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BMJ 2008;336:1124-1128
doi:10.1136/bmj.39554.592014.BE

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Assessment and management of medically unexplained symptoms

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BMJ 2008;336:1124-8

doi:10.1136/bmj.39554.592014.BE

Many people present with medically unexplained symptoms. For example, more than a quarter of primary care patients in England have unexplained chronic pain, irritable bowel syndrome, or chronic fatigue,¹ and in secondary and tertiary care, around a third of new neurological outpatients have symptoms thought by neurologists to be “not at all” or only “somewhat” explained by disease.² This is not a problem just in developed countries—in Bangladesh, only a third of women with abnormal vaginal discharge had evidence of infection.³ These disorders are important because they are common and they cause similar levels of disability as symptoms caused by disease.⁴ If not treated properly they can result in large amounts of resources being wasted⁵ and iatrogenic harm.

This is a clinically, conceptually, and emotionally difficult area. Clinical presentations vary greatly—from people who frequently attend the general practitioner with minor symptoms to people with chronic fatigue who are bed bound. What unites them, however, is the difficulty in explaining the presenting symptoms on the basis of any known pathology. Strong feelings are common, with patients often referred to in pejorative terms as “frequent fliers,” “heart sink patients,” “thick folder patients,” or “somatisers.” Doctors may feel that their competence is challenged by their inability to explain the symptoms, and patients may feel that they are disbelieved and accused of fabricating their symptoms. Conceptually, the area is hindered by a dualism that divides causes into physical or psychological and by simplistic aetiological models that rely on a single explanatory factor. Previous

articles on this subject in the *BMJ* have resulted in a vociferous correspondence, which highlights some of the conceptual difficulties and the values underlying them. Responses to these articles usually take three forms—that medically unexplained symptoms such as chronic fatigue are “neurological and not psychiatric” (sic); that the author has discovered the cause; and that psychological treatments such as cognitive behaviour therapy have no place in treating these disorders.

Physical disorders are seen as “real” and patients are seen as victims, whereas psychiatric disorders are seen as “not real,” and patients are seen as partly responsible for their problems. This is reflected in the popular press where headlines such as “Fatigue syndrome: not in the mind”^{w1} or “Is hysteria real? Brain images say yes”^{w2} are common. Clearly, both neurological and psychiatric disorders involve the brain; the aetiology of most disorders is complex and psychological treatments are helpful in disorders with clear pathology—resorting to a model that fails to integrate the mind and body is unhelpful in this area.

Medically unexplained symptoms or somatoform disorders?

It is difficult to know what to call disorders where the symptoms have no medical explanation. One option is to refer to these disorders as functional syndromes, such as irritable bowel syndrome or chronic fatigue syndrome; this assumes that symptoms result from an abnormality of bodily functioning. The somatoform chapters of DSM-IV (*Diagnostic and Statistical Manual of Mental Disorders, fourth edition*) and ICD-10 (*International Statistical Classification of Diseases and Related Health Problems, tenth revision*) include categories for medically unexplained symptoms that look like neurological disorders, conversion disorders, and unexplained pain. However, these categories are unsatisfactory and are likely to change in the next edition of DSM. Most specialties have a diagnostic category for medically unexplained symptoms—for example, irritable bowel syndrome in gastroenterology, non-cardiac chest pain in cardiology, and fibromyalgia in rheumatology—all of which are

SOURCES AND SELECTION CRITERIA

We did a Medline search over the past 10 years using the keywords “somatoform disorders”, “medically unexplained symptoms”, and “randomised controlled trials”. We consulted *Clinical Evidence* and the Cochrane Collaboration for relevant articles. Most of the content of this article is based on the findings of systematic reviews and randomised controlled trials. Drawing conclusions is difficult because of the various definitions of the disorders used by different authors and the wide variety of symptom severity experienced by people with the same disorder.

common in primary care. Because symptoms, epidemiology, and response to treatment overlap, some authors have argued for just one diagnostic category.³ Given the difficulties of terminology, we will simply refer to the problem as medically unexplained symptoms.

Who gets medically unexplained symptoms?

The most consistent finding is that people with medically unexplained symptoms have fewer years of formal education than the general population.⁶ A case-control study found that experiencing a parental illness or lack of care in childhood predisposes women (odds ratio 2.9 compared with non-somatising women) to the development of medically unexplained symptoms as adults.⁷

How should I assess patients who present with medically unexplained symptoms?

