Cognitive-Behavioral Treatment for Severe and Persistent Health Anxiety (Hypochondriasis)

Paul M. Salkovskis, PhD

Hilary M. C. Warwick, PhD

Alicia C. Deale, PhD

Hypochondriasis is presently classified as a somatoform disorder. However, in terms of phenomenology and cognitive processes, it is probably best considered as a form of severe and persistent anxiety focused on health. This reconceptualization allows the application of Beck's general cognitive theory of anxiety (1985) to the understanding and treatment of hypochondriasis. In this paper, the classification and phenomenology of health anxiety is explained in terms of a specific cognitive-behavioral conceptualization. The way this conceptualization has been successfully applied to the treatment of health anxiety and hypochodriasis is described. The all-important task of engagement is accomplished as part of the cognitive assessment, which helps the patient develop and evaluate an alternative understanding of their problems. This understanding focuses on how misinterpretations of health-related information (mainly bodily variations and medical information) leads to a pattern of responses including anxiety, distorted patterns of attention, safety-seeking behaviors, and physiological arousal. These responses in turn account for the patient's pattern of symptoms and functional impairment. Treatment progresses by helping the patient actively explore the validity of the alternative account of their problems arising from the shared understanding. This objective is accomplished through two avenues: one, discussion, which has the purpose of making sense of the person's experience; and two, active evaluation of the mechanisms involved, through collaboratively designed and implemented behavioral experiments. Evidence from randomized controlled trials strongly suggests that cognitive treatments are effective and that the effects are specific to the treatment techniques used. Development of this work will likely branch into medical problems, where a prominent component of health anxiety exists. [*Brief Treatment and Crisis Intervention* 3:353–367 (2003)]

KEY WORDS: hypochondriasis, somatoform disorders, cognitive behavioral therapy.

Until relatively recently, the treatment of hypochondriasis was not considered to be an important issue, as this condition was regarded as invariably being secondary to depression or anxiety. Kenyon's (1964) influential study of patients with hypochondriacal beliefs suggested that hypochondriasis is always secondary to another primary disorder, usually depression. It was subsequently suggested that hypochondriacal beliefs occurring in the absence of affective

symptoms were due to "masked depression." More recently, studies have convincingly identified a primary disorder in which false concerns about health are the central problem, to which affective symptoms are secondary (Bianchi, 1971). The paper by Barsky and Klerman (1983) marked the reestablishment of hypochondriasis not only as a recognizable clinical condition but also as an important research topic (e.g., Asmundsen & Cox, 2001). Primary hypochondriasis is now included in both ICD 10 (World Health Organization) and *DSM-IV* (APA, 1994).

Although hypochondriasis is now accepted as a primary problem, its taxonomy remains controversial. Debate continues as to whether it is best seen as a somatoform disorder (as presently classified) or as an anxiety disorder (Salkovskis & Warwick, 1986; Warwick & Salkovskis, 1990). To place this debate in context, let us examine the diagnostic criteria presently used. According to *DSM-IV,* hypochondriasis is characterized by preoccupation with fears of having, or the idea that one has, a serious disease, based on the person's misinterpretation of bodily symptoms. Thus, the problem is characterized as a cognitive one, involving erroneous appraisals. Note that this definition bears a strong resemblance to the cognitive theory of panic disorder (Clark, 1986; Salkovskis, 1989). The definition requires that the preoccupation persist despite appropriate medical evaluation and reassurance, meaning that the failure of a psychological intervention (reassurance) by a doctor is required for the diagnosis to be made. In addition, formal diagnosis dictates that the preoccupation has to cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Despite the considerable health care resources utilized by people with hypochondriasis, neither physical medicine nor psychiatry has previously established an effective treatment. Hypochondriasis has long been regarded as an intractable disorder, with supportive therapy and reassurance the best that can be offered. To some extent it has at times also been seen as a nuisance, with some considering it to be akin to factitious problems and malingering.

Recently, well-defined cognitive-behavioral theories of hypochondriasis have been described, and treatment strategies derived from them have been empirically tested in randomized controlled trials. The evidence from this research strongly suggests that this approach is effective both in engaging these patients in treatment and ameliorating the clinical symptoms. The cognitive-behavioral theory of hypochondriasis provides a comprehensive account of the psychological processes involved in the disorder, including etiological and maintaining factors. Modification of the important psychological factors involved in the maintenance of each case should lead to a resolution of the central problem—that is, a false belief that the patient is physically ill, based on the misinterpretation of innocuous physical symptoms or signs, and based on health-related information from professionals, the media, and the Internet.

Controversial Issues

Some authors have suggested that health concerns are not central to the problem and that it is not uncommon for secondary gain to be suggested as an important motivating factor in these cases (see Warwick & Salkovskis, 1990). No evidence has been found to support any role

From the Department of Psychology, Institute of Psychiatry, Kings College, London (Salkovskis and Deale); from the Department of Psychiatry, St.George's Hospital Medical School, London (Warwick).

