

Part I

Principles and practice of CBT for health anxiety

CHAPTER 1

Introduction

Excessive, or abnormal, health anxiety is a form of anxiety focused on the belief of having, or fear of getting, a serious illness. The belief or fear is usually concerned with a medical illness and occurs without sufficient evidence of organic pathology to account for the symptoms, and despite medical reassurance. Both health anxiety and organic illness can coexist. For diagnostic purposes, health anxiety is normally not regarded as pathological until it has lasted for at least 6 months.

Worrying about health is a normal protective function. For example, in someone with a history of chest pain due to angina, the natural concern arising from more frequent attacks may prompt a medical consultation which could avert an impending myocardial infarction. Health anxiety becomes maladaptive when it is out of proportion to the medical risk. This could represent either a low level of anxiety when the risk is high, as, for example, indulging in frequent episodes of unprotected sex with many partners, with little or no consideration of the risk of acquiring a sexually transmitted infection, or experiencing excessive worry about a potential medical problem when in fact the risk of developing that condition is normal or very low.

Severity may range from mild concern to severe and constant preoccupation. The problem may also be transient; from time to time we all experience health anxiety which subsequently resolves, but for some it may become chronic and debilitating and cause severe suffering, which unfortunately in many cases becomes persistent.

The term 'health anxiety' is increasingly being used to describe patients with hypochondriasis. Its main advantage over hypochondriasis is that as well as being more accurate, it is less pejorative and therefore more acceptable to patients and makes it easier to broach the diagnosis. It is used throughout the text in this handbook, and is likely to become a formal diagnosis in the near future. In patients with this condition, preoccupation with health arising from cognitions based on the misinterpretations of bodily sensations and changes, generates a range of distressing emotions. Interpreting everything in the worst way (catastrophic thinking) and the

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associated images of the terrible consequences of developing the feared disease often lead to severe disability.

Patients with health anxiety may express fear of developing a disease in the future, despite being free of symptoms at the time. More usually, they misinterpret symptoms and bodily sensations as evidence of severe underlying disease. Some experience long-standing symptoms or sensations (often medically unexplained), which they are convinced represent severe underlying disease. There are also those with the diagnosis who have proven physical disease but have health concerns with regard to fears and symptoms that are disproportionate to their underlying condition.

Prevalence

The prevalence of a disorder refers to the proportion of a particular population affected by a condition at any one time. There is a wide variation in the estimation of the prevalence of health anxiety within different medical settings, with figures for primary care ranging from 0.8% (Gureje *et al*, 1997) to 4.5% (Faravelli *et al*, 1997). Studies of more specialist populations have tended to show higher prevalence rates, with Aydemir and colleagues (1997) showing a point prevalence rate among cardiology patients with permanent pacemakers of 7.4%. However, a recent large-scale study using a standardised questionnaire, the Health Anxiety Inventory (HAI; Salkovskis *et al*, 2002), in nearly 30 000 medical patients showed a rate of 19.8% (Tyrer *et al*, 2011a). This may represent a slight overestimate, as many patients with medical conditions requiring close monitoring may have excessive health anxiety that is to some extent justified, but it nonetheless illustrates we are dealing with a very common condition.

The prevalence rates in psychiatric populations, including patients seen in liaison psychiatry with chronic pain, have showed higher prevalence levels at 10–15%, but the methods of assessment have varied greatly (Polatin *et al*, 1993; Altamura *et al*, 1998; Gatchel *et al*, 2006). The prevalence rates reported in secondary care are also higher, but a great deal depends on the degree to which the populations are selected or unselected. If unselected, the rates are lower – Barsky *et al* (1990) found the 6-month prevalence of DSM-III-R hypochondriasis to be only between 4.2 and 6.3% of consecutive attenders at a medical clinic.

