
Cognitive therapy in the treatment of hypochondriasis

Hilary M. C. Warwick

The term hypochondriasis was first coined over 2000 years ago to describe a physical illness afflicting the hypochondrium. Subsequently the term was used for a variety of physical illnesses, until the 17th century when forms of melancholia were labelled as hypochondriasis. Since then a very large number of psychiatric disorders have been given the term hypochondriasis, for example, a form of schizophrenia, anxiety neurosis and malingering (Kellner, 1986).

The position has become clearer, in that hypochondriasis is now accepted as a false belief in illness. That this belief is at the centre of a primary condition has been open to debate. Kenyon's (1964) influential study of patients with hypochondriacal beliefs suggested that hypochondriasis is always secondary to another, primary psychiatric disorder, usually an affective disorder. It has also been suggested that hypochondriacal beliefs occurring in the absence of affective symptoms are due to the concept of 'masked depression'. Subsequent studies have identified a primary disorder in which false concerns about health are the central problem, and to which affective symptoms are secondary (Bianchi, 1971). Primary hypochondriasis is included in both the ICD-10 (World Health Organization, 1992) and DSM-IV (American Psychiatric Association, 1994).

For a definite diagnosis, ICD-10 suggests that both of the following should be present.

- (a) A persistent belief in the presence of at least one serious physical illness underlying the presenting symptom or symptoms, even though repeated investigations and examinations have identified no adequate physical explanation, or a persistent preoccupation with a presumed deformity or disfigurement.
- (b) Persistent refusal to accept the advice and reassurance of several different doctors that there is no physical illness or abnormality underlying the symptoms.

Previous treatments

Neither physical medicine nor traditional psychiatry has been able to treat people with hypochondriasis successfully. It has long been regarded as an intractable disorder for which there is no effective treatment, with supportive therapy being the best that can be offered. In response to the view that hypochondriasis is always secondary to another psychiatric disturbance, the concept of masked depression was used to justify prescription of antidepressant medication, in the absence of a primary affective disturbance. This approach has not been successful in treatment of hypochondriasis (Kellner *et al*, 1993).

Some recent studies have used fluoxetine in a small number of cases and claim promising results, however, its efficacy has yet to be established clearly (Fallon *et al*, 1996). There have been some uncontrolled case series in which behavioural treatment of hypochondriasis has had promising results (Warwick & Marks, 1988).

Behavioural treatment is well established as a successful long-term treatment for obsessive-compulsive disorder, and more recently, cognitive-behavioural treatment (CBT) has been shown to be effective in treatment of panic disorder. As both these conditions have phenomenological similarities with hypochondriasis, the use of cognitive-behavioural strategies in this disorder were examined. Salkovskis & Warwick (1986) reported two cases of hypochondriasis successfully treated with CBT, and went on to describe a comprehensive cognitive-behavioural formulation of hypochondriasis (Salkovskis, 1989; Warwick & Salkovskis, 1990: described below). This is a comprehensive description of the processes involved in the disorder, including aetiological and maintaining factors.

Hilary Warwick is Senior Lecturer in Psychiatry at St George's Hospital Medical School, Cranmer Terrace, London SW17 0RE. Her research interests include hypochondriasis and obsessive-compulsive disorder, and she is involved in postgraduate training in cognitive-behavioural therapy.

Cognitive-behavioural formulation of hypochondriasis

The central feature of primary hypochondriasis is the enduring tendency to misinterpret innocuous physical symptoms as evidence of physical illness. Common innocuous interpretations are ignored, and when the patient perceives a physical symptom, negative automatic thoughts about the meaning of that symptom are experienced. For example, a headache will be immediately evaluated as evidence of a brain tumour, and the more common explanations, such as tension or a hangover, will be ignored. Powerful images of illness and its consequences are often experienced. The illnesses feared are those with severe outcomes and consequences, such as cancer or multiple sclerosis. These illnesses are unlikely to result in immediate catastrophe, which helps to distinguish hypochondriasis from panic. Individuals may fear one illness or several simultaneously, or fear several in succession during their hypochondriasis, which runs a chronic, fluctuating course. A variety of symptoms can be misinterpreted: those of innocuous illnesses, such as colds; anatomical variations, such as discrepancies between the sides of the body; trivial bodily variations, such as aches and pains; and iatrogenic symptoms. Although physical symptoms are the most frequent triggers of health anxiety, information about illness, for example in the media, can lead to such fears. The publicity about AIDS in the late 1980s led to numerous cases of unnecessary anxiety about the condition.

