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# Diagnosis and Treatment of Medically Unexplained Symptoms and Chronic Functional Syndromes

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Medically unexplained symptoms and chronic functional syndromes are common but few health care professionals have had formal training about their connection to psychosocial issues. A systematic approach to diagnosis and treatment is described that is based on published evidence and detailed interviews with more than 7,000 of these patients. This approach is designed to meet the needs of primary care teams using techniques for assessing and treating current life stresses, the prolonged impact of adversity in childhood and somatic presentations of depression, posttraumatic stress, and anxiety disorders.

*Keywords:* medically unexplained symptoms, chronic functional syndromes, bodily distress syndrome, psychophysiological disorders, somatization

In primary care, 25%–33% of patients experience medically unexplained symptoms (MUS), chronic functional syndromes (CFS), or (in Europe) bodily distress syndrome (BDS; Kroenke, 2003; Landa, Peterson, & Fallon, 2012). Clinicians have struggled to define these conditions for many years (Aronowitz, 2001) and the cost is \$256 billion annually in the United States alone (Barsky, Orav, & Bates, 2005). In these patients, pain or other symptoms (often more than one) can affect almost any structure, organ system or body region.

There is growing evidence from controlled trials that addressing psychosocial problems in this population leads to significantly improved outcomes (Escobar et al., 2007; Guthrie, Creed, Dawson, & Tomenson, 1993; Hsu et al., 2010; Laird, Tanner-Smith, Russell, Hollon, & Walker, 2016; Powers et al., 2013; Speckens et al., 1995). These studies imply a benefit from

systematically uncovering psychosocial issues. It is unfortunate that that benefit is not reflected in the labels MUS, CFS, or BDS. These terms also fail to take into account functional MRI studies of fibromyalgia (Kim et al., 2015), somatoform pain disorder (Gündel et al., 2008) and irritable bowel (Drossman et al., 2003) showing pain is processed with brain circuits that differ from those of healthy people. A more accurate and informative diagnosis that incorporates the concepts of stress and altered neuroanatomy is psychophysiological disorder (PPD). (The word *psychophysiological* is taken from the initial description of the biopsychosocial model that emphasized the importance of “psychophysiological responses to life change”; Engel, 1977).

Most patients with PPD referred to a behavioral or mental health professional (BMHP) are treated with techniques devised for patients whose primary concern is a mental health issue. But PPD patients typically deny psychological problems and tend to resent any implication otherwise. As a result, outcomes often are unsatisfactory.

The approach to PPD described below is based on detailed interviews with more than 7,000 adult or adolescent PPD patients and on relevant studies (Burton, 2003; Edwards, Stern, Clarke, Ivbijaro, & Kasney, 2010; Kroenke & Swindle, 2000; Rasmussen et al., 2006; Smith et al., 2003). Initial assessment should be by a

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medical clinician. Depending on the needs of the patient, the clinician's training and experience, and the care setting, collaboration with a BMHP often is appropriate to complete the process. The BMHP can, if necessary, also refer for specialty mental health consultation.

### Addressing Skepticism

The first step in evaluating PPD is to address patients' reluctance to consider stress as a cause of physical symptoms. Several techniques can alleviate this concern, as outlined below.

The earlier in the diagnostic evaluation you discuss stress affecting the brain as one possible etiology for symptoms, the more patients will accept this as part of a thorough assessment (Drossman et al., 1999).

Point out that physical responses to stress are common. Examples include tension headache, a "knot" in the abdomen in threatening situations, and blushing with embarrassment (Peters, Stanley, Rose, & Salmon, 1998).

Clarify there is no suspicion that symptoms are imaginary, self-inflicted, or due to deficient coping skills, malingering, or hallucination.

If a BMHP collaborates, inform the patient they are helping evaluate effects of stress on the brain.

### The Stress Evaluation

*Stress evaluation* is my (nonstigmatizing) term for the six-part process of diagnosing PPD. The information can be gathered over several appointments concurrent with thorough diagnostic testing for organic/structural causes. If no significant stresses are found or treatment of psychosocial issues fails to relieve the physical symptoms, then further evaluation for an organic/structural etiology should be considered.

#### Part 1: Illness Chronology

Begin by acquiring a detailed chronology of the patient's illness including the symptoms' onset and pattern over time. Then ask about life stresses that coincide with (or immediately pre-

cede) the start of the illness or flares of symptoms.

**Case 1.** A 37-year-old woman had irritable bowel symptoms three times in her life: at age 22 during a stressful first job more than 1,000 miles from home, at age 31 during a divorce, and currently during her second divorce.

Listen for clues that symptoms are highly unlikely to have an organic or structural cause.

**Case 2.** A 40-year-old man had abdominal pain only while driving to work and not when driving home or on days off work.