Prevalence rates also tend to be understandably higher when populations of patients with medically unexplained symptoms are studied, as individuals with health anxiety as well as other pathology are included. Nimnuan *et al* (2001) found in a survey of seven general medical clinics that no less than 52% of the patients had medically unexplained symptoms, the highest proportion in gynaecological clinics. It is likely that a significant proportion of these patients, at least 40%, would have health anxiety too.

In a more recent study we found the prevalence of significant health anxiety in genitourinary medicine clinics to be between 8.6 and 10.2%

(Seivewright *et al*, 2004), and a similar study conducted in medical out-patients suggests the prevalence is between 12 and 15%, and even higher (up to 25%) in neurology clinics (Tyrer *et al*, 2011a).

Overlap with medically unexplained symptoms

Many cases of health anxiety may be missed, at least initially, when patients present to medical services, partly because of overlap with medically unexplained symptoms. The concern expressed by the patient and the nature of their symptoms may readily prompt investigation or further referral. These may be justified initially but, typically, it is only after these, often extensive, investigations have run their course and no pathology has been found that the problem is seen exactly for what it is, a non-disease.

There is often a discrepancy between the severity of symptoms and their underlying pathology. Ruo *et al* (2003), in a study of patients with chronic cardiac disease, found little association between severity of symptoms and the degree of underlying pathology. Of course, a medical explanation is not always available for every bodily sensation or change. Some patients, particularly those who like to have an answer to everything, find this concept difficult to accept, saying things such as, 'My doctor has told me what is *not* wrong with me, but he hasn't said what is causing the discomfort'. This uncertainty can be difficult for some to accept, leading to continuing attendance in primary care, and accounting for up to a half of all out-patient consultations (Nimnuan *et al*, 2001). Together, this constitutes a considerable burden of care, especially as there is no evidence in these cases that hunting for hidden underlying organic pathology is likely to reveal a cause.

Historically, medically unexplained symptoms have been considered as evidence of 'hidden' psychopathology. Too painful to be acknowledged in terms of psychological distress, they have somehow become 'somatised' into physical, and hence possibly more acceptable, phenomena. Although this theory remains in the popular domain, there is absolutely no evidence to support it (Mayou *et al*, 2005).

In some cases where patients experience many symptoms they may be given a diagnosis of a functional somatic syndrome. Not all patients given such diagnoses have high health anxiety, but a proportion will, although we do not know how many. These diagnoses, including irritable bowel syndrome (IBS), fibromyalgia, unexplained vomiting syndrome and chronic fatigue syndrome, are given by the physician to attempt to explain or 'label' otherwise unexplained symptoms in the particular specialty concerned. This rarely serves the patient well. These conditions have poor outcomes, and giving an organic label, rather than that of medically unexplained symptoms, makes it harder to manage them and address any underlying psychopathology. Many such patients use health services frequently (Lloyd & Pender, 1992; Bombardier & Buchwald, 1996; Kroenke *et al*, 1997; Barsky *et al*, 2005). Not all these patients will access mainstream services; many

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will search out alternative treatments, sometimes incurring large expense, with some abandoning hope of ever finding a cure or symptomatic relief. It is uncertain how many of these patients have health anxiety, but many during the course of their illness will qualify for more than one functional disorder. Identifying related anxiety in these patients and addressing it with cognitive-behavioural therapy (CBT) can produce considerable relief and prevent a great deal of suffering. It also facilitates medical management.

Giving a likely diagnosis of medically unexplained symptoms and discussion with the patient of how commonly this condition occurs in medical settings, can help make sense of what is occurring and lead to a more appropriate style of management. However, it is impossible to say that any symptom presenting is unequivocally psychological in origin before medical assessment has been completed.

In the face of this dilemma, where symptoms are troublesome and frequently failing to fit in with normal medical expectations, we need a new solution. We are now beginning to move towards a more comprehensive multidisciplinary approach. This approach considers the contribution of social, psychological and biological factors to all aspects of the condition and so avoids traditional separation of patients into having either a medical problem or a psychiatric one.

