



Somatic Symptom Disorder: An important change in DSM

Joel E. Dimsdale^{a,*}, Francis Creed^b, Javier Escobar^{c,d}, Michael Sharpe^e, Lawson Wulsin^f, Arthur Barsky^g, Sing Lee^h, Michael R. Irwin^{i,j}, James Levenson^k

^a Department of Psychiatry, University of California, San Diego, United States

^b University of Manchester, UK

^c Department of Psychiatry and Family Medicine, University of Medicine, New Brunswick, NJ, United States

^d Department of Dentistry of New Jersey—Robert Wood Johnson Medical School, New Brunswick, NJ, United States

^e Psychological Medicine Research, Department of Psychiatry, University of Oxford, UK

^f Department of Psychiatry, University of Cincinnati, United States

^g Department of Psychiatry, Brigham & Women's Hospital, Harvard Medical School, United States

^h Department of Psychiatry, The Chinese University of Hong Kong, Hong Kong Special Administrative Region

ⁱ Cousins Center for Psychoneuroimmunology, Semel Institute for Neuroscience at UCLA, Los Angeles, CA, United States

^j Department of Psychiatry and Biobehavioral Sciences, David Geffen School of Medicine at UCLA, Los Angeles, CA, United States

^k Department of Psychiatry, Virginia Commonwealth University, United States

ARTICLE INFO

Article history:

Received 4 April 2013

Received in revised form 27 June 2013

Accepted 29 June 2013

Keywords:

Psychiatric diagnosis

Psychosomatic medicine

Somatoform disorder

ABSTRACT

This paper describes the rationale for the new diagnosis of somatic symptom disorder (SSD) within DSM5. SSD represents a consolidation of a number of previously listed diagnoses. It deemphasizes the centrality of medically unexplained symptoms and defines the disorder on the basis of persistent somatic symptoms associated with disproportionate thoughts, feelings, and behaviors related to these symptoms. Data are presented concerning reliability, validity, and prevalence of SSD, as well as tasks for future research, education, and clinical practice.

© 2013 Elsevier Inc. All rights reserved.

Introduction

For the last 5 years scholars and clinicians from many countries have analyzed and debated the strengths and limitations of DSM IV in order to design a better system shaped by advances in the knowledge base [1–3]. It has not been a dry scholarly debate but one marked by disputation and passion, yet thankfully also informed by data.

While much has already been written about the controversial changes regarding autism and bereavement, one of the most sweeping changes in DSM involves a reconceptualization of the somatoform disorders and the creation of a newly defined disorder – Somatic Symptom Disorder (SSD). This article summarizes the key features of SSD, the rationale for its creation, and the important next steps to assure that the diagnosis is properly understood and used by clinicians so that patients are correctly diagnosed and appropriately treated¹.

What was wrong with somatoform disorders in DSM IVTR?

Somatoform disorders have been coded in the DSM since the advent of DSM III (i.e. 1980). What could justify the transformation of this class of disorders [4]? There were 6 major reasons for this change.

1. The term “somatoform” has been difficult to understand. It is a neologism, blending Latin and Greek roots, which does not translate well into other languages, and it is often confused with “somatization disorder.” The new term used in DSM5, Somatic Symptom Disorder, avoids ambiguous terminology, is straightforward, and appears to translate more readily into other languages.
2. Somatoform disorders had a central premise, that the defining characteristic was the concept of “Medically Unexplained Symptoms” (MUS) [5]. This is problematic for a number of reasons. First, the reliability of assessing whether or not there is a medical explanation for somatic symptoms is notoriously poor. Clinicians differ greatly in such assessments and indeed some MUS are not so much “Unexplained” as “Unexamined.” Second, a diagnosis built upon a foundation of MUS is perilous because it reinforces mind/body dualism; just because a disorder is not medically explained does not mean it is a psychiatric disorder [6]. Third, the MUS approach is not well accepted by patients who feel that

* Corresponding author. Tel.: +1 619 543 5592; fax: +1 619 543 5462.

E-mail address: jdimsdale@ucsd.edu (J.E. Dimsdale).

¹ Discussion of other disorders in DSM5 related to somatic symptoms such as Illness Anxiety Disorder and Conversion Disorder are beyond the scope of this article.

