## EDITORIALS

## **Managing Somatization**

## Medically Unexplained Should Not Mean Medically Ignored

Physical symptoms are the most common reason patients seek medical attention. Despite medical advances, up to a third remain unexplained, even after extensive evaluation.<sup>1</sup> Fortunately, most patients with medically unexplained symptoms experience symptom resolution,<sup>2</sup> although a subset of patients' symptoms persists. The number, severity, and functional impact of patient symptoms likely represents a continuum from the small proportion of patients meeting DSM-IV criteria for somatization disorder to the many patients with persistent symptoms who do not have somatization disorder but nonetheless have considerable impairment. Previously, management of such patients was reactive rather than proactive, and largely based on limiting care. Clinicians negotiated and tried to optimize visit frequency and limit diagnostic testing and referrals for stable symptoms. Symptoms were treated symptomatically, usually with limited success. Both clinicians and patients were frustrated by this process and patients often left to seek other "better" advice.

The trial by Smith et al. is unique for 2 reasons. First, it tackles symptoms as a broad class, rather than limiting itself to a specific symptom syndrome. Second, it is the first randomized-controlled trial of treating high-utilizing patients with medically unexplained symptoms. Clinicians will heartily appreciate trial data to help them do more for their patients than just minimize visits, testing, and referrals.

In this trial, patients were randomized to usual versus augmented care in which nurse practitioners used patientcentered methods to establish good patient-provider relationships and to inform and motivate patients about treatment. A variety of treatment modalities were available including antidepressants, reduction/elimination of ineffective-controlled substances, exercise, relaxation training, physical therapy, comorbid disease management, and referrals, mostly to mental health professionals. Patients were scheduled to be seen 12 times over the 1-year trial, with telephone contact available between visits. The primary study outcome measure was change in the mental composite score of the SF-36, and the authors found an absolute 14% improvement (48% improved vs 34% improved) among those receiving the intervention, compared with those who did not. Other improved outcomes included depression and disability scores, as well as satisfaction. Patients in the intervention group were more likely to reduce narcotic use and be on full-dose antidepressants.

The findings by Smith et al. prompt a brief consideration of 9 issues related to somatization per se as well as some analogies with chronic medical disorders.

- (1) Multicomponent interventions: The treatment program for MUS was a bundled one, making it difficult to disentangle specific components. The most important mediator of improvement in mental health and disability indices appeared to be the use of full-dose antidepressants, but as the authors rightly point out, this is an achievement in itself, as this can be difficult to accomplish in this patient population. Improved satisfaction seemed more clearly due to the change in clinician-patient communication. A bundled intervention may be necessary for MUS, just as effective management of coronary artery disease (CAD) requires addressing multiple risk factors, and treatment of diabetes, asthma, and other chronic diseases requires multiple medications and lifestyle changes.
- (2) Modifiability: Not all contributory factors are equally modifiable. Some are not modifiable at all (age, gender, and hereditary factors for CAD; personality traits, and childhood trauma for somatization). Among potentially modifiable factors, those relatively responsive to medications (hypertension, hyperlipidemia, depression) are easier for both patients and physicians than those requiring lifestyle or personal changes, such as obesity, inactivity, dysfunctional cognitions, and behaviors. This leads to a disproportionate reliance on pharmacotherapy for both medical and mental disorders compared with dietary changes, exercise, and cognitive-behavioral therapy.
- (3) Psychologization: Just because MUS have high rates of psychiatric comorbidity does not mean that an exclusively psychological focus is optimal. First, a third of patients do not have depression, anxiety, or other obvious psychological conditions. Second, psychological explanations are not acceptable to many patients with MUS,<sup>3</sup> even though "reattribution" has proven to an effective therapy for some somatizing patients in primary care.<sup>4,5</sup> Third, the directionality of the relationship between physical and psychological symptoms is often indeterminate: for example, is chronic pain the consequence or the cause of concomitant depression or are the 2 conditions the products of a common pathway? Fourth, even when physical symptoms respond to "psychological" treatments such as antidepressants or CBT, the effect size may be less than that seen for depression.<sup>3,6,7</sup> Finally, antidepressants may be beneficial for physical symptoms, even among patients without depression.<sup>3</sup> Axonal projections of serotonin and norepinephrine, may mediate depressive symptoms: frontal cortex projections may regulate mood and cognition; hypothalamic projections may affect appetite, pleasure, and sex drive; limbic regions affect emotions and anxiety; and basal ganglia projections affect psychomotor function. Many of these brain areas have abnormal activity among patients with symptom syndromes.<sup>8</sup> In addition, both serotonin and norepinephrine may exert analgesic effects via inhibitory descending pain

Address correspondence and requests for reprints to Dr. Jackson, 4301 Jones Bridge Rd, Bethesda, MD 20814 (e-mail: jejackson @usuhs.mil).

