6.3.2

Cognitive–behaviour therapy

6.3.2.1 Cognitive–behaviour therapy for anxiety disorders

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Introduction

Cognitive–behaviour therapy for anxiety disorders is a brief psychological treatment (1 to 16 sessions), based on the cognitive model of emotional disorders. Within this model, it is assumed that it is not events per se, but rather people's expectations and interpretations of events, which are responsible for the production of negative emotions such as anxiety, anger, guilt, or sadness. In anxiety, the important interpretations, or cognitions, concern perceived physical or psychosocial danger. In everyday life, many situations are objectively dangerous. In such situations, individuals' perceptions are often realistic appraisals of the inherent danger. However, Beck[1] argues that in anxiety disorders, patients systematically overestimate the danger inherent in certain situations, bodily sensations, or mental processes. Overestimates of danger can arise from distorted estimates of the likelihood of a feared event, distorted estimates of the severity of the event, and/or distorted estimates of one's coping resources and the availability of rescue factors. Once a stimulus is interpreted as a source of danger, an 'anxiety programme' is activated. This is a pattern of responses that is probably inherited from our evolutionary past and originally served to protect us from harm in objectively dangerous primitive environments (such as attack from a predator). The programme includes changes in autonomic arousal as preparation for flight/fight/fainting and increased scanning of the environment for possible sources of danger. In modern life, there are also situations in which these responses are adaptive (such as getting out of the path of a speeding car). However, when, as in anxiety disorders, the danger is more imagined than real, these anxiety responses are largely inappropriate. Instead of serving a useful function, they contribute to a series of vicious circles that tend to maintain or exacerbate the anxiety disorder.

Two types of vicious circle are common in anxiety disorders. First, the reflexively elicited somatic and cognitive symptoms of anxiety become further sources of perceived danger. For example, blushing can be taken as an indication that one has made a fool of oneself, and this may lead to further embarrassment and blushing; or a racing heart may be taken as evidence of an impending heart attack and this may produce further anxiety and cardiac symptoms. Second, patients often engage in behavioural and cognitive strategies that are intended to prevent the feared events from occurring. However, because the fears are unrealistic, the main effect of these strategies is to prevent patients from disconfirming their negative beliefs. For example, patients who fear that the unusual and racing thoughts experienced during panic attacks indicate that they are in danger of going mad and often try to control their thoughts and (erroneously) believe that if they had not done so, they would have gone mad.

Within cognitive models of anxiety disorders, at least two different levels of disturbed thinking are distinguished. First, negative automatic thoughts are those thoughts or images that are present in specific situations when an individual is anxious. For example, someone concerned about social evaluation might have the negative thought, 'They think I'm boring', while talking to a group of acquaintances. Second, dysfunctional assumptions are general beliefs, which individuals hold about the world and themselves which are said to make them prone to interpret specific situations in an excessively negative and dysfunctional fashion. For example, a rule involving an extreme equation of self-worth with social approval ('Unless I am liked by everyone, I am worthless') might make an individual particularly likely to interpret silent spells in conversation as an indication that others think one is boring.

Cognitive–behaviour therapy attempts to treat anxiety disorders by (a) helping patients identify their negative danger-related thoughts and beliefs, and (b) modifying these cognitions and the behavioural and cognitive processes that normally maintain them. A wide range of procedures are used to achieve these aims, including education, discussion of evidence for and against the beliefs, imagery modification, attentional manipulations, exposure to feared stimuli, and numerous other behavioural assignments. Within sessions there is a strong emphasis on experiential work and on working with high affect. Between sessions, patients follow extensive homework assignments. As in cognitive–behaviour therapy for other disorders, the general approach is one of collaborative empiricism in which patient and therapist view the patient's fearful thoughts as hypotheses to be critically examined and tested.

Background

Historical development of cognitive–behaviour therapy

Modern cognitive–behaviour therapy for anxiety owes its development to pioneering work since the 1950s and 1960s in which the principles of classical conditioning were applied to the understanding and treatment of phobias.[2] It was argued that (a) phobic stimuli are conditioned stimuli that acquired their aversive properties by being paired on one or more occasions with a traumatic event, and (b) avoidance is the main reason why phobias fail to extinguish. This suggestion led naturally to the development of various forms of exposure therapy, in which patients were systematically exposed to phobic stimuli. Initially therapists were concerned that elicitation of strong anxiety responses would be counter-therapeutic so exposure was very gradual, often starting with brief, imaginal presentations, followed by relaxation. Subsequent research showed that such a gentle approach was unnecessary and relatively rapid, *in vivo* exposure became the norm. By the mid-1970s, it was clear that up to 70 per cent of phobics obtained worthwhile improvements from *in vivo* exposure.[3] However, many were less than fully recovered and it was not clear how exposure therapy could be applied to non-phobic anxiety states (such as panic disorder and generalized anxiety disorder). In an attempt to enhance treatment effectiveness further, researchers attempted to identify additional factors that might maintain anxiety. Several cognitive processes outlined below received empirical support. As a consequence, more comprehensive cognitive–behavioural treatments that attempt to modify a range of maintaining factors were developed. This chapter describes these treatments.

Cognitive content of anxiety disorders

Although there is no substitute for a careful assessment of each patient's ideation, research shows that most anxiety disorders are characterized by a specific type of fearful ideation and successful therapy generally focuses on such ideation.[4]

(a) Panic disorder

Panic disorder is characterized by a fear of an immediately impending internal disaster (e.g. heart attack, cessation of breathing, mental derangement) and a sense of loss of control over physical and mental functions. Many of panic patients' negative thoughts can be viewed as misinterpretations of normal bodily sensations (such as palpitations or a slight feeling of breathlessness). Indeed, cognitive theorists[5] argue that panic attacks result from a vicious circle in which catastrophic misinterpretations of body sensations lead to an increase in anxiety and associated sensations, which are in turn interpreted as further evidence of impending, internal disasters (e.g. heart attack, fainting, going mad). Panic disorder with agoraphobia is often also accompanied by fear of the interpersonal consequences of attacks (e.g. 'I'll make a fool of myself').

(b) Social phobia

Social phobia is characterized by exaggerated fears of being evaluated, of having one's weaknesses exposed, and of being judged adversely by other people. While in feared social situations, the social phobic continually monitors his or her performance, fears that this performance will be viewed as evidence that he or she is inept, boring, or stupid, and expects that such judgements will have dire long-lasting implications (loss of status or worth and failure to achieve key goals such as friendship, marriage, promotion). Often social phobics have excessively high standards for social performance (e.g. 'My speech must be perfectly fluent', 'I must always appear intelligent and witty'). Typically, social anxiety is triggered when individuals have a strong desire to convey a particular, favourable impression of them and have marked insecurity about their ability to do so.

(c) Generalized anxiety disorder

Generalized anxiety disorder is characterized by excessive worry about a number of life circumstances (e.g. finance, health, work, children, etc.) and the subjective impression that the worry is difficult to control.[6] Beck *et al.*[7] suggested that generalized anxiety disorder patients are anxious about many topics because their beliefs about themselves and the world make them prone to interpret a wide range of situations and circumstances in a threatening fashion. Although their beliefs are quite varied, Beck suggested that they mainly revolve around issues of acceptance, competence, responsibility, and control, as well as the symptoms of anxiety. Borkovec *et al.*[8] have shown that, compared with non-patients, the worry of general anxiety disorder patients involves less imagery about specific feared outcomes and more verbal rumination in which problems are cast in a more abstract, more difficult to solve, form. Wells[9] has highlighted the importance of positive and negative beliefs about worry (meta-cognition).

