
# Fifteen-minute consultation: Medically unexplained symptoms

David John Cottrell

**Correspondence to**
Professor David John Cottrell, Leeds Institute of Health Sciences, School of Medicine, University of Leeds, 1.08 Charles Thackrah Building, 101 Clarendon Road, Leeds LS2 9LJ, UK; d.j.cottrell@leeds.ac.uk

Received 6 October 2015
Accepted 2 January 2016
Published Online First
2 February 2016

## ABSTRACT

Medically unexplained symptoms are common and not always easy to manage. A wide range of symptoms may be presented and anxiety in the child, family and paediatrician about the possibility of a missed serious organic diagnosis may hamper effective management. Evidence-based approaches to a number of different presenting problems share a number of components. A model for assessment and management based on clinical experience and this evidence base is described.

## INTRODUCTION

Children who present with physical symptoms for which the paediatrician can find no obvious cause are common in outpatient clinics. Often a thorough history and examination, a minimal number of special investigations and, assuming no positive findings, reassurance that there is no serious physical illness, is sufficient to help children and their parents on the road to recovery. This article will focus on that small proportion of children for whom this approach is unsuccessful. Two common responses are for the paediatrician to (a) insist that all is well and discharge the child, usually leaving child, parent and clinician feeling that this is an unsatisfactory solution or (b) refer to colleagues for more specialist investigation and opinion, worried they have missed a rare but potentially serious condition. This latter option has high costs for the National Health Service in terms of resource use and for the family where worry about what might be wrong can exacerbate the original symptoms. Given the impossibility of proving a negative, it is easy to see how self-perpetuating vicious cycles can be set up.

In these more complex cases it is not unusual for affected children, their families and sometimes their paediatricians to see problems in terms of biological causes and explanations, with reluctance to consider more psychologically based explanations. As a result, children may have had symptoms for a considerable time. Families have often sought multiple investigations and assessments in an attempt to find a medical explanation for the problem. These investigations may in themselves have been harmful to the child, and some children have become extremely disabled having been absent from normal peer activities and education for weeks, months or even years.

## WHAT DO MEDICALLY UNEXPLAINED SYMPTOMS (MUS) LOOK LIKE AND IS IT A DIAGNOSIS?

Children with unexplained physical symptoms may present with a wide variety of problems, ranging from seemingly straightforward recurrent abdominal pain (RAP), headaches and other pains (in almost any part of the body), through difficulties with normal functioning such as dysphagia and difficulties with breathing, through to serious disturbances of neurological function, for example, disturbances of gait and motor function, sensory impairments and pseudoseizures. There have been many reviews in the past[1–3] all commenting on the lack of good empirical research to support management.

Neither of the two major disease classification systems (International Classification of Diseases and Diagnostic and Statistical Manual of Mental Disorders) have specific diagnostic criteria for children and adolescents and so researchers and clinicians have to rely on adult criteria. The common diagnostic terms are summarised in box 1.

It is less clear if children with chronic fatigue syndromes (CFS) should be included here with other medically unexplained symptoms as the aetiology is uncertain and controversial. However,

**To cite:** Cottrell DJ. *Arch Dis Child Educ Pract Ed* 2016;**101**:114–118.



Arch Dis Child Educ Pract Ed: first published as 10.1136/archdischild-2015-309344 on 2 February 2016. Downloaded from http://ep.bmj.com/ on April 9, 2024 by guest. Protected by copyright.

**Box 1 Formal diagnostic categories**

*International Classification of Diseases (ICD) 10*[4]

- *Somatisation disorder* requires a range of physical symptoms that cannot be explained by a known medical condition and are not feigned. These symptoms must cause distress and help-seeking and have been present for at least 2 years.
- A separate category—*somatoform autonomic dysfunction*—is for symptoms primarily related to the autonomic nervous system.
- *Somatoform pain disorder* describes the presentation of persistent pain in the absence of an adequate physiological explanation (although a painful physical condition may be present) where psychological factors are thought to be involved in the onset or maintenance of the pain.
- *Hypochondriasis* refers to a persistent, non-delusional belief that a physical illness is present. This belief causes significant distress and is not affected by medical reassurance that there is no such illness.

