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# Somatic Symptom Disorder

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Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/52431>

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## 1. Introduction

In the chapter we present our model of treatment for somatic symptom disorder. We begin with a brief history of somatic symptom disorder followed by a discussion of theory and research on it. Finally, we describe our psychosocial treatment for somatic symptom disorder and related disorders, which employs methods from both cognitive behavioral therapy and experiential emotion-focused therapy.

Physical symptoms with uncertain medical explanations are some of the most common presentations in primary care. As many as 25% of visits to primary care physicians are prompted by physical symptoms that lack any clear organic pathology [1]. Although some patients with medically unexplained physical symptoms experience mild and/or transient discomfort, others experience substantial discomfort, distress, and impairment in functioning [2,3]. It is these patients, those with impairing physical symptoms of unknown etiology, who are often refractory to standard medical treatment and overuse medical services [2].

Medicine has long recognized a group of patients with medically unexplained physical symptoms (MUPS) and excessive health concerns. Originally theorized to be caused by a wandering uterus that produced discomfort and pain, MUPS were first described by ancient Egyptians and first labeled hysteria by the ancient Greeks.

It was not until 1980 and the publication of DSM-III that the terms somatization and somatoform were introduced for physical symptoms that were medically unexplained [4]. According to DSM-III somatization disorder was characterized by “recurrent and multiple somatic complaints of several years’ duration for which medical attention had been sought but which are apparently not due to any physical disorder” [4]. Also in that volume the diagnostic category of somatoform disorders was created and subsumed somatization disorder, conversion disorder, psychogenic pain disorder, hypochondriasis, and a residual category, atypical somatoform disorder for other disturbances with a presentation of MUPS [4]. Conversion

disorder was characterized by a “loss or alteration in physical functioning that suggests a physical disorder but which instead is apparently an expression of a psychological conflict or need” [4]. If the medically unexplained symptom was a pain symptom and the symptom was judged to be associated with psychological factors, the diagnosis of psychogenic pain disorder would be indicated. The essential feature of hypochondriasis was a preoccupation with the fear or belief of having a serious disease.

Both DSM-III-R [5] and DSM-IV [6] used similar diagnostic labels and criteria to those used in DSM-III for presentations predominated by MUPS. An additional diagnostic label, undifferentiated somatoform disorder, was introduced in DSM-III-R and retained in DSM-IV for cases of MUPS but that did not meet all the criteria of somatization disorder. This less severe form of somatization, undifferentiated somatoform disorder, was characterized by one or more MUPS that lasted for at least 6 months [5,6].

Somatic symptom disorder is a new diagnostic label proposed for DSM-5 [7]. The diagnostic criteria for somatic symptom disorder are distressing and chronic somatic symptoms and associated dysfunctional thoughts, feelings, and/or behaviors (Table 1). In contrast to earlier editions of DSM, DSM-5 has shifted from emphasizing the functional status of somatic symptoms (i.e., that symptoms be medically unexplained) to the maladaptive thoughts, feelings, and behaviors related to somatic symptoms. According to DSM-5’s Somatic Symptom Disorders Work Group, unlike the criteria for somatization disorder and other somatoform disorders described in earlier editions of DSM, the criteria for somatic symptom disorder require the presence of specific characteristics rather than the absence of characteristics (i.e., evidence of organic basis) and are more reliably determined [7]. Research has shown significant variability among physicians in their tendency to rate symptoms as medically unexplained [8]. Also, patient reports of the functional status of symptoms are unreliable [9]. Thus, the diagnosis no longer requires evidence that symptoms are medically unexplained. In addition to eliminating the assessment of the organic basis of the symptoms, the Somatic Symptom Disorders Work Group has proposed a new, less controversial label for somatically-focused presentations [7]. It seems the diagnoses of somatization and somatoform disorder carried pejorative connotations [10].

A. Somatic Symptoms: One or more somatic symptoms that are distressing and/or result in significant disruption in daily life.
B. Excessive thoughts, feelings, and behaviors related to these somatic symptoms or associated health concerns: At least one of the following must be present.
1. Disproportionate and persistent thoughts about the seriousness of one’s symptoms
2. Persistently high level of anxiety about health or symptoms
3. Excessive time and energy devoted to these symptoms or health concerns
C. Chronicity: Although any one symptom may not be continuously present, the state of being symptomatic is persistent (typically $>$ 6 months).

**Table 1.** Proposed DSM-5 Diagnostic Criteria for Somatic Symptom Disorder

## 2. Epidemiological findings and clinical characteristics

Although there is no published research on DSM-5's somatic symptom disorder, research on some of the older diagnostic categories is likely to apply. Distressing physical symptoms are common in medical clinics. As many as 20% of primary care patients have MUPS [11-13]. Epidemiological research has shown patients with MUPS to be more likely to be female, non-white, and less educated than patients with medically explained symptoms [13-15]. Findings on ethnicity have been less consistent across studies. In the Epidemiological Catchment Area project, examining psychiatric complaints in the general population at five sites in the United States, Hispanics were no more likely to meet criteria for somatization disorder than were non-Hispanics [15]. The World Health Organization study, conducted in primary care clinics in 14 different countries, revealed a higher incidence of somatization in Latin American countries than in the United States [13]. (Note that the terms medically unexplained symptoms (MUPS) and somatization will be used interchangeably in the remainder of this chapter. The term somatization disorder is reserved for cases meeting the full criteria for somatization disorder as outlined in DSM-III, DSM-III-R, or DSM-IV.)

Patients with MUPS often engage in dysfunctional illness behavior. When standard diagnostic evaluations fail to uncover organic pathology, patients may seek additional medical procedures, often from several different physicians. When symptoms continue unresolved, patients may switch physicians and/or treatment approaches. Patients may even subject themselves to unnecessary hospitalizations and surgeries, which introduce the risk of iatrogenic illness [16]. Patients with multiple medically unexplained symptoms have been shown to overuse and misuse health care services [2,17,18].

