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Diagnostic Issues and Controversies in DSM-5: Return of the False Positives Problem

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Ann. Rev. Clin. Psychol. 2016. 12:105–32

First published online as a Review in Advance on January 11, 2016

The *Annual Review of Clinical Psychology* is online at clipsy.annualreviews.org

This article's doi:
10.1146/annurev-clipsy-032814-112800

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Keywords

diagnosis, mental disorder, validity, false positives, harmful dysfunction

Abstract

The fifth revision of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) was the most controversial in the manual's history. This review selectively surveys some of the most important changes in DSM-5, including structural/organizational changes, modifications of diagnostic criteria, and newly introduced categories. It analyzes why these changes led to such heated controversies, which included objections to the revision's process, its goals, and the content of altered criteria and new categories. The central focus is on disputes concerning the false positives problem of setting a valid boundary between disorder and normal variation. Finally, this review highlights key problems and issues that currently remain unresolved and need to be addressed in the future, including systematically identifying false positive weaknesses in criteria, distinguishing risk from disorder, including context in diagnostic criteria, clarifying how to handle fuzzy boundaries, and improving the guidelines for "other specified" diagnosis.

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INTRODUCTION

The fifth edition of the American Psychiatric Association's (APA's) *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) was published in 2013 after the most controversial revision process in the manual's history. The DSM is used throughout the mental health professions by clinicians and researchers as well as by other social institutions (e.g., law, education) to diagnose mental disorder, and so it has broad social importance. Its categories have become part of how people understand and evaluate themselves and others, so DSM-5 disputes about seemingly esoteric proposed changes to the manual's diagnostic criteria and categories of disorder were of such general interest that they received unprecedented media coverage, and the revision became a cultural event transcending professional boundaries. It was an exciting time for clinicians and researchers, offering an opportunity for discussion of the nature of our patients' problems and how best to understand them, and providing a rare public window into the thinking of leaders in the mental health field. The public at large seemed at once fascinated by the vehemence of the DSM-5 skirmishes and troubled by what they revealed about the state of knowledge in the mental health professions.

Why all the controversy? The DSM-5 Task Force's aspirations were high and aimed for a paradigm shift. This challenged the status quo and triggered defensiveness and justified skepticism. When the goals turned out to be unrealistic and unachievable, there was also disappointment. Additionally, the way the revision's process was organized was subject to heated disputes. However, the greatest controversy was about the expansiveness of DSM-5 psychiatric diagnosis, both in terms of introducing new categories and broadening diagnostic criteria for existing categories. The DSM-5 Task Force was very responsive to clinicians' need to label individuals coming for consultations and allowed work groups considerable leeway to alter and expand diagnoses, but the Task Force was relatively tone deaf to validity issues of overlabeling normal distress as mental disorder. With psychiatry currently embracing a brain-disease approach to mental disorder, the classification of normal conditions as disorders suggested to critics that many new conditions would become targets of drug development and that our already highly medicated society would become even more overmedicated. Allen Frances, who had been chair of the DSM-IV (Am. Psychiatr. Assoc. 1994) Task Force and emerged as the most vehement and articulate critic of DSM-5, best expressed the common objection that DSM-5's changes would unleash a tidal wave of false positive diagnoses, transforming normal conditions into bogus disorders: "Many millions of people with normal grief, gluttony, distractibility, worries, reactions to stress, the temper tantrums of childhood, the forgetting of old age, and 'behavioral addictions' will soon be mislabeled as psychiatrically sick" (Frances 2012).

Concerns about violating the boundary between legitimate psychological disorders and normal distress or problems in living are motivated by the desire to avoid harming patients with needless treatment. Such concerns must also be understood in the broader context of the recent history of the mental health professions. As psychiatry moved from the hospital and asylum to the community, the challenge was to distinguish disorder from the immense normal distress present in the community. The legitimacy and social acceptance the mental health professions enjoy today was a hard-won victory after a period of extreme criticism and loss of credibility during the "anti-psychiatry" movement of the 1960s and 1970s. Bolstered by findings of diagnostic unreliability and community studies suggesting almost everyone is disordered, the "antipsychiatrists" claimed there is no such thing as mental disorder and that psychiatry simply uses medical power to control social deviance. The innovative, more reliable, and scientifically replicable symptom-based diagnostic criteria of DSM-III (Am. Psychiatr. Assoc. 1980), plus a careful definition distinguishing mental disorder from social deviance and placing it within the medical realm, largely thwarted

these objections and placed psychiatry on a solid social and medical footing. Critics of DSM-5 feared that wanton diagnostic expansiveness might undermine the legacy of DSM-III and invite renewed examination of psychiatry's medical legitimacy.

Diagnostic expansiveness may seem useful for clinicians seeking reimbursement. However, whether achieving expanded reimbursement by misdiagnosing normal distress as mental disorder is justified even if one is helping nondisordered patients who need and deserve help has become a common ethical issue that I label the "clinician's dilemma" (Wakefield 2015a). Moreover, invalid diagnostic criteria undermine research and theory in the long run and impede the development of better treatments, so the dual clinical and research focus of the DSM requires taking validity seriously.

Has DSM-5 in fact gone overboard in pathologizing normal human distress? After commenting on the revision's process and goals and reviewing some structural and organizational changes to the manual, I review a selection of the most controversial changes to categories and criteria, focusing on the issue of false positives.

Some caveats are essential. Space limitations make it impossible to cover all the important changes or incendiary disputes; the coverage is highly selective. Only changes that made it into the manual are considered; important disputed proposals that ended in rejection for now are ignored, including, for example, the proposed dimensional trait system of personality disorder (PD) diagnosis and the introduction of additional forensically relevant paraphilic disorder categories. Finally, these brief commentaries represent my conclusions after considering a sampling of the relevant literatures. They cannot do justice to the nuanced work of many scholars on both sides of disputes, including the dedicated experts who served on DSM-5 work groups, nor can the limited referencing represent the important papers on each topic. I apologize to all those not mentioned or referenced.

THE "SECRECY THING": SHORTCHANGING SCHOLARSHIP WITH AN INADEQUATE SCHOLARLY RECORD

The most publicly aired criticism of the DSM-5's revision process concerned its secrecy and lack of adequate documentation, a major step backward from the open and well-documented approach of previous revisions. Unprecedentedly strict confidentiality made members of the work groups unsure of what they could say in public and so hampered open discussion, and lack of a public record of the content of meetings raised suspicions about the integrity of the process. When two former DSM Task Force Chairs (Frances 2009; Spitzer 2008, 2009a,b) urged greater openness, DSM-5 Vice-Chair Darrel Regier dismissed "this secrecy thing" as "a red herring" (Grossman 2008). The Task Force responded defensively by insisting that "the process for developing *DSM-V* has been the most open and inclusive ever" (Schatzberg et al. 2009) and that "the current *DSM* process is far more inclusive, rigorous, and transparent than any editions that have preceded it" (Stotland 2009). Absurdly and despicably, critics were accused of being motivated by financial incentives due to piddling royalties from DSM-IV-associated publications that would in any event become outdated no matter how the DSM-5 revision was handled (Schatzberg et al. 2009).

In fact, basic elements of public access to information were lacking in the DSM-5 revision process, and remain so, leaving an inadequate record that frustrates scholars trying to document and understand the Task Force's decisions. The in-process records of proposals and their rationales that appeared periodically on the DSM-5 website have disappeared, with no final summary documents posted. The many comments emailed to the website—touted by the Task Force as demonstrating the openness of the process—and the work groups' responses have never been made public. In DSM-IV, the reasoning and evidence behind each change were documented in authoritative

Source Books that have proven invaluable to scholars; no comparable record is planned for DSM-5. Excellent review papers by work group members exist for some areas, but they are scattered throughout the literature and do not necessarily represent the work group's rationale, which often was contentious. Most egregiously, the deliberations of the DSM-5 Scientific Review Committee, which was formed to evaluate the strength of the scientific evidence for each proposed change in response to DSM-5 controversies, are being kept strictly secret, perhaps because work groups sometimes overrode the committee's recommendations and proceeded with negatively evaluated proposals (Kendler 2013). The needlessly secretive DSM-5 mindset undermined the appearance of intellectual integrity and shortchanged future scholarship.