(d) Obsessive–compulsive disorder

Obsessive–compulsive disorder is characterized by intrusive and distressing thoughts, impulses, or images about possible harm coming to oneself or others. Thoughts with a similar content to the intrusions of obsessional patients (e.g. a young mother having an intrusive thought about dropping her baby) are common in the general population.[10] For this reason, it has been suggested that the key cognitive abnormality in obsessive–compulsive disorder is not the content of obsessional thoughts, but rather the way the thoughts are interpreted.[11] In particular, it would appear that obsessional patients interpret recurrent obsessional thoughts and impulses as a sign that something terrible will happen, for which they will be responsible. For example, the young mother mentioned above may think that because she had a thought of dropping her baby, she is very likely to do so, despite finding the idea repugnant. In order to prevent the feared consequences of their obsessional thoughts, patients engage in a wide range of 'putting right' acts including (when relevant) washing and checking.

(e) Post-traumatic stress disorder

Surveys[12] indicate that unwanted, intrusive, and distressing memories and the other symptoms of post-traumatic stress disorder (avoidance of reminders and hyperarousal/numbing) are common immediately after traumatic events. Over the next few months many people recover but in a subgroup post-traumatic stress disorder becomes chronic. It is the latter group that normally present for treatment. Research indicates that chronic post-traumatic stress disorder is associated with appraising the traumatic event and/or its sequelae in a manner that would produce a sense of serious current threat to one's view of oneself and/or the world.[13] Examples are given in Table 6.3.2.1.1. There is also evidence that chronic post-traumatic stress disorder tends to be associated with a

fragmented memory for the traumatic event and that recovery is associated with developing a more coherent narrative.[14,15]

Why do negative thoughts and beliefs persist?

If the world is not as dangerous as anxiety disorder patients assume, why do they not notice this and correct their thinking? For many patients with chronic anxiety disorders, the persistence of their fears can seem strangely irrational, at least at first glance. Consider, for example, panic disorder patients who think during their panic attacks that they are having a heart attack. Before they come for treatment they may have had several thousand panic attacks, in each one of which they thought they were dying, but they are not dead. Despite what might appear to an outsider as stunning disconfirmation of their belief that a panic attack can kill, their thinking has not changed.

Several factors that appear to prevent patients from changing their negative thinking are outlined below. Such factors are important because reversing them is likely to be a particularly efficient way of treating anxiety disorders.

(a) Avoidance, escape, and safety-seeking behaviours

Early conditioning theorists identified avoidance of, and escape from, feared stimuli as important factors in the maintenance of anxiety disorders. It is easy to see how avoidance of a feared situation (e.g. a supermarket for an agoraphobic) or escape from the situation before a feared event (e.g. a panic attack) occurs could prevent phobics from disconfirming their fears. However, situational avoidance/escape is not so obviously relevant to non-phobic anxiety and some phobics regularly endure feared situations without marked improvement in their fears. Salkovskis[16] introduced the concept of in-situation safety behaviours to deal with this problem. In particular, Salkovskis suggested that while in feared situations most patients engage in a variety of (often subtle) behaviours that are intended to prevent, or minimize, a feared outcome. For example, cardiac concerned panic disorder patients may sit down, rest, and slow down their breathing during attacks and believe, erroneously, that performing these safety behaviours is the reason why they did not die. Experimental studies have confirmed that (a) anxious patients engage in safety behaviours while in feared situations, and (b) dropping these behaviours facilitates fear reduction.[4]

Table 6.3.2.1.1 Some examples of idiosyncratic negative appraisals leading to a sense of current threat in post-traumatic stress disorder

What is appraised?	Negative appraisal
Fact that trauma happened	'Nowhere is safe'
One's behaviour/emotions during trauma	'I cannot cope with stress'; 'It was my fault'
Initial post-traumatic stress disorder symptoms	
Irritability, anger outbursts	'My personality has changed for the worse'
Flashbacks, intrusive recollections, and nightmares	'I'm going mad'; 'I'll lose control of my emotions'
Other people's reactions after trauma	
Positive responses	'They think I am too weak to cope on my own
Negative responses	'Nobody is there for me'; 'I can't rely on other people'

Recent work[17] has highlighted several other important features of safety behaviours. First, although termed 'behaviours', many are internal mental processes. For example, patients with social phobia who are worried that what they say may not make sense and will sound stupid, often report memorizing what they have said and comparing it with what they are about to say, whilst speaking. If everything goes well, patients are likely to think 'It only went well because I did all the memorizing and checking; if I had just been myself people would have realized how stupid I was'. In this way their basic fear persists. Second, it is common for patients to engage in a large number of different safety behaviours while in a feared situation. Table 6.3.2.1.2 illustrates this point by summarizing the safety behaviours used by a patient who had a fear of blushing, especially while talking to men whom she thought other people would think were attractive. Third, safety behaviours can create some of the symptoms that patients fear. For example, responding to a feeling of breathlessness in panic attacks by breathing more quickly and deeply (hyperventilating) can enhance the feeling of being short of breath. Similarly, post-traumatic stress disorder patients who are concerned that unwanted intrusive recollections of the trauma mean they are going mad and often try hard to suppress such recollections. Unfortunately, active suppression increases the probability that the intrusion will occur. Fourth, some safety behaviours can draw other people's attention to problems that patients wish to hide. For example, a secretary who covered her face with her arms whenever she felt she was blushing discovered that colleagues in her office were much more likely to look at her when she did this than when she simply blushed. Finally, some safety behaviours influence other people in a way that tends to maintain the problem. For example, the tendency of social phobics to monitor continually what they have said, and how they think they come across, often makes them appear distant and preoccupied. Other people can interpret this as a sign that the phobic does not like them and, as a consequence, they respond to the phobic in a less warm and friendly fashion.

Table 6.3.2.1.2 Safety behaviours associated with a fear of blushing

Feared outcome	Safety behaviour intended to prevent feared outcome
'My face (and neck) will go red'	Keep cool (open windows, drink cold water, avoid coffee, wear thin clothes) Avoid eye contact. If in a meeting, pretend to be writing notes Keep topic of conversation away from 'difficult' issues Tell myself the man is not really attractive. He's no more than a 2 (out of 10)
'If I do blush, people will notice'	Wear clothes (scarf, high collar) that would hide part of the blush Wear make-up to hide the blush Put hands over face. Hide face with long hair Stand in a dark part of the room
'If people notice, they will think badly of me'	Provide an alternative explanation for the red face, e.g. 'it's hot in here'. 'I'm in a terrible rush today', 'I'm recovering from flu', etc.

(b) Attentional deployment

Selective attention plays an important role in maintaining some anxiety disorders. Patients with panic disorder or hypochondriasis fear certain bodily sensations and symptoms, believing they indicate the presence of a serious physical disorder (heart attack, cardiac disease, cancer, etc.). Such patients have often had several medical investigations that indicate they do not have the physical illness(es) they fear, but they are not convinced. One reason appears to be that their fears lead them to focus attention on relevant parts of their bodies and, as a consequence of this attentional deployment, they become aware of benign bodily sensations that other people do not notice.[5] The presence of such sensations is then taken by the patient as evidence that a serious physical illness has been missed. (Hypochondriasis is classified as a somatoform disorder in DSM-IV[6] and as a somatization disorder in ICD-10.[18] However, it has many features in common with anxiety disorders and can be conceptualized as such for the purposes of psychological treatment).