- MUS implies that their symptoms are inauthentic and “all in your head.” This is a poor basis for a positive therapeutic alliance with patients who are suffering from distressing somatic complaints [7]. In sum, medical diagnosis does not usually define a disorder based simply on the *absence* of something. Instead, disorders are defined according to the presence of certain positive features. Psychiatric disorders are typically characterized on the basis of abnormal thoughts, feelings, and/or behaviors. Thus, the new diagnosis of SSD requires somatic symptoms in criterion A, while thoughts, feelings, and behaviors are considered in criterion B.
3. DSM IVTR contains codes for multiple different somatoform disorders with considerable overlap among them; this is both confusing and clinically unhelpful, particularly to the non-psychiatric physicians in general medical settings where these patients primarily present. DSM5 reduces five of these DSM IV disorders (somatization disorder, undifferentiated somatoform disorder, hypochondriasis, pain disorder associated with psychological factors and pain disorder associated with both psychological factors and a general medical condition) to just two: somatic symptom disorder and illness anxiety disorder. The “boundaries” of these two disorders are more distinctly drawn in DSM5 and are easier to understand as a result. Fig. 1 provides a schematic summary of how these somatic symptom disorders are conceptually organized.
 4. The “key” disorder in the DSM IV somatoform group was Somatization Disorder, which was based upon counts of the number of MUS attributed to different organ systems. From a list of 37 somatic symptoms, DSM III required 14 in women and 12 in men. DSM III-R required 13 symptoms in either gender from a list of 35. DSM IV required four pain symptoms, two GI symptoms, one sexual symptom, and one “pseudo-neurological” symptom. Understandably, clinicians found these diagnostic rules cumbersome, confusing, and unreliable [8]. Moreover, using the criteria sets employed in DSM III through IVTR, somatization disorder appeared to be extremely rare. The criteria were worded with such stringency that specificity was very strong while sensitivity to capture the observed clinical problem was weak.
 5. On the other hand, DSM IV and DSM IVTR also offered a diagnosis of “Undifferentiated Somatoform Disorder.” In distinction to Somatization Disorder, the criteria for this diagnosis were so loosely defined that a large percentage of the general population would qualify for this diagnosis. One German population study [9] found a prevalence of 20%. In medical settings, the prevalence has been reported on the order of 25% in neurology outpatients [10] and 27% in primary care [11].

6. One important consequence of the problems outlined above is that physicians have rarely diagnosed somatoform disorders. Non-psychiatric physicians instead typically use symptom diagnoses, e.g. atypical chest pain, headache, etc. [12]. Psychiatrists, mindful of the powerful, pejorative associations attached to symptoms without a demonstrable medical disease, tend to use less accurate and more ambiguous diagnostic labels such as “Adjustment Disorder” or “Depressive Disorder NOS.” Indeed, in a study of over 28 million Anthem Blue Cross insured individuals, somatoform diagnoses were almost never coded [13]. Somatization Disorder and Undifferentiated Somatoform Disorder were listed as the primary diagnosis for an encounter with a frequency of 0.00002 out of 28 million subscribers. Yet we know from clinical experience and studies conducted in medical settings that these disorders are indeed quite common [14]. What good is it to have a categorization that results in such misleading prevalence information? These diagnoses appear so rarely in medical databases (e.g. Medicare, Medicaid, or Veteran’s Administration) [15] that we have less information about their community prevalence and rates of comorbidity than we have for most other common psychiatric disorders.

Given these shortcomings of the DSM IV somatoform disorders section, the challenge for DSM5 has been to improve on this section without inadvertently introducing new difficulties in diagnosing these disorders.

The new diagnosis of SSD in DSM5

Because of the many problems with the status quo enumerated above, DSM5 re-conceptualizes these disorders, and proposes the new category of Somatic Symptom Disorder (SSD). The diagnosis of SSD is made when there are persistent (i.e. typically >6 months) and clinically significant somatic complaints (criteria A and C) that are accompanied by excessive and disproportionate health-related thoughts, feelings, and behaviors regarding these symptoms (criterion B) (see Table 1 for criteria). The reconceptualization of these disorders focuses not just on the somatic symptoms themselves, but also on the toll these symptoms take on the individual’s emotions, thinking, and behavior. Because the severity of symptoms and the individual’s response to them are distributed across a continuum, DSM5 offers guidance in rating the severity of SSD as mild, moderate, or severe. Note that medically unexplained symptoms do not figure in the diagnostic criteria. SSD may or may not accompany another diagnosed medical condition.