Two early missteps in the revision process contributed to DSM-5's problems. First, a group of distinguished scholars proposed a conceptual committee to address conceptual issues in diagnosis (Kendler et al. 2008), but the Task Force rejected the proposal. Subsequently, DSM-5 faltered largely on conceptual issues. Second, the Task Force purged many of those who had been part of earlier DSM revisions, with the APA's president explaining, "We . . . do not want the process unduly encumbered by past assumptions" (Stotland 2009). The DSM-5 inevitably fell into conceptual traps that might have been avoided if experienced hands with institutional memory and accumulated sophistication about conceptual underpinnings had not been abandoned.

PARADIGM SHIFT LOST: UNREALISTIC GOALS, DISAPPOINTED EXPECTATIONS

The goals for DSM-5 included dimensionalizing diagnosis using symptom severity or other dimensional measures, separating impairment evaluation from diagnosis, incorporating biomarkers into diagnosis, reducing high comorbidity rates, reducing within-category heterogeneity, reducing use of "not otherwise specified" (NOS) categories, and enhancing early intervention by incorporating risk and prodromal syndromes while harmonizing with the World Health Organization's (WHO's) in-process revision of the *International Statistical Classification of Diseases and Related Health Problems* (ICD) (WHO 2004). These goals were eventually largely abandoned or inconsistently pursued. Many of the goals were ill conceived, and the Task Force provided minimal guidance to work groups, leading to diverse and uncoordinated responses.

The Task Force's primary initiative was dimensionalization of diagnosis to replace or supplement categorical diagnosis: "We have decided that one, if not the major, difference between DSM-IV and DSM-V will be the more prominent use of dimensional measures in DSM-V" (Regier et al. 2009, p. 649). This nosological goal linked to the other more bread-and-butter diagnostic issues. Engaging in a dimensional fantasy that Eysenck had unsuccessfully nurtured decades before (Wakefield 1997b), the Task Force imagined a system of severity dimensions of various types of symptoms (e.g., anxiety, depressive, psychosomatic) that would replace or supplement diagnostic categories. This conception was modeled on a proposal to replace categorical PDs with a system of trait dimensions (Wakefield 2013c), which itself was rejected for now but presented in section 3 of the manual as an alternative approach. The imagined system eliminates comorbidity because everyone falls at one multidimensional point on the system of dimensions; eliminates within-category heterogeneity because each point in multidimensional space is its own homogeneous category; eliminates NOS diagnoses because everyone falls somewhere in multidimensional space, which encompasses subthreshold presentations at the dimensions' lower ends; encompasses risk and prodromal syndromes at the dimensions' lower ends; and makes impairment measures irrelevant because symptom severity indicates pathology severity. In pursuit of this vision, symptom severity scales were constructed for most major disorders and are available on the DSM-5 website.

GAF: global assessment of functioning

CSC: clinical significance criterion

BE: bereavement exclusion

MDD: major depressive disorder

There were several flies in this ointment. One was the potentially bewildering complexity of interpreting any such system and getting it to articulate with category-based medical institutions. The dimensional approach also is at odds with being more “medical” because medicine is overwhelmingly category based; the few often-touted exceptions (blood pressure, cholesterol level) are pathologized risk factors, not disorders (Accad & Fred 2010, Schwartz 2008). Additionally, insurers could co-opt a dimensional system to limit reimbursement according to their judgment of what severity level merits intervention—as happened with DSM-IV’s only dimensional scale, the global assessment of functioning (GAF). Further, there was no empirical base for validating the symptom severity scales the work groups created and no empirical guidance for interpreting the clinical meaning or treatment implications of severity ratings. Consequently, the severity scales were ultimately left out of the diagnostic criteria and provided as optional supplements.

Most importantly, the implications of dimensionalization for conceptual validity [i.e., validly distinguishing disorder from normal variation (Wakefield 1992a)] were not addressed. In a system that places everyone on multiple dimensions, what is disorder versus normal variation? Dimensionalization seemed to cast doubt on the disorder/nondisorder distinction altogether. Ironically, despite the eventual abandonment of the goal of dimensionalization, precisely this conceptual issue of the normal/disordered boundary became the most heated point of contention in DSM-5 disputes about categorically defined diagnostic criteria.

There is an irony to the foundering of the dimensional vision on the shoals of the normal/disorder threshold. DSM-5 Task Force Vice-Chair Regier, in an influential paper (Regier et al. 1998), argued that high community DSM diagnosis rates are likely due to false positive diagnoses: “The obvious question is whether each of the final groups contains subjects with valid clinical diagnoses or if either or both have a high proportion of false-positive responses. . . . Based on the high prevalence rates . . . it is reasonable to hypothesize that some syndromes in the community represent transient homeostatic responses to internal or external stimuli that do not represent true psychopathologic disorders” (pp. 112, 114). Although Regier’s specific clinical significance criterion (CSC)-type proposal for lowering community rates (Narrow et al. 2002) was conceptually problematic (Wakefield & Spitzer 2002), in the subsequent debate (Kessler et al. 2003, 2004; Mechanic 2003; Regier 2003) Regier and colleagues clearly recognized the primacy and urgency of clarifying the normal/disorder boundary and presciently opined, “For DSM-V, it’s the ‘disorder threshold,’ stupid” (Regier et al. 2004, p. 1051).

The disorder threshold agenda would have targeted false positives and the normal/disorder boundary as DSM-5’s central issue. That did emerge as the central issue—but it was raised by the revision’s critics. Task Force Vice-Chair Regier abandoned his earlier approach and even supported the elimination of the bereavement exclusion (BE) to major depressive disorder (MDD), a view directly at odds with his earlier “homeostasis” view. Instead, technical issues such as reducing comorbidity and NOS diagnoses took precedence over false positives concerns. Indeed, DSM-5’s introduction states that problematically high rates of NOS diagnoses derive from excessive fear of false positives leading to drawing overly narrow category boundaries.

An often-heard mantra was that DSM-5 would focus on validity rather than reliability. This referred to construct validity, carving categories according to distinct underlying etiologies. There is a broad consensus that current categories lack construct validity; categories such as schizophrenia and major depression encompass conditions with similar surface-level symptoms, but those symptoms can eventuate through different pathogenic pathways. However, construct validity turned out to be beyond DSM-5’s grasp, as should have been obvious beforehand from the literature. Moreover, construct validity cannot be achieved without a semblance of conceptual validity that distinguishes the domain of disorders from normal distress. Validly distinguishing disorders from

nondisorders is needed to identify the target domain of disordered conditions for etiological distinctions. Regier argued to the contrary that dimensionalization using symptom severity scales was a precondition for moving forward clinically and scientifically and could be pursued prior to clarifying the normal/disordered boundary. Once this immediate task was accomplished in DSM-5, future research would uncover dimensional discontinuities, and statistically valid normal/disorder cut points would emerge: “Mental disorder syndromes will eventually be redefined to reflect more useful diagnostic categories (‘to carve nature at its joints’) as well as dimensional discontinuities between disorders and clear thresholds between pathology and normality” (Regier et al. 2009, p. 648). The earlier agenda to first increase conceptual validity as a basis for research progress was thus reversed into a “buy now, pay later” proposition in which symptom dimensions are imposed and it is hoped that normality versus disorder will eventually emerge. This approach made no sense for an ongoing professional enterprise with a day-to-day dependence on the disorder/nondisorder distinction.

The dimensions-before-thresholds approach was also conceptually a bad bet. As both the DSM’s definition of mental disorder and my harmful dysfunction analysis of mental disorder (Wakefield 1992a,b, 1993, 1999a,b, 2006) maintain, severity dimensions are insufficient indicators of disorder. Disorder is a two-dimensional concept, requiring both harmful symptoms of significant severity and presence of an underlying dysfunction (i.e., an inferred failure of some psychological mechanism to perform its biological function) that is causing the symptoms. Symptom severity does not necessarily reflect dysfunction; many normal conditions are symptomatically severe (e.g., normal grief, teething discomfort, pain during childbirth), and some disorders are mild. False positives most often occur when harmful symptoms are mislabeled disorders without satisfying the dysfunction requirement (Wakefield 1997a). The idea of valid thresholds emerging from symptom severity was conceptually dubious from the outset.

Given the lack of synoptic dimensional restructuring, the degree to which each of the other aspirations for DSM-5 was achieved lies in the details. Biomarkers and genetics play no increased role due to lack of tests that adequately distinguish normal from disordered individuals. Comorbidity often increased instead of decreased, depending on each work group’s idiosyncratic decisions. For example, generalized anxiety disorder (GAD) is newly allowed to be comorbid with MDD (however, an “anxious distress” specifier added to MDD may siphon off some of the potential increase), attention-deficit/hyperactivity disorder (ADHD) is newly allowed to be comorbid with autism spectrum disorder (ASD) if ADHD symptoms are not entirely explained by ASD, and oppositional-defiant disorder is no longer excluded by conduct disorder. These decisions increase comorbidity to an unpredictable degree that depends on subtle clinical judgments of causation.