*Diagnostic* and *Statistical Manual of Mental Disorders-V*[5]

- *Somatic symptom disorder* requires a range of unexplained physical symptoms and is similar to ICD-10 *somatisation disorder* and also requires the presence of maladaptive thoughts, feelings and behaviours.
- *Pain disorder* is similar to ICD-10 *somatoform pain disorder.*

Both classifications describe *conversion disorders*, in which motor or sensory function is impaired, suggesting a neurological diagnosis, but where there is no evidence of a physical diagnosis.

consensus criteria for diagnosis exist,[6] symptoms are certainly currently unexplained, and what evidence there is for treatment suggests a similar approach to the other problems discussed here is effective.

## HOW COMMON ARE MUS?

Accurate prevalence figures are not available because of differing definitions of somatisation and measures used in research. The Ontario Child Health Study found negligible rates of somatisation in children under the age of 11 years, but in those aged 12–16 years 11% of girls and 5% of boys were identified as meeting criteria for somatisation disorder.[7] Similar figures have been found in other studies.

In fact physical symptoms themselves are common. An investigation of >800 children aged 11–16 years for the lifetime prevalence of physical symptoms found that despite 95% reporting that their health had been good for most of their lives, girls reported having a median of six symptoms and boys five symptoms.[8] 10% of girls and 7% of boys had a lifetime prevalence of 13 or more symptoms. The most common symptoms were a lump in the throat (52%), dizziness (42%), heart pounding (40%), various aches and pains (joints, head, abdomen, chest: 30%), nausea (30%), blurred vision (26%) and a bad taste in the mouth (26%). There was an association between high reported symptoms and illness attitudes associated with mental distress, preoccupation with health and fears about illness.

The prevalence of RAP in 6-year-olds in the UK was reported as 25%,[9] and a study of >6000 young people in the Netherlands (parental report age 0–3, self-report age 4–18) suggested that 54% had experienced pain within the previous 3 months, with one-quarter reporting chronic pain (recurrent or continuous pain for >3 months[10]).

In some children and young people, disorders that were initially categorised as 'medically unexplained' become attributable to specific organic diagnoses. It is difficult to put an exact figure to this as many of the better outcome studies report on samples that have excluded those with a subsequent organic diagnosis without giving numbers. In one adult study of 73 patients with conversion disorder, data were available for 56 patients of whom 11 had been given a subsequent diagnosis.[11] Managing these presentations as medically unexplained while holding in mind the possibility of medically undiagnosed is a difficult balancing act for the clinician.

## POSSIBLE AETIOLOGICAL FACTORS

Lack of clarity around diagnostic criteria makes research into aetiology problematic. Reviews of the literature note that much of the evidence is from anecdotal accounts and presentations of case series and as a result all that can be reported are factors that can be correlated with MUS. In the child, physical illnesses often precede or coexist with such disorders. Psychiatric disorders are present in one-third to one half of children, with emotional disorders more common than conduct problems. The child's personality is often described as conscientious/obsessional or as sensitive, insecure and anxious, and difficulties with peer and social relationships are often reported.

In the wider family, parents are often described as being preoccupied with health issues, and are reported to have more psychiatric and physical symptoms than comparison families. Adverse life events, traumatic events such as abuse and experience of physical illness seem to be associated with somatisation.[2 3]

## IS THERE AN EVIDENCE BASE FOR TREATMENT?

A systematic Cochrane review of psychological therapies for the management of chronic and recurrent pain (of the 29 studies included in the review, the majority were for headache (20) and abdominal pain (7)) concludes that psychological therapies (principally relaxation and cognitive behavioural therapy (CBT)) are



Arch Dis Child Educ Pract Ed: first published as 10.1136/archdischild-2015-309344 on 2 February 2016. Downloaded from http://ep.bmj.com/ on April 9, 2024 by guest. Protected by copyright.

effective treatments.[12] However, the quality of the studies reviewed was not always high, and follow-up was often very short. Some of the better studies for RAP are from Sanders and colleagues,[13 14] but the interventions delivered in most studies addressing RAP are broadly similar.