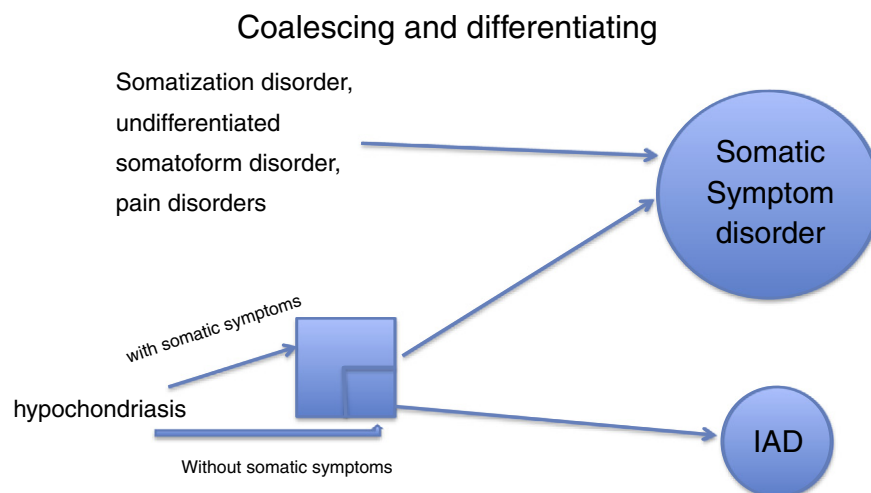


Fig. 1. Relationship of Somatic Symptom Disorder and Illness Anxiety Disorder to DSM IV predecessor disorders. Legend: About 20% of patients with hypochondriasis have no somatic symptoms per se but rather have the fear that they will develop an illness. In DSM5 these individuals are categorized as having illness anxiety disorder (IAD).

Table 1
Criteria for Somatic Symptom Disorder.

- A. One or more somatic symptoms that are distressing or result in significant disruption of daily life.
- B. Excessive thoughts, feelings, behaviors related to the somatic symptoms or associated health concerns as manifested by at least one of the following:
- 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. Although any one somatic symptom may not be continuously present, the state of being symptomatic is persistent (typically more than 6 months).

Reprinted with permission from the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, (Copyright (c) 2013). American Psychiatric Association. All rights reserved.

Is the diagnosis of SSD valid?

Kraemer recently observed that "...while DSM has documented test-retest reliability for many of its diagnoses, it has never yet documented validity but has only claimed face/construct validity" [16]. These limitations are pertinent to the small amount of validity data concerning SSD. An empirical study in 456 German psychosomatic inpatients concluded that "psychological symptoms enhance predictive validity and clinical utility of DSM-5 Somatic Symptom Disorder compared to DSM-IV somatoform disorders" [17]. A separate study of 321 participants concluded that SSD "... shows good validity in the identification of people with disability and people requiring medical treatment" [18]. A literature review concluded that SSD had better construct validity and descriptive validity than DSM IV and other diagnostic proposals; the review noted that establishing predictive validity requires future studies [19]. Another reviewer from a child psychiatry perspective concluded that "the criteria for complex somatic symptom disorder are more appropriate for children and adolescents than the current DSM-IV-TR criteria" [20].

Is the diagnosis of SSD reliable?

Given SSD's substantial change in diagnostic criteria for patients presenting with somatic symptoms, do we have confidence that physicians can understand SSD, employ it in a clinical setting, and do their judgments correspond to patients' own ratings? Those questions will not be fully answered until the diagnosis is in general use, but we do have some data regarding the reliability of SSD.

Given that the work group was intellectually invested in the delineation of this disorder, independent confirmation of the reliability of the new diagnostic set was needed. The American Psychiatric Association designed a field-testing protocol to examine the reliability of this and several other diagnoses proposed for inclusion in DSM5. Practicing clinicians tested the proposed criteria in their clinical settings, and the data were analyzed by a team of statisticians [21,22]. When the field trials were being designed, the workgroup had proposed two disorders – Complex Somatic Symptom Disorder and Simple Somatic Symptom Disorder. As its thinking developed, the workgroup re-conceptualized this as one disorder, Somatic Symptom Disorder, which was inherently dimensional. All of the reliability analyses, including those reported in Fig. 2, examine SSD.