 $pathways^{9-12}$  and may be involved in the suppression of somatic symptoms at the level of the spinal cord.  $^{13-15}$ 

- (4) Imperfect explanation: Physical symptoms are not so readily dichotomized into those that are attributable to a medical disorder versus those that are "medically unexplained." Even disease-specific symptoms in cardiac disease, diabetes, HIV, cancer, and other medical conditions are often explained as much by psychological factors as severity of the underlying disease.<sup>16</sup> Thus, when a patient with persistent symptoms presumably due to a medical disorder does not improve as expected, psychological comorbidity should be pursued simultaneously rather than as a last resort after relentless diagnostic testing and desperate escalation of medical therapy.
- (5) Symptoms undifferentiated: Much research has focused on a specific symptom or symptom syndrome. In actual practice, patients often present with multiple symptoms. For example, in 1 study, 79% of consecutive walk-in patients had 2 or more symptoms, with patients averaging 4 symptoms per visit.<sup>2</sup> Moreover, while a great deal of effort has been put into classifying various symptom syndromes, most syndromes demonstrate considerable overlap.<sup>17</sup> Generic issues in symptom evaluation and management is a fertile, but largely untapped, field of research.<sup>18</sup>
- (6) The importance of communication. "Better" communication has been associated with higher satisfaction in a number of studies,<sup>19</sup> as well as greater adherence<sup>20</sup> and lower rates of litigation,<sup>21</sup> but few studies have found a relationship between communication and disease or symptom outcomes.<sup>22,23</sup> A recent systematic review identified 35 randomized trials to alter communication in order to improve patients' health and well being and found that a range of approaches could achieve changes in this interaction, and some show promise in improving patients' health. However, health outcomes were rarely measured objectively and only 4 trials with health outcomes met predefined quality criteria.<sup>19</sup>
- (7) Negative clinician attitudes. The presence of depression or anxiety in a patient makes it 3 times more likely the clinician will perceive the medical encounter as difficult, and somatization increases this likelihood 9-fold.<sup>19</sup> Moreover, neither mental health nor medical specialists are particularly desirous of treating somatizing patients, gladly relinquishing this care to the primary care clinician. At the same time, having sole responsibility for complex MUS contributes to career dissatisfaction among generalist physicians.<sup>20</sup> Given their prevalence in specialty settings,<sup>21</sup> MUS should be in the core curriculum of every residency and fellowship program, and shared care of MUS should be the responsibility of every provider.
- (8) Locus of therapy and reimbursement. In some socialized health care systems, generalist physicians have been trained to provide brief psychosocial interventions for somatizing patients.<sup>16,24</sup> However, treatments that require talking with patients are economically disadvantaged in the current U.S. system which reimburses technological procedures far more than patient-provider communication. Indeed, even E&M documentation requirements favor examining rather than talking to the patient, even though the latter is more diagnostically informative and therapeutic.<sup>1</sup> While delivery of psychosocial interventions by nurses or other health care professionals as in the trial by Smith is

another strategy, paying for this is problematic. Mental health referral is a third option but access to those trained in somatically focused CBT is limited. Moreover, patients who attribute their MUS to physical disorders are frequently reluctant to see a mental health specialist. Stepped care approaches with the primary care physician providing care for most of the patients but assisted by care managers and specialists for more complex cases is probably the optimal strategy for treating MUS.

(9) Salient outcomes. In the words of Joan Didion, a modern writer and migraineur: "The actual headache, when it comes, brings with it chills, sweating, nausea, a debility that seems to stretch the very limits of endurance. That no one dies of migraine seems, to someone deep into an attack, an ambiguous blessing." Although death is an unlikely consequence, other D's relevant to MUS include disability, discomfort, dissatisfaction, and "destitution," i.e., the considerable medical costs resulting from somatization. For these reasons, medically unexplained symptoms should not be synonymous with medically ignored.

—Jeffrey L. Jackson, MD, MPH,<sup>1</sup> Kurt Kroenke, MD<sup>2</sup> Department of Medicine, Uniformed Services University of the Health Sciences, Bethesda, MD, USA; <sup>2</sup>Regenstrief Institute, Indianapolis, IN, USA.