In Beck's cognitive theory (Beck *et al.*, 1985) it is suggested that thoughts and images relating to a threat of some type are associated with anxiety. In hypochondriasis, the negative thoughts and images are of a threat to health, and anxiety results. The extent of this health anxiety is variable – it may be slight when the person is distracted, but might reach panic levels when symptoms are present and the person is considering their consequences. The level of health anxiety on any one occasion depends on a number of factors: the patient's perception of the likelihood that they are seriously ill, their perception of the possibility that successful treatment is available and their assessment of the likely outcome and its effect on themselves and others. Typical cognitive errors can be identified repeatedly in the thinking of people with hypochondriasis, most frequently jumping to conclusions and catastrophising. Once health anxiety occurs, a number of factors maintain it. Avoidant behaviours are among the most frequent and important and include avoidance, checking and reassurance-seeking.

Avoidant behaviours in health anxiety

Bodily checking

The individual repeatedly examines the 'afflicted' part of the body, looking for changes which might confirm their fears. They may also further examine their bodies for evidence of generalised illness. A person with abdominal pain who fears cancer, will repeatedly palpate their abdomen checking for lumps, while weighing themselves frequently for the first signs of weight loss and generalised ill health. Checking phenomenologically similar to that in obsessive-compulsive disorder may also occur – one person had to count to four on each tread of the stairs "or else some terrible illness might develop".

Direct checking can also exacerbate concerns, for instance, repeated palpation of a spot can lead to delayed healing and fears of skin cancer.

Avoidance

While less prominent than checking, people with hypochondriasis avoid situations and activities which they feel will exacerbate their feared illness – a person who fears heart disease may avoid all exertion.

Reassurance-seeking

The diagnosis of hypochondriasis depends on a failed medical intervention, the most commonly used psychotherapeutic intervention in medicine, reassurance. Reassurance-seeking is one of the most striking features of hypochondriasis, with sufferers of the disorder going to great lengths to gain reassurance that they are not ill. Numerous sources of reassurance may be sought: reading 'home doctor' periodicals and use of health phone lines, repeated questioning of relatives about their perception of the person's health state, seeking repeated medical consultations, examinations and investigations and the use of 'alternative' treatments, for example, homoeopathy or reflexology. Reassurance is often sought extremely frequently. Some psychiatrists challenge the view that repeated reassurance exacerbates hypochondriasis and suggest that reassurance should be given regularly. However, Salkovskis & Warwick (1986) suggest that reassurance-seeking and provision function as operants in the same way as rituals in obsessive-compulsive disorder and hence maintain the problem (Warwick, 1992). Avoidant behaviours can be so extensive that they dominate the person's activities, putting them, their families and health services under great strain.

A number of cognitive factors also maintain health anxiety.

Cognitive factors in health anxiety

Preoccupation

One of the striking characteristics of people with hypochondriasis is their preoccupation with their hypochondriacal concerns. Speech and thought content are completely dominated by health and illness, which is extremely distressing for the person along with their friends and relatives and those involved in their treatment.

Bodily focusing

People with hypochondriasis spend a great deal of time focusing on their bodies and so become acutely aware of any sensations, especially those in the area of bodily concern.

Selective attention

Individuals selectively attend to information about health and illness, especially that which they feel confirms their concerns.

Physiological maintaining factors

Autonomic symptoms of anxiety, such as dyspnoea and palpitations, are misinterpreted as further evidence of physical illness.

Affective maintaining factors

Belief that a serious illness is present often leads to secondary depressive symptoms. Individuals are usually clear that their low mood is a result of their

health anxiety, which pre-dates the depressive symptoms.

These behavioural, cognitive, physiological and affective changes maintain anxiety, which in turn leads to an increase in negative thoughts and therefore completes a vicious circle (Fig. 1).

A crucial question is why people with hypochondriasis persistently misinterpret innocuous symptoms. It is suggested that this is due to dysfunctional core beliefs and the assumptions, attitudes and rules derived from them. Such faulty beliefs relating to health and illness may develop from previous experience of illness in self, relatives or friends. Examples include beliefs about the meaning of symptoms, for example: 'Physical symptoms are always a sign of physical illness'; vulnerability to illness, 'I'm like my mother who died of cancer, therefore I will get it too'; and about medical management, 'the doctor cannot know that there is nothing wrong, as he did not do any tests'. Faulty beliefs may also concern general issues: 'Anything bad will happen to me'.

