

## Expansion of the Concept of Mental Disorder in the DSM-5

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The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) revision process has been systematically biased toward expanding diagnostic criteria to become more inclusive, but research has yet to determine if the DSM-5 shows signs of the same bias. In this study, 83 disorders revised between the DSM-IV-TR and DSM-5 received codes based on whether the diagnostic criteria conceptually became more inclusive by allowing more individuals to be diagnosed or more exclusive by allowing fewer individuals to be diagnosed. Results showed that more disorders (36%) shifted toward inclusivity than toward exclusivity (25%). Also, seven out of 10 types of DSM revisions showed a net shift toward inclusivity. These results indicate that expansion of the concept of mental disorder has continued with the DSM-5.

Keywords: DSM, conceptual bracket creep, definition of mental disorder

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) defines mental illness for mental health professionals who use it as a tool for communication, research, treatment, and remuneration. The DSM is currently in its fifth edition (DSM-5; American Psychiatric Association, 2013), and each iteration of the manual has seen additions, deletions, and revisions that have dramatically changed both individual disorders and the concept of mental illness itself. The DSM is a product of both social and scientific factors; thus, the revision process is affected by a host of personal, political, and practical biases (Frances, 2013; Houts, 2002; Shorter, 2013; Welch, Klassen, Borisova, and Chothier, 2013). One sign of such bias is the fact that the revision process from the DSM-III (American Psychiatric Association, 1980) through the DSM-IV-TR (American Psychiatric Association, 2000) resulted in a systematic expansion of diagnostic criteria (Boysen, 2011). Such expansion is variously referred to as overdiagnosis (Pierre, 2013), conceptual bracket creep (McNally, 2004), or diagnostic inflation (Frances and Widiger, 2012), but all of these terms refer to the fact that mental

disorders have changed in scope to include more and more individuals. Frances (2013, p. 204) has characterized diagnostic inflation as switching to a new phase of “diagnostic hyperinflation” with the publication of the DSM-5, but this claim was based on a selective review of disorders. The purpose of the current research is to systematically review the DSM-5 in order to determine if the revisions show a bias toward expansion.

### *The DSM-5 Revision*

The DSM-5 was mired in criticism and controversy well before its publication. Concerns about the manual were wide-ranging and even resulted in an online petition with over 10,000 signatures (Frances, 2009, 2010, 2011; Welch et al., 2013). Some have pointed out that the DSM-5 Task Force began poorly by promising too much; the Task Force described the upcoming edition as a paradigm shift, which caused people with strong investments in the DSM framework to worry about the extent of changes to come (Welch et al., 2013). Each major revision of the DSM produces a list of new disorders, and the proposals for the DSM-5 were a particular source of concern. Some perceived Attenuated Psychosis Syndrome as an essential tool in the early identification of Schizophrenia, but critics charged that the diagnosis was not very useful or appropriate for that stated purpose (David, 2011; Yung, Wood, McGorry, and Pantelis, 2011). The purpose of Mixed Anxiety-Depression Disorder would have been to capture the many individuals who experience distress that does not fall neatly into the traditional set of disorders in the Anxiety or Mood Disorder categories, but critics believed it to be a poorly understood, unstable disorder that threatened to turn subthreshold symptoms into a diagnosis (Batelaan, Spijker, de Graaf, and Cuijpers, 2012). Proposals also emerged for a number of new sexual disorders including sexual attraction to teenagers (Hebephilia), committing repeated sexual assaults (Paraphilic Coercive Disorder), and excessive sexual behavior (Hypersexual Disorder), but in each case the validity was questionable because the diagnosis would capture just a small number of people with actual mental disorders and a much larger number of people who were either normal or simply criminals (Wakefield, 2011, 2012). None of the aforementioned disorders made it into the final version of the DSM-5, but others deemed worthy of inclusion faced similar criticism (Frances and Chapman, 2013; Martin, Steinley, Verges, and Sher, 2011; Nemeroff et al., 2013).