**Case 3.** An older man had more than 25 years of daily lumbar pain, but no symptoms during his annual 2-week fly-fishing vacation even when helping to clear brush from around the lodge.

**Case 4.** A 29-year-old woman had brief, severe attacks of abdominal cramps and diarrhea two-three times per week for nine months but not one episode at home.

When assessing abnormalities on imaging studies, remember that many of these are common in asymptomatic people. Examples include mild spinal disk bulge or protrusion (Jensen et al., 1994), endometriosis, ovarian cysts, and pelvic adhesions (Harrop-Griffiths et al., 1988). These findings are unlikely to be a cause of pain and usually will respond to intervention with no more than placebo benefit. This is also often true for gallstones when abdominal pain is atypical for biliary colic.

#### Part 2: Current Stresses

A range of life stresses can be associated with physical symptoms (Burton, Farley, & Rhea, 2009; Baraković, Avdibegović, E., & Sinanović, 2013; Hatcher & Arroll, 2008; Miranda, Pérez-Stable, Muñoz, Hargreaves, & Henke, 1991; Tomenson et al., 2012). Ask if there is a personal crisis, issues with religious faith, problems with a spouse or partner, lesbian/gay/bisexual/transgender concerns, difficulty with children or parents, workplace stress, financial problems, or a dilemma involving a friend or neighbor. Remember to inquire about stressful events that link chronologically to symptom flares.

Another common theme is a lack of self-care skills. Good questions that loved ones can help answer are listed below.

Do you care for those close to you but have difficulty finding time for yourself?

What do you do for enjoyment and how often?

For most of these patients, their only relief from endless obligations is when symptoms force them to rest. A majority experienced a challenging childhood that diverted them from attending to their own needs. They were left with little experience taking time for personal fulfillment and recreation.

**Case 5.** A 32-year-old woman in the emergency department is receiving intravenous opiates for acute abdominal pain. Diagnostic tests are unrevealing. She was a competitive springboard diver from ages 4–18, practicing before and after school and on weekends. Currently she is working full time, as is her husband. She coaches her two daughters and others, drives children long distances to competitions, and volunteers as swim club director. Personal time is rare. Her symptoms moderated after discussion about how much she had missed as a child. She was discharged with analgesic tablets and a plan to take regular time focused on personal enjoyment. Her pain resolved 8–10 weeks later after discovering great pleasure in piano lessons.

### Part IIIa: Adverse Childhood Experiences (ACEs)

ACEs increase the risk for many types of poor health outcome (Felitti et al., 1998), including PPD, which can begin during childhood, adolescence or well into midlife. Symptoms can be mild or severe, single or multiple, and can persist for years or even decades. A good sequence of questions is as follows.

1. Were you under stress as a child?
2. On a scale of 1–10, 10 being worst, how stressed were you as a child?
3. Please tell me what leads you to choose that number.
4. How have you been affected later in life?
5. If you learned that a child you care about was growing up exactly as you did, how would that make you feel? (Patients often minimize the adversity they experienced. This question can help them to a more accurate assessment.)

After each question, listen for mistreatment capable of causing enduring harm to self-esteem and/or anger, fear, shame, grief, or guilt. This suffering often proves to be the source of unresolved emotions that are then expressed somatically. This is the fundamental cause of PPD in ACE survivors. Common forms of childhood mistreatment in this population include abuse, neglect, lack of praise or emotional support, excessive responsibilities, bullying by peers, and parental violence or substance abuse.

Most children suppress their emotional reaction to chronic adversity (Miller, 2008; Kirkengen, 2010). Consequently, as adults they might recall only a fraction of the distress associated with their mistreatment. Detailed questioning (particularly question five above) combined with empathy skills often is needed to comprehend the full depth of emotion in people who do not perceive it themselves. Patients who are unable to recall their childhood might benefit from an interview by a psychotherapist.

### Part IIIb: Stages of ACE Recovery

In my PPD patients with ACEs, a majority experiences up to three overlapping stages of recovery. Finding manifestations of this during a Stress Evaluation improves understanding of the patient's healing process. PPD can begin at any time, even in Stage Three when, outwardly, life appears less stressful.

**Stage One.** Personality traits that develop in response to ACEs include poor self-esteem, stressful personal relationships, perfectionism, detrimental levels of self-sacrifice and increased vigilance. Anxiety and depression often are present. Also common are behaviors that support coping such as eating disorders, addictions (alcohol, drugs, nicotine, exercise, work, sex, gambling, shopping), and self-injury. Additional coping characteristics include reliability, attending to details, a capacity for hard work and compassion for others in need.