Similarly, the reduction of NOS diagnoses is difficult to assess. In some areas, the introduction of new categories—for example, hoarding disorder and binge eating disorder—likely will siphon off individuals from other-specified categories into criterial diagnoses. However, large new categories of examples are provided in many DSM-5 other-specified categories, substantially increasing the options for their use.

Although the symptom-severity dimensionalization vision was not achieved, many vestiges of it remain in DSM-5 beyond the online severity scales. These include the addition of the category of ASD, the introduction of mild neurocognitive disorder, the assessment of schizophrenia symptom severity, the inclusion of a Schizophrenia Spectrum and Other Psychotic Disorders chapter (although this refers not to severity dimensionalization but to overlapping genetic etiologies), the dimensionalization of substance use disorder, the introduction of attenuated psychotic syndrome, the inclusion of charts guiding severity assessment in several disorders, the reconceptualization of adjustment disorders as subthreshold posttraumatic stress disorder (PTSD)-type conditions and

ADHD: attention-deficit/hyperactivity disorder

ASD: autism spectrum disorder

PTSD: posttraumatic stress disorder

their movement to the Trauma- and Stressor-Related Disorders chapter, and perhaps even the elimination of the MDD BE in favor of an implicit dimensional mild-to-severe symptom-based conception of depression.

DSM-5 set out to separate diagnosis from impairment and thus to eliminate the CSC from diagnostic criteria (Narrow et al. 2009, Schneider 2009). The CSC was originally added to symptom criteria to prevent false positives (Frances 1998, Wakefield 1996) by requiring that symptoms cause significant distress or impairment in social role functioning. At one time, DSM-5 adversaries Regier and Frances had agreed that the solution to overdiagnosis was to add impairment criteria to symptom criteria [“Additional impairment and other criteria should be developed for future epidemiological surveys” (Regier et al. 1998, p. 114); “Definitions of caseness should go beyond symptom evaluation to require measurable functional impairment” (Frances 1998, p. 119)]. American psychiatry went strongly in this direction. However, DSM-5 aspired to harmonize with ICD, and ICD, which serves many cultures with divergent social role demands, aspired to avoid incorporating social functioning expectations into diagnostic criteria (Ustun & Kennedy 2009). The goal to avoid incorporating social functioning impairment in diagnoses was eventually abandoned (nor did ICD-10 or ICD-11 fully achieve this goal). Although separating disorder from impairment is appealing in principle, and the CSC has proven to be ineffective in eliminating false positives (Spitzer & Wakefield 1999, Wakefield et al. 2010, Zimmerman et al. 2004), in our current state of knowledge some disorders require evaluation of role impairment to distinguish disorder from nondisorder (e.g., reading disorder, conduct disorder, social phobia) (Wakefield 2009). Rather than performing the needed conceptual assessment of the CSC’s usefulness disorder by disorder, the Task Force simply retained the CSC throughout the manual. The one exception seems to be elimination of “interpersonal difficulty” from the sexual dysfunction CSC, which now requires “clinically significant distress in the individual,” a change that seems to ignore the interpersonal nature of most sexual difficulties and the many harms other than distress (e.g., lost pleasure, interpersonal disharmony) that can derive from sexual dysfunction.

I now turn to selected structural and organizational changes in DSM-5.

STRUCTURAL AND ORGANIZATIONAL CHANGES

DSM-V Versus DSM-5

Why is it DSM-5 and not DSM-V with the traditional Roman numeral? DSM-5 is intended to be a living document that can be supplemented piecemeal online as new information emerges. Arabic numbers allow for online iterations (DSM-5.1, 5.2, and so on). The DSM-5.1 committee is already formed and meeting.

The Manual’s Three Sections

The DSM-5 is divided into three main sections. Section 1, DSM-5 Basics, presents introductory and background material, including guidance on the limits of the manual, such as the need for case formulation distinct from diagnosis and the need for clinical judgment in applying criteria, and a slightly revised definition of mental disorder (First & Wakefield 2010) that forms the framework for judging whether each category in the manual validly identifies disorders versus normal variations. Section 2, Diagnostic Criteria and Codes, contains the categories of disorder and their diagnostic criteria and codes. The Z Codes (DSM-IV’s V Codes) for nondisordered conditions that are often the target of mental health intervention are in section 2 as well. Section 3, Emerging Measures and Models, includes some new assessment measures, a cultural formulation interview for exploring

the cultural and personal conception of the patient's problem, and an alternative DSM-5 model for PDs based on trait dimensions, which was developed for DSM-5 but sidelined at the last moment in favor of retaining the DSM-IV approach. Finally, it includes a listing of emerging conditions for further study, including proposed diagnostic criteria.

From “Not Otherwise Specified” to “Other Specified” and “Unspecified”

The DSM-IV's NOS categories (e.g., “depressive disorder not otherwise specified”) for disorders not fitting under categories with criteria sets accounted for a large percentage of diagnoses. This was seen as problematically showing that criterial categories insufficiently cover the clinical domain. Because no symptom documentation is required, the use of the NOS diagnosis also limits researchers' ability to study the nature of the cases that are placed under these categories.

DSM-5 replaces the NOS designation with two categories, “other specified” and “unspecified” (e.g., “other specified depressive disorder”). Other-specified diagnoses require the clinician to provide the reason why the condition does not qualify for criterial diagnosis (e.g., “subthreshold depressive symptoms”). Some other-specified categories offer expanded lists of diagnosable conditions from which the clinician can choose, although the category's use is not limited to these examples. It is hoped that information provided in other-specified diagnoses will allow researchers to understand the high use of these residual categories and guide thinking about additional needed criterial categories. When the clinician cannot or prefers not to provide such information, the unspecified diagnosis functions like the former NOS diagnosis, with no specification of the condition.

Chapter Reorganization and New Chapter Locations of Disorders

Many disorders have been moved to new chapter locations. Some child and adolescent disorders have been moved to other chapters for more natural etiology-based groupings, often with revised criteria allowing diagnosis of adults as well as children. For example, separation anxiety disorder and selective mutism are moved to the Anxiety Disorders chapter; eliminative disorders are given their own chapter; childhood eating disorders are moved to Feeding and Eating Disorders; conduct disorder and oppositional-defiant disorder are moved to Disruptive, Impulse Control and Conduct Disorders; and reactive attachment disorder is moved to the new Trauma- and Stressor-Related Disorders chapter, with its two subtypes, emotionally withdrawn/inhibited and indiscriminately social/disinhibited, separated into two distinct disorders.

In the DSM-5 chapter organization, disorders are regrouped developmentally: first, Neurodevelopmental Disorders (the new chapter name for childhood disorders emphasizes growing neuroscientific understanding); next, Schizophrenia Spectrum and Other Psychotic Disorders (which often appear in adolescence); and much later, Neurocognitive Disorders (but this is not carried through systematically; e.g., paraphilic disorders come after neurocognitive disorders). Chapters are also regrouped by etiological commonalities (e.g., internalizing anxiety, depressive, and somatic symptom disorders versus externalizing impulsive, disruptive, and substance use disorders). The hypotheses underlying some reorganization decisions remain disputed [e.g., moving obsessive-compulsive disorder out of anxiety disorders on the basis of claimed divergent brain circuit etiologies (Abramowitz & Jacoby 2014)].

Many chapters are divided, and some were eliminated. The former Mood Disorders chapter is now divided into two chapters: Bipolar Disorders and Depressive Disorders. The former Anxiety Disorders chapter is now divided into three chapters representing different hypothesized etiological subgroups: Anxiety Disorders, Obsessive-Compulsive and Related Disorders, and Trauma- and Stress-Related Disorders. Adjustment disorders, a problematic category that has generated

little research and is sometimes not reimbursed due to suspicions that it encompasses normal responses to stress, are incorporated into the new Trauma- and Stress-Related Disorders chapter and reconceptualized as subthreshold stress-response syndromes. The former Sexual and Gender Identity Disorders chapter has been divided into three chapters: Sexual Dysfunctions, Paraphilic Disorders, and Gender Dysphoria (the new name for the former Gender Identity Disorder category).

Website with Symptom Severity Scales and Other Online Enhancements

A website (<http://www.psychiatry.org/dsm5>) contains a wealth of supplementary material not required for diagnosis, including symptom severity rating scales for most disorders. It also has the World Health Organization Disability Assessment Schedule (WHODAS); the crosscutting diagnostic scales, levels 1 and 2; and the cultural formulation interview, levels 1 and 2.