Social phobia appears to be associated with two attentional biases. First, when in feared social situations, patients with social phobia report becoming highly self-focused, constantly monitoring how they think and feel they are coming across, and paying less attention to other people.[17] Reduced processing of other people means that social phobics have less chance to observe other people's responses in detail and, therefore, are unlikely to collect from other people's reactions information that would help them to see that they generally come across more positively than they think. Second, there is some evidence that when social phobics do focus on other people, they are particularly good at detecting negative reactions[19] and are poor at detecting positive reactions.

(c) Spontaneously occurring images

Spontaneously occurring images are common in anxiety disorders and also appear to play a role in maintenance. Patients with social phobia often report 'observer-perspective' images in which they see themselves as if viewed from outside.[20] Unfortunately, in their images they do not see what a true observer would see, but rather their fears visualized. For example, a teacher who was anxious about talking with colleagues in coffee breaks noticed that before speaking she felt tense around her lips. The tension would trigger an image in which she saw herself with a twisted and contorted mouth, looking like 'the village idiot'. At that moment, she was convinced everyone else thought she was stupid. Negative images are also used as information in other anxiety disorders. For example, obsessional patients who have images of committing a repugnant act (e.g. stabbing one's child) take the occurrence of the image as evidence that they are in danger of performing the act. Similarly, patients with post-traumatic stress disorder report that flashbacks increase the perceived likelihood of a future trauma.

(d) Emotional reasoning

A further source of misleading information that can enhance patients' perception of danger is anxiety itself.[21] For example, social phobics often think they look as anxious as they feel, but in general this is not the case.[22] Similarly, generalized anxiety disorder patients often take feeling on edge as a sign that something bad is about to happen.

(e) Memory processes

Some anxiety disorders are associated with a tendency for the selective recall of information that would appear to confirm the patient's worst fears. For example, high socially anxious individuals selectively recall negative information about the way they think they have appeared to others in the past when anticipating a stressful social interaction.[22] Similarly, patients with hypochondriasis selectively recall illness-related information. In post-traumatic stress disorder, a failure to elaborate memories at the time of the trauma and enhanced associative learning appear to play a key role in maintaining the re-experiencing symptoms.[13]

(f) Rumination

Anxious patients often spend protracted periods of time ruminating about negative things that could happen in the future and about how bad they would be. They may also ruminate about things that they feel have gone wrong in the past. Studies by Davey and Matchett[23] indicate that such rumination can enhance fear. There are several ways in which rumination might operate. First, thinking about an event may directly increase its subjective probability. Second, selectively focusing on past negative events, feelings, and impressions may further enhance the perceived likelihood of future danger. Third, rumination is rarely focused on constructively processing perceived threats, but instead often seems to elaborate the threats or make them more abstract and hence difficult to deal with. For example, patients with post-traumatic stress disorder often ask themselves 'Could I have done something different?' during their traumatic event without thinking through in detail what their alternative options might have been, and how feasible they would have been at the time.

Treatment

Assessment interview

Table 6.3.2.1.3 summarizes the main topics covered in the assessment interview. The aims of the interview are as follows: (a) to obtain a detailed description of the patient's fears and behaviour;

Table 6.3.2.1.3 Summary of topics to be covered in assessment interview

Brief description of presenting problem(s)
For each problem
Detailed description of a recent occasion when problem occurred/was at its most marked
Situation
Bodily reaction
Cognitions
Behaviour
List of situations when the problem is most likely to occur/be most severe
Modulators (things making it better or worse)
Possible maintaining factors
Avoidance of situations/activities
Safety behaviours
Attentional deployment
Faulty beliefs
Attitudes and behaviour of others
Medication
Beliefs about cause of the problem
Previous treatment (types, whether successful)
Onset and course
Personal strengths and assets
Social and financial circumstances

(b) to identify maintaining factors; (c) to normalize the problem; (d) to develop a model of the problem that can be used to guide treatment.

The interview would start by asking the patient to provide a brief description of the main presenting problem(s). For example, intense anxiety attacks, anxious apprehension, and avoidance of places where the attacks seem particularly likely or would be embarrassing. The interviewer then obtains a detailed description of a recent occasion when the problem occurred or was at its most marked. This would include the situation ('Where were you?', 'What were you doing?'), bodily reactions ('What did you notice in your body?', 'What sensations did you experience?'), thoughts ('At the moment you were feeling particularly anxious, what went through your mind? What was the worst that you thought might happen? Did you have an image/mental picture of that? How do you think you looked?'), behaviour ('What did you do?'), and the behaviour of others ('How did X react?', 'What did X say/do?'). Having obtained a detailed description of a recent occasion, the interviewer should check whether the occasion was typical. If not, further descriptions of other recent occasions should be elicited to provide a complete picture.

Next a list of situations in which the problem is most likely to occur or is most severe is elicited ('Are there any situations in which you are particularly likely to have a panic attack?'), together with information about modulators ('Are there any things that you notice make the symptoms stronger/more likely to occur?', 'Are there any things that you've noticed make the symptoms less likely/less severe/more controllable?').

Possible maintaining factors should be identified, including the following:

- avoidance of situations or activities ('What situations/activities do you avoid because of your fears?')
- safety behaviours ('When you are afraid that X might happen, is there anything you do to try to stop it happening?')
- attentional deployment ('What happens to your attention when you are worried about X? Do you focus more on your body? Do you become self-conscious?')
- faulty beliefs (e.g. an obsessive–compulsive disorder patient, believing that thinking something can make it happen)
- attitudes and behaviour of significant others ('What does Y think about the problem?'; 'What does Y do when you are particularly anxious?')
- current medication

There are several ways in which excessive use of both prescribed and non-prescribed medications can maintain anxiety disorders. For example, painkillers and tranquillizers can cause derealization and sleep disturbance respectively, and drinking before social occasions prevents disconfirmation of one's social fears.

It is also important to assess patients' beliefs about the cause of their problems as some beliefs may make it difficult for patients to engage in therapy. For example, patients with post-traumatic stress disorder who think the best way of dealing with a painful memory is to push it out of their mind are unlikely to engage in imaginal reliving of the event until this belief is dealt with.

Finally, a brief description of the onset and subsequent course of the problem should be obtained. This description should particularly focus on factors, which may have been responsible for initial onset and for fluctuations in the course of the symptoms and is primarily used to make the development of the problem seem understandable to the patient.

It is not always possible to obtain all the information needed for a cognitive–behavioural formulation in an assessment interview. Sometimes it is necessary to follow-up the interview with homework assignments in which the patient collects more information to clarify the formulation. For example, a hypochondriacal patient who was concerned that palpitations meant that she had cardiac disease was asked to record what she did each hour and how many palpitations she experienced. To her surprise, palpitations were not associated with exercise, as she expected, but rather were most common when she was sitting quietly, reading, watching television, or studying. This realization helped convince her that her problem may be disease preoccupation rather than a faulty heart.