MUPS may not only prompt excessive use of medical procedures, they may also affect patients' workplaces and households. Patients who are excessively focused on their somatic symptoms may withdraw from both productive and pleasurable activities because of discomfort, fatigue, and/or fears of exacerbating their symptoms. High levels of functional impairment have been associated with somatization [13,18-20].

Comorbid psychopathology is common in patients with MUPS. Ongoing physical discomfort can be demoralizing, anxiety-provoking, and frustrating. Approximately 50% of patient with multiple MUPS meet DSM criteria for an Axis I disorder, most often depression and/or anxiety [19,21]. Also, overall severity of psychological distress, defined as the number of psychological symptoms reported, correlates positively with the number of functional somatic symptoms reported [3,21].

A growing body of research indicates certain cognitive styles may be associated with somatization. Barsky suggested patients with unexplained physical symptoms have a tendency to amplify somatosensory information; that is, they are hypersensitive to bodily sensations which are experienced as intense, noxious, and disturbing [22]. Other researchers have shown that patients with MUPS form negative cognitive appraisals of their physical sensations, thinking catastrophically about their symptoms [23] and/or overestimating the medical severity of symptoms after a medical evaluation [24]. Research demonstrating that memories and

expectations of physical symptomatology prime future symptomatology [25] is likely to apply to somatizers.

Two personality styles have also been associated with somatization. Patients with MUPS tend to score high on scales of neuroticism and negative affect [26]. Alexithymia, defined as having difficulty identifying and describing one's emotions, is common in somatization [27-29]. Thus, we see somatization

patients as individuals who may be emotionally and physically hyper-reactive while having insufficient insight into their emotional and physical sensations.

### 3. Biopsychosocial model

The biopsychosocial model of illness, proposed by George Engel [30], suggests that illness is a complex entity involving the interaction of biological, psychological, and social factors. A biopsychosocial conceptualization of somatic symptom disorder emphasizes the interaction among biology, cognition, emotion, behavior, and environment [31,32].

There is a growing body of research that supports key features of the biopsychosocial model of somatic symptom disorder. Genetic and early environmental factors may predispose individuals to experiencing somatic symptomatology [33]. Patients presenting with multiple somatic symptoms have higher levels of physiological arousal and are less likely to habituate to a stressful task than control subjects [34]. These predisposing factors may be compounded by the dysfunctional attentional and cognitive tendencies described in the previous section. The more attention one focuses upon his or her body, the more likely one is to report somatic symptoms [35,36].

Dysfunctional cognitions may elicit negative emotions or be elicited by negative emotions [37]. This cognition-emotion cycle may interact in a complex fashion with maladaptive behaviors. For example, thoughts of possible illness give rise to feelings of anxiety, dysphoria, and frustration, which are likely to generate and maintain physiological arousal and physical symptomatology. Intending to prevent injury or exacerbation of symptoms, these patients typically withdraw from their normal activities [2,3]. Such time away from activities provides opportunities for additional attention to be focused upon one's physical health. Furthermore, patients suffering from these physical symptoms, distorted cognitions, and negative affect may seek repeated contact with physicians and request medical tests. Pain catastrophizing has been associated with medical utilization and disability [38]. Physicians, in turn, attempting to conduct thorough evaluations and avoid malpractice suits, may encourage somatizing behavior by ordering unnecessary diagnostic procedures. Chronic medical testing may ingrain patients in the "sick role" and reinforce somatizers' maladaptive belief that any physical symptom indicates organic pathology. Also, unnecessary medical procedures, if implemented, may result in iatrogenic illness.

A biopsychosocial model of medically unexplained symptoms leads to specific psychosocial treatment strategies that include behavioral, cognitive, and interpersonal interventions.

Relaxation training may be employed to teach patients to use progressive muscle relaxation and/or diaphragmatic breathing to reduce physiologic arousal. Behavioral activation/activity regulation promotes increases in pleasurable and meaningful activities to modify the tendency of these patients to withdraw from important aspects of their lives. Also, activity pacing is taught so that patients will increase their activity levels gradually without exhausting or injuring themselves. The cognitive restructuring component aims to help patients combat dysfunctional cognitive tendencies. Communication skills, especially assertiveness training, are taught to address the social disability that has been reported by somatizers [39]. Finally, patients' environments are examined for factors that reinforce their physical symptoms. Those factors are targeted for change. In some treatment protocols the patient's spouse/partner is invited to participate in treatment sessions. Given the important role that spouses play in reinforcing patients' expression of pain and pain behavior [40], spousal behaviors that reinforce patients' symptoms may be modified.

#### **4. Treatment outcome research**

The financial costs and associated suffering and disability of somatization make it a public health concern. Given that many patients with MUPS fail to respond to standard medical care, alternative treatments have been developed. Although different psychosocial interventions have been used to treat somatization, some administered by primary physicians/clinicians and others administered by mental health providers, most approaches that have been examined in randomized controlled clinical trials have been theoretically grounded in the biopsychosocial model described above. Cognitive behavioral therapy (CBT) is the form of psychotherapy most often examined. Also, a number of different approaches to retraining primary care physicians or integrating CBT into primary care have been investigated.

##### **4.1. Psychotherapy**

The first published randomized controlled trials on CBT for somatization included patients presenting with relatively mild levels of somatization, patients presenting with at least one psychosomatic symptom. The treatment protocols included identifying and restructuring dysfunctional cognitions, encouraging patients to reengage in avoided activities, problem-solving, and relaxation training [41,42]. In the first study patients treated with 6 to 16 sessions of individually-administered CBT showed significantly greater improvement in their psychosomatic complaints than did patients treated with standard medical care [41]. The other study found an 8-session group CBT superior to a waiting-list control condition in reducing physical symptoms and hypochondriacal beliefs [42]. In both studies improvements were observed after treatment as well as six months later [41,42]. Both of these studies were conducted in primary care offices, the setting where somatization is most likely to be seen.