Somatic symptoms were assessed with the PHQ-SSS [23]. For assessing "B" criteria, clinicians were asked to rate the severity of the patient's disproportionate and persistent concerns about the medical seriousness of his/her symptoms from 0 (not at all), 1 (a little bit), 2 (somewhat), 3 (quite a bit), to 4 (very much). The same instructions were used for rating high level of health-related anxiety, and also for rating excessive time and energy devoted to these symptoms or health.

SSD was found to have very good reliability [24]. There was good inter-rater reliability between different clinicians in making the diagnosis (intra-class kappa 0.6). The clinician rated measure of B-type criteria (i.e. disproportionate thoughts, feelings, and behaviors) was also found to have good test-retest reliability as demonstrated by an ICC of .680. The clinician's global rating of the severity of the somatic symptoms

(none, mild, moderate, severe, or extreme/profound) showed acceptable reliability with an intra-class correlation (ICC) of .483.

There was also excellent agreement between clinician rated severity and patient reported severity. Patient reported severity was obtained from the PHQ-SSS (a modified version of the PHQ 15) and clinician rated severity was rated globally and also specifically for the B criteria (e.g. disproportionate beliefs, etc.). For the former, the correlation was 0.533 and for the latter, the correlation was 0.952. Note that the final correlation of 0.952 represents the important correlation between the clinician's perspective (including the B-type criteria) and the patient's perspective concerning the severity of symptoms.

Indeed, the reliability of SSD's diagnosis compares quite favorably with other psychiatric disorders [25] (see Fig. 2).

Is the diagnosis of SSD clinically useful?

The previous section documented that assessments of SSD were reliably made, but how useful did physicians regard them? The field trial studies indicate that clinicians rated the new SSD diagnosis as an improvement over DSM IV in terms of ease of use. Indeed, of all the disorders tested in such settings, SSD was rated by clinicians as THE most improved and useful criteria set [26].

Do the SSD criteria identify an appropriate number of people?

While somatic complaints are part of everyday life, it would not make sense to have a criterion set that defines normal individuals as having an illness. Nor would it be sensible to exclude persons who were considered by their doctors to be suffering and requiring treatment. In the final analysis, the threshold for making a diagnosis relies on the clinicians' judgment that the patient's psychological and behavioral reactions to the symptoms are disproportionate or excessive relative to their circumstances. As Nesse and Stein put it [27], "...emotional states should be classified as disorders only if they are excessive for the situation. Deciding what is excessive requires knowledge about what situations normally arouse the symptom, in conjunction with a search for such situations."

There have been concerns that the criteria set will result in over-diagnosis of SSD. One way to address this issue is to use epidemiological datasets acquired before the criteria became available. A critical question is whether such data sets meaningfully capture the disorder. Few datasets assess persistent somatic symptoms in conjunction with excessive and disproportionate thoughts, feelings, and behaviors associated with such symptoms.

One study examined prevalence data from a randomly selected population-based sample [28]. Data from 3 groups were examined: healthy respondents, respondents with major medical illnesses such as heart disease and arthritis, and respondents with functional disorders such as irritable bowel syndrome. While the investigators did not have items specifically designed to tap disproportionate thoughts, feelings, and related behaviors, they did have data on some thoughts and feelings that are approximations of two of the B criteria. In order to be counted, individuals endorsed responses indicating that they were bothered "quite a bit" or "a great deal" to the following questions:

1. Do you often worry about the possibility that you have a serious illness? (endorsed by 5% of the sample)
2. Do you have the feeling that people are not taking your illness seriously enough? (endorsed by 10% of the sample)
3. Is it hard for you to forget about yourself and think about all sorts of other things? (endorsed by 5% of the sample)

When both somatic symptoms and these B-type criteria were required for the diagnosis of SSD, estimates of SSD prevalence were substantially reduced as compared to basing the diagnosis on somatic symptom count alone. For instance, reporting numerous bothersome somatic symptoms was common in the medically ill groups but the