Crosscutting Symptom Measure for Screening

It is easy to miss something in an initial clinical evaluation and later be blindsided by it. A new crosscutting symptom measure helps to allay such concerns. The adult version consists of 23 level 1 questions used to screen for risk for 13 psychiatric domains. If symptoms are reported, disorder-specific level 2 follow-up scales are available to further assess the patient in each area.

Cultural Formulation Interview

The Cultural Formulation Interview, developed by medical anthropologists, includes 14 level 1 questions that clinicians can use to explore the patient's cultural perspectives of his or her problem that may impact diagnosis or treatment. The questions cover assumptions about psychological problems that individuals derive from membership in various social groups (e.g., ethnic or religious communities) and that may differ from standard psychiatric explanations. Examples of level 1 questions are: "People often understand their problems in their own way, which may be similar to or different from how doctors describe the problem. How would you describe your problem?"; "Sometimes people have different ways of describing their problem to their family, friends, or others in their community. How would you describe your problem to them?" For each level 1 question that yields a response the clinician wants to explore further, a level 2 question is available to examine that area more deeply.

Elimination of the Multiaxial System

The most dramatic structural change in DSM-5 is elimination of the multiaxial system. The goals that motivated this change were consistency with general medicine in which diagnoses are simply listed sequentially in a chart without additional formal axes, affirmation of the medical status of mental disorder diagnoses by not placing mental and general medical diagnoses on separate axes, and harmonization with the ICD. The logical groundwork was present in previous DSM editions, which indicated that Axes I through III are the "real" diagnoses analogous to general medical diagnoses.

Axis II's PDs and intellectual disability (the new name for DSM-IV's "mental retardation") are listed in section 2 alongside other diagnoses. The reasons that had been given for separating PDs on Axis II (e.g., that PDs are not genuine disorders and that personality is a fixed, unchangeable background relative to transient disorders) have long been rejected. The idea that a separate axis would remind clinicians to evaluate personality has given way to concern that the separate

axis encourages clinicians to ignore personality. Moreover, insurers have sometimes cited the distinction between Axes I and II as grounds for denying equal coverage for PDs.

Axis III's general medical conditions are now simply listed as additional diagnoses where relevant, using ICD codes. Clinicians who are concerned that without a separate axis they will be held accountable for general medical diagnoses they are not qualified to make can cite the source of the diagnoses (e.g., "from chart" or "patient self-report").

Psychologists and social workers have lamented the loss of Axis IV's "psychosocial and environmental problems," which when first introduced was hailed as a triumph for a broad view of the person in social context. This was where clinicians listed circumstances in the individual's life that were not targets of treatment or part of the symptoms of the patient's mental disorder but that could influence how the clinician understands or treats the patient. Its elimination stirred fears that clinical evaluation would be more impoverished and one dimensional in a way that reflected the current turn toward the brain disease model and away from a biopsychosocial approach.

However, these fears were unfounded. DSM-5 offers enormously improved coverage of social context in diagnostic evaluation. Following ICD-10, DSM-5 dramatically expanded Z Codes, from 23 to 133. They now cover every imaginable environmental issue, including all former Axis IV stressors. Thus, embedded within DSM-5 is the kind of person-in-environment diagnostic system that social workers dreamed of for decades. Moreover, DSM-5 altered the Z Code instructions, and the codes now can be used for either nondisordered targets of treatment or factors relevant to treatment or etiology but not targets of treatment, thus covering the former functions of Z Codes and Axis IV stressors. Overall, this is a positive change for contextualizing disorder, even though Z Codes are not yet reimbursable.

DSM-5 eliminated Axis V's GAF, which is required in many settings (e.g., evaluation for inpatient admission). The GAF is supposed to assess functioning independent of symptoms but in fact mixes together functioning and symptoms. DSM-5 recommends instead that clinicians use the WHODAS, which is provided in section 3 and is available online. The WHODAS assesses disability, independent of symptoms, in six domains: understanding and communicating, getting around, self-care, getting along with people, life activities, and participation in society. It is designed not specifically for psychiatry but rather for use across medical specialties, and thus includes assessments (e.g., difficulty joining in community activities, washing your whole body, living with dignity) that may be unsuited for some focused psychiatric evaluations. It remains unclear how insurance reimbursers who now require the GAF will respond to DSM-5's recommended use of the WHODAS, and who, if anyone, will pay for time spent by the clinician to administer and score the 36 questions of the WHODAS if it is adopted.

I now turn to controversies about changes in DSM-5 categories and criteria.

AUTISM SPECTRUM DISORDER

ASD is DSM-5's most explicit dimensional category, encompassing DSM-IV's pervasive developmental disorders (PDDs) involving deficits in social relating: autistic disorder, Asperger's disorder, Rett's disorder, childhood disintegrative disorders, and pervasive developmental disorder not otherwise specified (PDD-NOS). Construing Asperger's and PDD-NOS as mild forms of autism, DSM-5 places all these conditions within one category diagnosed using two symptom dimensions derived from DSM-IV's autistic and Asperger's dimensions: deficits in social interaction and repetitive behavior patterns. Severity levels for each dimension are illustrated in charts and linked to need for support.

The backdrop is that these categories were used inconsistently by clinicians, and diagnoses had remarkably risen (for all autism-related categories, but especially PDD-NOS) from roughly

PDD-NOS: pervasive developmental disorder not otherwise specified

1 in 2,000 children in the 1970s and 1980s to 1 in 68 or perhaps higher today (Lord & Bishop 2015). This occurred as diagnostic criteria were broadened and as these conditions became linked to provision of public support.

These DSM-5 changes proved highly controversial. One reason was that parents of children with milder Asperger's—a relatively stigmatized category represented by sympathetic television characters and purportedly applying to many famous people, from Beethoven to Einstein—feared that classifying the disorder with more severe autism would increase stigma. A greater concern was that the translation from DSM-IV criteria to DSM-5 criteria was not exact, and the lower end of ASD's dimensions seemed to set a diagnostic threshold that eliminated many mild DSM-IV Asperger's cases from ASD diagnosis (e.g., DSM-IV Asperger's required two social interaction symptoms and one repetitive behavior symptom, whereas DSM-5 ASD requires three social interaction symptoms and two repetitive behavior symptoms). Moreover, DSM-5's dimensionalization eliminated the PDD-NOS category, which had been heavily used for diagnosing milder conditions. Some studies supported fears that the ASD category would exclude substantial numbers of children previously diagnosed with PDD-NOS (McPartland et al. 2012).

Some observers welcomed what they saw as an overdue correction to overpathologizing normal-range eccentricity and social ineptness. However, the overriding concern was that public support for special education might be withdrawn from those who would no longer qualify for diagnosis. DSM-5 tried to address the loss of PDD-NOS by adding a new diagnostic category for milder conditions, social (pragmatic) communication disorder, which allows diagnosis of interpersonal communication difficulties without repetitive behaviors. However, the status of this new category in terms of public support remains unclear, and parental concerns have not been assuaged.

In a bizarre twist, DSM-5 addressed the threatened loss of special education services with a clause that simply grandfathered in those diagnosed using DSM-IV within ASD: "Note: Individuals with a well-established DSM-IV diagnosis of autistic disorder, Asperger's disorder, or pervasive developmental disorder not otherwise specified should be given the diagnosis of autism spectrum disorder." This clause has no legal force, but autism organizations are working to ensure that school systems abide by it.

ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

The Centers for Disease Control and Prevention recently reported that one in five high school boys and 11% of all US schoolchildren have been diagnosed with ADHD, with about two-thirds of them taking stimulant medication for the condition (Visser et al. 2014). The evidence from multiple sources is overwhelming that these rates are partly due to overdiagnosis. Of children in a given school grade, the youngest children have much higher rates of ADHD diagnosis (Elder 2010, Evans et al. 2010, Zoëga et al. 2012), suggesting that normal variations in developmental rate are being mistaken for disorder. Consistent with this interpretation, brain development studies reveal slower development of inhibitory control and earlier motor center development in children with ADHD, but no abnormal brain growth overall (Shaw et al. 2007, Sripada et al. 2014), with the great majority of children with ADHD not meeting criteria as they grow older (Biederman et al. 2010, Hill & Schoener 1996, Klein et al. 2012, Mannuzza & Klein 2000, Moffitt et al. 2015, Shaw et al. 2013). Children with ADHD have higher rates of normal genetic variants (Ding et al. 2002) that produce novelty-seeking behavior and lower tolerance for boredom; these variants are found at higher rates—and are adaptive—in nomadic populations (Eisenberg et al. 2008). Moreover, dramatic rises in ADHD diagnoses in the schools, especially among lower-income students, occur when educational accountability rules change to incentivize higher test scores,

suggesting the diagnosis is being used for classroom performance control as much as for medical diagnostic purposes (Hinshaw & Scheffler 2014).