Two more recently published randomized controlled trials examined the efficacy of CBT for somatization with patients presenting with more severe somatization than the earlier trials. One study enrolled patients with at least four somatization symptoms [43]. The other trial

enrolled participants who complained of five or more unexplained physical symptoms [44]. In both studies patients were identified and treated with CBT in primary care. Treatment protocols were similar to Lidbeck's [42] and Speckens et al., [41] with the addition of involving the patient's spouse or other family member in treatment [43,44]. Spouses are included to provide additional information regarding patients' functioning, to facilitate patients' engagement in and compliance with treatment, and to help reduce reinforcement of illness behavior. Findings from both trials show individual CBT coincided with greater reductions in somatic complaints than did standard medical care [43,44]. CBT was associated with a reduction in the number of physician visits in one study [44].

Our researcher team published a randomized controlled trial on the efficacy of an emotionally-focused cognitive behavioral intervention, affective cognitive behavioral therapy (ACBT) for some of the most severely disturbed patients with somatization [45]. In the study 84 patients meeting DSM-IV criteria for somatization disorder were randomly assigned to one of two conditions: [1] standard medical care or [2] a 10-session manualized individually-administered ACBT in combination with standard medical care. The treatment protocol included some of the usual components of CBT for somatization, i.e., relaxation training, activity regulation, cognitive restructuring, and interpersonal communication as well as facilitation of emotional awareness. Although the elicitation and exploration of affect is an approach rarely used in CBT, we have found this component to be a powerful clinical tool with patients who cannot or do not willingly access and experience emotion. We describe our treatment in the following sections and elsewhere in more detail [46]. Participants' symptomatology and functioning were assessed with clinician-administered instruments, self-report questionnaires, and medical records before randomization as well as 3 months, 9 months, and 15 months after randomization. Just after the completion of treatment as well as one year later, i.e., at the 15-month follow-up assessment, patients who received ACBT experienced a greater reduction in somatization and functional impairment. Substantially more participants who received ACBT than the control treatment were rated as either "very much improved" or "much improved" by a clinician who was blind to participants' treatment condition (40% vs. 5%, respectively). Also, for the 68% of the sample for whom complete medical records were reviewed, ACBT was associated with a reduction in health care costs and physician visits [45]. Thus, the study suggests ACBT can result in long-term improvements in symptomatology, functioning, and health care utilization of the most severely disturbed somatizing patients.

#### **4.2. Primary care interventions**

Given the prevalence of MUPS in primary care [1,11,12], much research has centered on primary care physicians' behavior. Smith and colleagues sent a psychiatric consultation letter to patients' primary care physicians, describing somatization disorder and providing recommendations to guide primary care [47]. The recommendations to physicians were straightforward: (a) to schedule somatizers' appointments every 4 to 6 weeks instead of as needed appointments, (b) to conduct a physical examination in the organ system or body part relevant to the presenting complaint, (c) to avoid diagnostic procedures and surgeries unless clearly indicated by underlying somatic pathology, and (d) to avoid making disparaging statements,

such as “your symptoms are all in your head.” Patients whose primary physicians had received the consultation letter experienced better health outcomes, such as physical functioning and cost of medical care, than those whose physicians had not received the letter. The results were replicated in three additional studies, one study using patients meeting criteria for full somatization disorder [48] and two studies using patients with more moderate levels of somatization [49,50].

Some investigators have attempted to train primary care physicians to better detect somatization and to incorporate cognitive and behavioral techniques into their treatment of these patients. Five groups of investigators have reported controlled clinical trials on the effects of such physician training [51-55]. The two studies providing the most extensive physician training (20-25 hours) resulted in no association between physician training and patients’ symptomatology, functioning, or quality of life [51,55]. Three other studies found less intensive physician training programs, 12 hours [52] or 1 day [54] or six hours [53] to coincide with no clear improvement in somatization symptomatology; however, Rief and colleagues did find their training to result in fewer health care visits for the 6 months subsequent to training [54].

One other study examined the effect of training primary care clinicians to identify and treat somatization using a biopsychosocial model [56]. This study involved the most intensive such training programs studied, one entailing 84 hours over 10 weeks. Nurse practitioners were trained to provide a year-long 12-session multidimensional intervention in primary care that incorporated biopsychosocial conceptualizations, behavioral recommendations, and medication management of somatization. Patients who received treatment from these trained nurses reported modest improvements on self-report scales of mental health such as mood and energy and physical functioning. A post hoc analysis was interpreted by the study’s investigators as suggesting improvements were attributable to more frequent and appropriate use of antidepressant medication among patients of nurses who received the training [56].

Some researchers have studied the effects of a collaborative care model of treatment, in which mental health professionals work together with medical practitioners in the primary care setting [57,58]. The one study investigating the efficacy of such a model for the treatment of somatization had psychiatrists provide primary care physicians and their staff with training on the diagnosis and treatment of somatization and comorbid psychopathology [59]. Also, the psychiatrist provided case-specific consultations to primary physicians regarding referrals for CBT and/or psychiatric treatment [59]. A control comparison treatment included the same training for primary care physicians and their staff by the psychiatrist without the case-specific consultation. Six months after randomization, participants whose primary care physician received psychiatric consultation reported a greater reduction in somatic symptoms and in health care visits [59].

In all, the literature on the treatment of somatization supports the use of 6-16 sessions of CBT or ACBT administered by a mental health professional. A recent meta-analysis indicated CBT is modestly effective in reducing somatization symptomatology and minimally effective improving physical functioning [60]. To date there is no evidence that CBT reduces health care services when the cost of CBT itself is considered. Researchers have just begun to develop and

examine the effectiveness of true collaboration of cognitive behavioral therapist and primary care clinician and integration of their services.

How, why, what aspects of CBT and ACBT works is unknown. We have very little data on the mechanisms by which efficacious psychosocial treatments may have their impact upon somatization. These approaches are multi-faceted and have not been disassembled into discrete components and those constituents systematically assessed. Nevertheless, CBT and ACBT are likely the treatments of choice by default in that no other intervention has demonstrated efficacy.