Contact information: Paul Salkovskis, PhD, Department of Psychology, Institute of Psychiatry, Kings College, London, SE5 8AF, UK. E-mail: p.salkovskis@iop.kcl.ac.uk. Tel: (+44) 020 7848 5039. Fax: (+44) 020 7848 5037.

of secondary gain, and ill-judged attempts to find hidden motives for their presentation can alienate patients. In fact, doing so may actually increase their fears because they believe that they are unlikely to be taken seriously by those seeking to help them. Patients feel that their health concerns are not being given proper consideration and are likely to seek other sources of physical investigations and help. Patients would understandably be angered by such approaches and may be hostile to future attempts to engage them in psychological treatment. Probably the main function of this type of conceptualization is to relieve the clinician of responsibility for the failure of the patient to respond to their therapeutic efforts. Sadly, variations are all too common on the following theme: "the patients didn't get better, despite my best efforts, because they needed their problem and therefore couldn't let it go." This is not to say that motivational factors never play a role; however, they are rare, and a good therapist should be able to detect these at assessment or engagement. That is, there are always straightforward ways of establishing such functional factors.

To successfully reassure a patient is one of the most common aims in medicine, and indeed the diagnosis of hypochondriasis can only be made when this basic medical intervention has failed. Some authors (e.g., Kellner, 1983) suggest that repeated reassurance should be a component of psychological treatment for hypochondriasis. On the other hand, it has been demonstrated (Salkovskis & Warwick, 1986; Warwick & Salkovskis, 1985) that repeated reassurance containing no new information may lead not only to short-term decrease in health anxiety but also a longer term increase in that anxiety and need for reassurance. They suggest that therapists who repeatedly carry out discussions, examinations, and investigations in response to the patient's anxiety, rather than clinical indications, may inadvertently be maintaining or worsening the hypochondriacal concerns. Lucock, Morley, White, and Peake (1997) examined the time course and prediction of effectiveness of responses to reassurance in 60 patients after gastroscopy showing no serious illness. Physician and patient rated the extent of reassurance at the time of the consultation. Patients then rated their anxiety about their health and illness belief at the time of consultation and at four follow-up sessions: 24 hours, 1 week, 1 month, and 1 year. While health anxiety and illness belief decreased markedly after reassurance, patients with high health anxiety showed a significant resurgence in their worry and illness belief at 24 hours and 1 week, which was maintained at 1 month and 1 year. Those with low levels of health anxiety maintained low health worry and illness belief throughout. The authors concluded that reduction in worry and illness belief after reassurance may be very short term and that measurable individual differences in health anxiety predict response to reassurance.

Development of Cognitive-Behavioral Approaches

Some uncontrolled case series have demonstrated behavioral treatment of hypochondriasis with promising results (e.g., Warwick & Marks, 1988). Salkovskis and Warwick (1986) reported two cases of hypochondriasis that were successfully treated with cognitive-behavioral treatment using a single-case experimental design with alternating treatments. Noting the similarities between hypochondriasis and other conditions—such as panic and obsessive-compulsive disorder, in which psychological approaches have been successful—a cognitive-behavioral formulation of the disorder was developed (Salkovskis, 1989; Salkovskis, Warwick, & Clark, 1993; Warwick & Salkovskis, 1990).

The cognitive-behavioral hypothesis used as the basis for treatment proposes the following: that people who experience severe and persistent health anxiety (hypochondriasis) have a relatively enduring tendency to misinterpret bodily symptoms, bodily variations, medical information, and any other health-relevant information as evidence that they currently have, or are at risk of having, a serious physical illness. This tendency will manifest when the person experiences an ambiguous situation—such as the perception of a bodily sensation for which they do not know the cause—and it will be more directly experienced by the person as catastrophic appraisals relevant to their (ill) health. Thus, health anxiety is said to occur as a result of catastrophic misinterpretation of health-related information.

Negative or even catastrophic interpretations of health-relevant information are commonplace in the general population. From time to time, the majority of people are liable to become briefly preoccupied with unexplained bodily variations. However, such episodes of health anxiety are usually transient. Symptoms fade; reassuring information from a doctor is absorbed with relief (if believed); and anxiety about health declines and disappears. The key to understanding and helping those in whom this health anxiety does not fade (or in whom it escalates to the point of dominating their life) lies in understanding what it is that causes their anxiety to persist. The cognitive theory specifies that the persistence of health anxiety is a result of processes that maintain the catastrophic interpretations from which anxiety arises. Vicious circles form as each of these processes is motivated and driven by threat beliefs, either as an automatic reaction or as strategically deployed responses to the perception of threat. Although the relative contribution of each factor and the specific details of those involved vary from person to person, four main types of process tend to be involved:

- Information-processing biases—for example, selective attention
- Physiological reactions—for example, heightened experience of bodily sensations
- Safety-seeking behaviors—for example, avoidance, checking, and reassurance-seeking
- Affective changes—particularly anxiety and depression

The maintaining factors are shown in Figure 1.

Successful cognitive-behavioral treatment of hypochondriasis involves helping the patient develop and evaluate a personalized version of this model as an alternative, less-threatening explanation of their problems (Salkovskis, 1989; 1996). For example, the patient is helped to consider the possibility that their problems are better accounted for by the fear of cancer and their self-sustaining reactions to this fear, rather than actually having cancer. The failure of previous medical interventions to provide successful reassurance is usually due to the lack of a credible alternative explanation for their problems. Whereas patients need a clear account of what is the matter, the traditional approach is to tell the them what is not wrong with them. Many competent specialists can adequately exclude illnesses in their own field but cannot offer an more general alternative explanation. Exclusion of physical illnesses alone is known to be an unsatisfactory treatment for hypochondriasis. A psychological explanation, which attempts to account for the patient's concerns, must appear valid and credible. It should not diverge from the patient's previous experience, and it should also survive their future experiences. The cognitive-behavioral treatment of hypochondriasis offers a positive account of what is occurring—an alternative comprehensive explanation for the patient's concerns, reactions, and, in some cases, symptoms. The patients are encouraged to discuss aspects of their problems that do not fit with the formulation. This new explanation