Yet, instead of grappling with how to refine the diagnostic criteria to address a massive false positive problem and its attendant overmedication, DSM-5 focused on altering the ADHD criteria to facilitate expanding the diagnosis to adults. This risks perpetuating the same high false positive rate among adults as in children by encompassing within disorder a normal variation that is problematic due to our culture's social demands. To encourage adult diagnosis, ADHD criteria and examples have been altered in DSM-5. Onset of symptoms must now occur only by age 12 rather than age 7, and the diagnostic threshold for adults has been lowered to five symptoms from the usual six. DSM-5 also extensively modified ADHD symptom descriptions to fit adults. For example, for attentional disorder, they include such questionable indicators of disorder as: has difficulty sustaining focused attention during lectures; fails to meet deadlines; dislikes preparing reports; often loses things such as tools, wallets, keys, paperwork, eyeglasses, mobile telephones; and often forgetful about returning calls, paying bills, or keeping appointments. These symptoms may sometimes result from genuine disorders, but more likely they reflect normal variation in the ability to adapt to the demands made of members of our society.

ATTENUATED PSYCHOSIS SYNDROME

A manifestation of the move toward dimensions is the proposed psychotic disorder category of attenuated psychosis syndrome, provided in the section 3 conditions for further study. This disorder requires that the individual has intact reality testing but has experienced mild versions of cognitive symptoms (delusions, hallucinations, or disorganized speech) and that there is sufficient concern to seek consultation. The goal is to allow early diagnosis and treatment in hopes of preventing full-blown psychotic disorder or lessening its severity.

False positives are the problem here. Since early studies of Eysenck's "psychoticism" scale, it has been known that attenuated psychotic-like ideation is common in the general population and does not necessarily indicate actual or prodromal disorder (Wakefield 1997b). Recent evidence confirms that forms of eccentric and odd thinking satisfying the criteria are surprisingly common in the general population (Fusar-Poli & Van Os 2013, Woods et al. 2009) and exceedingly common in outpatient populations of distressed individuals being treated for other disorders (Gaudiano & Zimmerman 2013). Even the most positive studies find only a minority of identified individuals in highly selected samples progressing to psychosis over a period of years. If these standards are introduced into the clinic, concerned parents would likely bring eccentric children in for evaluation, risking false positives.

The initial DSM-5 proposal was to add "psychotic risk syndrome" to psychotic disorders, with the goal of identifying individuals who are not yet psychotically disordered but are at high risk of becoming so. Critics justifiably objected that this confuses risk of disorder with actual disorder, a dangerous conceptual precedent given that risk is omnipresent. The work group simply reconceptualized and renamed the condition as a mild psychotic disorder in its own right. In addition, in an end run around its section 3 status, this controversial proposal is explicitly listed as an "other specified" option and is thus codably diagnosable in section 2 as "F28. Other Specified Psychotic Disorder: Attenuated Psychotic Syndrome" (Simon et al. 2013). The clinician's judgment that the overall evidence in a specific case indicates a prodromal or subthreshold psychotic condition of course warrants use of the other-specified diagnosis. However, the evidence does not warrant blanket pathologization of attenuated psychosis syndrome.

BIPOLAR I

Bipolar disorder underwent a major evidence-based change aimed partly at eliminating false positives. In DSM-IV, manic episode required “abnormally and persistently elevated, expansive, or irritable mood.” However, a clinical validation study of community epidemiological data found that a remarkable 71% of bipolar I DSM diagnoses were false positives, due mostly to satisfying the “irritable” option when in fact there was a contextual cause of normal irritability (Kessler et al. 1997a). To block such misdiagnoses, DSM-5 adds to mania and hypomania criteria an additional requirement for “abnormally and persistently increased activity or energy.” This not only reduces irritability false positives but also lowers the frequent misdiagnosis of the emotional extremes of borderline personality disorder as bipolar disorder (Ruggero et al. 2010, Zimmerman et al. 2008). Given the recent extraordinary rise of bipolar diagnoses in adults and children, this is one of the most important changes in DSM-5.

BIPOLAR II

Research suggests that current symptom and duration thresholds for hypomanic episodes are not sharp, natural cut points and that fuzzy validator gradients for group averages exist below threshold (Nusslock & Frank 2011). In a slippery-slope fallacy, DSM-5 interpreted this finding as proof that hypomania thresholds should be reduced. Thus, “other specified bipolar and related conditions” now explicitly allows hypomanic episodes lasting two days or having two symptoms (section 3 includes a related proposal for “depressive episodes with short-duration hypomania”). The potential for false positives that trigger the use of mood-stabilizing drugs (Frances 2010) made this change controversial. The four-day bipolar II threshold is somewhat arbitrary, but not as arbitrary as portrayed by critics (Ghaemi 2010); it was selected because normal women often report one- to two-day hypomanic periods (Dunner 1993). Recalling that bipolar II disorder with weaker requirements than bipolar I was itself only introduced in DSM-IV, Frances (2010, Frances & Jones 2012) observed that with weaker criteria, someone could qualify for hypomania simply by experiencing the joy of emerging from depression into normal mood.

MAJOR DEPRESSIVE DISORDER

The elimination of the BE from the diagnostic criteria for MDD was the most controversial DSM-5 proposal. To opponents, it seemed to lack common sense and to pathologize a normal if painful human experience. It further expanded the MDD category, already bloated beyond plausibility, with over half the population diagnosable at some point in life (Moffitt et al. 2010, Rohde et al. 2013). Normal grief includes depressive symptoms, but grief sometimes triggers true MDD (Parkes 1964). The BE instructed the clinician not to diagnosis MDD when distress-related depressive symptoms (e.g., sadness, insomnia, lowered appetite, difficulty concentrating, lowered interest or pleasure, moderate role impairment) are best explained as part of normal grief, but to diagnose MDD on top of grief when patho-suggestive symptoms are present (e.g., psychomotor retardation, sense of worthlessness, suicidal ideation, marked impairment). The elimination of the BE meant that bereaved individuals manifesting five general-distress depressive symptoms for two weeks after a loss are classifiable as having MDD.

Proponents of eliminating the BE claimed that excluded cases are just like standard MDD in such features as elevated suicide rates and response to medication, but these arguments turned out to be spurious (Wakefield & First 2012b). For example, the claim that excluded cases have elevated suicide attempt rates was examined in four epidemiological data sets and disconfirmed (Wakefield

& Schmitz 2014b). Epidemiological studies revealed that standard negative correlates of depression were significantly lower in excluded cases. Even when the exclusion was extended to reactions to all stressors and not limited to bereavement, negative outcomes characteristic of standard MDD, including recurrence, suicide attempt, and anxiety disorders, occurred no more often in excluded cases than in the general population with no history of MDD (Mojtabai 2011; Wakefield et al. 2007; Wakefield & Schmitz 2012, 2013a,b,c, 2014a,b). DSM-5 ignored the evidence clearly indicating the validity of the BE and by eliminating the BE created a new class of false positive diagnoses, whose inclusion in MDD will further muddy the meaning of research results.

As a concession, DSM-5 included a note allowing that clinical judgment is needed in distinguishing normal grief and other normal reactions to stress from depressive disorder. However, unlike the BE, the note includes no inclusion/exclusion symptom guidelines. It is thus invisible to researchers and, by opening every depression diagnosis to clinical judgment, weakens the reliability of MDD diagnosis (Maj 2013).

DISRUPTIVE MOOD DYSREGULATION DISORDER

Disruptive mood dysregulation disorder (DMDD) is a controversial new child depressive disorder diagnosis requiring multiple temper outbursts each week for a year inconsistent with developmental level and disproportional to environmental provocations; the diagnosis also requires a generally irritable mood between outbursts. This is a largely untested diagnosis that lacks a strong research history. Most DMDD cases satisfy oppositional-defiant disorder (ODD) criteria (although DMDD prohibits comorbid ODD diagnosis), and it has therefore been argued that no new diagnosis was needed. This category has been derided in the popular press and the professional literature as a “temper tantrum disorder” that pathologizes difficult children (Frances 2011).