The creation of new disorders is one major result of the DSM revision process, but alterations to the criteria of individual disorders are no less important and no less a source of debate. Perhaps no change to criteria garnered more attention than the remolding of Autistic Disorder, Asperger’s Disorder, and several other disorders into Autism Spectrum Disorder. Criticism about the Autism revision was multifaceted, but much of it focused on the prediction that fewer high-functioning

individuals would meet the new disorder's criteria, which would hinder mental health treatment (Hazen, McDougle, and Volkmar, 2013). Autism Spectrum Disorder, however, appears to be the only disorder for which tightening of diagnostic thresholds was a major concern. Most criticism focused on the expansion of diagnostic thresholds. For example, the Attention-Deficit/Hyperactivity Disorder (ADHD) criteria saw an upward shift in the minimum age of onset, which some perceived as the further encroachment into adulthood of a disorder once conceptualized as pertaining only to childhood (Bastra and Frances, 2012). Even the venerable and long-stable criteria for Major Depression became more inclusive through the deletion of the exclusion for recently bereaved individuals, which some characterized as a needless medicalization of the natural grieving process (Nemeroff et al., 2013; Wakefield and First, 2012). Predictions notwithstanding, empirical research must be conducted to determine the actual effects of DSM revisions on prevalence.

Some evidence has already emerged concerning the effects of DSM-5 revisions on prevalence rates. Autism has been the subject of the majority of new studies. Extant research suggests that fewer people will meet the criteria for the new Autism Spectrum Disorder than met the criteria for Autism, Asperger's, and Pervasive Developmental Disorder Not Otherwise Specified (NOS; Kim et al., 2014; Maenner et al., 2014; Matson, Hattier, and Williams, 2012; Matson, Kozlowski, Hattier, Horovitz, and Sipes, 2012; Wilson et al., 2013). However, the prevalence of DSM-5 Autism Spectrum Disorder is higher (2.20%) than the combined rates of Autistic Disorder (1.04%) and Asperger's Disorder (0.60%) using the DSM-IV criteria (Kim et al., 2014). The fact that fewer people are represented after the elimination of a catchall NOS diagnosis is hardly surprising. Researchers have also found that the new Somatic Symptom Disorder, which combines a number of DSM-IV-TR Somatoform Disorders, captures fewer people than the disorders it replaced (Voigt et al., 2012). However, the prevalence estimate was based on inpatients hospitalized for psychosomatic illness and needs to be replicated among groups with higher potential for false positive diagnoses such as outpatients and individuals with medical illnesses (Frances, 2013; Frances and Chapman, 2013; Häuser and Wolfe, 2013).

A number of other studies have produced either evidence for increased prevalence or inconclusive results. Evidence for increased prevalence has emerged in relation to ADHD (Vande Voort, He, Jameson, and Merikangas, 2014), Gambling Disorder (van de Glind et al., 2014), Anorexia, and Bulimia (Allen, Byrne, Oddy, and Crosby, 2013; Machado, Gonçalves, and Hoek, 2013; Stice, Marti, and Rohde, 2013). The new Substance Use Disorder combined the previous criteria for Substance Abuse and Substance Dependence, but the effect of this combination on prevalence is unclear. Although one study found a decrease in prevalence when using the new criteria compared to the old criteria (Proctor, Kopak, and Hoffmann, 2014), others point to an increase in prevalence (Agrawal, Heath, and Lynskey, 2011;

Peer et al., 2013). The DSM-5 Posttraumatic Stress Disorder (PTSD) criteria represented a genuine effort to reduce the scope of events that could be classified as traumatic (American Psychiatric Association, 2013; Friedman, Resick, Bryant, and Brewin, 2011), but other criteria were altered as well, and it is not clear if the net changes resulted in a prevalence increase or decrease (Carmassi et al., 2013; Kilpatrick et al., 2013). Although there is much research left to be done on the prevalence rates of DSM-5 disorders, the extant evidence does little to reduce concern about the ever-expanding concept of mental disorder.