Taking a history and setting the agenda

Symptoms are symptoms and should be taken at face value regardless of the underlying cause. It is important to take a history of the presenting symptoms and to review the somatic complaints. This helps engagement, enables the doctor to exclude any serious pathology, and allows some assessment of the physiological basis of the symptoms. Finding out what patients think is wrong with them and why they came to see a doctor helps to frame the agenda (box 1).

Box 1 Assessment in non-psychiatric settings

Why now and what's the agenda? Questions for the patient

What is your main concern about this symptom (for example, it might indicate a serious illness or it prevents you from doing things)?

What made you present today (or when you first presented)?

Is there something particular that you hoped I could do for you (or your symptoms)?

Assess the presentation

What are the symptoms?

Take a full history of the onset of all symptoms, exacerbating factors, and relieving factors

How much impairment do the symptoms cause? Do they cause disability? What is a typical day like?

Does the patient have a history of lack of care or illness in childhood?

Are there any signs of disease on physical examination?

In primary care encourage discussion of psychosocial difficulties

Is there associated pathology?

Gather old notes and investigations. Review these first before ordering more investigations

Balance the iatrogenic risks of further investigation or treatment against the probability of finding associated pathology

Does the patient have an anxiety or depressive disorder?

Does the patient have any mood symptoms or anxiety symptoms?

Consider using a screening questionnaire, such as the hospital anxiety and depression scale, the general health questionnaire, or the patient health questionnaire

Is this some other emotional distress presenting as physical distress?

What is the patient's model of illness?

Is the patient in a predicament of some sort? Consider especially dilemmas

Who are the patient's allies?

Could there be any associated pathology?

A systematic review found that about 4% of people diagnosed with a conversion disorder develop an illness that could explain their presenting symptoms.⁸ The most likely missed diagnoses are psychiatric. In a follow-up study of 73 patients with unexplained motor symptoms, 33 had an undetected psychiatric disorder (usually a mood or anxiety disorder) at presentation.⁹

Explanation and reassurance

It is difficult for doctors treating people with such symptoms to find a balance between appropriate investigation, explanation and reassurance (box 2), and overinvestigation with the risk of iatrogenic harm. Explanation and reassurance should not involve telling the patient that there is nothing wrong, as clearly this is not the case. A qualitative study of general practitioners' explanations found that patients were most satisfied if their doctors gave an explanation for symptoms that made sense, removed any blame from them, and generated ideas about how they could manage their symptoms.¹⁰ The same group found that general practitioners who encouraged patients presenting with medically unexplained symptoms to talk about their psychosocial problems were less likely to offer a new drug treatment, investigation, or referral to a specialist.¹¹

What is the evidence for using diagnostic tests for reassurance?

Guidance on appropriate investigation is available for some symptoms such as fatigue.¹² For "neurological symptoms," some signs (Hoover's sign for leg weakness¹⁴) and investigations (video electroencephalography for non-epileptic seizures¹⁵) may be useful (box 3).

A randomised controlled trial investigated the effect of offering magnetic resonance imaging of the brain to patients with chronic daily headache attending a headache clinic in secondary care.¹³ Those patients randomised to the brain scan who also had a high level of psychiatric distress had lower service costs but similar levels of symptoms and health concerns at one year compared with similar patients who were not offered the scan. This implies that patients do not benefit from routine neuroimaging for chronic headaches and that the main effect of the intervention was to reassure the physicians, who made fewer referrals to other doctors. However, the effect of diagnostic testing depends on what patients think a normal result means. One randomised controlled trial investigated the effect of providing information about the meaning of a normal exercise stress test in patients with chest pain.¹⁴ Patients who received pre-test information were significantly less likely than those who received no information to have chest pain one month later.

The risks of iatrogenic damage

Overinvestigation and overtreatment can cause iatrogenic damage. In addition, although giving a disease a label may lead to relief because the symptoms are seen

Box 2 Reassurance, explanation, and the use of investigations**Reassurance**

Deal with the patient's fears (fear of cancer, for example); encourage the patient to express thoughts and feelings about the symptoms as well as the history of symptoms; don't imply that nothing is wrong because clearly something is wrong or the patient would not have consulted a doctor

Explanation

Encourage the patient to talk about psychosocial problems; try to find common ground to approach the symptoms; integrate physical and psychological explanations that avoid blame and provide an opportunity for self management—for example, "stress can make your muscles tense, when your muscles are tense for any length of time they get painful, tense chest muscles can cause chest pain"

Use of investigations

Before ordering a test spend some time explaining what a normal result means, other possible reasons for the symptoms, and what happens if the test result is normal but the patient still has symptoms

as "legitimate," it may lead to increased "illness behaviour." In a longitudinal survey of primary care patients with chronic fatigue, those who were diagnosed with myalgic encephalomyelitis had a worse prognosis than those diagnosed with chronic fatigue syndrome.¹⁵ Overinvestigation and treatment—"abnormal treatment behaviour"—risks harming the patient through complications of the investigation, with false positive findings promoting more uncertainty and further tests; overtreatment^{w9}; and surgical removal of normal organs.^{w10}

Does the person have an anxiety or depressive disorder?