The DMDD category was introduced to address an urgent and embarrassing problem: excessive diagnosis of child bipolar disorder, which is estimated to be diagnosed as much as 40 times more frequently than a few decades ago (Moreno et al. 2007), and the consequent overtreatment of children with heavy-duty medications, including mood stabilizers and antipsychotics that have serious side effects and lack long-term testing in children. Difficult children often present with chronic irritability punctuated by disruptive tantrums. The surge in bipolar diagnoses is based on the idea that child bipolar disorder may present in this nonstandard way, with irritability representing mania despite lack of a classic episodic pattern. The new category is intended to siphon these children off to a category with less onerous antidepressant medication implications, yet still allowing medication options, unlike ODD. However, initial research suggests that children presenting with this pattern are generally experiencing neither an early form of bipolar disorder nor a stable mood disorder, and they often outgrow these behaviors (Axelson et al. 2012). The new DMDD diagnosis may overly stigmatize children whose defiance and tantrums are causing distress to their parents.

SEPARATION ANXIETY DISORDER

It is clinically apparent that adults can develop separation anxiety disorder. DSM-5 properly revised the criteria to eliminate the before-age-18 onset requirement, thus allowing adult diagnoses, with a lengthened six-month duration threshold. Examples are revised accordingly: The adult's unwillingness to leave the child and go to work, and one supposes the helicopter parent clinging to the child going off to college, join the classical presentation of the child's unwillingness to go to school. However, false positive concerns have been raised that current criteria would allow this

DMDD: disruptive mood dysregulation disorder

category to be widely applied to normal separation anxieties after breakups of intense romantic relationships or marital separations.

HOARDING DISORDER

The new category of hoarding disorder is diagnosed when there is an accumulation of possessions due to difficulty discarding them even when they lack value, to the degree that living areas cannot serve their intended use. Hoarding was a possible symptom of DSM-IV obsessive-compulsive PD, but pathological hoarders do not necessarily meet either obsessive-compulsive disorder or obsessive-compulsive PD criteria (plus, this must be a real disorder because an entire TV show is devoted to it!). Moreover, pathological hoarding sometimes represents a health or safety hazard (e.g., apartment floors have collapsed because of the excessive weight of hoarded possessions). So, the diagnosis makes sense in principle.

The controversial issue is potential overdiagnosis. People naturally vary in their tendency to collect and save things and in their valuation of possessions. The clinician has the challenging task of judging the value of possessions, the intended use of living areas, and whether clutter precludes the intended use of living areas. Reassuringly, a validation study of a kind too rarely performed included a plausible false positives comparison group of normal avid collectors, and the criteria did not encompass them (Mataix-Cols et al. 2013).

In an interesting twist, to prevent missing cases, the criteria specify that even if a living area is uncluttered and can be used for its intended purpose, the disorder can still be diagnosed if the lack of clutter is due to the efforts of someone else (e.g., spouse, cleaning person, fire department). So, even if one's beleaguered partner cleans up, one can still be diagnosed. One imagines this feature being exploited for diagnostic "blaming" in marital couples therapy, where differences in neatness and sloppiness are often a major issue.

POSTTRAUMATIC STRESS DISORDER

PTSD is no longer conceptualized as an anxiety disorder in DSM-5, and thus DSM-IV's criterion A2 requiring intense fear, helplessness, or horror was inappropriately restrictive. Moreover, first responders and military personnel are trained to respond to stressors professionally and unemotionally and therefore could inappropriately be excluded from PTSD diagnosis. Consequently, DSM-5 eliminates the A2 emotional-response requirement.

The nature of traumatic stressors that are so extreme and outside usual experience that they tend to produce pathological reactions has always been controversial. DSM-IV's requirement that an individual "experienced, witnessed, or was confronted with" the traumatic event(s), which might include "threat to the physical integrity of self or others," was open to interpretation. DSM-5 attempts to increase validity by limiting traumatic stressors to exposure to actual or threatened death, serious injury, or sexual violence. DSM-5 also clarifies that "experienced or witnessed" means directly experiencing or witnessing in person. The vague "confronted with" is replaced by "learning that the traumatic event(s) occurred to a close family member or close friend" and that it was violent or accidental (not, e.g., learning that someone died after a long illness). An additional option is for those who, due to their work, experience "first-hand repeated or extreme exposure to aversive details of the traumatic event," such as a police officer or a psychologist who deals constantly with extreme child abuse.

In DSM-5, PTSD symptom criteria are elaborated from DSM-IV's three subgroups to four groups, with the DSM-IV subgroup "avoidance of stimuli and numbing of general responsiveness"

divided into two subgroups: “negative alteration of cognition or mood,” which includes DSM-IV numbing symptoms plus additional symptoms, and “avoidance symptoms,” which includes only the two DSM-IV avoidance symptoms (avoids memories, avoids external reminders). The overall minimum number of six symptoms across groups necessary for diagnosis remains the same, and overall prevalence remains about the same, but the reorganization has unexpected implications. Hoge et al. (2014) found that about one-third of DSM-IV PTSD cases did not satisfy DSM-5 criteria, a troubling discrepancy given that much can depend on PTSD diagnosis (e.g., awarding of military disability pensions). Other than the narrower traumatic stressor criteria, the main source of the lost diagnoses is the reorganized symptom groupings. DSM-IV required any three out of seven avoidance or numbing symptoms, so criteria could be met without avoidance symptoms. By making the two avoidance symptoms a separate subgroup, DSM-5 created an avoidance bottleneck that excludes any individual not avoiding. This change is theoretically motivated. Behaviorist theories of PTSD include avoidance as a crucial explanation for why the symptoms do not extinguish over time. The problem is that for those who do not share the motivating theory, it seems perfectly coherent conceptually for an individual to suffer from PTSD without avoiding memories or reminders of the traumatic event. This DSM-5 change seems to violate the manual’s theory neutrality.

PERSISTENT COMPLEX BEREAVEMENT-RELATED DISORDER

Until DSM-5, there was no diagnostic category that evaluated pathology in nondepressive grief feelings, such as yearning for the lost person, being pained by reminders, or feeling disbelief that the person is gone. However, grief researchers have pushed for recognition of a disorder in which individuals experience chronic intense grief feelings that can be impairing over lengthy periods of time (defined as greater than six months), alternatively labeled prolonged or complicated grief disorder, and that can be present even when major depression, PTSD, and GAD are not diagnosable (Prigerson et al. 2009, Shear et al. 2011). Arguments for such conditions being disorders rest either on the claim that when intense grief goes on for six months or more it becomes frozen and interminable (Shear et al. 2011) or the claim that having intense grief for six months or more increases the risk of developing later physical and mental disorders (Prigerson et al. 2009). Both arguments are fatally flawed. Risk does not equal disorder, and responses to all stressors entail heightened risks (e.g., running for a bus increases one’s chances of a heart attack, but that doesn’t make it a disorder). The “frozen and interminable” claim that grief must resolve by six months or it goes on indefinitely is supported neither by the evidence nor common human experience (Wakefield 2012). Moreover, the criteria take no account of expectable differences in grief, such as that between grieving a parent and grieving a child.

However, presumably at some length and intensity, grief does become disordered, so DSM-5 sensibly changed the duration threshold to one year (which is still problematic because of confusing disorder with the anniversary reaction) and added persistent complex bereavement-related disorder to section 3’s conditions for further study. Diagnostic criteria require at least one out of four “separation distress” symptoms (yearning/longing, intense sorrow, preoccupation with the deceased, preoccupation with the death’s circumstances) and at least six out of twelve additional grief symptoms. The work group also included the new category in the main section 2 listing as an explicit option under “trauma- and stressor-related disorder other specified.” So, in reality, it is codable and diagnosable immediately. The new category remains controversial because it obviously has high potential for false positives and for transforming our relationship to this basic human emotion, especially as grief becomes targeted for medication development.

SOMATIC SYMPTOM DISORDER

A controversial change allows the diagnosis of somatic symptom disorder not only when an individual is experiencing multiple unexplained physical symptoms and thus is somatizing, but also when an individual is excessively concerned about serious health conditions. Critics argue that a large percentage of seriously physically ill individuals are anxious enough about their condition to meet criteria for having maladaptive thoughts and feelings and thus qualify for psychiatric diagnosis (Frances 2013).

