

# Medically unexplained symptoms: assessment and management

Authors: Mujtaba Husain<sup>A</sup> and Trudie Chalder<sup>B</sup>

## ABSTRACT

Medically unexplained symptoms or persistent physical symptoms are common, real and are associated with significant distress, loss of functioning and high healthcare costs. History, examination and appropriate investigations are essential to make a diagnosis. Once the diagnosis has been made, exploring the impact of the symptoms helps us to tailor our advice to patients. This paper sets out a practical approach to taking a history, assessment and stepwise management principles.

**KEYWORDS:** cognitive behavioural therapy, medically unexplained symptoms, persistent physical symptoms

**DOI:** 10.7861/clinmed.2020-0947

## Introduction

Medically unexplained symptoms (MUS) or persistent physical symptoms (PPS) are very common. They account for up to one in five presentations in primary care.<sup>1,2</sup> This can be even higher in some secondary care clinics.<sup>3</sup> Hence assessing and supporting people with unexplained symptoms is a significant part of the everyday work of most clinicians.

PPS are often associated with significant distress, impaired functioning, loss of role and high use of healthcare and welfare.<sup>4</sup> Patients often report feeling that their concerns are not taken seriously by their healthcare professionals.<sup>5</sup> Doctors also report feeling unprepared for helping people with PPS.<sup>6</sup> PPS are also estimated to account for approximately 10% of total NHS expenditure for the working-age population in England.<sup>7</sup>

Much of this delivers limited value to the patient and can be counterproductive or even harmful (for example, multiple or repeat investigations).<sup>8</sup>

The longer the duration of untreated symptoms the poorer the prognosis.<sup>9,10</sup> Evidence-based treatment is available.<sup>9,11</sup> Yet, it is common for diagnosing, explaining the diagnosis to the patient and offering treatment to be delayed.<sup>5</sup>

**Authors:** <sup>A</sup>consultant liaison psychiatrist, South London and Maudsley NHS Foundation Trust (SLaM), London, UK; <sup>B</sup>professor of cognitive behavioural psychotherapy, King's College London, London, UK and South London and Maudsley NHS Foundation Trust (SLaM), London, UK

## Definitions and classification: one syndrome or many?

The language we use to describe PPS can be complex and confusing. Adjectives such as functional, somatic, unexplained and dissociative are commonly used. And there are specialty-specific diagnoses like irritable bowel syndrome, fibromyalgia and functional neurological disorder. Almost every medical specialty has an equivalent diagnostic category.

It has been proposed that PPS can be considered as one syndrome rather than many.<sup>12</sup> There is significant overlap in the risk factors and symptoms seen in specific diagnoses.<sup>13</sup> PPS frequently present with multiple symptoms that cut across specialty boundaries (which can result in multiple referrals). A number of symptoms (such as fatigue, pain and disrupted sleep) are common across diagnoses. Indeed, many of the challenges of helping people with PPS stem from a fragmented approach to management where the symptoms cut across medical silos and divides (primary and secondary care; physical and mental health; and different medical specialties).

The *Diagnostic and Statistical Manual of Mental Disorders*, 5th edn (*DSM-5*) now defines somatic symptom disorder.<sup>14</sup> Under *DSM-IV*, symptoms had to be unexplained but the new definition removes this requirement and focuses on distress and disruption of daily life. *International Classification of Diseases*, 11th revision (*ICD-11*) proposes the similar bodily distress disorder.

The term PPS has also been shown to rank highly in surveys of patient preference.<sup>15,16</sup> MUS and PPS describe similar symptoms but are not quite the same thing. Describing symptoms as medically unexplained can be seen by patients as dismissive.<sup>17</sup> It has been suggested PPS should occupy a neutral space with neither a somatic disease aetiology, nor a mental disorder to reflect their complex nature (analogous to pain disorders in *ICD-11*).<sup>18,19</sup>

## Physical and mental health

Having a physical health diagnosis increases the risk of experiencing unexplained symptoms. For example, around a fifth of those diagnosed with non-epileptic seizures also have epilepsy, non-cardiac chest pain is common after myocardial infarction and dysfunctional breathing is frequently seen in those with asthma.<sup>20–22</sup> Hence, the divide between explained and unexplained symptoms is not quite as clear cut as the terms imply.