When a triggering event occurs (e.g. perception of physical symptoms) these beliefs are activated leading to misinterpretation and negative automatic thoughts.

Treatment strategies

If the cognitive-behavioural formulation is correct, then treatment strategies derived from the formulation should be successful in the treatment of hypochondriasis (Box 1).

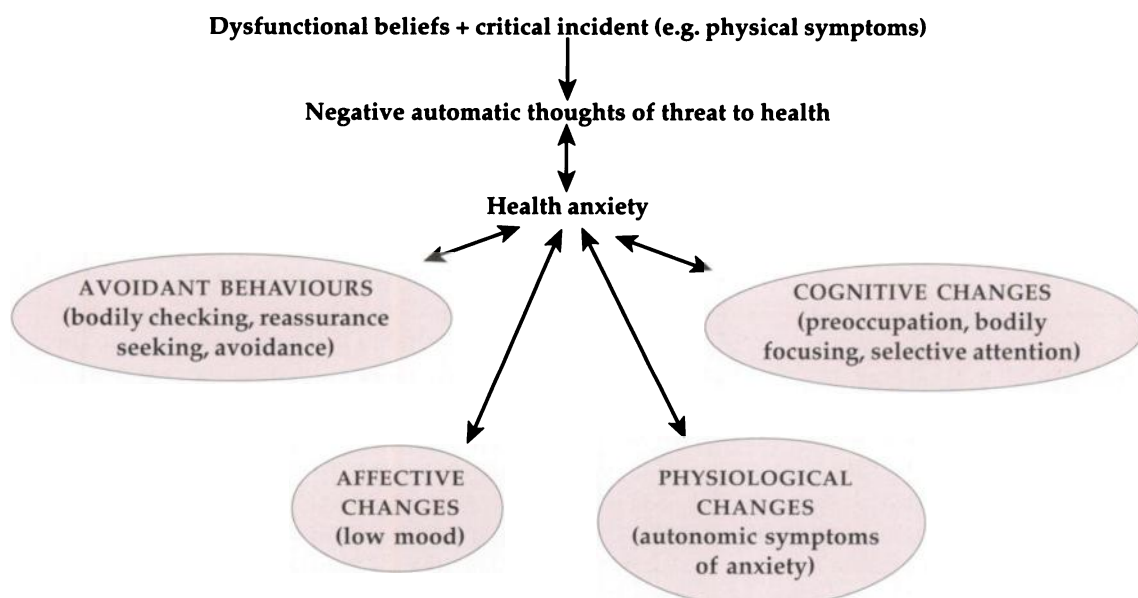


Fig. 1 Cognitive-behavioural formulation of hypochondriasis

Prior to assessment, the therapist should clearly establish from discussion and medical records that adequate physical investigations have been carried out and that no underlying physical illness has been missed. The development of the formulation should help to confirm to the therapist that there is a positive psychological diagnosis. If the symptoms do not fit such a formulation, then the possibility of a physical illness should be reconsidered.

Engagement

Perhaps the most important aspect of management occurs before any treatment. People with hypochondriasis are often extremely reluctant to engage in any psychological treatment, fearing a delay in further physical investigations. They may have been brought along under protest by relatives or sent by physicians, who refuse any further physical investigations until psychological assessment has been carried out.

Two main tactics are employed to deal with problems engaging in treatment. First, the style of the therapist is crucial. The interview should be conducted without rushing, in a sympathetic manner, and must culminate in the patient's conviction that all their concerns have been discussed. The therapist should acknowledge that the patient's physical concerns are real and are taken seriously. The patient may well have been told previously that their symptoms were 'all in the mind', and will be watching for evidence of similar attitudes. When discussing diagnosis and treatment, it should be stated that the therapist has seen similar cases in the past, as people with hypochondriasis often feel extremely isolated and that no-one can help them with their problems.

Second, the assessment should be used to construct a comprehensive psychological formulation of the person's concerns. A version using actual examples from the individual is drawn up, explaining each step to them (Fig. 2).