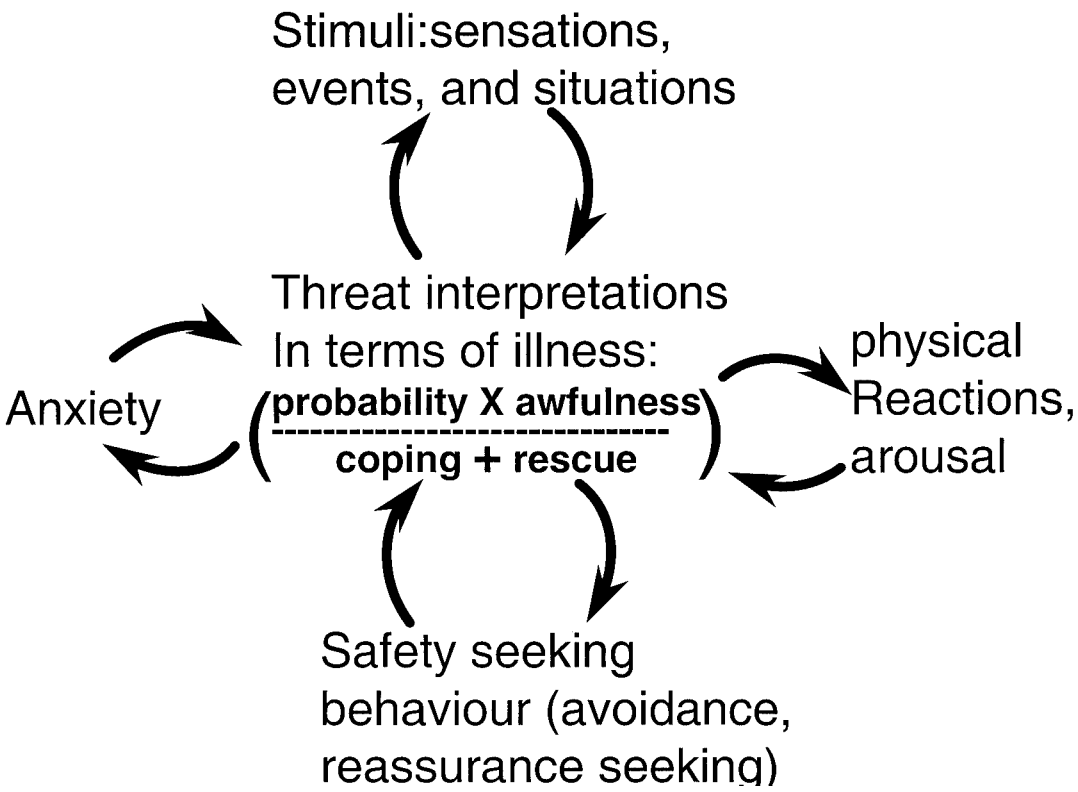

FIGURE 1

Cognitive-Behavioral Model of the Development and Persistence of Health Anxiety (Hypochondriasis)

should lead the patients to reinterpret their innocuous symptoms and attribute them to a less-threatening cause. It will also demonstrate that behaviors such as bodily checking and other maintaining factors serve to make their problems worse and should therefore be terminated.

A further intriguing possibility consistent with the cognitive-behavioral view described here is raised by the series of studies conducted by Sensky and colleagues (MacLeod, Haynes, & Sensky, 1998; Sensky, MacLeod, & Rigby, 1996), who noted that patients high in health anxiety found it more difficult than comparison groups to generate innocuous accounts of somatic symptoms. This finding could, of course, be a state effect, so that elevated health anxiety diminishes the accessibility of alternative attributions; or it may also reflect schema-based problems in people suffering from health anxiety.

Cognitive-Behavioral Treatment

What follows is necessarily a brief overview of cognitive-behavioral treatment. The reader is referred to other sources for more detailed accounts of assessment and treatment (e.g., Salkovskis, 1989; Salkovskis & Bass, 1997; Salkovskis & Warwick, 1988; Warwick, 1995).

General Issues in Assessment

The principal aim of assessment is to obtain a thorough description of the patient's problems and psychopathology, which can then be ex-

pressed as the patient's own version of the cognitive-behavioral formulation. This formulation often identifies aspects of the origins and precipitants of the person's health anxiety. More crucially, it incorporates an account of key factors involved in the maintenance of the patient's health anxiety. In addition, the formulation often provides an account of the basis of many of the symptoms that the patient is experiencing. The use of the patient's account of episodes of intense health anxiety leads to the development of a comprehensive psychological formulation that clearly describes the psychological processes and confirms a positive psychological diagnosis. If the symptoms do not fit such a formulation, then the therapist should consider the genuine possibility of a physical illness.