**Table 1. Taking a history**

<b>Task</b>	<b>Suggested questions and approach</b>
<b>Elicit symptoms</b>	<p>Start with open questions to elicit symptoms: <i>Tell me about the problems or symptoms?</i></p> <p>Where there are many symptoms, by asking which symptom or symptoms are the worst can help to focus a history (eg <i>'If you could take one symptom away which would it be?'</i>)</p> <p>Then move to more specific questions</p> <ul style="list-style-type: none"> <li>&gt; What and where are the symptoms?</li> <li>&gt; How long have they had them?</li> <li>&gt; When do they occur?</li> <li>&gt; Do they fluctuate?</li> <li>&gt; What else happens?</li> <li>&gt; Are there associated symptoms?</li> <li>&gt; What brings them on?</li> <li>&gt; What makes them better?</li> <li>&gt; What makes them worse?</li> </ul> <p>Ask about commonly seen associated symptoms: fatigue, pain and poor sleep.</p> <p>Do they avoid things that could bring on the symptoms?</p> <p>Is there a boom and bust pattern to the symptoms?</p>
<b>Triggers</b>	<p><i>Did anything bring these symptoms on?</i></p> <p><i>Did you have any illnesses or health problems when the symptoms first came on?</i></p> <p><i>Were there any stressful things or big changes in your life around the time the symptoms started?</i></p>
<b>Physical and mental health screening</b>	<p>Ask about red flag symptoms as you would do for anyone with physical symptoms.</p> <p>Ask about depression, anxiety and stress: <i>How has this affected your mood?</i></p> <p>If their mood is low: <i>Which do you think came first?</i></p> <p><i>It's common for people with physical symptoms like yourself to feel low or worried; has that happened with you?</i></p>
<b>Impact</b>	<p><i>How has this affected you?</i></p> <p><i>Are there things you've had to stop doing?</i></p> <p>Think about the impact on different areas of life.</p> <ul style="list-style-type: none"> <li>&gt; Work/education</li> <li>&gt; Social life and relationships</li> <li>&gt; Home life, everyday tasks and activities of daily living</li> <li>&gt; Mobility and limits on what they can do? At the most severe end, are they largely housebound or even bedbound?</li> </ul> <p>Asking the patient to describe a typical day can be helpful, particularly to get a sense of what they are actually doing.</p> <p>Significant others; do they have a caring role? Do they have other support? Are there any potential reinforcing factors?</p>
<b>Sleep</b>	<p>Has this affected their sleep? Detail here can help with the advice you give on sleep hygiene later.</p> <ul style="list-style-type: none"> <li>&gt; What time they go to bed and time they fall asleep.</li> <li>&gt; The number of times they wake up in the night and how long.</li> <li>&gt; What time they wake up in the morning and time they get up.</li> <li>&gt; If they take daytime naps.</li> </ul>
<b>Current medication</b>	<p>Both prescribed and non-prescribed/over-the-counter medication.</p> <p>Are they using any regular pain relief?</p>
<b>Past medical and psychiatric history</b>	<p>Long-term conditions and past illness.</p> <p>Childhood illness.</p> <p>History of mental health problems.</p> <p>Also ask about interventions for their physical symptoms: cognitive behavioural therapy or other talking therapies, medication, medical procedures and alternative treatments.</p> <p><i>What has been tried so far?</i></p> <p><i>Did it help?</i></p>
<b>Family history</b>	<p><i>Has anyone in your family had similar symptoms?</i></p> <p><i>Has anyone in your family had other physical symptoms that lasted a long time?</i></p> <p>Ask if there are any other long-term conditions or mental health conditions in close family members, including things that occurred in the patient's childhood.</p>

**Table 1. Taking a history (Continued)**

Task	Suggested questions and approach
<b>Social history</b>	Employment, education, housing/living arrangements, welfare and benefits.
<b>Drugs and alcohol</b>	Is there any use of alcohol or recreational drugs, particularly to help alleviate the symptoms? Are opiate painkillers being used, either prescribed or non-prescribed?
<b>Personal history</b>	Childhood adversity/illness, parental ill health, history of traumatic events and attitude to illness in family.

Mental health comorbidity is also common. Around 50% of individuals with PPS suffer from associated anxiety or depression, which is more than that seen in other long-term conditions.<sup>3,23</sup> This may be due to the impact of living with persistent symptoms and the distress and impairment they cause, it may reflect a common aetiology, or it may be a combination of the two.

Associated physical and mental health problems stress the need for a thorough assessment to ensure the treatment approach offered addresses comorbidity.

## Aetiology

The most convincing models for how PPS develop take a multifactorial approach. Deary, Chalder and Sharpe have described a cognitive behavioural model of persistent physical symptoms and how they develop<sup>9</sup>.

Some factors which increase the risk of developing PPS are non-modifiable. These include parental ill health during childhood; illness during childhood; childhood adversity and abuse; personality traits; and having a long-term condition and a family history of someone with a long-term condition.