## 5. Rationale for an emotionally-focused CBT

In our treatment for somatization we have made systematic and explicit an emphasis on emotional exploration, differentiation, and expression. This therapeutic activity has long been a staple of humanistic and psychoanalytic therapies and is coming to be emphasized by newer approaches that grow out of the cognitive-behavioral tradition. Traditional cognitive approaches were based on a cognitive-appraisal theory of emotion [61,62] in which dysfunctional cognitions were thought to generate aversive affects. Although this view was modified to be more bidirectional and causally reciprocal by Teasdale [37], much CBT has been directed to the reduction of aversive affect, largely through the modification of cognition that was assumed to be the source. Some approaches that have developed within the CBT framework have begun to change this emphasis upon active control of emotion. Clinical work by such investigators as Marsha Linehan and Stephen Hayes has placed emphasis on experiencing, tolerating, and accepting unpleasant emotion, rather than seeking its elimination [63,64]. Recent formulations of generalized anxiety disorder (GAD) suggest that the function of this disorder's primary symptom, i.e., worry, may be to avoid, control, or attenuate emotional experience [65,66]. The authors of these recent formulations of GAD also advocate experiential and acceptance approaches as a means of reducing worry. Samoilov and Goldfried's critique of standard CBT approaches suggests more emphasis upon the elicitation of affect in therapy sessions may produce more effective treatment [67]. The arguments of the revisionist theorists cited above frequently draw from basic work in cognitive neuroscience, work that suggests there are complex, manifold, and partially independent levels of cognitive and affective storage and processing [68,69]. These "experiential" cognitive-behavioral treatments combine training aimed at either emotional exploration or emotional regulation. In an analysis of the perennial tensions between these two valid goals of therapy, Westen describes the broad and difficult therapeutic dilemmas relating the circumstances under which therapy should attempt to assist patients in accessing and exploring affective states or, alternatively, in eliminating those states [70]. He argues that traditional CBT approaches have erred in the direction of attempts to control emotions and failed to address adequately the implicit, tacit, irrational, nonverbal, and emotional aspects of existence.

Experimental research and clinical experience with somatization patients suggest these patients may be particularly well-suited to an emotionally-focused CBT. Investigators seeking



to identify cognitive and affective characteristics of somatizing patients have found these patients to experience high rates of negative affect and to be less aware of and less able to describe thoughts and feelings than are other psychiatric patients [27-29]. Other authorities have discussed the "hysterical" emotional styles of these patients [71,72]. Our own impression is that whereas some somatizers manifest attenuated emotional processing and obliviousness to affect, others seem to have exaggerated emotional reactions. Some patients display each style, at different times. Contemporary theory in cognitive neuroscience suggests that emotional processing provides an important source of information about one's reactions to one's environment [68,69]. Incomplete or distorted emotional processing, in a sense, deprives individuals of data that is important to effective problem-solving. Poor understanding of the emotional domain also may result in unresolved negative affective states, and a prolongation of the physiological arousal that accompanies negative affect. Clinicians often report that the affect of somatizers seems incongruent with eliciting circumstances, being either disproportionately flat or exaggerated. Both clinical impressions and the research literature suggest that somatizers fail to integrate and/or express fully their cognitive and affective responses to their environment. Using standard CBT to challenge cognitions that are disconnected from affective experiences seems misguided and unproductive. Thus, we have aimed to design a treatment that helps patients access, process, and accept their implicit cognitive and affective responses.

## 6. Components of ACBT

The components of treatment are relaxation training, behavioral management, cognitive restructuring, emotion identification, emotion regulation, and interpersonal skills training. Given that somatization patients typically seek relief from their physical ailments, not from emotional distress, they begin treatment more willing to learn behavioral skills than to explore emotional issues. The first sessions are skill-focused (i.e., training patients in relaxation and behavioral management). These initial sessions are designed to provide reductions in discomfort, to introduce patients to the potential benefits of psychotherapy, and to establish a therapeutic alliance in a fashion that is consistent with patients' tastes, proclivities, and expectations. The second phase of treatment is a cognitive-emotional elicitation/regulation module intended to enhance patients' understanding of their thoughts and feelings so that they can interact more effectively with their environments. The third phase of treatment aims to enhance interpersonal functioning and to confront and alter the "sick role."

The individual treatment begins with training in relaxation [73,74]. Emphasis is placed on incorporating relaxation into daily life, before and during stressful situations, and in response to feelings of physical discomfort. Relaxation serves a number of functions in the treatment of somatization. It may interrupt the muscle tension-pain cycle found in chronic pain patients [75]. It may reduce generalized physiological arousal or physiological reactivity [76]. Finally, cognitive benefits may result from patients' observations that they are not completely helpless victims of their symptoms, but instead have some control over them [76].

Once patients begin using one form of relaxation, training in behavioral management begins. This module of treatment aims to increase gradually patients' vocational, social, and self-care

activities and to improve patients' mood and physical robustness. Also, sleep hygiene and stimulus control techniques are taught, as needed. The acquisition of these skills may also contribute to each patient's sense of self-efficacy in various areas and reduce feelings of powerlessness.

The cognitive-emotional elicitation/regulation module aims to help patients differentiate and understand their thoughts and feelings so that they can interact more effectively with their environments. The atmosphere of these sessions is more psychotherapeutic and less psycho-educational than that of the earlier sessions. Cognitive and emotion-focused strategies [77,78] in this module are integrated and individualized using case-based formulations [79]. Patients begin by monitoring their thoughts and emotions associated with changes in their physical symptoms. Experiential techniques, such as focusing [80] and techniques from Gestalt therapy [81], are used to assist patients in attending to, identifying, labeling, accepting, and expressing their thoughts and emotions. In our experience, somatization patients typically are disinclined to focus intensively on their emotional experiences. However, these patients are willing to explore emotions co-occurring with their physical symptoms and to try to make sense of those emotions by examining associated thoughts and behaviors. Once a patient's unique patterns of cognitive and emotional tendencies are identified, a semi-standardized, case-based formulation is used to guide the treatment. Emotional elicitation may be emphasized to help assimilate previously disowned or disavowed cognitive and/or emotional experiences. For example, if it is agreed that the patient inhibits feelings anger, portions of treatment sessions and homework may be devoted to facilitating the introspection, identification, labeling, and, perhaps, the expression of anger. Alternatively, emotional regulation strategies, including relaxation, distraction, cognitive restructuring, may be implemented for dysfunctional, destructive, exaggerated, or uncontrollable emotions. Determining which emotions, for a given individual in a given situation, need to be sought or amplified and which need to be examined through the lens of associated cognition or attenuated is a task that is central to the integration of cognitive and emotion-focused methods.

