

*ABC of psychological medicine***Functional somatic symptoms and syndromes**

Richard Mayou, Andrew Farmer

Concern about symptoms is a major reason for patients to seek medical help. Many of the somatic symptoms that they present with—such as pain, weakness, and fatigue—remain unexplained by identifiable disease even after extensive medical assessment. Several general terms have been used to describe this problem—somatisation, somatoform, abnormal illness behaviour, medically unexplained symptoms, and functional symptoms. We will use the term functional symptoms, which does not assume psychogenesis but only a disturbance in bodily functioning.

**Classification of functional syndromes**

Most functional symptoms are transient, but a sizeable minority become persistent. Persistent symptoms are often multiple and disabling and may be described as functional syndromes. Although different medical and psychiatric classifications of functional syndromes exist, these are simply alternative ways of describing the same conditions.

*Medical syndromes* (such as fibromyalgia and chronic fatigue, chronic pain, and irritable bowel syndromes) highlight patterns of somatic symptoms, often in relation to particular bodily systems. Although they are useful in everyday medical practice, recent studies show there is substantial overlap between them.

*Psychiatric syndromes* (such as anxiety, depression, and somatoform disorders) highlight psychological processes and the number of somatic symptoms irrespective of the bodily system to which they refer. Depression and anxiety often present with somatic symptoms that may resolve with effective treatment of these disorders. In other cases the appropriate psychiatric diagnostic category is a somatoform disorder.

The existence of parallel classificatory systems is confusing. Both have merits, and both are imperfect. For many functional symptoms, a simple description of the symptom qualified with the descriptors single or multiple and acute or chronic may suffice. When diagnosis of a functional syndrome seems appropriate a combination of medical and psychiatric descriptors conveys the most information, such as “irritable bowel syndrome with anxiety disorder.”

A major obstacle to effective management is patients feeling disbelieved by their doctor. Patients who present with symptoms that are not associated with disease may be thought by some to be “putting it on.” The deliberate manufacture of symptoms or signs, however, is probably rare in ordinary practice.

**Epidemiology**

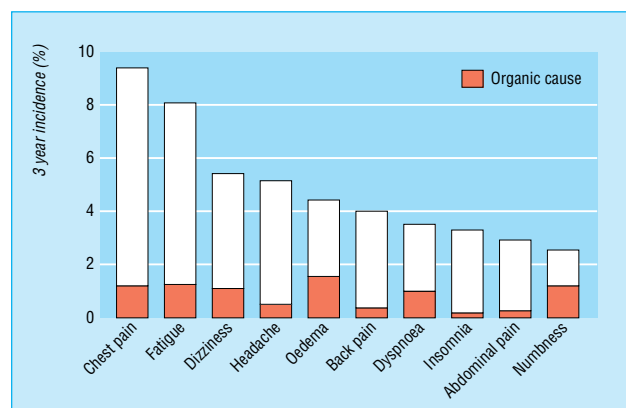
Community based studies report annual prevalences of 6-36% for individual troublesome symptoms. In primary care only a small proportion of patients presenting with such symptoms ever receive a specific disease diagnosis. The World Health Organization found functional symptoms to be common and disabling in primary care patients in all countries and cultures studied. Up to half of these patients remain disabled by their symptoms a year after presentation, the outcome being worse for those referred to secondary and tertiary care. The clinical and public health importance of functional symptoms has been greatly underestimated.

**Some common functional symptoms and syndromes**

- Muscle and joint pain (fibromyalgia)
- Low back pain
- Tension headache
- Atypical facial pain
- Chronic fatigue (myalgic encephalomyelitis)
- Non-cardiac chest pain
- Palpitation
- Non-ulcer dyspepsia
- Irritable bowel
- Dizziness
- Insomnia



René Descartes, who formulated the philosophical principle of separation of brain and mind. This has led to continuing dualism—separation of body and mind—in Western medicine and difficulty in accepting the interaction of physical and psychological factors in aetiology



Three year incidence of 10 common presenting symptoms and proportion of symptoms with a suspected organic cause in US primary care

## Causal factors

The cause of functional symptoms and syndromes is not fully understood, and it is therefore best to remain neutral regarding aetiological theories. In practice, functional symptoms are often attributed to single cause, which may be pathological (such as “a virus”) or psychological (such as “stress”). This simplistic and dualistic approach is unhelpful both in explaining the cause to a patient and in planning treatment. The available evidence suggests that biological, psychological, interpersonal, and healthcare factors are all potentially important.