The individual is then asked to explain their own hypothesis of their problems, which is usually that they have an undiagnosed serious physical illness

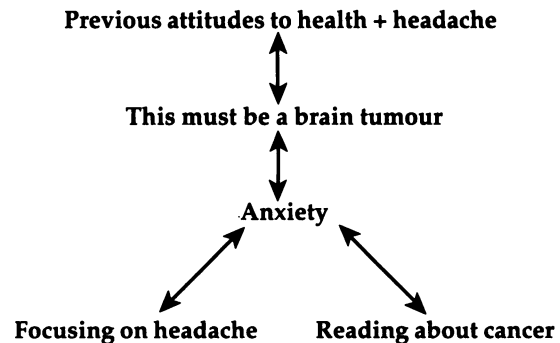


Fig. 2 Simplified example of cognitive-behavioural formulation

which requires further investigations and treatment. The individual will usually accept that following this approach has not resolved their problems. The psychological formulation is then discussed as a competing hypothesis. If the person accepts the possibility that their problems could be explained by the psychological formulation, then they are offered a brief course of treatment using psychological techniques derived from it. It is stressed that if, after this treatment, they are still convinced they are physically ill, then they will be able to seek further physical treatment. In this way a surprisingly large number of people with hypochondriasis have accepted psychological treatment.

It is crucial to maintain empathy throughout the treatment. The therapist must continue to show understanding of the patient's situation and distress. Socratic questioning is very important when trying to establish the nature of the patient's beliefs and the evidence supporting these beliefs.

A patient with hypochondriacal concerns about headaches described a recent episode of severe pain. The therapist, instead of assuming and suggesting that the patient feared a brain tumour or a stroke, asked the patient what was going through her mind when the headache was present. The patient replied that: "This headache is so severe it must be a brain tumour, and it's at the side of my head and that's where most brain tumours are".

In this way the person with hypochondriasis knows their concerns have been heard and two pieces of faulty information about the nature of headaches have been elicited, which can be corrected during treatment.

People with hypochondriasis often have a tendency, particularly early in treatment, to try to extract reassurance repeatedly from the therapist. The therapist must watch out for such attempts, and by referral back to the formulation, explain to the patient why giving such reassurance would be detrimental to treatment. Summaries should be made at regular intervals, by both therapist and patient,

Box 1. Main components of cognitive-behavioural treatment

- Engagement
- Self-monitoring
- Identification and re-attribution of negative automatic thoughts
- Modification of abnormal illness-related behaviours
- Identification and re-attribution of dysfunctional beliefs

to ensure correct understanding of information and homework instructions.

Self-monitoring

Individuals are asked to monitor episodes of health concern, noting triggering symptoms, level of anxiety, negative thoughts about health and action taken. This provides the therapist with further information and examples to work with in initial cognitive restructuring. It also helps to confirm to the person that the psychological formulation is correct, and that the suggested sequence of events is actually occurring. Using the example of the woman with a headache, an entry in a diary record might be as shown below:

Situation:	Watching late-night television.
Trigger:	Severe headache.
Thoughts:	"I've got such a bad headache it must be a brain tumour". Belief = 90%.
Emotion:	Severe anxiety, rating 90 (visual analogue rating 0–100).
Action taken:	Reread the section in my medical encyclopaedia about brain tumours and then checked my vision.

A record of a week's activities is kept, along with notes of physical symptoms and anxiety, giving the therapist information about triggers of health anxiety.

Cognitive restructuring

In an early session, the subject must be asked to give a full list of all their 'evidence' for their being physically ill, along with any evidence that they have that there is nothing wrong with them. Some of this evidence may be idiosyncratic and obviously faulty, but it must all be considered and re-evaluated during the course of treatment. The therapist informs the person of the cognitive errors which are apparent in their cognitions and teaches them how to recognise errors and to construct more rational responses to situations. The therapist must work in collaboration with the patient to enable them to construct their own rational responses. This is of particular importance, as people with hypochondriasis will often try to gain reassurance by receiving answers to their concerns from the therapist. Behavioural experiments are constructed, wherever possible, to test out the rational response.

The woman who was 90% convinced that her headache meant that she had a brain tumour was asked to construct a list of causes of headaches. She came up with a lengthy list containing a number of illnesses, but also a number of innocuous causes, such as tension or a hangover. She was asked to choose the most common cause and suggested

tension. A brief behavioural experiment was carried out in which she and the therapist tensed their face and scalp muscles for several minutes. The woman rapidly developed a headache, with some similarities to the one that had been troubling her, and her belief that she had a brain tumour fell to 50%.