Inter-rater reliability of diagnoses

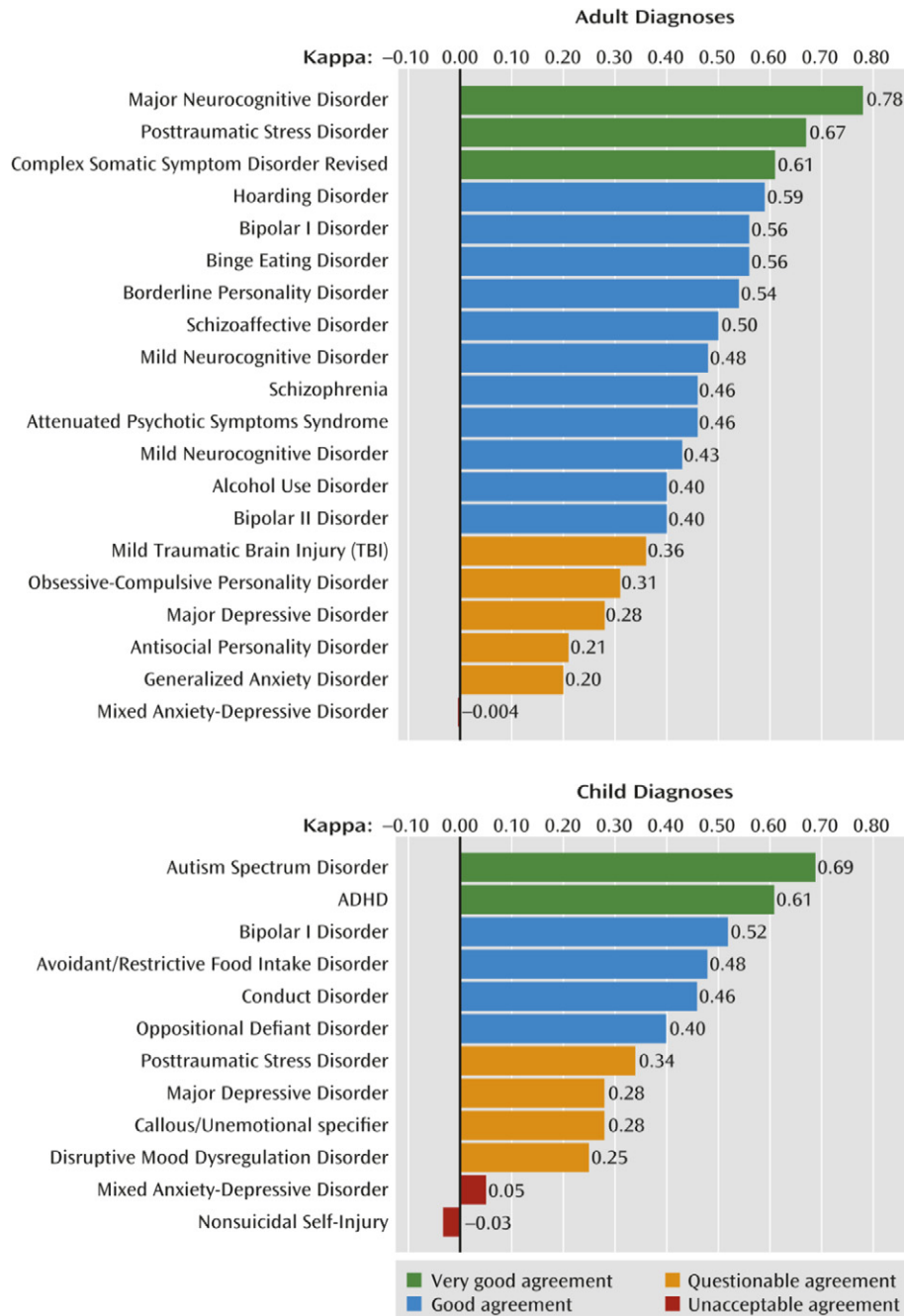


Fig. 2. Inter-rater reliability of diagnoses. Legend: Reprinted with permission from Freedman et al. [25]. Note that in the field trial setting, the disorder was termed Complex Somatic Symptom Disorder, Revised, but it is now identified simply as Somatic Symptom Disorder.

majority of these high symptom respondents lacked any of the B-type criteria; hence, they would not be diagnosed with SSD (Table 1). In the whole randomly selected population sample ($n = 952$) 6.7% reported *both* a high number of bothersome somatic symptoms *and* one or more B-type criteria, implying a possible SSD disorder (top line Table 1). This prevalence is higher than that of DSM-IV Somatization Disorder and similar to the rates of abridged somatization disorder [29] but far lower than that of Undifferentiated Somatoform Disorder (~20%).