No methodologically sound controlled studies of the treatment of conversion disorder in children have been reported, but there are numerous case series and studies in the literature, with treatment approach often based on social learning theory and making use of concepts such as the sick role and abnormal illness behaviour.[15 16]

In chronic fatigue, a systematic review[17] of adult and child studies of treatments for myalgic encephalomyelitis/chronic fatigue concluded that graded exercise therapy and CBT appear to reduce symptoms and improve function. Two child studies support this conclusion.[18 19]

Most of the evidence-based interventions for unexplained symptoms in children have multiple components but there is much overlap between different studies and from this it is possible to generate a list of possible evidence-based components of successful treatment—see box 2.

**Box 2 Common components of evidence-based interventions for medically unexplained symptoms (items in brackets denote the conditions for which these components were part of an effective intervention)**

- Thorough and prompt history and examination, followed by any relevant investigations that should then cease once organic disease has been excluded (recurrent abdominal pain (RAP, conversion disorders, CFS).
- Reassurance concerning the absence of a serious organic disorder (RAP, conversion disorders, CFS).
- Explanations for children's pain behaviours and the links between stress and pain, challenges to unhelpful ideas about symptoms—for children and parents (RAP).
- Progressive muscular relaxation training with or without guided imagery and/or breathing exercises (RAP).
- Cognitive coping strategies such as self-monitoring of pain, making positive self-coping statements and self-distraction (RAP).
- Partnership work with child and family to actively manage symptoms (RAP, conversion disorders, CFS).
- Advice to parents to ignore non-verbal pain behaviours (reduce sympathy and attention, expression of concern and nurturance contingent on pain) and distract the children into other activities that can then be praised (RAP).
- Parental modelling of coping with pain (RAP).
- Assessment and management should be carried out jointly by paediatricians and mental health professionals working closely together (conversion disorders).
- Liaison and partnership working with schools (conversion disorders, CFS).
- An active programme of physical rehabilitation (focus on rehabilitation and improving function irrespective of the cause of dysfunction) with graded activity and reintroduction of normal behaviours, for example, school attendance, needs to be started as soon as is practicable. Physiotherapy session is often recommended as part of this rehabilitation (conversion disorders, CFS).
- Encouraging a balance of activity and rest and the establishment of a sleep pattern (CFS).

## WHAT PRACTICAL STEPS CAN A PAEDIATRICIAN TAKE IN THE OUTPATIENT CLINIC?

The essence of good and effective management involves acknowledgement of concerns, and acceptance of the seriousness of disability, coupled with alternative explanations of symptomatology and a rationale for the treatment offered. It is important to get the order right. For example, asking about potential stressors in the child's life before some kind of mutual acceptance of an alternative (to serious physical illness) explanation has been agreed can lead to disagreements. The emphasis here is on outpatient/community management although the principles outlined below would be equally applicable in an inpatient setting.

### 1. The initial assessment

The first step is always to carry out a thorough clinical assessment with a detailed history and examination which, as with all assessments, should include enquiry about recent life events and other possible stressors. Relevant investigations should be conducted promptly and if negative no further investigations conducted. If at this stage there is no indication of serious physical illness, this needs to be stated clearly. However, this needs to be coupled with a very clear acknowledgement that the symptoms experienced are 'real'—parents can be very sensitive to suggestions that, as they see it, their child is being accused of 'making things up'!