Developing an idiosyncratic model of the patient's problem

Assessment ends with the development of an idiosyncratic version of the cognitive model. In particular, therapists aim to show patients how the specific triggers for their anxiety produce negative automatic thoughts relating to feared outcomes and how these are maintained by safety behaviours and other maintenance processes. The model is usually drawn on a whiteboard, so that patient and therapist can look at it and discuss it together. Figure 6.3.2.1.1 shows an example for a panic disorder patient. His panic attack started with a twinge in his chest muscles, and he then had the thought, 'There is something wrong with my chest area, maybe I am having a heart attack'. This interpretation made him start to feel anxious, his chest muscles tightened up more, he started to feel dizzy, his heart raced more, and he then thought, 'I'm dying, I'm having a heart attack', and also, interestingly, 'If I don't die, people will notice I'm anxious and think it is odd'. He then engaged in a series of safety behaviours to try to prevent himself from dying.

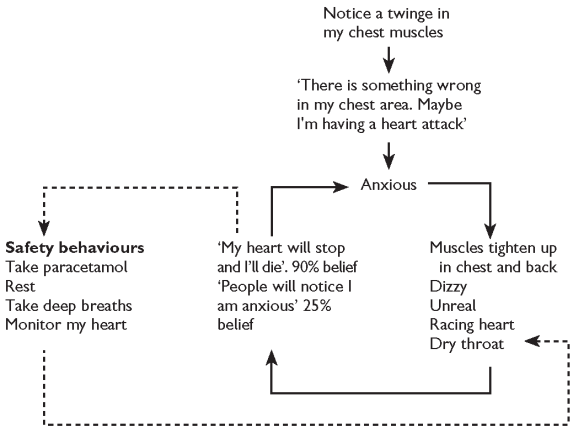

Fig. 6.3.2.1.1 A cognitive model of a patient's panic attacks. (reproduced with permission from D.M. Clark (1996), Panic disorder: from theory to therapy, In *Frontiers of cognitive therapy* (ed. P.M. Salkovskis), pp. 318–344, Guilford Press, New York)

He thought he had read somewhere that paracetamol (aminacetophen) is good for people with heart problems and so he took a paracetamol. This is incorrect information, but the key point is that he believed it. He also sat down and rested, took the strain off his heart, and took deep breaths, trying to slow down his heart rate. He believed that the main reason he had not died was that he had engaged in the safety behaviours. The reader will also notice that some of the safety behaviours (taking deep breaths and monitoring the heart) will also have augmented his feared symptoms.

Figure 6.3.2.1.2 shows a further example with a social phobic patient. The patient's main fear was that other people would think she was stupid and boring. The situation used to develop the model was a recent coffee break at work during which the patient had difficulty joining a conversation with colleagues. When attempting to join the conversation she had the thought, 'I'll sound stupid and everyone will think I am dumb'. In order to prevent herself from sounding stupid, she engaged in an extensive set of safety behaviours which (a) prevented her from discovering that her spontaneous thoughts are interesting to other people, (b) made her appear preoccupied and uninterested in her colleagues, and (c) made her excessively self-conscious. While self-conscious, she became particularly aware of anxiety symptoms (sweaty palms, stiff muscles around her mouth) that she thought other people might see, and indeed, had an image of herself in which she looked very strange, with a twisted and rigid mouth and appeared stupid.

Normally idiosyncratic models of the form illustrated in Figs 6.3.2.1.1 and 6.3.2.1.2 will be developed at the end of the first interview, and certainly not later than the second session. Such models are used as blueprints to help therapist and patient organize and develop the rest of therapy.

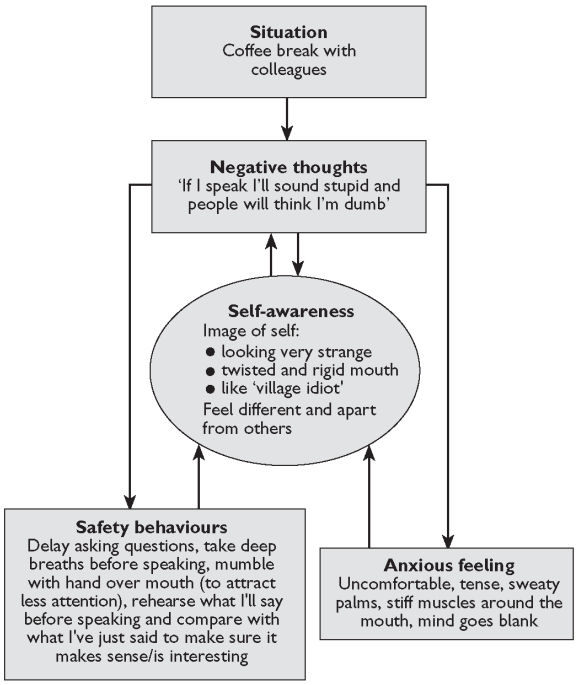

Fig. 6.3.2.1.2 A cognitive model for a patient with social phobia.

Monitoring progress

Once treatment has started, it is important to monitor progress continually in order to decide whether a particular treatment procedure is working or whether the case needs reformulating and new treatment procedures need to be implemented. Usually patients are asked to complete a small number of self-report questionnaires before each therapy session. Typically, these include frequency and severity ratings for the main anxiety problems (often using simple 0–8 Likert-type scales), a measure of negative thoughts, and general measures of anxiety and depression (such as the Beck Anxiety Inventory[24] and the Beck Depression Inventory[25]). Table 6.3.2.1.4 summarizes some of the most commonly used weekly measures. In some instances these are supplemented by more individualized diaries and ratings. More global standardized measures of symptom severity are also often administered at the beginning, middle, and end of therapy in order to provide normative data (see Table 6.3.2.1.4).

Treatment procedures

A wide range of procedures can be used to modify patients' negative beliefs and linked maintenance processes. For clarity the procedures are described separately. However, in practice the techniques are closely interwoven. Within a given session, therapists will usually use a mixture of discussion and experiential techniques to help patients to challenge convincingly their negative beliefs. As with cognitive–behaviour therapy for other disorders, patients are given extensive homework assignments and it is assumed that a sizeable amount of therapeutic change is the result of homework assignments.

(a) Identifying patients' evidence for their negative beliefs

Anxiety disorder patients usually have reasons for believing that the things they fear are dangerous, however strange their fears may seem. The therapist, therefore, tries to 'get inside the patient's head' and see what the evidence is. Often the evidence is an event or piece of information that the patient has misinterpreted. Identifying and correcting such misinterpretations can be helpful. For example, a panic disorder patient believed that experiencing high anxiety could kill her. When asked by the therapist what her evidence was, she explained that she had seen it happen. Further enquiry revealed she had entered Dresden the day after the fire bombing of that city by the allies during the Second World War and had helped search for survivors. When opening up cellars below demolished houses, she repeatedly observed that the occupants were either dead or behaved in a dazed confused manner, even though the fire had not entered their cellars. She concluded that fear had killed the occupants or sent them mad. However, further questioning from the therapist revealed that the cellar occupants all had bright cherry-red lips. This allowed the therapist to explain that they were suffering from carbon monoxide poisoning, not the effects of intense fear. This correction considerably reduced the patient's fear of anxiety.

(b) Education

Education about the symptoms of anxiety is often helpful, especially if it directly targets patients' idiosyncratic fears and concerns.