### *Expansion of the DSM*

Reviews have suggested that the DSM has been consistently expanding with each new edition (Boysen, 2011; Houts, 2002). Types of expansions include the sheer number of diagnoses and the inclusiveness of specific disorder criteria. The number of disorders has doubled and tripled since the first edition of the DSM (Houts, 2002). The argument can be made that numerical growth represents scientific advancement because disorders are split into smaller, more coherent categories as they are better understood (Regier, Kuhl, and Kupfer, 2013; Spitzer, 2001). An example of splitting in the DSM-5 was the separation of Reactive Attachment Disorder into separate diagnoses representing difficulty forming attachments (Reactive Attachment Disorder) and the formation of indiscriminant attachments (Disinhibited Social Engagement Disorder) due to differences in symptoms, course, and treatment response (Regier et al., 2013). Splitting certainly occurs during DSM revisions, but it does not explain all new disorders that emerge.

Some disorders are created to facilitate preventative treatment. Trends in the prevention of mental disorders mimic larger trends in preventative medicine (Frances, 2013; Paris, 2013). Just as hypertension is diagnosed as an early sign of heart disease, some mild psychological problems are predictors of later, more severe, problems. For example, Mild Neurocognitive Disorder was included in the DSM-5 to serve as a risk factor for later dementia (Peterson et al., 2009). Filling of diagnostic gaps is another reason new disorders are created. For example, Binge Eating Disorder allows people who lose control over their eating to be diagnosed even if they do not engage in the compensatory behaviors associated with Anorexia or Bulimia. Other disorders are created to solve diagnostic problems. For example, Disruptive Mood Dysregulation disorder is a DSM-5 disorder added to address what many believed was the inappropriate diagnosis of Bipolar Disorder among children with irritability and conduct problems (Nemeroff et al., 2013; Paris, 2013; Regier et al., 2013). Although the reasons for their inclusion are varied, it is clear that the number of disorders in the DSM has expanded over time.

The second major way that the DSM has expanded is with the inclusiveness of the definitions of mental disorders themselves. Diagnostic criteria are by their very nature exclusionary; they are operational definitions intended to differentiate

valid cases from noncases. However, there are always individuals whose symptoms fall just outside of the criteria for a disorder. Such exceptions are frustrating for experts assigned to the workgroups in charge of revising the DSM. Experts are primarily concerned with false negatives (Frances and Widiger, 2012). They want every possible instance of a disorder to be counted in order to bolster their field of expertise and research. As such, diagnostic criteria tend to be altered to account for more and more variations of symptoms. Such expansion of diagnostic criteria has come to be known as conceptual bracket creep (McNally, 2004).

Discussion of conceptual bracket creep in diagnostic criteria began in the PTSD literature. PTSD once required exposure to specific types of extreme trauma that were outside of normal experience (McNally, 2004). Then, the DSM-III-R allowed trauma to include witnessing family or friends exposed to those events. Next, the DSM-IV deleted the requirement that the trauma be outside of normal experience, allowed the person exposed to trauma to be separate from the person who is diagnosed, and allowed indirect confrontation with the event. Considering these revisions, trauma stopped being defined by objective, external events and began being defined by subjective, internal experiences. These changes had the express purpose of allowing more people to be diagnosed with the disorder (McNally, 2004). Efforts to make the disorder more inclusive even included proposals to completely eliminate the trauma requirement — posttraumatic stress would have been diagnosed in the absence of trauma (Friedman et al., 2011; McNally, 2004). PTSD is just one of many cases of bracket creep in the DSM.

Childhood disorders have been especially subject to conceptual bracket creep (Batstra, Hadders-Algra, Nieweg, Van Tol, Pijl, and Frances, 2012). The previously mentioned case of ADHD is one extreme example. The disorder has slowly evolved from a childhood-only disorder to a disorder applicable to adults (Batstra and Frances, 2012; Conrad and Potter, 2000). Descriptions of ADHD symptoms in the DSM were once overtly applicable only to children, but revisions such as deleting references to school have made them appropriate for all ages. The DSM-5 has extended this process even further by lowering the number of symptoms adults need for diagnosis and raising the minimum age for the onset of symptoms from seven to 12. Autism has also exhibited bracket creep (Gernsbacher, Dawson, and Goldsmith, 2005). The DSM-III required six specific criteria for Autism to be diagnosed, but the diagnostic criteria in the DSM-III-R switched to a list of optional symptoms. Continuing this process, the DSM-5 collapsed five different disorders into Autism Spectrum Disorder, eliminated the requirement for language impairment, and expanded the age of onset from three years to the “early developmental period” (American Psychiatric Association, 2013, p. 50). Despite criticism that creating one disorder to represent a spectrum of autism symptoms will result in the exclusion of some individuals who were previously being diagnosed (Hazen et al., 2013), it is difficult to conceptualize these revisions as doing anything but allowing more variations in behavior to be called “autism.”