PSYCHOLOGICAL FACTORS AFFECTING OTHER MEDICAL CONDITIONS

In a conceptually bewildering change, the former V Code nondisorder condition, “psychological factors affecting other medical conditions,” is reclassified in DSM-5 as a mental disorder. To qualify for this diagnosis, an individual needs to have one or more physical symptoms (that can be caused by a real illness) that cause either high anxiety, persistent thoughts, or excessive attention to health concerns—reactions that do not seem pathological when dealing with threats to life and well-being. The psychological factors constituting this condition by definition cannot be mental disorders (they “are not better explained by another mental disorder”), and none of the examples (poor treatment adherence, anxiety that aggravates asthma, ignoring warning signs of a heart attack) are mental disorders. This category violates the dysfunction requirement of the DSM-5’s own definition of mental disorder and is one of the few DSM categories composed entirely of false positives.

BINGE EATING DISORDER

Binge eating disorder has been upgraded to full disorder status from its DSM-IV listing in conditions for further study. Diagnosis requires rapidly eating more than is comfortable or usual, accompanied by a sense of loss of control and other negative feelings such as shame, distress, or self-disgust, at least once a week for three months. This low frequency/duration threshold makes this what has jokingly been called a bar mitzvah and wedding disorder, in which people who overeat on the weekends for a few months are diagnosable. Critics argue that the lifetime prevalence is likely to be substantial but that this diagnosis merely makes the vice of gluttony into a disorder. It remains unclear why the common tendency to overeat when food is plentifully available (especially when food is presented to tempt us) is classifiable as a disorder versus a normal variation of an evolutionarily shaped inclination to amass scarce calories while one can (even though this natural inclination may be problematic in our food-rich environment). Feelings of being out of control and of self-disgust are understandable as internalized social value judgments about such behavior rather than as evidence of the presence of genuine compulsive pathology.

INTERMITTENT EXPLOSIVE DISORDER

Intermittent explosive disorder (IED), a pathological failure of control over aggressive impulses, has had modest prevalence (Coccaro et al. 2004, Kessler et al. 2006) but is substantially expanded in scope in DSM-5. Whereas DSM-IV required instances of physical aggression or destruction of property as evidence of loss of control, DSM-5 adopted broader criteria (Coccaro et al. 1998, 2011) allowing diagnosis based on verbal aggression (e.g., temper tantrums, verbal arguments) or nondestructive property aggression twice a week for three months. Studies have found that anger can be naturally intense, and even severe aggression is not uncommon: Two-thirds of adolescents

IED: intermittent explosive disorder

report anger attacks involving destroying property, threatening violence, or engaging in violence, with 39% of such episodes involving actual violence (McLaughlin et al. 2012). DSM-5's loosened criteria make IED a widespread disorder, although diagnosed individuals' average lifetime number of anger spells is only about 17, with most being verbal aggression. DSM-5's broadening of IED was done without epidemiological data addressing the effect of the change on false positives, such as misdiagnoses of normal people in stressful or conflictual anger-triggering relationships or circumstances. It is also unclear in what sense verbal arguments that do not go further, or for that matter displaced aggression onto an object without damage to it, indicate anger that is truly out of control. The potential for false positives seems enormous.

SUBSTANCE USE DISORDER

With widespread recreational use of alcohol and other substances, it is a challenge to distinguish those who use substances heavily by choice from those who are addicted and have impaired control over use (Wakefield & Schmitz 2014c, 2015). DSM-IV had a reasonably valid addiction category of "substance dependence" based on three out of seven impaired-control symptoms and a conceptually invalid substance abuse category that measured harm without impaired-control dysfunction but was included for practical reasons concerning coverage for treatment. To its credit, DSM-5 eliminated the abuse category (Hasin et al. 2013). However, rather than moving abuse symptoms to the Z Codes where they belong, DSM-5 added three of the abuse symptoms plus an additional "craving" criterion to the dependence symptoms to form a new addiction category with eleven possible symptoms—and then lowered the threshold to two symptoms, calling the result a dimension of addiction. In fusing together a mélange of different types of cases, DSM-5 created a huge false positive liability for addiction diagnosis. Dependence was renamed substance use disorder to reassure patients and doctors considering opioid treatment for pain that physical dependence is not addiction, just as an opioid misuse epidemic hit. In addition, diagnosing opioid addiction when taking medication as prescribed was made more demanding, a move with no coherent relationship to validity (Wakefield 2015b).

MILD NEUROCOGNITIVE DISORDER

In the quest for early evaluation of Alzheimer's disease and other neurocognitive conditions in the absence of biomarkers, DSM-5 added a "mild neurocognitive disorder" category. Diagnosis requires only modest cognitive decline that does not interfere with everyday activities. Almost all individuals as they age fulfill such a criterion, and the category appears to violate the definition of mental disorder given its lack of clinical significance. This misguided approach to early diagnosis is sure to yield many false positives and create enormous anxiety. The category should be a Z Code except when there is reason to believe the mild cognitive diminution is best explained by prodromal neurocognitive pathology rather than normal aging.

CONCLUDING THOUGHTS AND LOOKING TO THE FUTURE: THE NEED FOR CONCEPTUAL CLARITY

Criticism of DSM-5 was more conceptual than empirical. Given continued ignorance of most psychological mechanisms and dysfunctions, conceptual considerations remain pivotal in formulating mental disorder categories and criteria. I therefore focus in these final thoughts on conceptual agendas.

The False Positives Problem Redux

For DSM-5, it was indeed—as Regier and colleagues (2004) asserted—“the disorder threshold, stupid,” and DSM-5 has made the problem considerably worse. This must remain a dominant issue to be addressed in the near future. The enormous magnitude of the false positives problem has become increasingly clear, as epidemiological surveys with improved methodology reveal ever-higher prevalence rates that challenge credibility (Moffitt et al. 2010). Diagnosis has clearly become untethered from medical reality when one out of five boys nationally is diagnosed with ADHD (Visser et al. 2014) and when antidepressant use has increased 400% in a decade, with nearly one-quarter of all women in their 40s and 50s taking antidepressants (Pratt et al. 2011).

Tackling the false positives problem disorder by disorder was the most realistic and important overarching goal DSM-5 could have adopted. Given the growing visibility and social importance of psychiatric diagnosis, this problem cannot be hidden away in the obscurities of scholarly discourse. DSM-5’s insufficient engagement with this issue repeatedly and justifiably came to the attention of the public and media, triggering concerns about diagnostic legitimacy. The DSM-5 process worryingly suggests that organized psychiatry may be incapable of or unwilling to address diagnostic inflation.

The importance of avoiding false positives goes beyond the medical injunction to do no harm. Diagnostic categories are now part of the community’s internalized psychological functioning and self-monitoring, so the creation and definition of psychiatric diagnostic categories is not a mere technical act, but rather one with an ethical dimension, fraught with unknown implications for individuals who never asked to be classified. Individuals in the community who satisfy diagnostic criteria may, through screening, the interventions of intimates, or self-monitoring, enter the sick role in a psychological sense even if not seeking treatment. The linkages of diagnosis to so many social institutions, from custody disputes and life insurance cost to acceptance into clinical trials and special education funding, require that the mental health professions properly discharge their responsibility to be accurate about who is disordered and who is not.

To take conceptual validity seriously, the definition of disorder must guide formulation of specific criteria categories (Wakefield & First 2013a,b). The goal of each feature of diagnostic criteria sets—symptom criteria, symptom and duration thresholds, CSC, contextual exclusions, etc.—is to help ensure that a category validly picks out harmful dysfunctions and excludes normal variations (First & Wakefield 2013). That said, while we await research revealing etiologies and providing improved construct validity, what can be done to improve conceptual validity?

Conceptual Validity Audit

Many changes in each DSM revision are commonsense corrections of obvious false positive glitches that went unnoticed in earlier editions (in DSM-5, examples include: Don’t diagnose sexual dysfunction if lack of sexual response is due to an abusive relationship; don’t diagnose primary insomnia disorder if external interference does not allow an opportunity to sleep; don’t diagnose ODD if defiant behavior is directed only at a sibling). A false positives critique of each diagnostic criteria set is needed to proactively correct such errors. Such an audit should include disorder-by-disorder evaluation of the usefulness of CSC, which is essential for some categories and a mere distraction offering false promises of enhanced validity in others.