There can often be a 'trigger' (but this is not always the case). This could be an infection, a physical illness or trauma. It may be a psychosocial stressor or repeated stressors. Often both physical and psychosocial stressors precede the onset of PPS.

Then there are maintaining factors which keep the symptoms going. These can be divided into four groups.

- > Physiological: autonomic dysregulation, central sensitisation, hypothalamic–pituitary–adrenal (HPA) axis dysfunction and sleep disruption.
- > Social: loss of role and medical uncertainty.
- > Cognitive: catastrophic misappraisal of symptoms, symptom focusing and intolerance of uncertainty.
- > Behavioural: avoidance behaviour, 'all or nothing' behaviours and poor sleep hygiene.

Treatment focuses on addressing modifiable maintaining factors, particularly cognitive and behavioural factors.

Another model describes the brain as actively making predictions or inferences rather than passively waiting for sensory input from the body. It proposes PPS are due to 'failures of inference' in which expectations, cognition and emotion play a part in symptom perception.<sup>24</sup>

It is now recognised that a variety of physiological processes are involved in PPS. There is increasing evidence that autonomic nervous system dysregulation plays a role. For example, a recent meta-analysis found differences in heart rate variability comparing patients with PPS to healthy controls.<sup>25</sup> Central sensitisation has also been proposed

as a common physiological basis for PPS.<sup>26</sup> Other hypotheses include immune dysfunction and metabolic abnormalities.<sup>18</sup>

## Assessment

As ever in medicine, assessment of PPS starts with a thorough history. Active listening with empathy is important to help the patient feel heard and understood. Table 1 outlines a suggested approach and key questions as you do this.

Physical examination (cardiovascular, respiratory, abdominal and neurological examinations) is essential to look for signs of other physical health problems. In some functional neurological disorders, there are also positive signs that can be elicited.<sup>27</sup>

Baseline physical observations (heart rate, blood pressure and temperature) are required.

The following investigations should be undertaken as a minimum:

- > urinalysis for protein, blood and glucose
- > full blood count
- > urea and electrolytes
- > liver function
- > thyroid function
- > erythrocyte sedimentation rate and C-reactive protein
- > random blood glucose
- > serum creatinine
- > tissue transglutaminase antibodies (tTG–IgA) for coeliac disease
- > serum calcium
- > creatine kinase.

Further investigations may be indicated. For example, for persistent unexplained gastrointestinal symptoms in women, particularly for those aged over 50 years, CA125 should be measured.<sup>28</sup>

Common diagnoses which are sometimes missed include diabetes, coeliac disease, thyroid problems and inflammatory conditions.

While diagnoses of persistent physical symptoms should be made carefully only after a full assessment, evidence now suggests that when a diagnosis is made, they are stable diagnoses with low misdiagnosis rates.<sup>29</sup> Doctors are more likely to under-diagnose than over-diagnose unexplained symptoms.<sup>30</sup>

## Management

Treatment takes a stepwise approach.

### Positive diagnosis and explanation

The first and most important step is a positive diagnosis and explanation of what the diagnosis means. This must be a

**Table 2. Explaining the diagnosis**

Task	Suggested phrases
Make a positive diagnosis	<i>These symptoms and test results tell us you have fibromyalgia / non-cardiac chest pain / persistent physical symptoms etc (depending on the presentation).</i>
Explain it is common and give them hope about treatment	<i>In my clinic around one in five people I see have problems similar to yours. People can, and do, get better with time. There are things we can work on and treatments that can help.</i>
Tell them you believe them	<i>Your symptoms are real, and I believe you. It is normal to have real physical symptoms that don't show up on blood tests.</i>
Tell them what we know about persistent physical symptoms and be honest about what we don't know	<i>These conditions tend to have many causes. We know there are many risk factors that make people more likely to have these problems.</i>
Say something about what we do know of the biology and mind–body interaction	<i>We know there are clear physical factors that are part of this. For example, infections or illnesses can often be the trigger. But the symptoms can keep going even when the infection/virus is long gone. We know there can be physiological changes; sleep rhythms are often affected and there can be hormonal changes. The mind and the body work together, particularly in complex conditions like these. We can't think about one without the other. For example, when we are anxious our heart beats faster and we can feel anxiety physically in our stomachs.</i>

two-way conversation and should be tailored to the individual's concerns and experiences. Ask what they think may be the cause and what they are worried about. Answer their questions and engage in a dialogue. It is crucial that every clinician, whether in primary care, the emergency department or secondary care sees this as part of their role. Table 2 sets out a guide and suggested phrases.

### Guided self-help

For those presenting for the first time, particularly with a shorter duration of symptoms and less functional impairment, a guided self-help approach is the next step.