The DSM-5 contains many additional examples of conceptual bracket creep. Somatic Symptom Disorder, which essentially consists of distress about any physical symptom, represents an aggregation of Somatization Disorder, Undifferentiated Somatoform Disorder, and Pain Disorder (American Psychiatric Association, 2013). However, some have argued that the criteria overextends the construct of Somatoform Disorders to include distress that is normal, and perhaps even reasonable, among people with serious physical ailments (Frances, 2013; Frances and Chapman, 2013; Häuser and Wolfe, 2013). Less substantial revisions have also resulted in bracket creep. Bulimia and Binge Eating Disorder now only require one bingeing episode per week rather than two. Dissociative Identity Disorder now allows symptoms to be reported by the individual rather than witnessed by the clinician. Feeding Disorder of Infancy or Early Childhood, now called Avoidant/Restrictive Food Intake Disorder, is no longer exclusive to children, and neither is Separation Anxiety Disorder.

Although the changes classified as bracket creep may seem minimal, slight variations in diagnostic criteria can have significant effects on prevalence. Starting at the most basic level, the number of symptoms required has a significant effect on prevalence (Andrews and Hobbs, 2010; Pélioso, André, Moutard-Martin, Wittchen, and Lépine, 2000; Schützwohl and Maercker, 1999). For example, in one study the requirement of both restlessness and muscle tension in the diagnosis of Generalized Anxiety Disorder led to a 45% reduction in symptom prevalence compared to when just one of the symptoms was required (Andrews and Hobbs, 2010). Reducing the duration and frequency of symptoms can also affect prevalence (Andrews and Hobbs, 2010; Hudson, Coit, Lalonde, and Pope, 2012; Trace et al., 2012). Again using Generalized Anxiety Disorder as an example, changing the duration requirement from six months to three months resulted in an 18% increase in prevalence. Altering the severity of disorders also affects prevalence. Reducing the severity of PTSD by allowing indirect forms of trauma increased the prevalence of people reporting trauma exposure by 69% (Breslau and Kessler, 2001). In terms of the severity of Major Depression, changing the requirement that depressed moods last “all day” to “most of the day” and “half of the day” resulted in 5%, 9%, and 12% of people assenting to the symptom, respectively (Karlsson, Marttunen, Karlsson, Kaprio, and Hillevi, 2010). Clearly, bracket creep can have significant effects on the prevalence of mental disorders.

It is important to note that not all revisions in the DSM-5 exhibit bracket creep. In fact, many revisions represented attempts to tighten up the criteria or otherwise restrict diagnosis (American Psychiatric Association, 2013). For example, the definition of trauma in the PTSD criteria now explicitly excludes the indirect exposure allowed in previous editions of the DSM. A number of disorders have new requirements for minimal length including Agoraphobia, Specific Phobia, Social Phobia, and the Sexual Dysfunctions. Mania now requires both elevated mood and increased energy. Schizophrenia now requires at least one symptom to be a delusion, hallucination, or disorganized speech. Considering the evidence for

bracket creep and diagnostic tightening, did the net result of revisions move the DSM-5 toward expansion or reduction of the number of people who meet the criteria for mental disorders? That question has yet to be fully explored, and the purpose of the current research is to review the evidence for diagnostic expansion of criteria in the DSM-5.