Goals of Assessment and Engagement

Assessment has the following aims:

- Completion of a thorough comprehensive cognitive-behavioral analysis of the patient's problems—including symptoms, beliefs, behaviors, and consequences
- Identification of the psychological processes involved in the case; deciding if a positive diagnosis of hypochondriasis can be made
- Construction of psychological formulation, developed as a shared understanding with the patient
- Helping the patient feel understood
- Enabling the patient to consider (a) a possible noncatastrophic (psychological) alternative explanation for their problems, and (b) the suggested treatment rationale and strategies that flow from it

Engagement in Assessment

Some patients may be too embarrassed to describe the illnesses that concern them, along with the extent of their reassurance-seeking behaviors. Patient and therapist usually commence assessment with very different expectations and agendas. The therapist often believes that the patient has a psychological problem and that cognitive-behavioral treatment is just what they need. Unfortunately, the patients are convinced that they have a physical illness and that the last thing they need is a psychological treatment. Hence engagement in psychological treatment is likely to be problematic.

The therapist must be well aware of these conflicting agendas. The style of the therapist as demonstrated in the initial interview is crucial. The interview should be conducted with patience and sympathy, and it must culminate in the patients' conviction that all their concerns have been properly considered. The therapist should acknowledge that the patient's physical concerns are real and are to be taken seriously. Such patients may well have been previously told that their symptoms are "all in the mind"; subsequently, they will be watching for evidence of similar attitudes. Frequent use of summaries by the therapist will encourage the patients that their concerns are being taken seriously. When discussing the diagnosis and treatment, the therapist should communicate to the patient that the therapist has seen similar cases in the past; doing so is helpful because patients often feel extremely isolated and feel that no one can help them with their problems. The assessment should be used to construct a comprehensive psychological formulation of the patient's concerns. A version using actual examples from the patient is drawn up, explaining each step to them.

Specifics of Assessment

The specific assessment usually begins once the therapist is confident in firmly establishing basic clinical details and that health anxiety is a major problem for the patient. The therapist

then helps the patients identify a relatively recent episode during which they were troubled by high levels of health anxiety. Memory is primed by having the patient describe the context. Where were they? Who were they with? What were they doing? Was there an obvious trigger?

The first signs that an episode of increased health anxiety are identified; these are usually physical symptoms, although sometimes they may be information about someone else's being ill, information in the media, or it may even be emotional stress not directly related to the health anxiety (such as a marital argument). Once the initial trigger is identified, questioning takes the form of guided discovery that progresses toward an interlocking set of idiosyncratic vicious circles (based on the model in Figure 1); the maintenance cycles are often referred to as a "vicious flower" formulation, referring to the structure of the basic feedback loops illustrated in the patient example shown in Figure 2. These are derived through carefully sequenced questioning, namely: "So the first thing you noticed was tingling fingers. When you noticed your fingers tingling, what went through your mind at that time?"

If the answer is vague, the questioning is pressed, as in "And at that time, did that seem to you to be the very worst thing this tingling could mean?" A belief rating (0–100) for the derived illness-related belief is taken. The questioning continues by eliciting the responses to the negative interpretation: "When you thought this tingling meant you had Multiple Sclerosis, how did that affect you at that moment?" A range of specific follow-up questions are used to elicit the main response domains: "How did it make you feel? What did you do? What did you pay attention to? How did you try to deal with it?" The way in which these responses affected the interpretation and symptoms themselves are then probed, again starting with a more general open query and then progressing to specific anticipated effects, namely: "What did that do? At that time, what was the effect of . . . on the belief that you had multiple sclerosis?"

Over the period of 30 minutes to an hour, a preliminary maintenance formulation is thus derived, identifying

- triggers;
- meaning—including perceived probability, cost, coping, and rescue factors; and
- maintenance factors—those directly driven by negative meanings and those motivated by them.

All of which form the basis of the subsequent engagement efforts.

Engagement

The patients' previous, illness-based view of their problems is then elicited and discussed. The patients usually accept that following this approach has not resolved their problems. The psychological formulation is then discussed as an alternative hypothesis. If, on the basis of this discussion, the patients accept the possibility that their problems could be explained by the psychological formulation, then they are offered a brief course of treatment using psychological techniques. The therapists need to stress that if, after the treatment, the patients are still convinced they are physically ill, then they will be able to seek further physical treatment.

From Formulation to Therapy

Therapy is fluid, idiosyncratic, and formulation-led. Initial sessions focus on testing out the "vicious flower" formulation and accumulating evidence for an anxiety-based, rather than a disease-based, explanation. This objective takes place through an interweaving of discussion and behavioral experiments. As therapy pro-