Cognitive interventions are based upon cognitive treatment programs for stress management [82] and pain management [83]. Cognitive errors characteristic of this population, such as thinking catastrophically about somatic symptoms, are addressed with cognitive restructuring techniques. Distraction is taught in order to reduce excessive attention paid to their physical sensations. Also, patients explore the function that the "sick role" plays in their social world. Specifically, they examine whether they derive secondary gains from their physical symptoms and disability. Treatment helps patients develop alternative strategies for attaining those gains derived from the sick role.

## 7. Therapeutic techniques

The therapeutic posture we assume with patients and the rationale for treatment that we present to them are among the most important elements of our therapy. Our attitude toward patients is empathic and interested. We begin by asking patients about their physical symp-

toms and about the impact those symptoms have upon their lives. Our questions about the particular nature of the symptoms, such as the types of pain (e.g., stabbing, pounding, burning, aching) and the situations in which symptoms typically occur, provide therapists with important information while concurrently validating patients' discomfort. Patients' beliefs about their physical symptoms and past coping techniques are also explored. Throughout this discussion and throughout the entire treatment, the therapist strives to acknowledge the physical symptoms and the distress associated with them. The therapist's efforts to validate the patient's discomfort and distress are critical to the development of therapeutic rapport. Because patients presenting with somatization symptoms are so accustomed to being discounted or dismissed by their healthcare providers, patients often become more willing to engage in treatment after they feel understood by the therapist.

After communicating a considered appreciation of the patient's difficulties, the therapist describes the treatment's rationale. A biopsychosocial model of physical symptoms is proposed. Here, the therapist's stance is empathic and non-confrontational. For patients who attribute their symptoms to an unknown biological mechanism or to toxic aspects of the physical environment, the therapist suggests that even if symptoms are caused by some organic pathology or by environmental agents, stress is likely to exacerbate them. In this way, the therapist aims to expand and to create variations in patients' explanations of their symptoms, but is careful not to contradict patients' beliefs directly. Faulty beliefs about symptoms are more effectively challenged in future sessions after some trust and credibility have been established.

The treatment is described as stress management. The rationale presented is that because stress is likely to aggravate physical symptoms, the reduction of stress is likely to alleviate physical discomfort. Many patients are open to this idea and, indeed, some already believe that stress might have a physical impact upon their bodily sensations or indeed may have played a role in their underlying but unknown pathology. Most somatizing patients, however, would not accept the notion that their physical symptoms are entirely a "direct" product of stress. Therefore, it is important that therapists clarify that stress is only one factor contributing to patients' physical discomfort. The avowed aim of this treatment is, by limiting the adverse influence of stress, to give patients control over the aspects of their illness that can be controlled.

Virtually all patients diagnosed with somatization syndromes have had extensive, unsatisfying, and futile encounters with the healthcare system. Typically, our intervention is the latest in a long line of treatments, all of which have been failures. Given that their expectations are low, our patients must be motivated to come to therapy, despite minimal initial hope of success. Our patients tell us that what keeps them coming back is the opportunity to be treated by someone who cares about them and who makes a respectful effort to understand what their lives are like.

In ACBT we place a great emphasis on psychotherapy as a caring encounter. We emphasize this to a greater degree than do many expositions of cognitive behavior therapy, a treatment that usually is associated with a didactic therapist-patient relationship, absent the emotional intensity of older more traditional forms of psychotherapy, such as psychoanalysis or client-centered therapy. While it is true that in ACBT the therapist functions as a teacher and a trainer,

she also is a confidant and a helper who must earn the patient's trust through being truthful, caring, and empathic. The kind of caring encounter that is based on genuine and sincerely felt compassion is essential to being effective with the patients we see. They have, in many cases, not been treated with kindness nor with courtesy. In the areas of civility and sympathy, our therapy often proves to be a corrective emotional experience. Caring and empathy are not, in themselves, sufficient to produce change in our patients, but they can be important elements in a restored sense of confidence in the healthcare system and in the resolution to attempt to cope with what can be great discomfort and disability.

### **7.1. Relaxation**

We typically teach diaphragmatic breathing for the first month of treatment and an abbreviated progressive muscle relaxation (PMR) for the second month of treatment. Diaphragmatic breathing can be used in concert with PMR. We subscribe to the view that relaxation training is most effective when it enables the trainee to learn how to relax on any given occasion and throughout the day, as opposed to extended sessions occurring once or twice per day during scheduled times when an especially deep state of lowered arousal is achieved.

The therapist introduces diaphragmatic breathing and explains that the long-term goal is for the patient to breathe abdominally as much as possible. However, regular abdominal breathing takes time to establish if it is a departure from the patient's typical practice. Over the course of treatment, the patient is asked to practice breathing abdominally between sessions and to report back on her progress. Eventually, breathing abdominally may coincide with reductions in tension and discomfort, though the patient should be warned not to be disappointed if she initially experiences little significant relief.

The crucial challenge in relaxation training is helping patients use the techniques on a regular basis. The considerable amount of therapy time used to describe, practice, and effectively implement relaxation techniques indicates the importance we place on using them. Even though training in relaxation is often completed by the eighth week of treatment, we continue to inquire into patients' use of relaxation throughout our work with them. Some patients learn to use both abbreviated PMR and abdominal breathing, either in combination or separately. Others have a strong preference for one method or the other. We attempt to train patients in two forms of relaxation and to allow the patient to decide ultimately which to employ. At this point the research literature cannot demonstrate that any form of systematic relaxation will be superior to others for a given individual [76]. What is clear, however, is that relaxation is beneficial only if it is utilized.