People with hypochondriasis learn to re-attribute their automatic thoughts between treatment sessions, and are encouraged to devise their own behavioural experiments to check the accuracy of their rational responses.

Exposure and response prevention

Abnormal illness-related behaviours have a crucial role in the maintenance of hypochondriasis. Appropriate graded exposure is used if avoidance is present, along with response prevention for checking. In addition, it is important to carry out reassurance-prevention by referring the patient to the formulation and explaining the importance of the cessation of reassurance-seeking. It is often necessary to instruct families how to respond to repeated requests for reassurance. They are taught to reply as follows: "Hospital instructions are that I should not answer such questions". Others involved in the patient's care should be contacted and asked to carry out no further investigations or examinations that are prompted by anxiety rather than clinical indications.

Identification and re-attribution of core beliefs and assumptions

To prevent future relapse, it is important to identify dysfunctional core and intermediate beliefs, and to correct them using re-attribution and behavioural experiments.

For example, the woman with a headache believed that a physical symptom is always caused by physical illness. As a homework exercise she was asked to construct a list of examples of situations, with her husband's help, where this belief is false. She returned with several examples, including abdominal discomfort after a heavy meal, and back pains after digging the garden or playing badminton. This exercise and others helped her to re-appraise accurately the dysfunctional belief.

Treatment studies

Warwick *et al* (1996) reported a controlled trial of CBT for hypochondriasis in which 32 subjects were randomly assigned to either CBT or a waiting list control group (no treatment). CBT consisted of 16

individual treatment sessions over a four-month period. The waiting list control lasted for four months and was followed by 16 sessions of CBT. Assessments were made before allocation and after treatment or waiting list. Subjects who had CBT were re-assessed three months after completion of treatment. Paired comparisons on post-treatment/waiting list scores indicated that the CBT group showed significantly greater improvements than the waiting list group on all but one subject's rating, all therapist ratings and all assessor ratings. After three months the benefits of therapy were maintained. Although this suggests that CBT is effective for hypochondriasis, the study has limitations. There was only one therapist and it is necessary to establish that similar results can be obtained by other suitably trained therapists. The waiting list group did not control for 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 (see Salkovskis & Bass, 1996) CBT was compared with a stress management package and a waiting list control condition. Preliminary data indicated that both active treatments did significantly better than the waiting list condition, which the authors claimed was not surprising as behavioural stress management provided the subjects with a detailed alternative explanation for their symptoms and comprehensive treatment based on this alternative explanation. Further analysis is awaited to determine the relative efficacy of the two treatments.

In an uncontrolled study, Stern & Fernandez (1991) treated a group of people with hypochondriasis with CBT. This study had promising results and demonstrated that group CBT is feasible in a general hospital setting. A controlled trial of group treatment has been reported, using the cognitive-educational approach of Barsky *et al* (1988) compared with a waiting list control (Avia *et al*, 1996). Treated subjects showed significant reduction in illness fears and attitudes, reported somatic symptoms and dysfunctional beliefs, while control subjects also changed some illness attitudes but showed no change in somatic symptoms and increased their visits to doctors. In a cross-over design (Visser & Bouman, 1992) three people received exposure and response prevention followed by cognitive therapy. Three more subjects were treated with cognitive therapy followed by behavioural treatment. Four people made significant improvements, and the behaviour therapy first option tended to be the more successful.

Future research

Further controlled evaluations of CBT for hypochondriasis are required to establish its efficacy clearly.

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 CBT 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 CBT in cases of hypochondriasis occurring in medical settings. It may be that such individuals are more difficult to treat, as they may be more reluctant to consider psychological treatment. It is also necessary to see whether the approach can be modified for use with those with a number of related concerns, for example, those with real physical illnesses whose anxieties are thought to be excessive, and those presenting in general practice settings with somatic complaints which are not yet as severe as hypochondriasis.