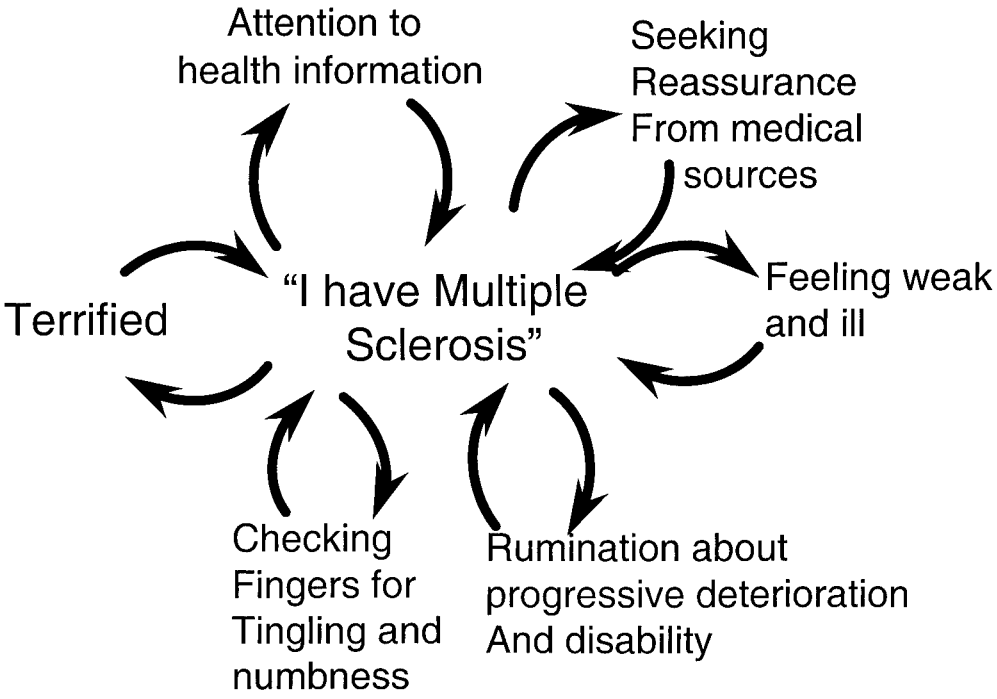

FIGURE 2

Specific Application of the Cognitive-Behavioral Model to a Clinical Case

ceeds, safety behaviors are dropped, and other maintaining factors reversed. In later sessions, assumptions are examined, and a relapse prevention plan is developed.

Self-Monitoring

Once a preliminary "vicious flower" formulation has been drawn up in session, patients are often asked to draw out more "vicious flowers" for further episodes of health anxiety that occur during the week. Doing so helps to socialize them into the "vicious flower" model and to find out how well it fits with their actual experiences. The information gathered can be fed into a generic vicious flower, with more petals.

Patients may also be asked to monitor two aspects of their problem. First, they may keep a brief record of a complete week's activities, noting when physical symptoms and health anxiety occur. Doing so provides information about the particular triggers for health anxiety. It also shows up (a) activities that may be restricted or avoided as a direct result of health anxiety (e.g., fear of having heart disease leads to avoidance of exertion), and (b) those that are carried out only because of the health concern (e.g., taking pulse, going to the doctor). Patients may express surprise when they see how much time and effort they devote to health anxiety, which can provide useful evidence regarding the effects of attention and bodily focusing.

Second, patients may be asked to monitor the next few episodes of health anxiety. They are provided with a record sheet (see Table 1) in which they record triggering symptoms or events, level of health anxiety, thoughts about health, and action taken. Like all negative automatic thoughts, health-anxious thoughts can be difficult to access at first. Patients are asked to

Table 1. Health-Anxious Thoughts Diary

Situation	In a playground with the children
Trigger	Saw a bruisy mark on my leg
Negative automatic thought	"I've got leukaemia"
Anxiety (0–100)	90
Action taken	Thought back to see if I'd knocked myself, checked myself for other bruises, and constantly checked this mark to see if it was getting bigger.

notice when they start feeling anxious about their health and to ask themselves "What went through my mind just now?"

Self-monitoring homework can provide both patient and therapist with useful information, which can be fed back into the vicious flower formulation. In particular, it often highlights safety-seeking behaviors and thinking errors that become the subject of the early stages of treatment.

Questioning Belief

Health-anxious patients interpret bodily sensations and health-related information as being more threatening than they really are. They often overlook or discount nonserious causes for bodily signs and variation. The therapist's job is to help loosen the disease-based interpretations and build an alternative understanding of the problem.

One means of helping patients increase their range of nonthreatening explanations for innocuous symptoms is through the discussion of probabilities. If a patient is worried about particular symptom (e.g., stomach ache), the therapist and patient list all possible causes of that symptom, including the patient's catastrophic interpretation (e.g., stomach cancer). The patient estimates the percentage of stomach aches accounted for by each cause listed. Each cause is then made into a slice of a pie chart. The catastrophic interpretation is left until last, which usually means that it will account for a very small slice of the pie, or even just a few crumbs. The patient can then be asked to subdivide that very small slice of pie to account for those who have already had negative investigations for the feared illness.

A related exercise is the inverted pyramid technique, which is helpful for addressing overperception of risk. The patient is asked to estimate the current number of people with that particular symptom (i.e., those who have it today), the number for whom it persists, the number who consult their doctors, the number who are told they need tests, the number who are told the problem is serious, and the number who are not successfully treated. These exercises can be followed up by homework in which patients apply the same technique to a past health concern and to a health concern that they have not yet had.

Specific reattribution of health-anxious thoughts and images, reattribution may be used. The first stage is to help the patients to identify thinking errors in their interpretation of bodily sensations and health-related information. The most frequent errors include jumping to conclusions, catastrophizing and selective abstraction. This stage leads to generating alternative, less-threatening interpretations through typical questions such as "What evidence do I have for this belief?" "What alternative explanations could there be?" and "What are the advantages and disadvantages of thinking in this way?" The therapist must ensure that the patient generates the alternative, rational response and that they continue to use reattribution techniques between treatment sessions. It is important that the rational response is viewed as a hypothesis, to be tested out in behavioral experiments.

While some reattribution of specific symptoms is helpful, the danger of trying too hard to ex-

plain away every symptom is that it can become a form of reassurance. Questioning beliefs about symptoms is best used as a springboard for behavioral experiments. The results of verbal reattribution and behavioral experiments can be collected in an ongoing log, such as the "dual model strategy" (Wells, 1997). This log collates evidence that supports both a disease-based and cognitive-behavioral explanation, and includes a reframing of each piece of evidence that supports a disease-based explanation.