### *The Current Research*

The current research consists of a systematic review of the DSM-5 criteria for mental disorders. All previous prevalence studies and critical analyses of the DSM-5 have been necessarily limited in their scope; at best, they included just a handful of disorders. Examination of select disorders does not provide evidence for or against systematic expansion of the concept of mental disorder in the DSM-5. However, previous research illustrates how the DSM revision process can be reviewed more completely (Boysen, 2011). The previous review examined revisions to individual disorders from the DSM-III to the DSM-V-TR. Revisions to each disorder received a code based on whether the changes expanded or reduced the number of people who could theoretically meet the criteria. For example, deletion of criteria, adding more symptom options, and reducing severity would all be coded as making a disorder more inclusive. The results of the review illustrated a systematic bias toward expansion in the DSM revision process. Across all three revisions, 63% of disorders had a net shift toward inclusivity, and only 16% had a net move toward exclusivity. Expansion was largest for the DSM-III-R, but the revisions of each edition of the DSM resulted in a net move toward inclusivity. The most common means of expansion were adding symptom options and reducing severity, but seven out of the 10 different types of revision had a net move toward inclusivity. Although a review of diagnostic criteria does not provide evidence of actual diagnostic practices or the prevalence of mental disorders, the results of the study were consistent with a general perception of diagnostic inflation in the DSM (Frances, 2013; Paris, 2013).

The purpose of the current research was to update the review of DSM criteria to reflect the DSM-5 changes. Comparisons occurred between 83 different DSM-IV-TR and DSM-5 definitions of mental disorders. The focus of the review was on standard mental disorders; as such, it excluded medically- or substance-induced disorders and the Other Specified/Unspecified disorders. Each revision that occurred to a disorder received a code representing whether the change theoretically expanded or reduced the number of people who could be diagnosed. The net results of the revisions provide evidence about whether or not the DSM-5 has continued the previously identified trend toward expansion of the concept of mental disorder.

*Method*

The review included revisions made to 83 disorders between the DSM-IV-TR (American Psychiatric Association, 2000) and DSM-5 (American Psychiatric Association, 2013). Only disorders with a one-to-one correspondence between the two editions of the DSM could be reviewed. Thus, diagnoses that were combined or completely redesigned (e.g., Substance-Use Disorders, Autistic Disorder, Hypochondriasis) could not be included. Following previous research (Boysen, 2011), the focus of the review was on mental disorders; this led to the exclusion of Substance/Medication-Induced Disorders, Disorders Due to a Medical Condition, and the Other/Unspecified Disorders.

All coding procedures followed the guidelines established in previous research, and a more detailed discussion of the logic behind the procedures can be found in that study (Boysen, 2011). There were ten codable revisions: (a) the number of required symptoms, (b) the number of symptom options available, (c) the number of criteria, (d) the duration of symptoms, (e) the frequency of symptoms, (f) age requirements, (g) use of criteria vs. symptoms lists, (h) required behavioral acts vs. mental acts, (i) requirement of observation of symptoms vs. self-report, and (j) the severity of wording. Each revision type is capable of making a disorder more exclusive if it allows fewer people to meet the criteria or more inclusive if it allows more people to meet the criteria. Increases in the number of required symptoms, the number of criteria, the required duration of symptoms, or the required frequency of symptoms received a code representing increased exclusivity, and decreases received a code representing increased inclusivity. Addition of an age requirement or acceptance of a narrower age range received a code representing increased exclusivity, and removal or expansion of an age requirement received a code representing increased inclusivity. A switch from a list of optional symptoms to specific, required criteria received a code representing increased exclusivity, and a revision in the opposite direction received a code representing increased inclusivity. A switch from allowing mental symptoms to requiring behaviors received a code representing increased exclusivity, as did a switch from allowing self-report of symptoms to requiring the observation of symptoms; changes in the opposite directions received codes indicative of increased inclusivity. Finally, wordings that became more severe received a code representing increased exclusivity, and wording that became less severe received a code representing increased inclusivity.