**Stage Two.** Negative traits from Stage One diminish and the positive traits generate supportive feedback from friends and colleagues. This leads to steady growth in self-esteem. ACE survivors eventually recognize they deserve to be treated far better than they were as children. For the first time they feel worthy of mutually supportive relationships.

**Stage Three.** Declining stress, improving self-esteem and feeling worthy of better treatment contrasts with and generates emotion about adversity experienced as a child. But because of years spent suppressing emotional reactions, patients lack conscious awareness of anger, fear, grief, shame or guilt even when an ACE perpetrator is still active in the patient's life. The result is emotion that is expressed somatically (causing symptoms) rather than verbally or via behavior. (It is not uncommon for symptom onset to coincide with the first supportive relationship, which I refer to as the *good-partner/bad-illness syndrome*.) Recovery results from conscious recognition of these emotions followed by converting their somatic expression into verbal expression (see the Treatment section below).

It is remarkable how frequently ACE survivors are unaware of emotions powerful enough to cause illness. The following patient's illness was unexplained after consultation by more than a dozen specialists including a psychiatrist.

**Case 6.** A 50 year-old woman was admitted to a university hospital about four times annually for 15 years for days-long attacks of nausea, vomiting, and vertigo. Symptoms resolved rapidly and permanently after discovery that nearly all the attacks were directly linked to episodic interactions with her verbally abusive mother (although most ACE survivors with PPD need months or years to fully recover).

#### Part 4: Depression

In primary care patients with depression, somatic rather than emotional symptoms predominate (Kroenke et al., 1994). A large majority of my patients denied feeling depressed though most of them felt stressed or frustrated. A vague, nonspecific description of the symptoms and desperation to find relief that is out of proportion to findings on physical exam are clues to depression. Confirmation usually follows from inquiry into early morning awakening, anhedonia, fatigue, anorexia, tearfulness, thoughts of self-harm, and loss of hope for the future.

#### Part 5. Posttraumatic Stress

Routinely ask about traumatic, terrifying, or horrifying life events (Andreski, Chilcoat, & Breslau, 1998; Gupta, 2013; Hoge, Terhako-

pian, Castro, Messer, & Engel, 2007; Mcfarlane, Atchison, Rafalowicz, & Papay, 1994). The link to PPD is clear when symptoms begin soon after the trauma, especially when accompanied by manifestations of posttraumatic stress, such as flashbacks, nightmares, avoidance of reminders of the trauma, emotional numbness, and increased vigilance.

PPD that begins long after the trauma is more challenging to diagnose and is not rare. Symptoms usually follow a triggering event linked to the trauma.

**Case 7.** A 34-year-old woman had a 3-year history of episodic nausea, vomiting and right lower quadrant (RLQ) abdominal pain. She indicated the site of pain by forming her hand into the shape of a pistol and pointing the "barrel" at the RLQ. Thirteen years earlier she witnessed the murder of her brother by gunshot to the RLQ. Ten years later, just before the onset of symptoms, she unexpectedly encountered her brother's killer in a store (shortly after his release from prison), although he did not recognize her.

#### Part 6: Anxiety Disorders

The prevalence of generalized anxiety disorder (GAD) in primary care is 7%–8% and most complain of physical symptoms rather than worry or fear (Stein & Sareen, 2015). A clue to GAD is that the somatic illness tends to be significantly less severe at times when the patient feels safe.

Case 4 above who had diarrhea attacks only away from the safety of her home is an example. Another patient experienced progressive stiffness and discomfort in the neck and shoulders if he left his home but not if he remained there. Most GAD patients will admit to excessive worry about minor matters if asked specifically.

A variant of GAD is social anxiety disorder where symptoms are triggered by social situations such as public speaking or the presence of large numbers of people. Patients often worry about embarrassing themselves or being judged by others.

**Case 9.** An adolescent had severe diarrhea but only on Tuesdays and Thursdays when she played soccer for her high school team and felt very anxious about her performance. Symptoms



responded well to the selective serotonin reuptake inhibitor (SSRI) paroxetine.

Panic attacks also can be misdiagnosed as organic disease. Sudden onset and a rapid peak of intense fear often accompanied by shortness of breath, heart palpitations, chest discomfort, trembling, a choking sensation, or nausea should prompt consideration of panic. The diagnosis is likely if episodes abort rapidly after taking a short-acting benzodiazepine.

## Treatment

A useful diagnostic technique that also initiates treatment is to have the patient compile a list of all their life stresses past and present. This has value for several reasons.

During a stress evaluation, many patients want to provide more information than time permits. They can be encouraged to add these disclosures to their list of stresses for review during follow-up.

The number of listed stresses and their tendency to cluster in particular areas (such as workplace or spouse) can be a revelation.

Often patients feel prompted to find solutions to some items with subsequent improvement in their symptoms.