Behavioral Experiments

Behavioral experiments can help

1. establish that a feared catastrophe will not happen;
2. discover the importance of maintaining factors;
3. discover the importance of negative thinking;
4. find out whether an alternative strategy will be of any value; and
5. generate evidence for a non-disease-based explanation.

Selective-Attention Experiments. In selective-attention experiments, patients are asked to focus on a specific body part for several minutes (one that is not a current cause for health anxiety); after which, they are asked to describe any bodily sensations they notice. Most patients will detect sensations that they were unaware of before the experiment—for example, tightness in throat, tingling in feet. This exercise is helpful as a demonstration of the effects of symptom monitoring and bodily checking.

Testing Predictions. Predictions about specific symptoms indicating imminent catastrophe can be tested in sessions. Simple procedures can be used to bring on feared symptoms. Examples include tensing muscles to bring on pain, or running up and down stairs to bring on breathlessness and chest pain. If the exact or similar sensations to those involved in the patient's concerns can be reproduced, it helps to disconfirm a catastrophic interpretation and thus build up belief in the alternative explanation.

Dropping Safety-Seeking Behaviors. Safety behaviors—checking, reassurance seeking—maintain health anxiety. Patients can test out the effects of these behaviors for themselves by conducting an alternating treatment experiment. This experiment involves, first, increasing the target behavior for a day—such as bodily checking and information seeking—and, second, monitoring anxiety, bodily symptoms, and strength of belief at regular intervals. On the next day, the patient has to completely ban carrying out the target behavior; but once again, anxiety, symptoms, and strength of belief are monitored at intervals. The resulting data is reviewed and graphed at the next session. Patients are often surprised at how much worse they feel on the day in which the target behavior is increased, and this experiment normally leads to a decision to drop the target behavior completely.

Dealing with Rumination, Worry, and Images

Health-anxious patients may spend long periods ruminating on the possible consequences of bodily symptoms, becoming more and more convinced as they do so that they do indeed have a life-threatening illness. At an in-session experiment, they can be asked to ruminate aloud for a period, which will often produce changes in mood, symptoms awareness, and disease conviction. The exercise demonstrates the effect of rumination on health anxiety and can be used to identify thinking errors. It can be followed by an examination of the advantages and disadvantages of thinking in this way. Rumina-

tion can then be scheduled as "worry time," prior to phasing it out altogether.

Images associated with health anxiety can be powerful and convincing. They may be seen as predictive, and they may stop short before, or at, a catastrophic point. The procedure just described can be helpful in demonstrating the effect of imagery on anxiety and disease conviction. The patients may be encouraged to either finish out the image by visualizing what happens next or modify the image and note the effect on anxiety and disease conviction.

Persistent Reassurance Seeking

Managing persistent requests for reassurance has several components. The formulation is usually the first step in demonstrating the adverse effects of reassurance. This step can be taken forward by enquiring about what happens to symptoms when patients receive reassurance. If the symptoms get better, what does that suggest about the cause? Would a serious disease work this way? Patients may believe that reassurance is helpful, as it makes them feel better. It is important to draw out the short-term nature of any benefits and its addictiveness. One technique for doing so is to offer the patient a session of unlimited reassurance, provided they will guarantee that it will last for the rest of the year (see Salkovskis & Bass, 1999, for an example). This technique usually results in patients' identifying for themselves that the effect is short-lived. It is often helpful to carry out a detailed cost-benefit analysis of reassurance seeking. The aim is to contrast the small number of short-term benefits with the immediate, longer-term costs to both patients and their families. Patients may write this exercise out on a flashcard, to use when they are trying to break the habit of reassurance seeking. It can be followed with an alternating treatment experiment involving a day of reassurance seeking followed by a day without reassurance. A combination of these approaches usually leads to the decision to reduce, and then stop, reassurance seeking.

Relatives and friends of those suffering hypochondriasis are often bombarded with requests for reassurance, from the blatant—"Do you think this lump is cancer?"—to the more covert—just mentioning something ("I noticed a lump here, but I'm not worried about it") or showing an area that is causing concern but without saying anything. It is very helpful to invite relatives to a session in which reassurance is discussed. The patient can be asked to describe what they have learned about how reassurance maintains health anxiety, and to list for the relatives all the different ways in which reassurance is sought. Patients are given the responsibility for withholding requests for reassurance, but they and their relatives may need to identify other topics of conversation. They may need to rehearse ways of talking about the health anxiety and being supportive without asking for or giving reassurance.

Dealing with Medical Consultations

Other professionals may unwittingly be providing repeated inappropriate reassurance and, hence, reinforcing the problem. These professionals should be contacted and asked to carry out tests and examinations only when clinically indicated, not when prompted by the patient's anxiety. Patients are asked to reduce the frequency of consultation: many will worry that doing so may lead to something important being missed. This anxiety can be addressed through "programmed postponement," which introduces a delay between noticing and acting on symptoms. A time period is agreed, based on the length of time it normally takes for a symptom to die down (e.g., 10 days). When patients become concerned about a new or more intense symptom, they are asked to make a note in their diary for 10 days ahead. At this time, if the symptom is still present, they will take action (e.g., visit

the doctor); but until then, they are asked to put the worry to one side. The therapist and patient can also draw up a blueprint for when to seek medical help, using the patient's past experience of emergencies to identify when to take action.