The dualistic, single factor view has tended to emphasise psychological over biological factors, as exemplified by the commonly used term “somatisation.” However, recent evidence suggests that biological factors (especially reversible functional disturbance of the nervous system) are relevant to many functional syndromes, as they are to depression and anxiety disorders. A pragmatic doctor therefore asks not whether symptoms are “physical” or “mental” but whether they are fixed or are reversible by appropriate intervention.

The role of interpersonal factors in general, and of doctors and the health system in particular, in exacerbating functional symptoms has received less attention than it deserves. Raising fears of disease, performing unnecessary investigations and treatments, and encouraging disability are probably common adverse effects of medical consultations. However, denying the reality of patients’ symptoms may damage the doctor-patient relationship and drive patients from evidence based care into the arms of the unhelpful, unscientific, and unscrupulous.

Aetiological factors can also be usefully divided into the stage of illness at which they have their effect. That is, they may be predisposing, precipitating, or perpetuating. Predisposing and precipitating factors are useful in producing a fuller understanding of why a patient has the symptom, while perpetuating factors are the most important for treatment.

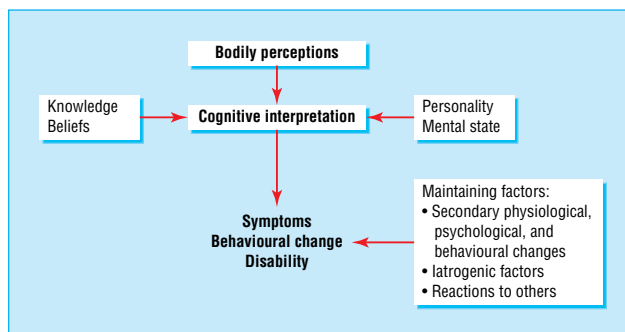
*Precipitating factors*—Symptoms may arise from an increased awareness of physiological changes associated with stress, depression, anxiety and sometimes disease and injury. They become important to the patients when they are severe and when they are associated with fears of, or belief in, disease.

*Predisposing factors* increase the chance that such symptoms will become important. Some people are probably biologically and psychologically predisposed to develop symptoms. Fear of disease may result from previous experience—for example, a middle aged man with a family history of heart disease is likely to become concerned about chest pain.

*Perpetuating factors* are those that make it more likely that symptoms and associated disability persists. Patients’ understandable attempts to alleviate their symptoms may paradoxically exacerbate them. For example, excessive rest to reduce pain or fatigue may contribute to disability in the longer term. Doctors may also contribute to this by failing to address patients’ concern or unwittingly increasing fear of disease (such as by excessive investigation). The provision of disability benefits can also be a financial disincentive for some patients to return to jobs they dislike, and the process of litigation may maintain a focus on disability rather than recovery.

## Detection and diagnosis

Almost any symptom can occur in the absence of disease, but some, such as fatigue and subjective bloating, are more likely to be functional than others. Surprisingly, the more somatic symptoms a person has, the less likely it is that these symptoms reflect the presence of disease and the more likely there is associated depression and anxiety.



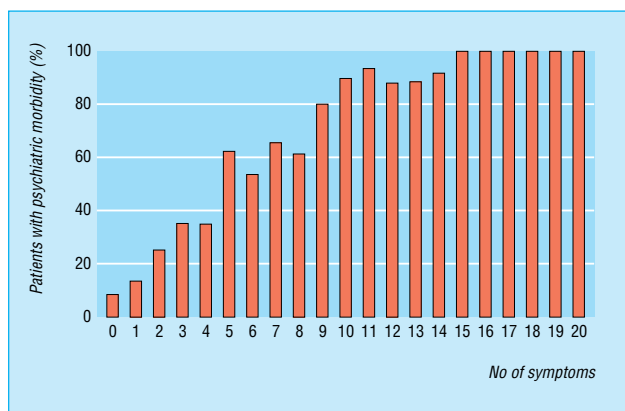
Interactive aetiology of “unexplained symptoms”

### Iatrogenic factors in development of medically unexplained symptoms

- Appearance of uncertainty and inability to provide an explanation
- Expressed concern about disease explanations
- Failure to convince patient that the complaint is accepted as genuine
- Reassurance without a positive explanation being given
- Ambiguous and contradictory advice
- Excessive investigation and treatment

### Individualised aetiological formulation for patient with chronic pain

Causes	Predisposing factors	Precipitating factors	Perpetuating factors
Biological	Genetic?	Injury at work	Effect of immobility
Psychological	Lack of care as child	Trauma	Fear of worsening pain Avoid activity
Interpersonal	Family history of illness Dissatisfaction with work	Response of employer	Oversolicitous care Litigation process
Medical system	—	—	Focus solely on somatic problems



Association between number of unexplained physical symptoms and psychiatric disorder (anxiety and depression) in an international study of primary care attenders

Patients with functional symptoms can be detected by maintaining an awareness of the problem when seeing new patients and by the use of somatic symptom questionnaires (large numbers of symptoms are more likely to be functional).