Clarifying Concepts of Risk, Prodromal Disorder, and Mild Disorder

Risk is not disorder, and most risk factors are not disorders in their own right. In DSM-5, identifying risk became conflated with identifying disorder (e.g., in attenuated psychosis syndrome,

substance use disorder, and persistent complex bereavement disorder). These two very different ideas, and related concepts of prodromal disorder, mild disorder, prevention, and early intervention, must be kept crisply separated. Each of these concepts has its own complexities and ethical issues, and running them together eradicates any hope of validity of diagnostic constructs. Regarding mild disorder, many current thresholds are somewhat arbitrary, and a common finding is that validators increase as the disorder threshold is approached from below, perhaps due to some false negatives raising group validator scores. This gives rise to slippery-slope arguments that therefore below-threshold conditions must generally be disorders (Kendler & Gardner 1998, Kessler et al. 1997b). The challenge of fuzzy boundaries needs to be rethought and approached in a balanced way to avoid inappropriate diagnostic inflation.

Broad Versus Narrow Etiology

Another domain requiring conceptual clarification is what precisely individuates one disorder from another. The standard view that disorders are identified by etiology is correct. However, two senses of etiology are conflated in the literature. Etiology in the broad sense is whatever causal pathways, including risk factors, lead to the disorder. In the broad sense, cholera's etiology includes contaminated water, heart disease's etiology includes sedentary living and short stature, and major depression's etiology includes the personality trait of high neuroticism. "Kitchen sink" approaches to diagnosis (Wakefield 2013a) aim to include risk factors within diagnosis and to identify disorders as the same when they share substantial risk factors. Thus, there was a pre-DSM-5 move to unite GAD and MDD on the grounds that they share genetic risk factors underlying high neuroticism, yet despite sharing that risk factor, anxiety dysfunctions and sadness dysfunctions may still be different disorders. Just as diagnosis does not include case formulation, diagnosis does not include broad etiology. Disorder is narrow etiology, the dysfunction that is causing the harmful symptoms (i.e., pathogenesis).

Using Contextual Exclusions to Increase Validity

Symptom-based diagnostic criteria have an Achilles' heel: Psychological processing is highly context sensitive, and most psychological symptoms are compatible with normality under some circumstances. Therefore, in many instances one cannot distinguish normality from pathology on the basis of symptoms alone without reference to context. This understanding was built into earlier versions of the DSM, with many contextual qualifiers being used to increase the validity of symptom-based criteria (Wakefield & First 2012a), but on a random basis. It should be exploited more systematically.

Limitations of Cost-Benefit Analysis and Clinical Utility

In light of the challenges of achieving validity, some have argued that diagnostic revisions should be based on cost-benefit analysis, clinical utility, or whatever helps patients. Certainly, all the pluses and minuses of a change need to be carefully weighed. However, the quest for validity must remain the major concern in revising the DSM, with other considerations playing a supplementary role. The DSM's distinctive contribution has been the uniting of clinical and research criteria so that knowledge and clinical practice advance together, and the meaningfulness and long-term fruitfulness of research depend on validity. Cost-benefit considerations are subjective and value laden at their core; vehement opponents in DSM-5 debates both sometimes cited utility and benefits to clients as warrant for their positions, and it was hard to see how to adjudicate such

claims. In the end, advances in scientific knowledge and increased validity will benefit patients most significantly.

OS/U: other
specified/unspecified

Subthreshold Diagnosis and the Missing Dysfunction in “Other Specified” Disorder

DSM-5 aimed to reduce inflated NOS diagnoses, now referred to as other specified and unspecified (OS/U) diagnoses. Unlike Z Code categories of nondisorders, OS/U diagnoses indicate genuine psychopathology and account for a substantial percentage of all diagnoses. In addition to miscellaneous disordered conditions, these categories predominantly diagnose subthreshold conditions that may or may not in fact be disorders. DSM-5’s strategy was to move these conditions to newly created criterial categories or to list them explicitly as subcategories within the other specified categories to reduce wholly undocumented diagnoses. However, this strategy has the potential to greatly increase false positives as a result of misunderstanding the appropriate use of these categories.

The proper use of OS/U categories is for diagnoses requiring clinical judgment in areas that symptom-based diagnostic criteria cannot yet reach. Criterial categories presume that a condition meeting criteria is likely disordered. However, in some domains—for example, subthreshold mood symptoms—no principled solution currently exists for distinguishing disorders from nondisorders, and diagnosis depends on clinical judgment with attention to context and history. OS/U categories will become smaller as research offers criterial guidance for validly distinguishing between disordered and nondisordered instances of subthreshold conditions. In the interim, moving OS/U domains into criterial categories or listing them wholesale as acceptable OS/U diagnoses exacerbates the false positives problem.

A useful immediate step toward reigning in invalid OS/U diagnoses is to revise the woefully inadequate requirements of the categories, which DSM-5 failed to address. OS/U categories include no diagnostic criteria; diagnosis is based on clinician judgment within guidelines imposed by a vague description of what is allowed. That description depends solely on the CSC to determine disorder status, without any reference to psychological dysfunction, thus violating DSM’s definition of disorder, which requires dysfunction. For example, guidelines for ADHD OS/U explain, “This category applies to presentations in which symptoms characteristic of attention-deficit/hyperactivity disorder that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate but do not meet the full criteria for attention-deficit/hyperactivity disorder” (Am. Psychiatr. Assoc. 2013). Subthreshold ADHD symptoms are widespread among children, and this description allows diagnosis based on any distress or school problems caused by the child’s behaviors due to such symptoms, with no requirement that the symptoms are best explained by a psychological dysfunction as opposed to normal variation in temperament. All such children deserve help and support as well as a benign school environment, but most are likely normal-range children who are mismatched to school demands and have no attentional or impulse-control disorder.

The CSC was introduced to address the false positives problem by adding a harm requirement to symptom criteria that indicate dysfunction, but it has now become part of the false positives problem because OS/U categories invalidly allow diagnosis of harm with subdysfunction levels of symptoms. All OS/U categories should be reframed so that diagnosis requires clinical judgment that the symptoms are likely better explained by a psychological dysfunction than by a normal-range reaction, thus satisfying the DSM-5’s definition of disorder. Other functions of evaluation, such as interventions to address unfairness of opportunity due to mismatches between individuals’ normal psychological natures and social demands, a goal distinct from treatment of disorder that

I have called “psychological justice” (Wakefield 2010, 2013b, 2015a), should be moved to the Z Codes.

DSM’s Ongoing Relevance in the Research Domain Criteria Era

Is DSM relevant anymore, with the National Institute of Mental Health’s brain-oriented Research Domain Criteria (RDoC) initiative getting under way (Garvey et al. 2010)? Unfortunately, on the eve of RDoC, DSM-5 presented a conceptually sloppy and unjustifiably expansive revision, exacerbating the false positives problem and playing to RDoC’s appeal. However, the replace-DSM-with-RDoC fantasy misunderstands the relationship between RDoC and DSM (Wakefield 2014). DSM’s distinctive contribution in the brain science era is to specify symptomatic conditions that are plausibly judged to be mental disorders in which something has gone wrong with psychological functioning, thus providing the explanatory targets for RDoC’s efforts to identify brain etiologies of disorder. Variations in brain structure and functions are omnipresent, and which variations are relevant to pathology is not obvious from the nature of the brain structures themselves but must be evaluated in light of links to clinical phenomenology. Categories of pathology will change with construct validity progress, and even the normal/disorder boundary may alter, but it is DSM’s compendium of prima facie mental disorders from which RDoC’s bootstrapping efforts must start. To the degree that DSM’s conceptual missteps yield a heterogeneous mix of disorders and distressing normal-range conditions, it undermines its usefulness in RDoC’s search for disorder etiologies, or in any mental disorder research for that matter. A cautionary note is that RDoC has also embraced a dimensional approach, but as DSM-5 illustrates, such an approach, unless carefully and selectively wielded, can obfuscate as well as illuminate. Fuzzy boundaries and ground-level dimensional structure are easy to confuse. Dimensionalizing across the normal/disorder boundary as a research strategy can obscure distinctions and relationships relevant to pathology as much as reveal them.

DISCLOSURE STATEMENT

The author is not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

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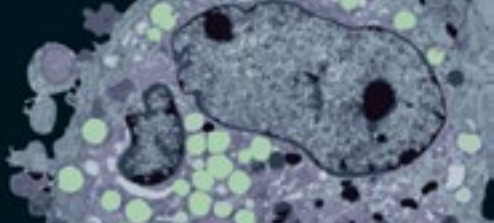
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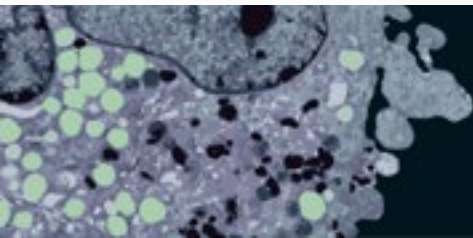
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