Why health anxiety is important

Health anxiety is common and underdiagnosed in medical settings. It causes considerable morbidity, tends to persist without specific intervention, and generates significant cost (Barsky *et al*, 2005; Seivewright *et al*, 2008). Costs are incurred because of more frequent medical consultations, more unnecessary and frequently expensive investigations, more referrals to other specialties, and frequent attendances at emergency care facilities, leading to unnecessary hospital admissions. Many of the more complex investigations also carry additional risk. Failure to address health anxiety properly can also lead to a breakdown in the relationship between the patient and health professionals, leading to complaints and further compromising care.

Health anxiety with pre-existing physical disease

Pathological health anxiety can be present in those with established physical disease, and this often complicates management. Coexistence with other disease (often called comorbidity) is not a bar to treatment with therapies such as CBT, and successful management of these patients can greatly improve their quality of life. This comorbidity is discussed in more detail in Part 2, but examples include recurrent non-cardiac chest pain following a myocardial infarction, anxiety-related irritable bowel syndrome complicating Crohn's disease and excessive breathlessness and panic in chronic obstructive pulmonary disease.

Rationale for providing psychological treatment within medical settings

For patients who already have established physical disease it seems particularly relevant to address their fears within a medical setting. Indeed, in cardiology services many patients already progress to cardiac rehabilitation where they receive graded, supervised exercise regimes, education and relaxation training from members of the team, which have a strong psychological component. It would be ideal if these same people could receive CBT when necessary within the same framework, delivered by the specially trained staff who have understanding of their medical problems. This approach expands the role of all health professionals beyond the immediate needs of physical and lifestyle management, and represents not only a more sophisticated, but a more sensible model of care.

Currently, patients who are identified in medical settings as experiencing obvious psychological problems are either referred back to their general practitioner (GP), if there is no need for continued medical care in the clinic, or referred elsewhere for a psychological assessment. What often happens is that their medical care may continue without any specific effort to address health anxiety apart from reassurance, so often shown in the form of more frequent, but medically pointless, follow-up.

There is often a significant wait for psychological assessment and after the referral has been made, it is common for patients to be invited to 'opt in' to the service. Health-anxious patients, who often resent referral to a psychologist, believing that the doctor now assumes their problem is 'all in the mind', remain convinced that there is something physically wrong that requires further investigation. They often fail to attend their psychological assessment, or decline to opt in to demonstrate their unhappiness. To compound the issue, many psychologists are not fully conversant with CBT-health anxiety treatments, especially when there is existing comorbidity, and there is often a very long waiting list for intervention.

Many cases of health anxiety may be missed in medical settings, with only those patients demanding more tests or with frequent inappropriate medical readmissions attracting particular attention. A significant proportion of health-anxious patients become avoidant. Unlike some other patients, they do not seek further help, but still suffer considerably. They may have been discharged confidently from medical care, but been left debilitated by their fears, still convinced they have something seriously wrong and living a lifestyle designed to avoid any risk. In many circumstances this may lead to a miserable existence in which exercise is avoided completely, and in extreme cases patients become unable to leave the house. These patients may remain unidentified unless health professionals recognise the problem and ask the appropriate questions to elucidate it. How to identify these groups is discussed more fully in Chapter 3.

CHAPTER 2

The cognitive theory of health anxiety

The cognitive theory of emotion

The interaction between thoughts, emotions and the physical consequences of these, and subsequent behaviour are illustrated in the diagram below (Fig. 2.1). This is derived from Beck's original formulation (Beck *et al*, 1985), but of course the physical symptoms may include many that are not directly those of anxiety. Each element is interdependent on the others, often coloured by the particular context or specific environment in which symptoms arise. This model encapsulates the theory on which all cognitive therapy is based, although in the case of health anxiety it is modified for the specific problems associated with this condition. It illustrates to the patient not only how their fears are maintained, but also how work in any of the domains can produce benefits in all the others. Problems in all these areas are addressed during the course of therapy.