## Management

Although it is essential to consider disease as the cause of the patient's symptoms an approach exclusively devoted to this can lead to difficulties if none is found. Making explicit from the start the possibility that the symptoms may turn out to be functional keeps the option of a wider discussion open. Even if more specialist treatment is needed, then the problem has, from the outset, been framed in a way that enables psychological treatment to be presented as part of continuing medical care rather than as an unacceptable and dismissive alternative. In this way it is possible to avoid an anxious disabled patient being treated by a bewildered frustrated doctor.

### Investigation

An appropriate physical examination and necessary medically indicated investigation are clearly essential. Thereafter, before further investigation is done, the potential adverse psychological effect on the patient should be balanced against the likelihood and value of new information that may be obtained.

### Reassurance and explanation

Most patients are reassured by being told that the symptoms they have are common and rarely associated with disease and that their doctor is familiar with them. This is especially so if accompanied by the promise of further review should the symptoms persist.

Reassurance needs to be used carefully, however. It is essential to elicit patients' specific concerns about their symptoms and to target reassurance appropriately. The simple repetition of bland reassurance that fails to address patients' fears is ineffective. If patients have severe anxiety about disease (hypochondriasis) repeated reassurance is not only ineffective but may even perpetuate the problem.

A positive explanation for symptoms is usually more helpful than a simple statement that there is no disease. Most patients will accept explanations that include psychological and social factors as well as physiological ones as long as the reality of symptom is accepted. The explanation can usefully show the link between these factors—for example, how anxiety can lead to physiological changes in the autonomic nervous system that cause somatic symptoms, which, if regarded as further evidence of disease, lead to more anxiety.

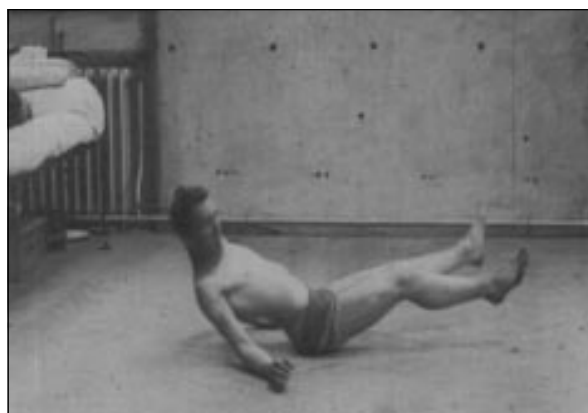
### Further non-specialist treatment

A minority of patients need more than simple reassurance and explanation. Treatment should address patients' illness fears and beliefs, reduce anxiety and depression, and encourage a gradual return to normal activities.

There is good evidence that antidepressants often help, even when there are no clear symptoms of depression. Practical advice is needed, especially on coping effectively with symptoms and gradually returning to normal activity and work. Other useful interventions include help in dealing with major personal, family, or social difficulties and involving a close relative in management. Other members of the primary care or hospital team may be able to offer help with treatment, follow up, and practical help.

### Referral for specialist treatment

There is always a temptation to refer difficult patients to another doctor. However, this can result in greater long term difficulties



Functional somatic symptoms were common after combat in the first world war, such as this soldier's "hysterical pseudohypertrophic muscular spasms." The course and outcome of such symptoms can now be seen to have been substantially determined by varied medical and military approaches to prevention and treatment

### Principles of assessment

- Identify patients' concerns and beliefs
- Review history of functional symptoms
- Explicitly consider both disease and functional diagnoses
- Appropriate medical assessment with explanation of findings
- Ask questions about patients' reaction to and coping with symptoms
- Use screening questions for psychiatric and social problems
- Consider interviewing relatives

### Principles of treatment

- Explain that the symptoms are real and familiar to doctor
- Provide a positive explanation, including how behavioural, psychological, and emotional factors may exacerbate physiologically based somatic symptoms
- Offer opportunity for discussion of patient's and family's worries
- Give practical advice on coping with symptoms and encourage return to normal activity and work
- Identify and treat depression and anxiety disorders
- Discuss and agree a treatment plan
- Follow up and review