Ideally, therapy should not begin if the patient is undergoing major medical tests. However, such tests can be turned to advantage if patients are simply ask to track their anxiety in the period leading up to, during, and after the test. Doing so can provide valuable information about how tests actually increase anxiety.

Identification and Reattribution of Assumptions

To prevent future relapse, patients and therapists need to identify the dysfunctional assumptions that could be activated by different physical symptoms, which would lead to subsequent bouts of health anxiety centred on fears of a different illness. For example, a commonly held belief in hypochondriacal patients is "A physical symptom is always due to physical illness." If this belief is not identified and changed, further health anxiety is likely. A patient with this belief was asked to construct a list of examples of symptoms where this belief was not true. He returned with a very extensive list, which helped him begin to challenge this longstanding, firmly held belief. The vertical arrow is used to identify these assumptions, and they are challenged using reattribution and behavioral experiments. Some may prove difficult to change; others are not restricted to health and illness but may be of a more general negative nature.

For example, the lady who feared her bruises meant she had leukemia believed "I'm Mrs. Jinx; anything bad will happen to me." Physical symptoms were not the only things that could activate this assumption; many other triggers led to numerous episodes of anxiety, not all of which were health related.

Relapse Prevention

Hypochondriacal patients may well be vulnerable to relapse. The experience of physical symptoms is common, and any new symptoms or trivial illnesses are potential triggers for further episodes of health concern. It is unclear, as yet, exactly which patients will relapse. Those who fear they have one illness after another may be more vulnerable to relapse than those who have only been concerned about one disorder, the one directly addressed in treatment. As suggested, it is likely that the correction of dysfunctional assumptions will make relapse less likely, but further assessment of this issue is needed.

In the final therapy sessions, patients are usually asked to work on a relapse-prevention plan, which can be developed and discussed over several sessions. Constructing a relapse-prevention plan includes reviewing what has been learned during treatment; identifying future triggers for health anxiety; being aware of warning signs; and understanding strategies for dealing with setbacks. The patients should also have a clear idea of what they need to do to maintain treatment gains and set goals for the next year. While the aim is to make patients independent of therapy, occasional "booster" sessions may be particularly helpful for this group.

Evidence for the Effectiveness of Cognitive-Behavioral Treatment for Hypochondriasis

Warwick, Clark, Cobb, and Salkovskis (1996) reported a controlled trial of cognitive-behavioral treatment for hypochondriasis. In this study, 32 patients were randomly assigned to cognitive-behavioral therapy or to a no-treatment waiting-list control. Cognitive-behavioral treatment consisted of 16 individual treatment sessions over a 4-month period. Prior to the end of treat-

ment, possible triggers should be identified. The waiting-list control lasted for 4 months and was followed by 16 sessions of cognitive-behavioral treatment. Assessments were made before allocation and after treatment or waiting-list control. Patients who had cognitive-behavioral treatment were reassessed three months after completion of treatment. Paired comparisons on posttreatment/wait scores indicated that the cognitive-behavioral group showed significantly greater improvements than the wait list on all but one patient rating, on all therapist ratings, and on all assessor ratings. After 3 months, the benefits of therapy were maintained.

While this study suggests that cognitive-behavioral treatment is an effective therapy for hypochondriasis, the study has limitations. First, only one therapist was used. It is necessary to establish that similar results can be obtained by other suitably trained therapists. Second, the waiting-list group did not control for the effects of attention, although it is unlikely that attention alone could have brought about the improvements seen in the treated group.

In a second controlled study (Clark et al., 1998), a number of therapists carried out cognitive-behavioral treatment that was compared with a stress-management package and a waiting-list control. At the end of active treatment, both treatments did significantly better than the waiting-list condition, while cognitive-behavioral treatment was significantly better on several key measures. At the 1-year follow-up, the differences between the two treatments were greatly diminished. The authors suggested that this result was not surprising, as behavioral stress management provides patients with a detailed alternative explanation for their symptoms and a comprehensive treatment based on this alternative explanation. This treatment included the engagement strategies developed as part of cognitive therapy to ensure nondifferential dropout rates. This study also raises the intriguing possibility that general stress may play an important part in severe and persistent health anxiety.

In an uncontrolled study, Stern and Fernandez (1991) treated a group of patients with hypochondriasis with cognitive-behavioral treatment. This study had promising results and demonstrated that group cognitive-behavioral treatment is feasible in a general hospital setting. A controlled trial of group treatment has been reported, using the cognitive-educational approach put forward by Barsky, Geringer, and Wool (1988) compared with a waiting list control (Avia et al., 1996). Experimental subjects showed significant reduction in illness fears and attitudes, and they reported somatic symptoms and dysfunctional beliefs. Waiting-list controls changed some illness attitudes, but they showed no change in somatic symptoms and hence increased their visits to doctors. In a crossover design (Visser & Bouman, 1992), 3 patients received exposure and response prevention followed by a block of cognitive therapy. Three more patients were treated with cognitive therapy followed by behavioral treatment. Four patients made significant improvements, with the behavior therapy as first option tending to be the more successful strategy. The description of cognitive therapy used in the study suggests that its components differed from that used in other studies, thus making the results hard to interpret.