### **7.2. Behavioral management**

Behavioral methods are largely based upon the principles of classical and operant conditioning. Existing pathogenic contingencies of reinforcement are replaced with salutary ones. For example, patients learn to connect with friends and family by engaging with them in pleasurable activities instead of interacting with them through activities focused on the patients' physical discomfort. Exercise assignments are designed to be pleasurable and commensurate

with patients' physical capacities, so that exercise may eventually be reinforced by inherent natural contingencies. Overall, the acquisition of a broader repertory of activities also may serve to enhance each patient's self-efficacy in multiple areas and reduce feelings of infirmity and powerlessness.

Activity pacing is an important topic to address when discussing the initiation of a new activity. Our clinical experience and some research suggest that some, if not many, somatization patients have perfectionistic tendencies driving them to over-achieve [84,85]. Our sense is that many of these patients may have difficulty moderating their activity levels; they over-function at times and under-function at other times. Of course, by the time they reach a psychotherapist's office, they are under-functioning in important areas of their lives. Nevertheless, once they have been convinced to undertake an activity, they may be inclined to "overdo" it. Given the possibility that somatization patients may over-function or strive for perfection in therapy, the therapist emphasizes the importance of making small changes in a specific behavior at first and subsequently instituting gradual increases in that activity over the course of therapy. Other ways in which activity pacing is incorporated into therapy is by persuading patients to take frequent breaks in the midst of their daily routines.

To increase the likelihood that behavioral changes become a permanent part of patients' lives, they are discussed throughout treatment. The therapist monitors all changed behaviors every week of treatment.

Many patients with somatization syndromes report significant sleep disturbance [86]. Failure to receive adequate restorative sleep is a contributory factor in exacerbating many psychiatric disorders. In somatizers, almost invariably, sleep loss is correlated with a worsening of symptoms. We now believe that treating insomnia early and aggressively is a key to successful treatment of somatization.

Many of our patients, especially those not working outside their homes, engage in problematic sleep practices that may increase the likelihood of insomnia, such as taking naps during the day, keeping erratic sleep schedules, and watching television in bed. To combat poor sleep habits, we provide patients with brief psychoeducational training in sleep hygiene and stimulus control techniques [87].

### **7.3. Identifying thoughts and feelings**

The cognitive-emotional elicitation/regulation components of treatment aim to help patients differentiate and understand their thoughts and feelings so that they can interact more effectively with their environments. The atmosphere of sessions devoted to this enterprise is more psychotherapeutic and less psychoeducational than that of the earlier sessions that are focused upon relaxation training and making behavioral changes.

Patients begin this phase of treatment by monitoring their thoughts and emotions that are associated with changes in their physical symptoms. Experiential techniques, such as focusing [80] and techniques from Gestalt therapy [81], are used to assist patients in attending to, identifying, labeling, accepting, and expressing their thoughts and emotions. In our experience, somatization patients typically are disinclined to focus intensively on their emotional

experiences. However, these patients often are willing to explore emotions co-occurring with their physical symptoms and to try to make sense of those emotions by examining the associated thoughts and behaviors.

Symptom monitoring forms are introduced to help patients focus their attention on thoughts and feelings between sessions. These forms are analogous to dysfunctional thought records used with depressed patients [88]. Our symptom monitoring forms require patients to describe two specific moments each day: 1) when their physical symptoms are relatively severe and 2) when their physical symptoms are relatively less severe and they are experiencing greater relative comfort. Because the goal here is to increase patients' awareness rather than to assess symptom severity, it is not critical that the patient write about "the most uncomfortable" or "the least uncomfortable" period of the day. We aim for a record of a representative "physically uncomfortable" and "physically less uncomfortable" episodes. Ideally, these entries will be made as proximate to the time of occurrence as possible at a time each day when patients experienced noteworthy discomfort or the absence of discomfort. On days without significant variation in physical discomfort, patients' instructions are to choose, retrospectively, episodes of relative comfort and discomfort. At the moment of recording, patients note the time of day, the physical symptoms experienced, the environmental circumstances, and thoughts and emotions concurrent with the physical symptoms. The monitoring forms can be used to detect patterns in symptoms and in the relationships among symptoms, thoughts, and emotions.

An initial task is to teach patients to distinguish between physical sensations and emotions as well as to differentiate thoughts from emotions. For example, if a patient says that her physical sensations included anxiety, the therapist might reply, "I would consider anxiety an emotion, not a physical sensation. So, let's put that in the emotion column. But, sometimes people have physical sensations that accompany anxiety. Did you feel anything in your body, any physical sensation, at that time that coincided with the anxiety?" Similarly, if a patient says that she felt stupid, the therapist should 1) label this experience as that of the evaluative cognition that "I am stupid," 2) distinguish cognition and emotion, and 3) question the patient about the emotion that coincided with that cognition. Also, emphasis is placed upon learning to differentiate among emotions. (Patients are asked to use specific emotion terms such as "sad," "worried," or "annoyed," instead of more nebulous emotion terms such as "stressed," "bad," or "upset.")

Many patients presenting with somatization struggle with the self-awareness activities because of difficulties in identifying and differentiating among their thoughts and feelings. Whatever the cause of this difficulty (e.g., alexithymia, repressive coping), our efforts focus on enhancing awareness and acceptance of thoughts and feelings. Many patients find that recognizing and expressing thoughts and/or feelings may be the most difficult component of treatment. Nevertheless, these initial skills must be mastered before cognitive restructuring techniques can be taught. Disputing cognitions is futile unless one can identify one's thoughts and feelings. The heightening of patients' self-awareness is facilitated by therapists' refraining from disputing cognitions until a thorough investigation of emotions and their companion cognitions has been conducted. We want patients to be able to experience and communicate emotions during a session. This work in session is extended to the patient's life outside of

therapy via homework assignments that call upon the patient to identify and record emotions, as well as associated physical symptoms and thoughts.