Table 6.3.2.1.4 Commonly used measures for monitoring progress

Anxiety disorder	Measure		
	Symptoms	**Thoughts**	**Global severity**
Panic disorder	Panic Rating Scale[63] Panic Diary[63] BAI[33] BDI[2]	Agoraphobic Cognitions Questionnaire[65]	Fear Questionnaire[64] Mobility Inventory[66]
Social phobia	Social Summary Scales (Table 4) BAI[33] BDI[2]	Social Cognitions Questionnaire[53]	Liebowitz Social Anxiety Scale[67] Social Performance Scale[68] Social Interaction Anxiety Scale[68] Social Phobia and Anxiety Inventory[69]
Generalized anxiety disorder	BAI[33] BDI[2]	Worry Domains Questionnaire[70] Thought Control Questionnaire[72]	Penn State Worry Questionnaire[71] Spielberger State Trait Inventory[73]
Obsessive- compulsive disorder	BAI[33] BDI[2]	Responsibility Interpretations Questionnaire[74]	Padua Inventory[75] Yale–Brown Obsessive Compulsive Scale[76]
Post-traumatic stress disorder	Post-traumatic Diagnosis Scale[77,78] BAI[33] BDI[2]	Post-traumatic Cognitions Inventory[79] Personal Beliefs and Reactions Scale[81]	Impact of Events Scale[80] Post-traumatic Diagnosis Scale[78]

Owing to their length, the Post-traumatic Cognitions Inventory and the Personal Beliefs and Reactions Scale are not suitable for weekly administration.

BAI, Beck Anxiety Inventory; BDI. Beck Depression Inventory.

For example, post-traumatic stress disorder patients often think their flashbacks and emotional outbursts mean they are going mad or have permanently changed for the worse. In such cases, detailed assessment of the patient's post-traumatic stress disorder symptoms and explanation that each are common reactions to a trauma can greatly help. Similarly, panic disorder patients with cardiac concerns often cite left-sided chest pain as evidence for their belief that they have a cardiac disorder. In such cases discussion of Fig. 6.3.2.1.3 (from a study of chest pain in patients referred to a cardiac clinic[26]) is useful. In particular, the patient discovers that left-sided chest pain is more characteristic of non-cardiac chest pain than of either confirmed angina or myocardial infarction. Further questioning helps patients to see that the association between left-sided pain and attacks is probably a consequence of their fears. That is to say, they can experience pain on either side of the chest but only panic when it is on the left side. Finally, patients with obsessive–compulsive disorder who are perturbed by the apparently repulsive and unusual nature of their intrusive thoughts often benefit from reviewing Rachman and De Silva's classic paper[10] which demonstrated that thoughts with identical content to obsessional intrusions are common in the general population.

(c) Identifying observations that contradict patients' negative beliefs

As anxiety disorder patients' beliefs about the dangerousness of feared stimuli are generally mistaken, patients have often experienced a number of events that contradict their beliefs before they come into therapy. Therapists can make considerable progress, even in an assessment interview, by spotting these events and helping patients understand their significance. For example, panic disorder patients who are worried that their symptoms mean they are about to have a heart attack, often report that in some attacks something unexpected happened to distract them (e.g. a telephone call) and then their symptoms went away. Therapists could then pause and help the patient understand what this means, perhaps asking, 'Would a cardiologist prescribe telephone calls as a treatment for a heart attack?' The patient would probably answer 'No', to which the therapist might reply, 'If telephone calls would not stop a heart attack, how might they work? If the problem was the negative thought, could they help (by distracting one from the thoughts)?'

(d) Imagery modification

Images play an important role in many anxiety disorders. Most images represent feared catastrophes and can be treated as predictions to be tested (see behavioural experiments below). However, when the images are stereotyped and repetitive it is often also necessary to work directly with the images and to restructure them explicitly.

The problem with anxiety-related images is that they seem very realistic at the time they occur and, as a consequence, greatly enhance fear. A common restructuring technique involves discussing with the patient whether the image is realistic. Once it is intellectually agreed that the image is an exaggeration, patients are asked to recreate intentionally the negative image and to hold it in mind until they start to feel anxious. They are then asked to transform

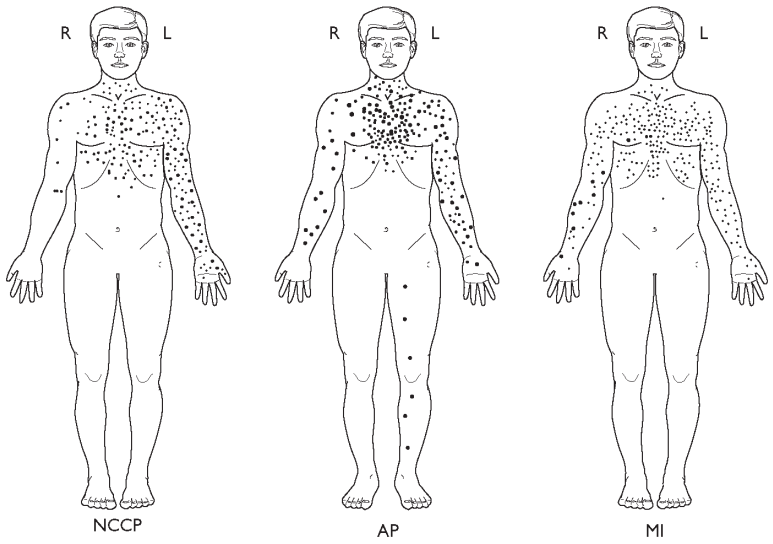

Fig. 6.3.2.1.3 Distribution of chest pain in patients referred to a cardiac clinic and subsequently diagnosed as non-cardiac chest pain (NCCP), angina pectoris (AP), or myocardial infarction (MI). (reproduced with permission from R. Beunderman, *et al.* (1988), Differentiation in prodromal and acute symptoms of patients with cardiac and non-cardiac chest pain, In *Advances in theory and practice in behaviour therapy* (ed. P.M.G. Emmelkamp, *et al.*), Swets and Zeitlinger, Amsterdam)

it into a more realistic image, or an image, which convincingly indicates that the original image was unrealistic. A common observation is that patients' spontaneous images generally stop at the worst moment. For example, agoraphobic patients who fear fainting in a supermarket might see themselves collapsed on the floor, but not see themselves getting up, recovering, and going home. A useful transformation in such cases is to 'finish out' the image by asking patients to run it on until they see the positive resolution. Of course, sometimes simply running on an image does not produce a positive resolution. For example, a patient who feared she would go mad frequently experienced an image of two men in white coats entering her house to take her away to a locked ward. In the image, the men were extremely powerful and she felt powerless. Transformation, following suggestions from her, involved shrinking the men and then turning them into ridiculous looking (and hence non-threatening) white poodles.

An interesting observation about spontaneous imagery is that it often fails to incorporate positive information that would seriously undermine the impact of the image, even when the patient has such information. For example, a mother whose children died in a house fire, repeatedly experienced intrusive flashbacks in which she saw the house going up in flames and smelled burning flesh, despite having seen her children in the mortuary, knowing that they had not been burnt, but instead were rapidly overcome by fumes.

For imagery restructuring to be effective it is important that it is not done as a cold, intellectual exercise, but instead includes eliciting the affect normally associated with the image. Transformation may have to be done in several steps. It is often best to start with the most threatening aspect of the image. Possible alternative images should be generated by patients, rather than simply imposed by the therapist.