In the above study, 783 respondents agreed to examination of their medical records for medical diagnoses to be verified [30]. The proportion of these respondents with medical illness (e.g. heart disease, arthritis,

$n = 339$) or with functional syndromes (e.g. irritable bowel syndrome, $n = 107$) who reported both numerous somatic symptoms and B-type criteria was higher than in the healthy comparison group (Table 2 – bottom 3 lines). However, even in these patients with a major medical burden, a diagnosis of SSD was NOT automatic. Whereas it is true that many such patients have chronic persistent and distressing somatic complaints, only a fraction of them would have SSD. Some would and some would not, depending upon the magnitude of their B-type criteria. Indeed, it is this combination of somatic symptoms and B-type criteria that is associated with worsened quality of life and increased healthcare use [31].

Thus, although limited, these data do suggest that the use of SSD criteria will not result in a greatly elevated prevalence of the diagnosis

as compared to the DSM IV status quo, even in people suffering from major medical illness or with functional disorders.

Is SSD a mental disorder?

Patients with SSD suffer from bothersome somatic symptoms, together with a disruption in thoughts, feelings, and behaviors that are significantly distressing and impairing. Indeed, numerous studies in psychiatric epidemiology document that the quality of life worsens as the number of somatic symptoms and disproportionate thoughts, feelings, and behaviors accumulate [30,32].

There exists an array of empirically tested, beneficial treatments for components of the new SSD diagnosis: somatic symptoms, health related anxiety, preoccupation and rumination about health concerns, and unhelpful illness behaviors. These include primarily cognitive therapy, a range of behavioral techniques (including relaxation training and mindfulness), other psychotherapies, and in some cases psychotropic medications [33]. While the precise benefit of these interventions in SSD requires evaluation, the existing evidence should prompt clinicians to diagnose and treat somatic symptom disorder because successful treatment leads to improved health-related quality of life and, possibly, reduced healthcare costs.

Will a diagnosis of SSD be stigmatizing?

What makes diagnoses like somatization disorder and hypochondriasis so stigmatizing and objectionable to many patients? We believe it is the false implication that nothing is really wrong with them, that they are responsible for their suffering, and that their suffering is therefore illegitimate and not genuine. By not basing the diagnosis of SSD on the concept of MUS, SSD avoids this implication. Rather, SSD is conceptualized as a psychiatric disorder, indicating a degree of suffering above and beyond that resulting from presence of somatic symptoms alone. Furthermore, the name SSD itself is etiologically neutral. Although psychiatric stigma is complex in origin, we believe that once SSD is fully understood it will be less stigmatizing than the DSM IV diagnoses of Somatization Disorder and Hypochondriasis. This is because it offers greater acknowledgement of patients' suffering and avoids questioning the validity of their somatic symptoms. Nonetheless, no matter what name is selected, it is unfortunately the case that psychiatric disorders are perceived as stigmatizing.

Future directions

Because of the number of conceptual and practical problems embedded in the old somatoform perspective, it is unlikely that this group of disorders will ever be reinstated. There are many ways of mapping diagnostic borders [34]. It remains to be determined just

how useful the approaches employed in SSD are, and how reliable the specific criteria are when applied in general clinical practice. Can the guidelines for making the diagnosis be taught and employed in busy practice settings? Will they need adjusting in terms of threshold? How can we assist physicians on assessment in their practice environment? How well can the guidelines be used by epidemiologists in determining the prevalence of SSD? These are all vital questions that must be answered going forward.

Conflicts of interest

All of the authors are members of the DSM Somatic Symptoms Workgroup. Dr. Dimsdale is a consultant to UpToDate and AudioDigest. Dr. Sharpe has done voluntary and paid consultancy work for the United Kingdom government, consultancy work for insurance companies, and has received royalties from book publishers. Drs. Barsky, Irwin, Creed, Escobar, Lee, Sharpe, and Levenson report no other conflicts.