This is a particularly useful question in primary care, where most people with depression or anxiety present with somatic rather than emotional symptoms.^{w11} It is especially relevant in developing countries, where

around two thirds of women and a quarter of men who have anxiety or depressive disorders present with predominantly physical symptoms.¹⁶

Is this some other emotional distress presenting as physical distress?

Where there is little evidence of associated pathology or the presence of a depressive or anxiety disorder, it is useful to consider three other factors—the patient's model of the illness, the role of predicaments, and the role of allies.^{w12} The model of illness is the way that patients explain their disorder. Asking patients to explain their disorder can provide examples of unhelpful thinking, such as, "if I exercise I get tired, therefore I must be doing my body some harm, therefore I should rest." Cognitive behaviour therapy can generate interventions that identify and modify these unhelpful thoughts.^{w13}

Patients whose physical distress is caused by emotional distress are often in a predicament, particularly that of being in a dilemma where any choice they make has negative consequences—they are "damned if they do and damned if they don't."¹⁷ Identifying the dilemma may help generate treatment strategies based around problem solving or more formal psychodynamically informed interventions.

The role of allies is to encourage the patient to get help for their distress from the medical profession. Allies can be family members with health qualifications or other doctors who encourage the patient to seek further investigations or treatment. Identification and communication with these allies is essential to ensure that the patient gets a consistent treatment plan.^{w14} Allies are particularly important for people who refuse treatment or who are unable to engage in treatment.

Management in non-psychiatric settings

For patients with chronic unexplained symptoms seen in primary care, evidence from randomised controlled trials suggests that regularly scheduled appointments; performing a brief physical examination at each visit, to look for signs of disease rather than relying on symptoms; and avoiding investigations and hospital admission unless clearly indicated decrease health service use and increase physical functioning.^{w13}

Antidepressants can help—a systematic review of 94 randomised controlled trials (6595 people) of antidepressants prescribed for medically unexplained symptoms found that they significantly improved symptoms (number needed to treat four).¹⁸ No one type of antidepressant was better than the others. Because their effectiveness was independent of their antidepressive action, low doses may be helpful.

Randomised controlled trials show that advising activity rather than rest for back pain, fatigue, and fibromyalgia is helpful.¹⁹ The activity should be agreed with the patient, be relevant to their situation, and be structured so that it gradually increases. Pacing is important—patients should not do more activity than they have agreed, even if they feel like it. You should tell patients that feeling worse after activity is not a sign

Box 3 Signs and investigations for unexplained weakness and non-epileptic seizures**Unexplained weakness**

Hoover's sign—Inconsistency between hip extension tested directly and indirectly. The patient lies on the examination couch and is asked to push down with the affected leg against the examiner's hand, which is under their heel—the power of the extension is weak. Next, the examiner asks the patient to lift the opposite leg against resistance while the examiner keeps his or her hand under the heel of the affected leg—the power of the extension on the affected side increases^{w4}

"Give way" or collapsing weakness and la belle indifference discriminate poorly between symptoms that are medically unexplained or associated with pathology^{w6}

Non-epileptic seizures

Video electroencephalography—Electroencephalography with simultaneous videotelemetry will indicate whether seizures are caused by epilepsy or not. Difficulties include the limited availability of the investigation; the problem of patients not having fits while being monitored; the finding that the same person may have both epileptic and non-epileptic seizures, and the fact that a non-surface seizure focus, in the frontal lobe especially, may not be detected by surface electroencephalography.^{w7}

Prolactin measurement—A raised serum prolactin (at least double baseline) concentration measured 10-20 minutes after a seizure distinguishes between epileptic seizures and non-epileptic seizures (positive predictive value 93-99%). A normal serum prolactin concentration is less useful in distinguishing between the two sorts of seizures (negative predictive value 2-70%)^{w8}

of “damage” or pathology—point out that even top athletes feel sore and stiff when resuming training.