(e) Cognitive restructuring

All the above techniques are examples of cognitive restructuring in which the therapist provides information and asks a series of questions to help the patients challenge their fearful thoughts and images. A list of some of the questions that can be particularly useful for helping anxiety disorder patients challenge their negative thoughts is given in Table 6.3.2.1.5. Further useful questioning techniques can be found in Chapter 6.3.2.3.

Ed: Please update cross-references in this chapter.

It is sometimes helpful to use graphical methods for discussing alternatives to negative thoughts. In situations where there are several non-threatening alternative explanations for a feared event, pie charts are particularly useful. When constructing a pie chart the therapist draws a circle which is meant to represent all the possible causes of a particular event and asks the patient to list all the pos-

Table 6.3.2.1.5 Useful questions for challenging anxiety-related thoughts

What is the evidence for this thought?
Is there any alternative way of looking at the situation?
Is there an alternative explanation?
How would someone else think about the situation?
Are you focusing on how you felt, rather than on what actually happened?
Are you setting yourself an unrealistic or unobtainable standard?
Are you forgetting relevant facts or overfocusing on irrelevant facts?
Are you thinking in all-or-nothing terms?
Are you overestimating how responsible you are for the way things work out?
What if the worst happens? What would be so bad about that? How could you cope?
How will things be x months/years afterwards?
Are you overestimating how likely the event is?
Are you underestimating what you can do to deal with the problem/situation?

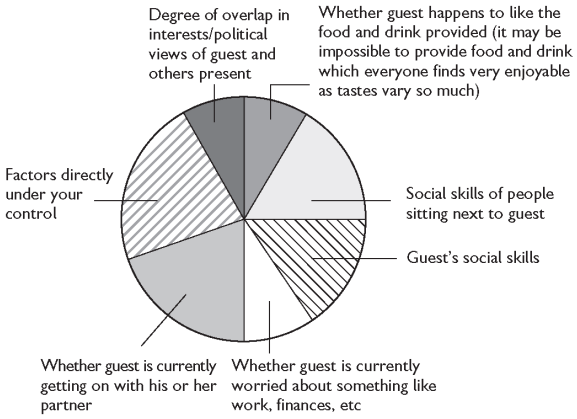

Fig. 6.3.2.1.4 A pie chart representing factors that might contribute to guests enjoying themselves at a dinner parties to challenge a generalized anxiety disorder patient's belief that he would be 100 per cent responsible for people not enjoying themselves. (reproduced with permission from D.M. Clark (1989), Anxiety states: panic and generalized anxiety, In *Cognitive therapy for psychiatric problems: a practical guide* (ed. K. Hawton, *et al.*), pp. 52–96. Oxford University Press)

sible non-catastrophic causes of the event and allocate a section of the circle to each cause. At the end of the exercise, there is often very little of the circle left for the patient's negative explanations. Figure 6.3.2.1.4 illustrates the use of a pie chart to challenge a generalized anxiety disorder patient's belief that he would be 100 per cent responsible for people not enjoying themselves at his dinner parties. The belief was preventing him from making new social contacts after a painful divorce. Pie charts are particularly helpful for dealing with distorted beliefs about responsibility and hypochondriacal concerns (e.g. 'Headaches mean I have a brain tumour').

When considering the worst that could possibly happen in a feared situation patients frequently ignore the fact that there are many intermediate events, each with a probability of less than 1, which have to occur for the catastrophe to be realized. The inverted pyramid can be a good way of representing this. Figure 6.3.2.1.5 shows an example with a patient who was afraid of blushing. His

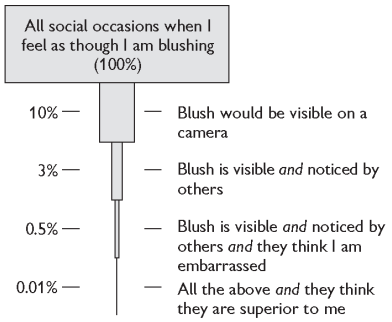

Fig. 6.3.2.1.5 An inverted pyramid representing conditional probabilities between 'feeling hot' and 'others thinking they are superior to you' constructed for a patient who was afraid of blushing.

worst fear was that other people would think they were greatly superior to him if he blushed. Whenever he felt his face becoming hot, he was convinced other people were thinking they are superior to him and gloating. However, careful discussion helped him to see that there were many intermediate steps between him feeling hot and the feared outcome. Once the conditional probabilities were taken into account, there was only a minute chance that his worst fear would be correct.

It is important to remember that anxiety results from overestimating the cost of feared events as well as their probability. Discussions aimed at modifying perceived cost are often helpful. This can be true even in cases where it might seem obvious that the feared event is objectively costly. For example, in hypochondriacal patients who are worried about dying, therapists may be tempted to focus exclusively on whether or not the patients are likely to die from the symptoms they are concerned about. Accepting that dying is a bad thing, the therapist may not be inclined to ask, 'What would be so bad about dying?' However, Wells and Hackmann[27] found that many hypochondriacal patients have distorted beliefs and images about death and the process of dying. For example, they think that when they die they will remain conscious and will continue to experience all the pain they had up to that point. Such people can benefit greatly from discussion of their beliefs about the cost of dying.

(f) *In vivo* exposure to feared situations, activities, and sensations

Systematic exposure to feared and avoided situations has a long history in cognitive–behaviour therapy and is one of the most effective ways of helping patients to discover that the things they are afraid of will not happen or are more manageable than they anticipate. Initially, exposure was often conducted in imagination but it is now known that *in vivo* exposure is a more effective way of dealing with situational fear.[3] During the 1970s and 1980s the dominant framework for exposure was habituation. It was assumed that repeated prolonged exposure was required to achieve fear reduction. More recent cognitive formulations have suggested that exposure is likely to be optimally effective when set-up in a way that maximizes the extent to which patients are able to disconfirm their fears, and considerable attention is now devoted to setting up exposure assignments in a way that will maximize cognitive change. Before entering a feared situation, patients are asked to specify what is the worst they think could happen, how likely they think it is, and what they would normally do to prevent the feared catastrophe (safety behaviours). They are then asked to enter the feared situation while dropping their safety behaviours and to observe carefully whether the feared outcome occurs. Afterwards, discussion focuses on whether the feared catastrophe occurred. If it did not, how does the patient explain its non-occurrence? Was it because the patient now thinks the feared outcome is unrealistic or does the patient think it was because of 'luck' or the continued use of safety behaviours? In the latter two instances, further exposure assignments with further encouragement to drop safety behaviours are required.

In addition to avoiding feared situations, anxiety disorder patients can also avoid feared sensations. Such avoidance is particularly prominent in panic disorder. For example, because of their fears about the meaning of increases in heart rate, dizziness, sweating, and other autonomic cues, panic disorder patients often avoid

exercise. Increasing exercise can be an excellent way of helping them to challenge their negative beliefs, as can other ways of inducing bodily sensations such as ingesting caffeine, and hyperventilating. In each instance, the key point is to help patients discover that they can experience intense physical sensations without dying, losing control, or experiencing some other catastrophe.

Table 6.3.2.1.6 shows a record sheet that can be useful for planning and summarizing the results of exposure assignments, with illustrations from patients with social phobia and agoraphobia. Because of the intensity of patients' fears, and their tendency to attribute good outcomes to 'luck', it is often necessary to move up a hierarchy of feared situations and to consolidate successes by repetition.