References

- [1] Dimsdale J, Xin Y, Kleinman A, Patel V, Narrow W, Sirovatka P, et al. Somatic presentations of mental disorders: refining the research agenda for DSM-V. Arlington VA: American Psychiatric Association; 2009.
- [2] Creed F, Gureje O. Emerging themes in the revision of the classification of somatoform disorders. *Int Rev Psychiatry* 2012;24:556–67.
- [3] Dimsdale J, Creed FH. DSM-V Workgroup on Somatic Symptom Disorders. The proposed diagnosis of somatic symptom disorders in DSM-V to replace somatoform disorders in DSM-IV—a preliminary report. *J Psychosom Res* 2009;66:473–6.
- [4] Mayou R, Kirmayer LJ, Simon G, Kroenke K, Sharpe M. Somatoform disorders: time for a new approach in DSM-V. *Am J Psychiatry* 2005;162:847–55.
- [5] Kroenke K, Sharpe M, Sykes R. Revising the classification of somatoform disorders: key questions and preliminary recommendations. *Psychosomatics* 2007;48:277–85.
- [6] Sharpe M, Carson A. Unexplained somatic symptoms, functional syndromes, and somatization: do we need a paradigm shift? *Ann Intern Med* May 1 2001;134:926–30 [9 Pt2].
- [7] Stone J, Wojcik W, Durrance D, Carson A, Lewis S, MacKenzie L, et al. What should we say to patients with symptoms unexplained by disease? The “number needed to offend”. *Br Med J* 2002;325:1449–50.
- [8] Simon GE, Gureje O. Stability of somatization disorder and somatization symptoms among primary care patients. *Arch Gen Psychiatry* 1999;56:90–5.
- [9] Grabe HJ, Meyer C, Hapke U, Rumpf HJ, Freyberger HJ, Dilling H, et al. Specific somatoform disorder in the general population. *Psychosomatics* 2003;44:304–11.
- [10] Fink P, Steen Hansen M, Sondergaard L. Somatoform disorders among first-time referrals to a neurology service. *Psychosomatics* 2005;46:540–8.
- [11] Fink P, Sørensen L, Engberg M, Holm M, Munk-Jørgensen P. Somatization in primary care. Prevalence, health care utilization, and general practitioner recognition. *Psychosomatics* Jul–Aug 1999;4:330–8.
- [12] Wessely S, Nimnuan C, Sharpe M. Functional somatic syndromes: one or many? *Lancet* 1999;354:936–9.
- [13] Levenson JL. The somatoform disorders: 6 characters in search of an author. *Psychiatr Clin North Am* 2011;34:515–24.
- [14] Creed FH, Barsky A, Leiknes KA. Epidemiology: prevalence, causes and consequences. In: Creed FH, Henningsen P, Fink P, editors. *Medically unexplained symptoms, somatisation and bodily distress: developing better clinical services*. Cambridge: Cambridge University Press; 2011. p. 8–12.
- [15] Creed FH. Should general psychiatry ignore somatization and hypochondriasis? *World Psychiatry* 2006;5:146–50.
- [16] Kraemer H. Validity and psychiatric diagnosis. *Arch Gen Psychiatry* 2013;70:138–9.
- [17] Voigt K, Wollburg E, Weinmann N, Herzog A, Meyer B, Langs G, et al. Predictive validity and clinical utility of DSM-5 Somatic Symptom Disorder—comparison with DSM-IV somatoform disorders and additional criteria for consideration. *J Psychosom Res* 2012;73:345–50.
- [18] Rief W, Mewes R, Martin A, Glaesmer H, Brähler E. Evaluating new proposals for the psychiatric classification of patients with multiple somatic symptoms. *Psychosom Med* Nov–Dec 2011;73:760–8.
- [19] Voigt K, Nagel A, Meyer B, Langs G, Brauhaus C, Lowe B. Towards positive diagnostic criteria: a systematic review of somatoform disorder diagnoses and suggestions for future classification. *J Psychosom* 2010;68:403–14.
- [20] Schulte JE, Pertermann F. Somatoform disorders: 30 years of debate about criteria: what about children and adolescents? *J Psychosom Res* 2011;70:218–28.
- [21] Clarke DE, Narrow WE, Regier DA, Kuramoto SJ, Kupfer DJ, Kuhl EA, et al. Kraemer HC DSM-5 field trials in the United States and Canada, part I: study design, sampling strategy, implementation, and analytic approaches. *Am J Psychiatry* 2013;170:43–58.
- [22] Regier DA, Narrow WE, Clarke DE, Kraemer HC, Kuramoto SJ, Kuhl EA, et al. DSM-5 field trials in the United States and Canada, part II: test-retest reliability of selected categorical diagnoses. *Am J Psychiatry* 2013;170:59–70.
- [23] Kroenke K. Somatic Symptom Short-Form (unpublished 2010 instrument adapted from the PHQ-15. Kroenke K, Spitzer RL, Williams JBW): The PHQ-15: validity of a

