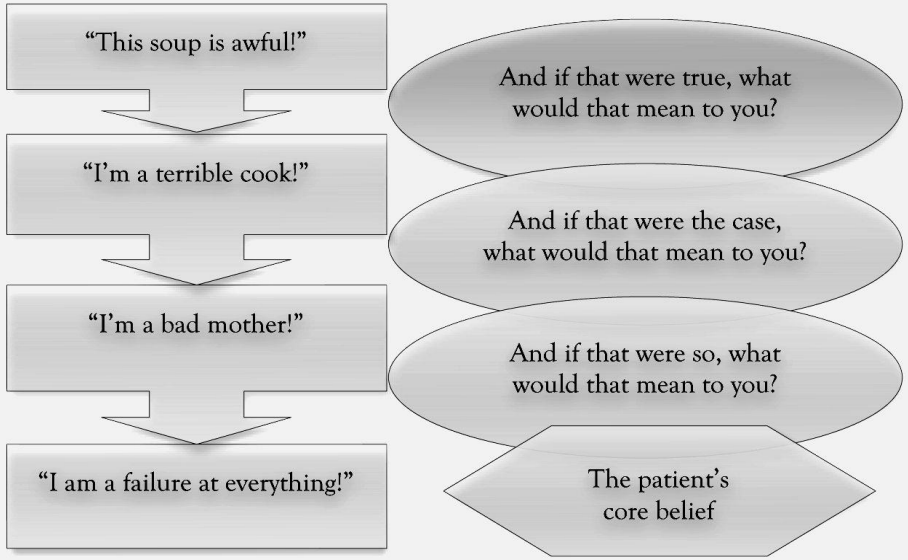


Fig. 9.1. An example of the downward arrow technique.

Thought Record

Situation	Thoughts	Emotions	Behaviors	Alternate Thought
WALK IN FRONT OF A GROUP OF PEOPLE	THEY ARE TALKING ABOUT ME	ANGER ANXIOUS FEAR	AVOID THEM HAVE DIFFICULTY PERFORMING AT WORK	THEY COULD BE TALKING ABOUT ANYTHING. I WILL ASK LATER.

Mindfulness-based Training

- Type of **meditation** which involves focusing ones' mind on present
- Mindful - aware of ones' thoughts, feelings, sensation, and action in present without judging yourself.
- Derived from Buddhism
- Also known as ***Vipassana***/Insight meditation

Efficacy of CBT

- Exposure therapies for each anxiety disorder tend to take on similar forms
- Emphasis on content of exposure, specific to pts' presenting concerns
- Different exposure techniques (in vivo, imaginal, and/or interoceptive)
- Efficacy and effectiveness of exposure therapy for anxiety disorders well documented - treatment of choice for many forms of pathological anxiety

Efficacy of CBT

Specific phobias

- In vivo exposure - treatment of choice for specific phobia
- Meta-analysis: in vivo exposure therapy highly effective for specific phobias compared with no treatment, placebo treatment, and non-exposure-based active therapy conditions
- Flooding (exposure to the most intense feared stimulus) or gradual exposure (systematic exposure of gradually increasing intensity).
- Relaxation – some benefit, not found to be more effective than exposure

Efficacy of CBT

Panic disorder & Agoraphobia

- Components:
    1. Psychoeducation
    2. Cognitive restructuring to challenge catastrophic cognitions
    3. Interoceptive exposure to feared somatic sensations (meta-fear)
    4. In vivo exposure to avoided cues (agoraphobia)
- Meta-analysis: CBT (exposure therapy with or without cognitive therapy components) > no treatment/placebo control
- CBT with interoceptive exposure treatment - largest effect sizes for panic disorder; also included cognitive restructuring

Efficacy of CBT

Social Anxiety Disorder

- Individual CBT – more effective than psychodynamic therapy, supportive therapy or mindfulness
- In vivo exposure commonly used
- Mixed results:
  - Exposure + cognitive therapy better than individual therapy
  - Exposure + applied relaxation & cognitive therapy
  - Cognitive > Exposure + applied relaxation
  - Meta-analyses: Cognitive and Exposure therapy > relaxation
- Richard Heimberg's cognitive-behavioral group therapy (CBGT): in-session exposure to feared social situations and cognitive restructuring

Efficacy of CBT

Generalized Anxiety Disorder

- Imaginal exposure and in vivo exposures
- Few studies that examine exposure-based treatment in GAD patients.
- Mixed results based on various meta-analyses
- General consensus - improvements in treatment efficacy necessary, more than in CBT for the other anxiety disorders
- Attempts: more sessions, focus on meta-worry/intolerance of uncertainty/ separation of worry into worry about current problems & future unknown events
- Other strategies: interpersonal treatment strategies, emotion regulation strategies, mindfulness and experiential avoidance strategies

Summary

- CBT has been shown to be effective for a wide variety of mental health disorders including anxiety disorders.
- These treatments appear to be effective in children, adolescents, adults, and geriatric populations, and are typically more effective than treatment as usual in the short and long term
- Exposure in vivo to feared but otherwise safe stimuli and imaginal exposure to unwanted and upsetting thoughts are essential components of most CBT programs for anxiety.

Summary

- Addition of interoceptive exposure appears to make a significant contribution to the treatment of panic disorder.
- In addition, exposure is typically conducted in the presence of cognitive challenging or discussions, helping the patient to attend to the corrective information.
- Anxiety management training and cognitive therapy have also been shown to be effective in the treatment of GAD.
- Cognitive therapy that includes behavioural experiments, which inherently involves in vivo exposure, is also an effective treatment for panic disorder and SAD

References

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Thank You


"I don't do much traditional exercise. But I make sure to get my heart rate up by freaking out at the office on a regular basis."