Psychiatric management

A systematic review of 29 randomised controlled trials (1523 people) of cognitive behaviour therapy compared with various control treatments, mainly in secondary care,²⁰ found that cognitive behaviour therapy was an effective treatment for “somatisation or symptom syndromes” and that physical symptoms were more responsive to treatment than psychological symptoms. At least one randomised controlled trial in a developing country has found that six 30 minute sessions of cognitive behaviour therapy over three months improves outcomes and decreases clinic visits in patients with several unexplained symptoms.²¹ A systematic review of four randomised controlled trials (354 people) of psychodynamic therapy in patients with chronic pain found that the treatment reduced pain, improved function, and decreased the use of health services²²; this treatment can be effective in refractory irritable bowel syndrome.^{w15}

How do I discuss making a referral to a psychiatrist?

It is reasonable to refer patients who have not improved after a structured explanation, graded activity rather than rest, and a trial of antidepressants.¹⁹ Referral to a psychiatrist is often interpreted as, “I don’t believe you” or “You’re deliberately making this up.” The referring doctor should talk to the psychiatrist about why the patient was referred and what he or she has

SUMMARY POINTS

Medically unexplained symptoms are common

All symptoms should be treated seriously, regardless of cause

Explanations should integrate psychological and biological factors and provide patients and doctors with a model for managing the condition

Anxiety and depression often present with medically unexplained symptoms

Cognitive behaviour therapy is an effective treatment

Associated pathology is rare and rarely missed, whereas psychiatric diagnoses are common and often missed

already been told. One way to persuade patients to see a psychiatrist is to say, “We cannot find a cure for your symptoms but we need to help you to find a way to live with them.”

What is the prognosis?

Few prognostic studies have looked at people who present with medically unexplained symptoms, and no systematic reviews have been done. In primary care, one study found that at least a quarter of unexplained symptoms persist after 12 months.²³ In secondary care, a study of people who presented to neurologists with unilateral “medically unexplained” or “functional” weakness and sensory disturbance found that at least 58% were still reporting some weakness or sensory problem 12 years later.²⁴

Ongoing research priorities

The main priority is to determine the usefulness of the stepped care approach in routine care. The second is to integrate psychology with biology by understanding brain function in medically unexplained symptoms. Recent studies of people with conversion disorders show that they have overactivation of parts of the limbic system, such as the cingulate or orbitofrontal cortex, which takes the motor or sensory systems “off line,” thereby preventing activation.²⁵ Lastly, somatoform disorders need to be reclassified. The impending publication of DSM-V has led to some efforts in this direction, with suggestions to broaden the scope of somatisation disorder, remove undifferentiated somatoform disorder, and move some of the other disorders to more appropriate categories.^{w16}

We thank Mike Sharpe for his critical review of the manuscript.

Contributors: SH and BA planned and contributed to the manuscript. SH is guarantor.

Competing interests: BA is on the advisory board for the Pharmac educational seminars. Pharmac is the government funded drug purchasing agency in New Zealand. He is also on the primary care committee of the Future Forum and educational foundation funded by Astra Zeneca (UK). He has accepted travel and conference funding from Sanofi Aventis.

Provenance and peer review: Commissioned; externally peer reviewed.

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ADDITIONAL EDUCATIONAL RESOURCES

Information resources for healthcare professionals

National Institute for Health and Clinical Excellence (www.nice.org.uk/guidance/index.jsp?action=byID&o=11824)—Guidelines on chronic fatigue syndrome and myalgic encephalomyelitis (or encephalopathy); diagnosis and management. Evidence based but controversial guidelines as some groups see them placing too much emphasis on graded activity and “the mind”

National Institute for Health and Clinical Excellence (www.nice.org.uk/guidance/index.jsp?action=byID&o=11927)—Guidelines on irritable bowel syndrome in adults: diagnosis and management of irritable bowel syndrome in primary care. A relevant and useful guide to the management of irritable bowel syndrome in primary care

European Guidelines for the management of chronic non-specific low back pain, 2004 (www.backpaineurope.org/web/files/WG2_Guidelines.pdf)—An informative and comprehensive guide to the management of chronic low back pain

Rome Foundation (www.romecriteria.org/)—Website dedicated to the diagnosis and treatment of functional gastrointestinal disorders

Information resources for patients

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Tampa General Hospital and University of South Florida (<http://hsc.usf.edu/COM/epilepsy/PNESbrochure.pdf>)—A guide to non-epileptic seizures for patients and families

Royal College of Psychiatrists (www.rcpsych.ac.uk/mentalhealthinformation/mentalhealthandgrowingup/28unexplainedsymptoms.aspx)—Factsheet on medically unexplained symptoms for parents and teachers

Patient UK (www.patient.co.uk/showdoc/23068686/)—Information on low back pain in adults

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