Table 2

Estimates of prevalence of SSD using different definitions.

Sample	High symptom count	Symptoms + one B criterion	Symptoms + >1 B criterion
Population based total sample (n = 952)	197/952 (20.6%)	36/952 (3.8%)	28/952 (2.9%)
Healthy subgroup (n = 337)	24/337 (7.1%)	2/337 (0.6%)	1/337 (0.3%)
Medical illness subgroup (n = 339)	108/339 (31.8%)	20/339 (5.8%)	25/339 (7.3%)
Functional illness subgroup (n = 107)	49/107 (45.7%)	4/107 (3.7%)	14/107 (13.1%)

Legend: Proportion of a population-based sample who reported numerous bothersome somatic symptoms and excessive concerns, thoughts and feelings. Data shown for the whole sample (n = 952) and those whose medical diagnoses were checked from medical notes (n = 783) divided into 3 groups according to diagnosis. Adapted with permission from [30] and [28].

Prevalence of SSD was estimated in different groups, using different criteria.

- new measure for evaluating the severity of somatic symptoms. *Psychosom Med* 2002;64:258–66.
- [24] Kraemer HC, Kupfer DJ, Clarke DE, Narrow WE, Regier DA. DSM5: how reliable is reliable enough? *Am J Psychiatry* 2012;169:13–5.
- [25] Freedman R, Lewis D, Michels R, et al. The initial field trials of DSM-5: new blooms and old thorns. *Am J Psychiatry* 2013;170:1–5.
- [26] Clarke DE, Narrow WE, Kraemer HC, Kupfer DK, Greiner L, Regier DA. DSM-5 field trials in academic/large clinical settings: design, implementation, and analyses. The 165th Annual Meeting of the American Psychiatric Association. Philadelphia, PA, USA; May 5–9 2012.
- [27] Nesse RM, Stein DJ. Towards a genuinely medical model for psychiatric nosology. *BMC Med* 2012;10:5. <http://dx.doi.org/10.1186/1741-7015-10-5>.
- [28] Creed FH, Davies I, Jackson J, Littlewood A, Chew-Graham C, Tomenson B, et al. The epidemiology of multiple somatic symptoms. *J Psychosom Res* 2012;72:311–7.
- [29] Escobar JI, Burnam MA, Karno M, Forsythe, Golding J. Somatization in the community. *Arch Gen Psychiatry* 1987;44:713–9.
- [30] Creed FH, Tomenson B, Chew-Graham C, Macfarlane GJ, Davies I, Jackson J, et al. Multiple somatic symptoms predict impaired health status in functional somatic syndromes. *Int J Behav Med* 2013;20:194–205.
- [31] Rief W, Mewes R, Martin A, Glaesmer H, Braehler E. Are psychological features useful in classifying patients with somatic symptoms? *Psychosom Med* 2010;72:648–55.
- [32] Wollburg E, Voigt K, Braukhaus C, Herzog A, Löwe B. Construct validity and descriptive validity of somatoform disorders in light of proposed changes for the DSM-5. *J Psychosom Res* 2013;74:18–24.
- [33] Kroenke K. Efficacy of treatment for somatoform disorders: a review of randomized controlled trials. *Psychosom Med* 2007;69:881–8.
- [34] Dimsdale J. Psychiatry's DSM dilemmas: can cartography help? *Psychosom Med* 2010;72:839–40.