Future Research

Further controlled evaluations of cognitive-behavioral treatment of hypochondriasis are required to clearly establish its efficacy. Follow-up studies are in progress to examine the longer-term efficacy of the approach. Future studies should attempt to discover which of the components of cognitive-behavioral treatment are most effective, in an effort to make the treatment briefer and more easily accessible. Similarly,

further controlled trials in a group setting are needed, as this method of delivery should be more cost-effective. Future studies are also needed to examine the efficacy of cognitive-behavioral treatment in cases of hypochondriasis occurring in medical settings. It may be that such cases are more difficult to treat, as such patients may be more reluctant to consider psychological treatment. It is also necessary to see if the approach can be modified for those with a number of related concerns—for example, those with real physical illnesses whose anxieties are thought to be excessive, or for those presenting in general practice settings with somatic complaints that are not yet as severe as hypochondriasis.

References

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th Ed.). Washington, DC: APA.

Avia, M. D., Ruiz, M., Olivares, M. C., Guisado, A. B., Sanchez, A., & Varela, A. (1996). The meaning of psychological symptoms: effectiveness of a group intervention with hypochondriacal patients. *Behaviour Research and Therapy, 34,* 23–31.

Barsky, A., Geringer, E., & Wool, C. (1988). A cognitive-educational treatment for hypochondriasis. *General Hospital Psychiatry, 10,* 322–327.

Barsky, A. J., & Klerman, G. L. (1983). Overview: Hypochondriasis, bodily complaints, and somatic styles. *American Journal of Psychiatry, 140,* 273–283.

Beck, A. T., Emery, G., & Greenberg, R. (1985). *Anxiety disorders and phobias: A cognitive perspective*. New York: Basic Books.

Bianchi, G. N. (1971). The origins of disease phobia. *Australia and New Zealand Journal of Psychiatry, 5,* 241–257.

Clark, D. M. (1986). A cognitive approach to panic disorder. *Behaviour Research and Therapy, 24,* 461–470.

Clark, D. M., Salkovskis, P. M., Hackmann, A., Wells, A., Fennell, M., Ludgate, J., et al. (1998). Two psychological treatments for hypochondriasis: A randomised controlled trial. *British Journal of Psychiatry, 173,* 218–225.

Kellner, R. (1983). Prognosis in treated hypochondriasis. *Acta Psychiatrica Scandinavica, 67,* 69–79.

Kenyon, F. E. (1964). Hypochondriasis: A clinical study. *British Journal of Psychiatry, 110,* 478–488.

Lucock, M. P., Morley, S., White, C., & Peake, M. D. (1997). Responses of consecutive patients to reassurance after gastroscopy: Results of self-administered questionnaire survey. *British Medical Journal, 315,* 572–575.

MacLeod, A. K., Haynes, C., & Sensky, T. (1998). Attributions about common bodily sensations: their associations with hypochondriasis and anxiety. *Psychological Medicine, 28,* 225–228.

Salkovskis, P. M. (1989). Somatic problems. In K. Hawton, P. M. Salkovskis, J. W. Kirk, & D. M. Clark (Eds.), *Cognitive-behavioural approaches to adult psychiatric disorder: A practical guide*. Oxford: Oxford University Press.

Salkovskis, P. M. (1996). Cognitive-behavioral approaches to the understanding of obsessional problems. In R. Rapee (Ed.), *Current controversies in the anxiety disorders* (pp. 103–133). New York: Guilford Press.

Salkovskis, P. M., & Bass, C. (1997). Hypochondriasis. In D. M. Clark & C. G. Fairburn (Eds.), *Science and practice of cognitive behaviour therapy*. Oxford: Oxford University Press.

Salkovskis, P. M., & Warwick, H. M. C. (1986). Morbid preoccupations, health anxiety and reassurance: A cognitive-behavioural approach to hypochondriasis. *Behaviour Research and Therapy, 24,* 597–602.

Salkovskis, P. M., & Warwick, H. M. C. (1988). Cognitive therapy of obsessive-compulsive disorders. In C. Perris, I. Blackburn, & H. Perris (Eds.), *The theory and practice of cognitive therapy*. Heidelburg: Springer–Verlag.

Salkovskis, P. M., Warwick, H. M., & Clark, D. M. (1993). Panic disorder and hypochondriasis. *Advances in Behavior Research and Therapy, 15,* 23–48.

Sensky, T., MacLeod, A. K., & Rigby, M. F. (1996). Causal attributions about common somatic sensa-

tions among frequent general practice attenders. *Psychological Medicine, 26*(3), 641–646.

Stern, R., & Fernandez, M. (1991). Group cognitive and behavioural treatment for hypochondriasis. *British Medical Journal, 303,* 1229–1230.

Visser, S., & Bouman, T. K. (1992). Cognitive-behavioural approaches in the treatment of hypochondriasis: Six single case cross-over studies. *Behaviour Research and Therapy, 30,* 301–306.

Warwick, H. M. C. (1995). Assessment of hypochondriasis. *Behaviour Research and Therapy, 33*(7), 845–853.

Warwick, H. M. C., Clark, D. M., Cobb, A. M., & Salkovskis, P. M. (1996). A controlled trial of cognitive-behavioural treatment of hypochondriasis. *British Journal of Psychiatry, 169*, 189–195.

Warwick, H. M. C., & Marks, I. M. (1988). Behavioural treatment of illness phobia. *British Journal of Psychiatry, 152,* 239–241.

Warwick, H. M. C., & Salkovskis, P. M. (1985). Hypochondriasis. *British Medical Journal, 290,* 1028.

Warwick, H. M. C., & Salkovskis, P. M. (1990). Hypochondriasis. *Behaviour Research and Therapy, 28,* 105–117.