## REFERENCES

- Kroenke K. Studying symptoms: sampling and measurement issues. Ann Intern Med. 2001;134:844–53.
- Jackson JL, Passamonti M. The outcomes among patients presenting in primary care with a physical symptom at 5 years. J Gen Intern Med. 2005;20:1032–7.
- Stone J, Wojcik W, Durrance D, et al. What should we say to patients with symptoms unexplained by disease? The "number needed to offend." BMJ. 2002;325:1449–50.
- Morriss RK, Gask L. Treatment of patients with somatized mental disorder: effects of reattribution training on outcomes under the direct control of the family doctor. Psychosomatics. 2002;43:394–9.
- Fink P, Rosendal M, Toft T. Assessment and treatment of functional disorders in general practice: the extended reattribution and management model—an advanced educational program for nonpsychiatric doctors. Psychosomatics. 2002;43:93–131.
- Lin EHB, Katon W, Von Korff M, et al. Effect of improving depression care on pain and function among older adults with arthritis: a randomized controlled trial. JAMA. 2003;290:2428–34.
- Greco T, Eckert G, Kroenke K. The outcome of physical symptoms with treatment of depression. J Gen Intern Med. 2004;19:813–8.
- Bonaz B, Baciu M, Papillon E, et al. Central processing of rectal pain in patients with irritable bowel syndrome: an fMRI study. Am J Gastroenterol. 2002;97:654–6.
- Jones SL. Descending noradrenergic influences on pain. Prog Brain Res. 1991;83:389–94.
- Richardson BP. Serotonin and nocioception. Ann N Y Acad Sci. 1990; 600:511–9.
- Stahl SM. The psychopharmacology of painful physical symptoms in depression. J Clin Psychiat. 2002;2002:382–3.
- Willis WD, Westlund KN. Neuroanatomy of the pain system and the pathways that modulate pain. J Clin Neurophysiol. 1997;14:2–3.
- Naliboff BD, Munakata J, Fullerton S, et al. Evidence for two distinct perceptual alterations in irritable bowel syndrome. Gut. 1997;41: 505–12.
- Petzke F, Harris RE, Williams DA, Clauw DJ, Gracely RH. Differences in unpleasantness induced by experimental pressure pain between patients with fibromyalgia and healthy controls. Eur J Pain. 2005;9: 325–35.
- Montoya P, Pauli P, Batra A, Wiedemann G. Altered processing of pain-related information in patients with fibromyalgia. Eur J Pain. 2005;9:293–303.

- Kroenke K, Rosmalen JGM. Symptoms, syndromes and the value of psychiatric diagnostics in patients with functional somatic disorders. Med Clin N Am (in press).
- Aaron LA, Buchwald D. A review of the evidence for overlap among unexplained clinical conditions. Ann Intern Med. 2001;134(9 Part 2): 868–81.
- Kroenke K, Harris L. Symptoms research: a fertile field. Ann Intern Med. 2001;134(9 Part 2):801–2.
- Griffin SJ, Knmonth AL, Bltman MW, Gillard S, Gran J, Stewart M. Effect on health-related outcomes of interventions to alter the interaction between patients and practitioners: a systematic review of trials. Ann Fam Med. 2004;2:595–608.
- Schneider J, Kaplan SH, Greenfield S, Li W, Wilson IB. Better physician-patient relationships are associated with higher reported adherence to antiretroviral therapy in patients with HIV infection. J Gen Intern Med. 2004;19:1096–103.

- Levinson W, Roter DL, Mullooly JP, Dull VT, Fankel RM. Physicianpatient communication. The relationship with malpractice claims among primary care physicians and surgeons. JAMA. 1997;277:553–9.
- Greenfield S, Kaplan SH, Ware JE Jr, Yano EM, Frank HJ. Patients' participation in medical care: effects on blood sugar control and quality of life in diabetes. J Gen Intern Med. 1988;3:448–57.
- Jackson JL, Kroenke K. The effect of unmet expectations among adults presenting with physical symptoms. Ann Intern Med. 2001;134: 889–97.
- Hahn SR. Physical symptoms and physician-experienced difficulty in the physician-patient relationship. Ann Intern Med. 2001;134:897–904.
- Wetterneck TB, Linzer M, McMurray JE, et al. Work life and satisfaction of general internists. Arch Intern Med. 2002;162:649–56.
- Reid S, Wessely S, Crayford T, et al. Medically unexplained symptoms in frequent attenders of secondary health care: retrospective cohort study. BMJ. 2001;322:767.