### Non-specialist specific treatments

- Provide information and advice
- Agree a simple behavioural plan with patient and family
- Give advice about anxiety management
- Encourage use of diaries
- Advise about graded increase in activities
- Prescribe antidepressant drug
- Explain use of appropriate self help programmes

### Specialist treatments

- Full and comprehensive assessment and explanation based on specialist assessment
- Cognitive behaviour therapy
- Supervised programme of graded increase in activity
- Antidepressants when these were previously not accepted or ineffective
- Illness specific interventions (such as rehabilitation programme for chronic pain)

if not carefully planned. When there is a good reason for further medical or psychiatric referral, then a clear explanation to the patient of the reason and an appropriately worded referral letter are essential.

Psychiatric treatments that may be required include more complex antidepressant drug regimens and specialist psychological interventions. Cognitive behaviour therapy has been shown to be effective in randomised controlled trials for a variety of functional syndromes (such as non-cardiac chest pain, irritable bowel, chronic pain, and chronic fatigue) and for patients with hypochondriasis.

## Functional symptoms accompanying disease

Functional symptoms are also common in those who also have major disease. For example, after a heart attack or cardiac surgery, minor muscular chest aches and pains may be misinterpreted as evidence of angina, leading to unnecessary worry and disability. Explanation and advice, perhaps in the context of a cardiac rehabilitation programme, may make a substantial contribution to patients' quality of life.

## Conclusion

An understanding of the interaction of biological, psychological, interpersonal, and medical factors in the predisposition, precipitation, and perpetuation of functional somatic symptoms allows convincing explanations to be provided for patients and effective treatment to be planned.

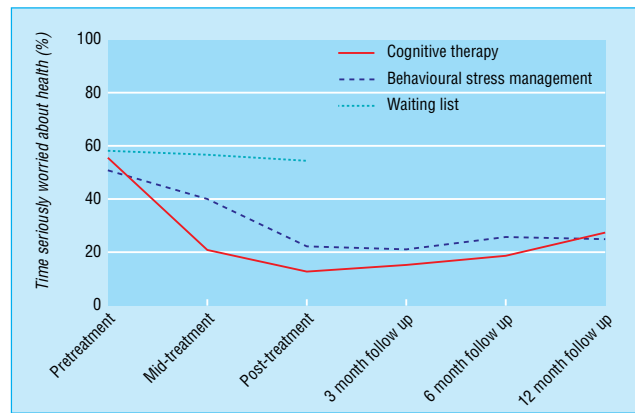
Important components of general management include effective initial reassurance, a positive explanation, and practical advice. It is also important to identify early those who are not responding and who require additional specific interventions.

The difficulty that health systems have in effectively dealing with symptoms that are not attributable to disease reflects both intellectual and structural shortcomings in current care. The most salient of these is the continuing influence of mind-body dualism on our education and provision of care. In the longer term, scientific developments will break down this distinction. For the time being, it places primary care in a pivotal role in ensuring appropriate care for these patients.

Richard Mayou is professor of psychiatry at University of Oxford Warneford Hospital, Oxford. Andrew Farmer is senior research fellow at the department of public health and primary care, University of Oxford.

The ABC of psychological medicine is edited by Richard Mayou; Michael Sharpe, reader in psychological medicine, University of Edinburgh; and Alan Carson, consultant neuropsychiatrist, NHS Lothian, and honorary senior lecturer, University of Edinburgh. The series will be published as a book in winter 2002.

BMJ 2002;325:265-8



Randomised controlled trial of cognitive and behavioural treatments for hypochondriasis

### Evidence based summary points

- Functional somatic symptoms are common in primary care in all countries and cultures
- Cognitive behaviour therapies are of general applicability
- Antidepressants are of value whether or not patient is depressed

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### Further reading

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The graph of incidence of common presenting symptoms in US primary care is adapted from Kroenke and Mangelsdorff, *Am J Med* 1989;86: 262-6. The graph of association between number of unexplained physical symptoms and psychiatric disorder is adapted from Kisely et al, *Psychol Med* 1997;27:1011-9. The picture of a shellshocked soldier is reproduced with permission of British Pathé. The graph of effects of cognitive behaviour treatment for hypochondriasis is adapted from Clark DM et al, *Br J Psychiatry* 1998;173:218-25.