#### **7.4. Cognitive restructuring**

An important component of treatment is to help patients examine their cognitive tendencies. After reviewing a few weeks of a patient's symptom monitoring forms, the therapist will have a sense of the patient's typical dysfunctional thinking patterns. Typical cognitive errors that we have observed include perfectionistic thoughts, catastrophic thoughts (about physical symptoms as well as other life events), overestimating the possibility of negative outcomes, "should" statements, and dichotomous thinking. Our sense is that at the core of these errors is a global negative perception of self as being inadequate or unlovable. Although many patients may not acknowledge seeing themselves as inadequate or unlovable, especially a brief episode of treatment, thoughts about being weak, vulnerable, undesirable, unattractive, or helpless may not be far from the surface when the "meaning" of a thought is explored. Once these kinds of dysfunctional beliefs are identified, we employ cognitive restructuring techniques [88].

#### **7.5. Addressing illness behavior**

In hopes of interrupting the dysfunctional pattern of physical symptoms prompting physician visits that fail to alleviate or even exacerbate those symptoms, the therapist helps the patient learn to reconsider the thoughts fueling illness behavior. Our patients often make comments like, "there must be something wrong with me that my doctor hasn't found." If such a belief is sound, the rational response is to seek additional diagnostic procedures. However, such beliefs may be assailable. Patients are encouraged to look at the evidence either supporting or undermining that belief. Questions like, "What makes you think there is something medically wrong with you?" or "What evidence is there that the doctor has missed something?" are followed by "What evidence is there that you may not have a serious medical problem?" Also, patients are questioned about the advantages and disadvantages of having another diagnostic procedure. They are asked what would convince them that they are not suffering from the illness they fear. The grounds for the falsification of beliefs are explored extensively to demonstrate that one can never be 100% certain of perfect health. In addition to challenging patients' beliefs associated with illness behavior, the therapist constructs behavioral experiments in which patients test the consequences of avoiding (or, at least, delaying) physician visits. Symptom monitoring forms are used to assess the impact of modifying this aspect of illness behavior. If patients can delay a physician visit long enough, the somatization symptom that initially prompted the intent to seek medical treatment may subside.

The goal of the sick role discussion is to provide patients with some insight into any secondary gain they might derive while experiencing pain or discomfort and to examine the possibility that illness behavior has become habitual. Having identified the secondary gain, the therapist and patient collaborate to find alternative methods for attaining the sick role's benefits. For example, if the patient's spouse is especially nurturing when the patient is in pain, we help the patient ask directly for more attention and affection.

Examining the sick role's benefits is a sensitive issue because family, friends, and physicians may have accused the patient of faking, imagining, or exaggerating his symptoms. Thus, the therapist is careful not to imply that the patient is choosing to experience his symptoms. The discussion will be fruitless if the patient becomes defensive. Because of the sensitivity of this topic, we typically defer its discussion until the third month of treatment.

To avoid raising the patient's defenses initially, the discussion begins by focusing on the patient's perceptions of other people who have been ill, other people whom the patient knows or has known well. The therapist asks who, in the patient's family and social circle, had health problems during the patient's childhood (or during the patient's adulthood, if no one had health problems during the patient's childhood). In our clinical experience, as in Craig et al.'s research [89], many patients meeting criteria for a somatoform disorder report having observed illness during childhood in either a family member or a close friend. The patient is asked to describe the individual who was ill and to talk about the ways in which that person's life was affected by illness or physical discomfort. Specifically, the therapist asks about the sick person's missed opportunities and missed experiences and how others responded to the person. Next, the therapist inquires into "the silver lining" that being unhealthy may have had for the sick person. "Were there any benefits of being unhealthy for that individual?" If the patient believes there were no benefits, the therapist may ask specifically about each of the following possible benefits: receiving special attention or nurture, avoiding undesirable activities, avoiding arguments, gaining a special role in the family, or diminishing one's own expectations for oneself. Usually the patient will acknowledge that the ill individual experienced some benefits from his or her illness.

Having discussed another person's experiences with illness, the therapist shifts the discussion to the impact of illness upon the patient's life. The therapist begins with inquiries into the patient's experience of illness as a child: "How did others respond to you when you were sick or in pain as a child?" "Were you taken to the doctor or did you miss school when you were sick?" "Did you receive special attention or treatment when you were sick?" Afterwards, questions focus on the impact of illness during the patient's adult life: "In previous sessions we discussed the many disadvantages of your health problems these days, are there any advantages to being sick?"

Although almost all of our patients have acknowledged that some benefits accrue from "being sick," therapists often feel anxious during this discussion. It may seem likely that explicit discussion with the patient about the sick role will undermine the therapeutic relationship. But in our experience, no patient has withdrawn prematurely from treatment after discussing the sick role. Although the topic is a sensitive one, it can be productively examined.

Often the discussion of the sick role begins to provide a rationale for assertiveness training as it may reveal deficits in the patient's assertiveness. If the patient is deriving substantial attention or nurture through being sick, he also may be deficient in the ability to ask directly for attention and nurture. Patients who avoid undesirable activities by being sick may have difficulty setting limits on others. One advantage of the sick role is that people can be rewarded without having to ask directly for what they want. The sick role tends to undermine asser-



tiveness and to provide few opportunities to hone skills of self-assertion, except perhaps in interactions with healthcare providers.

If the patient acknowledges that the sick role has become "second nature" to him, we may borrow a technique of fixed-role therapy [90] and have our patient attempt to play the part of a "healthy person" in one or more activities. One method is to ask the patient to find a role-model who is not impaired and to imitate that person's behavior. Another is to have the patient ask the question, "What would a healthy person do in this situation?" and then to act out the answer. Occasionally, as much psychological research has shown, changes in attitudes and emotions will follow changes in behavior rather than preceding them. Expanding the range of the patient's behavior, before the patient feels "healthy enough," can be effective, if the approach is used judiciously. How much to push somatizers to extend themselves is a matter of clinical judgment. Good therapeutic decisions in this area tend to optimize treatment outcomes.