Direct them to useful resources like [www.nhs.uk/conditions/medically-unexplained-symptoms](http://www.nhs.uk/conditions/medically-unexplained-symptoms) and [www.rcpsych.ac.uk/mental-health/problems-disorders/medically-unexplained-symptoms](http://www.rcpsych.ac.uk/mental-health/problems-disorders/medically-unexplained-symptoms).

There is more specific information and support available for some presentations, for example from <https://fndhope.org> for functional neurological symptoms.

Approaches at this stage include:

- > advice on managing activity (Table 3)
- > advice on stress management
- > improving sleep hygiene particularly:
  - > a consistent bedtime and wake up time
  - > if they have difficulty falling asleep, getting up for 30 minutes to do something to distract themselves out of the bedroom environment
  - > reducing daytime naps
- > tailored advice on general health, diet and exercise
- > treating associated depression or anxiety, considering medication if appropriate.

**Table 3. Managing activity**

Task	Suggested approach and phrases <sup>31</sup>
Explore the impact of the symptoms	<i>What do these symptoms stop you from doing? What would you like to be able to do more of? Are there things you enjoy that you've had to cut out or avoid?</i>
Decide what to work on	Discuss how increasing enjoyable or valued activities can help. Choose one or two areas to focus on.
Agree on goals to increase enjoyable or valued activities	Make these achievable and specific (what, when, where and with whom). Using a SMART approach can be useful. Start today and review at next appointment (eg 2 weeks in primary care). Let people know symptoms can sometimes get a bit worse before they get better. Consistency is important, whether it is a good or bad day with the individual's symptoms. Little and often is better than all or nothing.
Discussion if they are overdoing things	Do you think it could help to manage your activities in a different way?

SMART = specific, measurable, achievable, realistic and timely.

We should not fall into the trap of referring patients for therapy or specialist care while skipping the first essential steps of making a positive diagnosis, giving a positive explanation and guiding patients through self-help. Many patients will not need further referral when these steps are taken.

### Cognitive behavioural therapy

If things are not improving after 4–8 weeks the next step is offering cognitive behavioural therapy (CBT). CBT is the treatment with the best evidence base for persistent physical symptoms, both for general symptoms and more specific syndromes, and overall there is evidence for a moderate beneficial effect.<sup>9,11,32</sup> CBT is available through local IAPT (Improving Access to Psychological Therapy) services where patients can also self-refer.

When offering CBT, it can be helpful to say that it has been shown to help people with physical symptoms in long-term physical health conditions like multiple sclerosis; CBT is a treatment which has the potential to help whatever the cause of PPS.<sup>33</sup>

### Specialist referral

Where first-line CBT has not helped, specialist referral should be considered. In practice, what is available can vary depending on where you are based and the symptoms the individual has. However, a multidisciplinary approach is best. Good communication and consistency between healthcare professionals around the explanations given and the plan is essential. Research suggests psychological treatments are helpful in terms of improving symptoms and alleviating their impact, and so this message can be delivered with some confidence.

Specialist referral should be considered earlier if employment or education is at risk; there is physical or mental health comorbidity; particularly frequent attendance to emergency departments; or multiple specialists are already involved.

In some cases, harm minimisation is also important. Repeat investigations and interventions can lead to direct and indirect iatrogenic harm. Involving all healthcare professionals and/or departments the patient attends and discussing a plan to limit or stop harmful interventions with the patient is essential. For example, this might be a multidisciplinary plan on what happens in the emergency department or regarding invasive investigations. ■

### Funding

Trudie Chalder is part-funded by the National Institute for Health Research (NIHR) Biomedical Research Centre at South London and Maudsley NHS Foundation Trust, and King's College London at King's College Hospital NHS Foundation Trust.

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**Address for correspondence: Dr Mujtaba Husain, Persistent Physical Symptoms Research and Treatment Unit, King's College London, Mapother House, Denmark Hill, London SE5 8AZ, UK.**  
**Email: [mujtaba.husain@slam.nhs.uk](mailto:mujtaba.husain@slam.nhs.uk)**



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## PPE and improving safety



The increased use of personal protective equipment (PPE) during the COVID-19 pandemic has added challenges for healthcare workers. Accessing the right PPE, or having the right equipment and staff, can be difficult.

New guidance from the Royal College of Physicians aims to help individuals working in healthcare to ensure PPE use does not impair patient safety.

Download the guidance:

[www.rcplondon.ac.uk/projects/outputs/ppe-and-improving-safety](http://www.rcplondon.ac.uk/projects/outputs/ppe-and-improving-safety)