In obsessive–compulsive disorder, the compulsive rituals act as safety behaviours and it is necessary to ensure that patients refrain from engaging in rituals (which are often also termed 'putting right' acts) during exposure assignments. This procedure is called 'exposure and response prevention'. For example, obsessional washers would be asked to 'contaminate' themselves by touching feared objects and then not put things right by washing. Similarly, obsessional checkers may be asked to expose themselves to activities that would normally provoke their checking (e.g. turning on the gas cooker) and then refrain from checking more than would be normal. In both instances, patients usually find that although exposure initially provokes considerable distress, the distress systematically declines during prolonged response prevention.[28]

Unlike most phobic fears, the fears of obsessive–compulsive disorder patients (e.g. developing a fatal disease from touching an object that is believed to be contaminated) often cannot be disconfirmed during a single or indeed multiple, exposure assignments. Discussing this issue, Salkovskis[11] has suggested that exposure and response prevention may work by providing patients with a different understanding of their problems. In particular, the decline in distress during exposure and response prevention helps the patient to discover that they are suffering from a worry problem, rather than being in objective danger.

(g) Imaginal exposure in post-traumatic stress disorder

Although imaginal exposure is rarely used in most anxiety disorders, it plays an important role in the treatment of post-traumatic stress disorder. It is known[29] that avoidance of thinking about the traumatic event is an important predictor of persistent post-traumatic stress disorder. In the light of this finding, clinicians have attempted to treat post-traumatic stress disorder by repeated, imaginal reliving of the traumatic event, and controlled trials[30] have shown that this technique is effective. At this stage it is not known why reliving works. One suggestion is that the intrusive symptoms of post-traumatic stress disorder are the result of a fragmented and disorganized memory for the trauma that is poorly integrated with other autobiographical information. Reliving might, therefore, facilitate the production of a more organized narrative account of the event that can be placed in the broader context of the individual's life.[13,31] Two types of imaginal reliving have been used in controlled trials: writing out details of the event and reliving the event in imagery. In either case, it seems important to focus not only on what happened, but also on patients' feelings and thoughts, both at the time and now, looking back at the event. Problematic idiosyncratic meanings that can be addressed with cognitive restructuring are often identified during reliving exercises.

(h) Behavioural experiments

Behavioural experiments play a central role in the treatment of anxiety disorders. In a behavioural experiment, therapist and patient plan and implement a behavioural assignment that will provide a test of a key belief. The *in vivo* exposure assignments outlined above are examples of behavioural experiments. Several further examples are given to illustrate the technique.

Table 6.3.2.1.6 Record sheet for noting behavioural experiments

	Situation	Prediction	Experiment	Outcome	What I learned
		(What exactly did you think would happen? How would you know?) (Rate belief 0–100%)	(What did you do to test the prediction?)	(What actually happened? Was the prediction correct?)	(1) Balanced view (rate belief 0–100%)? (2) How likely is what you predicted to happen in future (Rate belief 0–100%)
Social phobic patient	Coffee break; sitting with other teachers; trying to join in the conversation	If I just say things as they come into my mind, they'll think I'm stupid (50%)	Say whatever comes into my mind *and* watch them like a hawk; don't focus on myself; this only gives me misleading information (such as images of myself as the 'village idiot'), and means I can't see them	I did it and I watched the others; one of them showed interest and we talked; she seemed to quite enjoy it	I am probably more acceptable than I think (70%)
Agoraphobic patient	Shopping in a supermarket	I will feel dizzy and have a panic attack (90%). Unless I grip the trolley tightly or sit down at that moment, I collapse (80%)	Go into the supermarket. When I start to feel dizzy, remind myself it is just anxiety, my heart rate is up and I can't faint. Then move away from the trolley and stand unsupported	I felt dizzy but didn't faint, even though I didn't sit down or hold on to the trolley	Feeling dizzy in anxiety attacks will not make me faint (60%)

Patients with post-traumatic stress disorder often think their intrusive recollections mean they are going mad or losing control in some way, and as a consequence, try to push the intrusions out of their mind. If this problem is identified during the first session of therapy, therapists often conduct an experiment to illustrate the undesired consequences of thought suppression. For example, the therapist might say to the patient, 'It doesn't matter what you think about in the next few minutes as long as you don't think about one particular thing. The thing is a fluorescent green rabbit eating my hair!' Most patients find they immediately get an image of the rabbit and have difficulty getting rid of it. Discussion then helps them to see that an increase in the frequency of target thoughts is a normal consequence of thought suppression. This result can then be used to set-up a homework assignment in which the patient is asked to collect data to test the idea that thought suppression may be enhancing intrusions. The experiment involves not trying to push the intrusions out of one's mind, but instead just letting them come and go, watching them as though they were a train passing through a station. Often patients report this simple experiment produces a marked decline in both the frequency of intrusions and the belief that they are a sign of impending insanity or loss of control.

Patients with social phobia often overestimate the significance of their anxiety symptoms for other people. A useful behavioural experiment to illustrate this point involves having either the patient or the therapist conduct a survey in which other people are asked for their views about the feared symptom. For example, in the case of fear of blushing, other people might be asked:

Why do you think people blush?
Do you notice other people blushing?
Do you remember it?
Do you think badly about people who blush?
If you do, what do you think about them?'

A further helpful experiment can involve intentionally displaying a feared symptom (e.g. handshaking or forgetting what one is talking about) and closely observing other people's responses. A particularly effective behaviour experiment for modifying social phobics distorted self-images involves the use of video feedback. Patients are asked to engage in a difficult social task while being videotaped. Afterwards they are asked to describe in detail how they think they appeared. They are then asked to view the video, watching themselves as though they are watching a stranger, ignoring memories of how they felt and simply focusing on how they would look to other people. In this way they often discover that they come across better than they would expect on the basis of their self-imagery. This experiment is often a powerful way of correcting distorted self-images.

Patients with panic disorder or hypochondriasis persistently think that normal bodily signs and/or symptoms are caused by a serious physical disorder. Numerous behavioural experiments can be used to demonstrate the correct, innocuous causes of their symptoms. For example, reading pairs of words which represent patient's illness interpretations (e.g. palpitations-dying, breathlessness-suffocate) has been shown to induce feared sensations.[5] Similarly, reproducing patients' fear-driven behaviours can produce the very symptoms the patients take as evidence for a serious physical illness. For example, patients who feel short of breath in a panic attack often respond by breathing quickly and deeply (hyperventilation), which paradoxically produces more breathlessness. Similarly, patients who are concerned about cancer may palpate body parts and then take the resulting soreness or discomfort as evidence of the presence of cancer.

(i) Therapy notes

Over a series of sessions therapist and patient will generate a substantial number of arguments against the patient's fearful beliefs. In order to maximize the impact of this accumulation, patients are asked to keep a running record of evidence against their beliefs in a notebook that can easily be consulted at times of doubt. Table 6.3.2.1.7 shows an illustrative example from a panic disorder patient's notebook. At the start of therapy, the patient had been concerned that there was something seriously wrong with his heart.