### 2. Provision of a rationale for physical symptoms in the absence of an organic cause

It is, therefore, essential that all clinicians are comfortable with providing alternative explanations for symptoms that accept they are real and problematic, while at the same time not the result of serious physical illness. This can often be done with reference to common, everyday stressful experiences. Most of us have experienced examinations, job interviews, driving tests, etc. Most of us would be insulted if it was suggested that the very real physical concomitants



Arch Dis Child Educ Pract Ed: first published as 10.1136/archdischild-2015-309344 on 2 February 2016. Downloaded from http://ep.bmj.com/ on April 9, 2024 by guest. Protected by copyright.

of anxiety that we experienced at the time were somehow made up. Physical symptoms without physical cause are in fact very common, so much so that they are part of our everyday language (butterflies in the stomach, my heart leapt, my mouth went dry, etc).

The aim here is to reassure about the absence of serious organic disorder while at the same time reminding parents and children that any number of physical symptoms can be caused by stress, tension or worry—experience suggests that the use of words like 'psychological' at this stage is unhelpful and is associated with making things up.

### 3. Detailed enquiry about possible stressors

This may have been covered in the initial assessment but in some families, enquiry about psychosocial causes can lead to difficulties, with parents expressing concerns that symptoms are thought not to be real or to be 'made up', that possible organic causes are being ignored, or that the child has 'mental illness'. In these cases, it may be advisable to defer enquiry about psychosocial stressors until the family have been reassured by a thorough physical assessment (step 1), and some agreement has been reached about why a child might have real physical symptoms in the absence of serious organic disorder (step 2). It is then possible to ask a series of gentle questions about possible causes of stress in the child's life: 'Is it possible your child might be worried about something and hasn't told you about it?' It may be helpful to start away from home with questions about school, friends and bullying. 'Have there been any recent changes at home or in the family?' is probably better than 'Are there any problems at home?'

Although this enquiry about stressors is essential it is common not to find any. If they are found they need to be addressed, although that will not always lead to symptoms disappearing. If no obvious stressors are found families need a very clear message that sometimes, whatever has started the symptoms (and it is useful to suggest it may have been a minor viral infection or some other possible minor physical cause), worry about what is causing them can keep them going. The fact that the family are in the paediatric clinic is testament to the amount of worry around.

### 4. The management plan

Now it is time to start addressing management plans. With or without external stressors, the emphasis needs to be on rehabilitation irrespective of cause. At its simplest this may mean the child being encouraged to resume normal activities despite the symptoms—particularly going to school and meeting with friends—with praise for doing this and a lack of attention for any further symptoms. If you and the parents have reached agreement about this new explanation for the symptoms this may be sufficient. It is essential to have enquired at the outset about school and social activities—the child who is at home all day with nothing to do but worry about symptoms is not going to improve rapidly, and this fact may inform part of your explanation about why symptoms have persisted.

With more engrained symptoms, a graded approach to rehabilitation may be required, and the involvement of physiotherapy and a set of gentle exercises that provide an 'escape with honour' may be helpful.

If at all possible involve the school and general practitioner in your management plan (although formal permission would be needed for school contact). If as a result of a well planned and executed consultation you have persuaded a family of the absence of serious disease, the possibility of worry as a symptom maintainer, and the need to resume normal activities you need to ensure that no one else inadvertently undermines this plan. It is not easy for a mother to insist on school attendance for a child who is still complaining of tummy ache. If the school then ring later in the day to say the child is unwell, and needs taking home it can seriously delay progress—school staff need to be part of the plan.

All of the above can and should be delivered by the paediatrician—this is the clinician with most knowledge of physical illness and most credibility if suggesting there is no serious disease. If this approach proves unsuccessful then a referral to local Child and Adolescent Mental Health Services (CAMHS) or to a paediatric health psychologist is indicated. This may be difficult if it has not been possible to agree about alternative explanations, one possible way forward would be to seek a joint consultation with a colleague from mental health services as a way of facilitating the referral.

## CONCLUSION

Medically unexplained symptoms are common but treatable. There is an evidence base to support management but a stepped approach that deals with reassurance, followed by provision of alternative explanations before moving on to discuss management is most likely to be successful.