How health anxiety develops

Misinterpretation of bodily symptoms and sensations

The cognitive explanation for the development of health anxiety follows directly from the tendency to misinterpret bodily sensations and changes as evidence of underlying serious physical illness (Salkovskis & Warwick, 1986; Warwick & Salkovskis, 1990). The impact of these misinterpretations

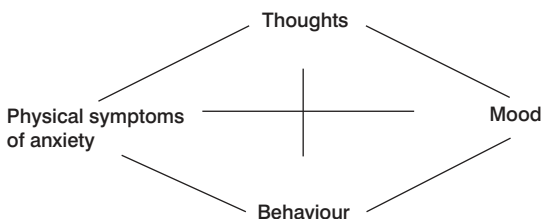


Fig. 2.1 The cognitive theory of emotion.

is dependent on the degree of threat that they carry, and how ‘awful’ the consequences would be for that person if they had that particular condition. The ‘awfulness’ does not just comprise pain and suffering, but includes wider consequences such as general disturbance of life functions, with possible inability to continue work or maintain a role within the family, especially in the longer term. Individuals with health anxiety may acknowledge that the risk to them may be tiny, but it is hugely magnified by the awfulness component, usually inflated far beyond the likelihood of illness. If the risk of developing the feared disease is much higher, for example where there is a strong family history of breast cancer, the consequent anxiety generated can be completely overwhelming.

This is further modulated by the patient’s perceived ability to cope in this situation, as well as the possibility of treatment. To complicate matters further, the treatment may be perceived as almost worse than the disease, for example, where the side-effects of chemotherapy include hair loss and prolonged episodes of nausea and vomiting.

These inter-relationships can be expressed in the so-called ‘Beck’s equation’ (Beck *et al*, 1985) (Fig. 2.2).

$$\text{Anxiety} = \frac{\text{Perceived likelihood of illness} \times \text{Perceived cost, awfulness and burden of illness}}{\text{Perceived ability to cope with illness} + \text{Perception of extent to which external factors will help}}$$

Fig. 2.2 Beck’s equation.

These considerations are the same for other anxiety disorders and indeed for normal anxiety. The cognitive–behavioural approach to treating high health anxiety has the potential to address all four components of this equation (i.e. reduce likelihood and awfulness and increase coping abilities and external support), with development of specific strategies for dealing with the misconceptions in each area. This then leads to an overall reduction in anxiety (Beck *et al*, 1985).

Origins of underlying misconceptions

The tendency to develop misconceptions about health is influenced by knowledge and previous experience of disease. This includes assumptions about how diseases may present and progress. These may be coloured by perceived factors of vulnerability such as ‘I’ve always had a weak chest’ or ‘There’s a lot of heart disease in the family’. The first manifestation of health anxiety often tends to be in response to a trigger, such as illness or death within the family (Barsky & Klerman, 1983), at a time of stress or serious illness, or associated with a health scare in the media. At other times it may be more dramatic, with a specific health-related incident challenging previously adaptive attitudes to health. Thus, for example, take the case

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of an unexpected finding being demonstrated during a routine screening procedure, such as cervical cytology. Here the discovery of the abnormality, alarming enough in itself, may be made worse by the very fact that this was unexpected. More worrying to the patient is the concern that, but for the screening, the condition would have remained undetected, and this can lead to excessive monitoring of other aspects of their health.