(j) Anger management

Although anxiety is the predominant problematic emotion in anxiety disorders, some patients also report significant problems

Table 6.3.2.1.7 A panic disorder patient's notebook: evidence for the two alternative explanations for chest pains (reproduced with permission from D.M. Clark (1996), Panic disorder from theory to therapy, In *Frontiers of cognitive therapy* (ed. P.M. Salkovskis), pp. 318–344, Guilford Press, New York)

There is something seriously wrong with my heart'	'My problem is my belief that there is something wrong with my heart'
1 I hear my heart thumping sometimes, even in my ear. But because of my fears I focus on my body and that makes me notice it. When I notice it I get anxious and that makes it louder because my heart beats are bigger	1 I think I am dying in a panic attack and that thought makes me anxious, producing many more sensations and setting up a vicious circle
2 I have chest and rib tightness throughout the day. But cardiac patients don't. They get chest pain (often crushing and more localized) during heart attacks. It is muscle tension due to work stress. It is mild after a good night's sleep and easier at weekends. It is worst after a stressful day at work	2 Distraction sometimes helps. That makes sense if the problem is my thoughts. It does not make sense if the problem is a heart attack. The same argument applies to leaving the situation. That would not stop a heart attack but it makes me feel more comfortable and undermines the negative thoughts
3 I occasionally get tingling in my fingertips. But this is a common symptom of anxiety. Also deep breathing—which I do when I think there is something wrong—causes tingling	3 I get symptoms most often at the end of the day, when I have come to expect them and have time to dwell on them
	4 I have proved to myself that there is nothing wrong with my heart with vigorous exercise. All that happens is that my heart beats faster and pumps harder, as it should do in order to supply my muscles with the energy they need

Reproduced with permission from D.M. Clark (1996). Panic disorder: from theory to therapy. In *Frontiers of cognitive therapy* (ed. P.M. Salkovskis), pp. 318–44. Guilford Press. New York.

with other emotions such as depression and anger. Techniques for dealing with depression can be found in Chapter 6.3.2.3. Some empirically validated techniques for dealing with anger are described here. Although presented in the context of anger accompanying anxiety disorders, these techniques are also relevant to anger in other disorders and to people without an Axis I disorder.

(k) Cognitive content and other assessment issues

Anger is triggered when other people are seen to have broken one's personal rules about what is right and fair.[1] Angry individuals invariably think that they have been badly treated and ascribe their perceived ill treatment to intention or unacceptable neglect on the part of others. A key first step in assessment is to help patients become aware of their automatic thoughts during periods of anger. It is also helpful to keep a record of the situations and behaviours of other people that routinely trigger anger. Review of such triggers often reveals a particular theme and an implicit rule that the patient thinks other people should abide by. A detailed description of how the person behaves when angry and what effect the behaviour has on others is also essential.

(l) Intervention

As patients' rules about the way that others should behave are often highly idiosyncratic, a useful tactic involves asking patients to consider whether the problem is assuming that others hold the same rule as them when they do not. This can help reduce the conviction that others' actions are actively malicious. Other useful questions include the following.

- Is there any other explanation for what happened?
- Did the other people know that their actions would harm me?
- Am I mind-reading?
- Am I over-applying the 'shoulds'?
- What are the advantages and disadvantages of responding with anger?
- Are there other ways I could behave which will be more likely to put things right/help me to get over it?

Although identifying and changing anger-related thoughts is a useful tactic, it is important to remember that anger is an action-orientated emotion. When angry, patients have a strong compulsion to hit out verbally or physically, and have great difficulty in thinking rationally. For patients with recurrent anger problems, it is often useful to teach them first to pause and relax or remove themselves from the anger-provoking situation before trying to challenge their thoughts and to delay-taking action (such as writing angry letters to others) until they have calmed down and had time to consider the appropriateness/usefulness of the action. To enhance further the generalizability of thought-challenging work, it is often useful to summarize the answers to typical anger-related thoughts on a flash card that patients can carry around and consult whenever they become angry.

Anger can sometimes be the result of chronic under-assertiveness, with patients' fears preventing them from making their point of view known until they feel overwhelmed and irritated by the demands placed on them. In such cases, discussion of the fears that prevent earlier and more appropriate assertion and role-playing in which the patients try out and evaluate ways of communicating their views to others in a prompt and constructive fashion can be helpful.

Indications and contraindications

Cognitive–behaviour therapy is suitable for most patients with anxiety disorders and the low dropout rates reported in many controlled trials[4,32] suggest that it is well tolerated. In cases with additional severe comorbid problems (e.g. alcohol dependence, depression) it is sometimes necessary to bring these problems under control before starting cognitive–behaviour therapy for anxiety. Concurrent use of prescription anxiolytic medication (benzodiazepines, tricyclics, selective serotonin reuptake inhibitors) is not a contraindication. At one time it was thought that anxiolytics may facilitate treatment by helping patients to confront their fears more quickly. However, there is little evidence that concurrent medication enhances initial response.[32] In addition, combining medication (alprazolam or imipramine) with cognitive–behaviour therapy has been shown to produce poorer long-term outcome than cognitive–behaviour therapy alone in panic disorder.[33] The latter result suggests that if a patient is not already taking anxiolytic medication, it is probably best to start treatment with cognitive–behaviour therapy alone. Medication might then be added at a later stage, if response to cognitive–behaviour therapy alone is poor.

Efficacy

Controlled trials involving comparisons with other psychological interventions and waiting-list control groups indicate that cognitive–behaviour therapy is an effective and specific treatment for panic disorder, social phobia, specific phobia, generalized anxiety disorder, hypochondriasis, obsessive–compulsive disorder, and post-traumatic stress disorder.[4,32] Results comparing immediate response to cognitive–behaviour therapy alone and pharmacotherapy alone have been mixed, with superiority for cognitive–behaviour therapy, equivalence for cognitive–behaviour therapy, and superiority for pharmacotherapy all being reported. In contrast to the immediate response data, the follow-up analyses after medication discontinuation that are currently available favour cognitive–behaviour therapy.[34] However, the database is modest and further research is required. For anger problems, controlled trials have shown that the cognitive–behavioural procedures described here are effective.[35]

Training and supervision

Most controlled trials have used therapists who have received specialized training in cognitive–behaviour therapy and there is some evidence that deviation from therapy protocols and/or poor implementation is associated with less good outcome.[36] For these reasons, clinicians are likely to benefit from specialized training and supervision. Where local training institutes exist, it is wise to take advantage of their expertise. Even when no local institute is available, expert cognitive–behaviour therapists from established centres often travel internationally to deliver workshops and supervision. Several professional organizations run regular training workshops and can be contacted through the Internet. The organizations include the British Association of Behavioural

and Cognitive Psychotherapies (http://www.babcp.org.uk), the Association of Behaviour and Cognitive Therapies (www.abct.org), the International Association of Cognitive Psychotherapy (http://www.cognitivetherapyassociation.org), the American Psychological Association (http://www.apa.org), and the American Psychiatric Association (www.psych.org). A comprehensive list of the competencies required for the main cognitive–behaviour therapies for anxiety disorders can be found at: http://www.ucl.ac.uk/clinical-health-psychology/CORE/CBT_Framework.htm

Further information

A number of texts describe the theory and practice of cognitive–behaviour therapy for specific anxiety disorders[37–39] and for anger problems[40] in considerable detail. Texts are frequently updated. Readers interested in the latest therapy guides are recommended to visit the following websites: www.oup.com, www.oup.com/us/ttw, www.guilford.com, www.wiley.com. Video illustrations of therapy sessions are also available for some anxiety disorders (see ABCT, American Psychological Association, and Guilford Press websites).

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