**Competing interests** None declared.

**Provenance and peer review** Commissioned; externally peer reviewed.

## REFERENCES

1 Benjamin S, Eminson DM. Abnormal illness behaviour: childhood experiences and long-term consequences. *Int Rev Psychiatry* 1992;4:55–70.
2 Campo JV, Fritsch SL. Somatization in children and adolescents. *J Am Acad Child Adolesc Psychiatry* 1994;33:1223–35.
3 Garralda ME. Unexplained physical complaints. *Child Adolesc Psychiatr Clin N Am* 2010;19:199–209.
4 World Health Organization. *The ICD-10 classification of mental and behavioural disorders: diagnostic criteria for research*. Geneva, Switzerland: World Health Organization, 1993.



Arch Dis Child Educ Pract Ed: first published as 10.1136/archdischild-2015-309344 on 2 February 2016. Downloaded from http://ep.bmj.com/ on April 9, 2024 by guest. Protected by copyright.

5 American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. 5th edn. Washington DC: American Psychiatric Association, 2013.
6 Sharpe MC, Archard LC, Banatvala JE, *et al*. A report--chronic fatigue syndrome: guidelines for research. *J R Soc Med* 1991;84:118–21.
7 Offord DR, Boyle M, Szatmari P, *et al*. Ontario Child Health Study: II. Six month prevalence of disorder and rates of service utilization. *Arch Gen Psychiatry* 1987;44:832–6.
8 Eminson M, Benjamin S, Shortall A, *et al*. Physical symptoms and illness attitudes in adolescents: an epidemiological study. *J Child Psychol Psychiatry* 1996;37:519–28.
9 Faull C, Nicol AR. Abdominal pain in six-year-olds: an epidemiological study in a new town. *J Child Psychol Psychiatry* 1986;27:251–60.
10 Perquin CW, Hazebroek-Kampschreur AA, Hunfeld JA, *et al*. Pain in children and adolescents: a common experience. *Pain* 2000;87:51–8.
11 Mace CJ, Trimble MR. Ten-year prognosis of conversion disorder. *Br J Psychiat* 1996;169:282–8.
12 Eccleston C, Palermo TM, Williams AC, *et al*. Psychological therapies for the management of chronic and recurrent pain in children and adolescents. *Cochrane Database Syst Rev* 2009;(2):CD003968.
13 Sanders MR, Rebgetz M, Morrison M, *et al*. Cognitive-behavioral treatment of recurrent nonspecific abdominal pain in children: an analysis of generalization, maintenance, and side effects. *J Consult Clin Psychol* 1989;57:294–300.
14 Sanders MR, Shepherd RW, Cleghorn G, *et al*. The treatment of recurrent abdominal pain in children: a controlled comparison of cognitive-behavioral family intervention and standard pediatric care. *J Consult Clin Psychol* 1994;62:306–14.
15 Dubowitz V, Hersov L. Management of children with non-organic (hysterical) disorders of motor function. *Dev Med Child Neurol* 1976;18:358–68.
16 Leslie SA. Diagnosis and treatment of hysterical conversion reactions. *Arch Dis Child* 1988;63:506–11.
17 Chambers D, Bagnall AM, Hempel S, *et al*. Interventions for the treatment, management and rehabilitation of patients with chronic fatigue syndrome/myalgic encephalomyelitis: an updated systematic review. *J R Soc Med* 2006;99:506–20.
18 Chalder T, Deary V, Husain K, *et al*. Family-focused cognitive behaviour therapy versus psycho-education for chronic fatigue syndrome in 11- to 18-year-olds: a randomized controlled treatment trial. *Psychol Med* 2010;40:1269–79.
19 Stulemeijer M, de Jong LW, Fiselier TJ, *et al*. Cognitive behaviour therapy for adolescents with chronic fatigue syndrome: randomised controlled trial. *BMJ* 2005;330:14.


Arch Dis Child Educ Pract Ed: first published as 10.1136/archdischild-2015-309344 on 2 February 2016. Downloaded from http://ep.bmj.com/ on April 9, 2024 by guest. Protected by copyright.