References

- American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders* (4th edn) (DSM-IV). Washington, DC: APA.
- Avia, M. D., Ruiz, M., Olivares, M. C., *et al* (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.
- Beck, A. T., Emery, G. & Greenberg, R. (1985) *Anxiety Disorders and Phobias: A Cognitive Perspective*. Basic Books: New York.
- Bianchi, G. N. (1971) The origins of disease phobia. *Australia and New Zealand Journal of Psychiatry*, **5**, 241–257.
- Fallon, B. A., Liebowitz, M. R., Salzman, E., *et al* (1996) Fluoxetine for hypochondriacal patients without major depression. *Journal of Clinical Pharmacology*, **13**, 438–441.
- Kellner, R. (1986) *Somatization and Hypochondriasis*. New York: Praeger.
- Kellner, R., Fava, G. A. & Lisansky, J. (1993) Hypochondriacal fears and beliefs in DSM-III melancholia. *Journal of Affective Disorders*, **10**, 21–26.
- Kenyon, F. E. (1964) Hypochondriasis: a clinical study. *British Journal of Psychiatry*, **110**, 478–488.
- Salkovskis, P.M. (1989) Somatic problems. In *Cognitive-Behavioural Approaches to Adult Psychiatric Disorder: A Practical Guide* (eds K. Hawton, P. M. Salkovskis, J. W. Kirk, *et al*), pp. 235–276. Oxford: Oxford University Press.
- & Warwick, H. M. C. (1986) Morbid preoccupations, health anxiety and reassurance: A cognitive-behavioural approach to hypochondriasis. *Behaviour Research and Therapy*, **24**, 597–602.
- & Bass, C. (1996) Hypochondriasis. In *Science and Practice of Cognitive-Behavioural Therapy* (eds D. M. Clark & C. G. Fairburn), pp. 313–339. Oxford: Oxford University Press.
- 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. (1992) Provision of appropriate and effective reassurance. *International Review of Psychiatry*, **4**, 71–80.

- & Marks, I. M. (1988) Behavioural treatment of illness phobia. *British Journal of Psychiatry*, **152**, 239–241.
- & Salkovskis, P. M. (1990) Hypochondriasis. *Behaviour Research and Therapy*, **28**, 105–117.
- , Clark, D. M., Cobb, A. M., *et al* (1996) A controlled trial of cognitive-behavioural treatment of hypochondriasis. *British Journal of Psychiatry*, **169**, 189–195.
- World Health Organization (1992) *The Tenth Revision of the International Classification of Diseases and Related Health Problems (ICD-10)*. Geneva: WHO.

Multiple choice questions

1. In primary hypochondriasis:
 - a sufferers often have high levels of anxiety
 - b abnormal illness behaviour includes bodily checking
 - c sufferers may have secondary depressive symptoms
 - d repeated physical examinations should be conducted
 - e dysfunctional assumptions about health are not prominent.

2. People with primary hypochondriasis:
 - a fear immediate death
 - b only ever have concerns about one illness
 - c are malingerers
 - d amplify physical sensations
 - e may have had previous experience of ill-health.

3. Therapists working with hypochondriasis should:
 - a not involve relatives in treatment
 - b discuss appropriate treatment with involved professionals
 - c use Socratic questioning
 - d not imply that the patient is experiencing real symptoms
 - e always answer their patients' questions about illness.

4. Cognitive-behavioural treatment for hypochondriasis involves:
 - a homework exercises for the patient
 - b no 'pure' behavioural strategies
 - c no attention to assumptions
 - d re-attribution
 - e self-monitoring.

MCQ answers

1	2	3	4
a T	a F	a F	a T
b T	b F	b T	b F
c T	c F	c T	c F
d F	d T	d F	d T
e F	e T	e F	e T

Commentary

Richard Stern

"Hypochondriasis is a condition in which there are no established effective treatments" (Fallon *et al*, 1991).

Warwick's paper shows how recent advances have completely altered the previous therapeutic nihilism expressed in the above quotation. Physicians and surgeons have long been aware that medical and surgical problems turn out to have no organic cause. Joyce *et al* (1986) from New Zealand examined 105

people with abdominal pain who had been admitted to a surgical ward. They found that the most common surgical diagnosis was non-specific abdominal pain, closely followed by appendicitis. Those with non-specific abdominal pain contained a very interesting group of patients: they were predominantly female, did not have any physical findings, and were more anxious and conformed to the pattern of patients showing fear of illness. This

Richard Stern is Consultant Psychiatrist, Pathfinder NHS Trust, Springfield University Hospital, 61 Glenburnie Road, London SW17 7DJ. His research and clinical interests include the application of behavioural and cognitive therapy approaches to general psychiatry.