### **7.6. Assertiveness**

At this point in treatment, the therapist will have assessed for deficits in the patient's assertiveness. Some patients effectively assert themselves and have their needs met in some, but not all, situations. Some patients can assert themselves only in regard to certain kinds of needs. Other patients can assert their needs when they are aware of them, but may not always be aware of what those needs might be. Other patients have pervasive, trait-like deficits in assertiveness across virtually all areas of their lives. In our experience, all somatization patients have difficulty expressing their thoughts and feelings assertively in, at least, some situations.

The therapist begins by defining assertiveness and explaining the rationale for helping the patient act more assertively in some situations. We define assertiveness as an open and honest expression of one's thoughts and feelings that avoids blaming or attacking others. Much of ACBT treatment, up to this point, has provided the groundwork for becoming assertive. For example, the self-awareness exercises and symptom monitoring forms direct the patient to pay attention to her thoughts and feelings. Stage 1 of acting assertively involves identifying thoughts and feelings. Stage 2, valuing one's thoughts and feelings, is implicit in and fostered by some of the behavioral techniques. By taking time to relax and to engage in pleasurable activities, patients are, in effect, affirming the value and legitimacy of taking care of themselves.

Before introducing stage 3 of assertiveness, patients may need additional work on stages 1 and 2. Specifically, patients might be asked to track their thoughts and feelings when interacting with others between therapy sessions. (At this point in treatment, unassertive individuals often can identify their thoughts and feelings when they are alone. Yet, they may have difficulty being self-aware while interacting with others, especially others who are accustomed to or expect them to be unassertive.) A homework assignment might be to ask, "What do I think and feel?" during various interactions with others. For patients who continue to have trouble valuing their thoughts and feelings, the therapist should use the technique from fixed-role therapy [89]. Patients are directed to role-play in the outside world, to behave as they would if they really did think their own feelings and needs were important. Through this device, assertive behavior, with a tone of conviction, can be practiced and its often successful results

can be witnessed by the patient. Occasionally patients will adopt and assimilate features of this more assertive persona.

Stage 3 of assertiveness involves communicating one's thoughts, feelings, desires, and needs with "I statements". The therapist suggests the patient use the following statement as a model, "I feel \_\_\_\_\_, when you \_\_\_\_\_." An example of content in this form is, "I felt worried when you didn't call to tell me you'd be late coming home from work last night." By making such a statement, this individual is taking responsibility for her feelings as opposed to blaming others (e.g., "You're so selfish not to have called"). Also, the statement is indisputable since it is an expression of the patient's emotional reaction. The result is that the person being spoken to is somewhat less likely to react defensively than if attacked or explicitly criticized; the person addressed also may be less likely to attempt to refute the assertion itself.

### **7.7. Sessions with spouse or significant other**

The goals of including the significant other (domestic partner spouse) in treatment are to obtain additional information about the patient, to gain the significant other's support for the treatment, and to alter behaviors of the significant other that may reinforce the patient's symptoms or illness behavior. We view this aspect of the treatment to be so valuable that, even when working within our 10-session treatment format, we ask the patient's significant other to join us for 1 to 3 of those 10 sessions.

We typically invite the significant other to participate in a conjoint session within the first month of treatment. The rationale for meeting together with the patient and significant other is to encourage an open dialogue. In our experience, the therapeutic relationship is not always strong enough to tolerate a therapist's meeting separately with a significant other, as some patients readily become suspicious that "behind my back" others are minimizing their degree of discomfort. And, although we would like to begin deriving the benefits of including the significant other in treatment as soon as possible, for logistical reasons we typically delay the first conjoint session until we have had some time to develop rapport with the patient. We find the third or fourth session works well as an initial conjoint session.

The focus of the conjoint session(s) includes discussions about the rationale for a "stress management" treatment and about how such a treatment could be maximally helpful to the patient. The therapist asks the significant other to comment on the impact of stress upon the patient's physical symptoms. Also, the impact of the patient's physical symptoms on the patient's and significant other's lives is examined. Here we aim to elicit information and to suggest that the significant other's involvement in treatment may benefit both parties. Reducing the likelihood that the significant other will undermine the treatment is critical.

After clarifying the treatment's rationale, the therapist attempts to determine whether the significant relationship has been impaired by the patient's illness. Somatizers' tendencies to withdraw from activities may not only diminish pleasure in their own lives, but also in their significant others' lives. When a patient foregoes couple's activities, such as eating at restaurants, going to movie theaters, dancing, or hiking, the domestic partner and their relationship may suffer. The patient and significant other are asked to think about activities they once and

might, yet again, enjoy together. Afterwards, the couple and therapist collaborate to develop a plan for increasing pleasurable conjoint activities. Reengaging in these activities may increase satisfaction with the relationship as well as reduce the patient's focus upon her symptoms.

A subsidiary aim of the conjoint sessions is to address the couple's communication about the patient's physical symptoms. Initially the therapist asks the couple to describe a few recent discussions about the patient's physical symptoms. Both members of the couple are asked to describe what each said about the symptoms and what each thought and felt at that time. Afterwards, the therapist summarizes and reflects upon the couple's communication about the patient's symptoms. Suggestions for alternative modes of interacting, that are less likely to reinforce illness behavior, are provided.

## 8. Conclusions

Somatic symptom disorder and related disorders are distressing, disabling, and costly disorders. Although the treatment of somatization and of somatic symptom disorder is in its infancy, there is sufficient evidence to believe CBT and ACBT have therapeutic value. Given the research conducted to date, we recommend CBT and ACBT as the treatments of choice for these disorders. A manualized 10-session version of our treatment [51] has been tested and found effective with patients diagnosed with very severe as well as more moderate levels of somatization [52, 53].

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