Patients who lack self-care skills should, ideally, set aside 2–5 hr per week (best as a block) for trial and error in search of an activity whose primary purpose is enjoyment. This process can require months, often induces guilt (at first) and benefits from support by other members of the patient's household. But once people acquire the ability to put themselves on the list of those for whom they care, the improvement in symptoms is gratifying and enduring.

PPD resulting from ACEs often benefits from psychotherapy. However, there are several straightforward techniques a BMHP or medical clinician can implement that are surprisingly helpful. Supportive, nonjudgmental listening about ACEs builds trust. It is also therapeutic with a 35% reduction in doctor office visits though this is not sustained beyond one year without follow-up (Felitti & Anda, 2010). Reframing coping behaviors (eating disorders, addictions, self-injury) as normal responses to an

abnormal past environment conveys acceptance and compassion.

The next step is to facilitate greater conscious recognition of emotions about childhood mistreatment. Even patients who deny these feelings often reconsider when asked to imagine a young loved one enduring the same experience.

**Case 10.** A 33-year-old man had a 20-year history of multiple PPD symptoms. After his parents' divorce when he was age 8, they continued to live in the same home, sleeping separately, with daily mutual hostility. The patient denied significant impact until asked to imagine observing his beloved 6-year-old niece experiencing the same environment for a week. Following a long pause, the patient said, "After that week, I would shoot myself."

Once the patient appreciates the magnitude of their anger, fear, grief, shame or guilt, it is important to help them take pride in the heroic accomplishment of surviving their ACEs. This reframing, when encouraged by a health care professional, can initiate meaningful growth in self-esteem that is fundamental to further progress. Concurrently, the patient can convert the somatic expression of emotion (physical symptoms) into verbal expression by

writing thoughts and emotions in a journal or in a letter to the ACE perpetrator (usually not mailed; Pennebaker & Smyth, 2016),

imagining a child enduring what the patient experienced and writing what they would communicate to that child, and

meeting with an experienced psychotherapist.

If a patient has ongoing interaction with their ACE perpetrator(s) it is often essential to change the nature of the encounters or set relationship boundaries. This is challenging until self-esteem has grown but can be a key contributor to symptom relief.

Depression, PTSD, and the anxiety disorders can be managed with counseling and/or medication, depending on the patient's preference and local expertise.

Another therapeutic option is self-help books about PPD that are based on published evidence and extensive clinical experience (see Table 1). Asking patients if they "like to read" can gauge patients' interest in these and also functions as a

Table 1  
Self-Help Books

Book (author, year)
<i>Back in Control: A Spine Surgeon's Roadmap Out of Chronic Pain</i> (Hanscom, 2012)
<i>Childhood Disrupted: How Your Biography Becomes Your Biology, and How You Can Heal</i> (Nakazawa, 2015)
<i>Chronic Pain: Your Key to Recovery</i> (Oldfield, 2014)
<i>The Hidden Psychology of Pain: The Use of Understanding to Heal Chronic Pain</i> (Alexander, 2012)
<i>Opening Up by Writing It Down: How Expressive Writing Improves Health and Eases Emotional Pain</i> (Pennebaker & Smyth, 2016)
<i>Pathways to Pain Relief</i> (Anderson & Sherman, 2013)
<i>They Can't Find Anything Wrong! 7 Keys to Understanding, Treating, and Healing Stress Illness</i> (Clarke, 2007)
<i>Think Away Your Pain</i> (Schechter, 2014)
<i>Unlearn Your Pain</i> (Schubiner, 2016)

screen for literacy. Finally, faith-based or other support groups and/or adjunctive practice of mindfulness, relaxation technique, meditation, or yoga are helpful to many.

### The Stress Medicine Group Appointment

A classroom is a nonthreatening venue for presenting the ideas above. A significant fraction of attendees will seek individual BMHP support after hearing this information. A 6-year experience with this class produced a statistically significant increase in attribution of symptoms to stress, a 22% decrease in medical office visits (Clarke, 1999) and a 50% annual increase in referrals to the class by medical clinicians. My annotated slide set is available online at no charge (<http://www.stressillness.com/Lectures.php>).

### Conclusion

Millions of patients experience PPD, but few health professionals have had formal training in uncovering and managing the psychosocial causes. The result is a large blind spot in the health care system. Francis Peabody discussed this failure and its remedies at length in a famous speech in 1925, summarizing many useful ideas by saying: "In all your patients whose symptoms are of functional origin, the whole problem of diagnosis and treatment depends on

your insight into the patient's character and personal life" (Peabody, 1927, p. 882).

In the 90 years since then, management of PPD patients has not achieved its potential. However, with the diagnostic process and therapeutic measures described above, outcomes in PPD patients can move closer to parity with results achieved for structural abnormalities and organic disease.

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