Misconceptions are at the heart of abnormal health anxiety and are central to understanding what needs to be done in treatment. Exploring these with the patient is one of the essentials of treatment. A normal assumption about health could be, for example, a prolonged bout of significant pain that might be felt to require further investigation if it persists, whereas a maladaptive assumption might be that every minor bodily sensation constitutes the first sign of disease and requires immediate investigation. These health-anxious thoughts and the consequent anxiety generated lead to autonomic arousal (the physical accompaniments of anxiety). If the symptoms of arousal, such as sweating, dry mouth, shortness of breath and fear of the worst happening are then themselves misinterpreted as an immediate threat to health, a panic attack is the likely outcome. If, however, the symptoms are recognised as anxiety, or as is more usually the case, interpreted as early signs of the feared underlying disease, overt panic is less likely, but persistent preoccupation and worry set in, with the continued state of autonomic arousal perpetuating the sense of ill health and the conviction that there is something seriously wrong. There is, however, overlap between the two, and in later stages of health anxiety, panic attacks may coexist as the feared health outcome is perceived as drawing closer.

Everyone can experience concern about health, and may misinterpret health-related information, imagining that things may be worse than they are, but these fears tend to resolve. Even stronger worries and concerns, sometimes called ‘catastrophic misinterpretations’, may occur, but are usually transient. What makes these misinterpretations persist in the health-anxious patient is the way the patient reacts and responds to the perception of threat. The emphasis and precise nature of these vary from patient to patient but fall into four main areas: biases in information processing, interaction with bodily sensations, safety-seeking behaviours and the effect on mood.

Factors that maintain health anxiety

Biases in information processing

This is a more accurate description of a common fault, getting the message wrong. Those patients who develop health anxiety adopt an over-cautious approach, where, ‘just to be sure’, they tend to focus on health information consistent with their feared diagnosis, disregarding evidence to the contrary. This is known as ‘confirmatory bias’. In addition, some patients

feel they need to worry continually about their health, monitoring things closely to protect themselves from developing illness. This often takes the form of 'selective attention', when the patient automatically tunes in to bodily sensations and changes that they attribute to the feared medical condition. For example, someone with a fear of heart disease may begin to notice occasional episodes of palpitations related to exertion, forgetting that the rest of the time these are absent. Once this fear gains a hold, the patient frequently becomes hypervigilant, and starts to look out for other supporting evidence, misinterpreting other normal bodily sensations or other changes such as getting out of breath when climbing a steep staircase, confirming in their mind further evidence of the disease.

The bias in information selection can also extend to misinterpreting statements made by health professionals in the course of a consultation. For example, the doctor may say, 'There is no evidence here that suggests you have anything serious like cancer', a statement that is meant to be reassuring. However, the intensely worried patient may only hear the word 'cancer' and misinterprets what the doctor has said as 'The doctor thinks I might have cancer now!'.

Recognition of such bias and attendant maintaining behaviour is directly addressed in CBT.

Interaction with bodily sensations

Fears about health lead to an increased level of anxiety with all its associated physical symptoms. The resulting symptoms such as nausea, palpitations, shortness of breath and blurred vision are then misinterpreted as further evidence of disease. When this process occurs rapidly and the bodily sensations are interpreted catastrophically, the result will be a panic attack (Salkovskis & Clark, 1993; Salkovskis *et al.*, 1996), but less catastrophic interpretations can still be very worrying, leading to perpetuation of symptoms. These may be identical to the symptoms generated by excitement or anger but it is their special significance that links them to the fear. There may also be selection, or specificity, in the symptoms generated, where those perceived as related to the feared disease appear to predominate. The combination of selective attention to certain bodily sensations and the perceived need to monitor health can lead to a hypersensitivity to bodily sensations and changes, and health-anxious patients tend to report some of these more accurately (Tyrer *et al.*, 1980). For example, a patient who is anxious about having a heart attack is likely to detect symptoms of anxiety such as palpitations and a rapid pulse rate rather than other signs of anxiety and monitor these more closely. Their anxiety then increases and they continue to check their pulse rate repeatedly.

Specific strategies are developed in CBT to demonstrate the links with physiological symptoms of anxiety and to show how exploring alternative, less threatening explanations along with altering certain behaviours can lead to a reduction in these symptoms.