Coding occurred only for criteria that contributed to the specific operational definition of each mental disorder. Clinical significance statements such as “The symptoms cause clinically significant distress or impairment in social, occupational, or other areas of functioning” received no code. Similarly, exclusionary criteria stating that a disorder is not caused by substances, medical illness, or other mental disorders received no code. As outlined in previous research (Boysen, 2011),

although clinical significance and exclusionary criteria are technically part of DSM definitions, they contribute nothing to the actual descriptions of the symptoms of mental disorder. In addition, the previous review demonstrated that including them in the coding system did not alter basic trends in results (Boysen, 2011).

The coding system allowed for simple arithmetic analysis of changes in diagnostic criteria. Revisions that increased exclusivity received a code of -1. Revisions that increased inclusivity received a code of 1. Analysis of trends occurred by tabulating sums across the various categories in order to represent the theoretical move toward exclusivity or inclusivity. For example, individual disorders could have net changes toward exclusivity or inclusivity, as could disorder categories such as Mood Disorders or Anxiety Disorders (analyses utilized the more familiar DSM-IV-TR categories rather than the new DSM-5 categories). Net changes could also be tabulated for specific types of revisions (e.g., number of criteria, severity).

### *Results*

The initial analyses examined the overall change between the DSM-IV-TR and the DSM-5. Results for individual disorders can be seen in Table 1. Of the 83 disorders, 32 showed no net change. Some disorders' criteria remained identical between the DSM editions (e.g., all Personality Disorders), but others included revisions equally indicative of exclusivity and inclusivity. The next largest group of disorders, 30 in total, showed net changes toward inclusivity. Finally, 21 disorders had a net change toward more exclusive criteria. Taken together, these results indicate a general shift toward inclusivity in the DSM-5.

The next analyses examined changes among different categories of disorders. Each DSM-IV disorder category received a score based on the net change among its corresponding disorders. Six categories had net changes indicative of a shift toward inclusivity: Childhood (6), Dissociative (3), Eating (3), Mood (1), Factitious (1), and Sleep (1). Four categories had net changes indicative of a shift toward exclusivity: Schizophrenia and Psychotic (-3), Anxiety (-2), Impulse-Control (-1), and Sexual and Gender Identity (-1). Three categories showed no net change: Somatoform, Adjustment, and Personality. One potential problem with the previous analysis is that categories may have been unduly influenced by outlier disorders that underwent many changes. As such, a separate analysis of categories examined the total number of disorders moving toward exclusivity (coded as -1) and inclusivity (coded as 1). This alternative approach resulted in similar trends. Six categories had net changes indicative of a shift toward inclusivity: Childhood (3), Dissociative (2), Eating (2), Sleep (2), Factitious (1), and Sexual and Gender Identity (1). Six categories of disorders had no net change: Adjustment, Anxiety, Impulse-Control, Mood, Personality, and Somatoform. Only one category, Schizophrenia and Psychotic, had a negative net change indicative of a shift toward exclusivity (-3). Taken together, the examination of diagnostic categories illustrated a greater shift toward inclusivity than exclusivity.

The final analysis examined how the different types of revisions affected exclusivity and inclusivity. Seven out of the 10 types of revisions received positive net scores indicating that they were used in the DSM-5 to increase inclusivity: number of symptom options available (14), severity of wording (7), required behavioral acts vs. mental acts (3), number of required symptoms (2), number of criteria (2), requirement of observation of symptoms vs. self-report (2), and use of criteria vs. use of symptoms lists (1).

Table 1

Net Change in Mental Disorder Exclusivity Between  
the DSM-IV-TR and the DSM-5

Disorder	Net change
Acute Stress Disorder	1
Adjustment Disorder	0
Agoraphobia	-2
Anorexia Nervosa	2
Antisocial Personality Disorder	0
Attention-Deficit/Hyperactivity Disorder	3
Avoidant Personality Disorder	0
Bipolar II	1
Body Dysmorphic Disorder	-1
Borderline Personality Disorder	0
Brief Psychotic Disorder	-1
Bulimia Nervosa	1
Chronic Motor or Vocal Tic Disorder (Persistent Motor or Vocal Tic Disorder)	1
Circadian Rhythm Sleep Disorder (Circadian Rhythm Sleep-Wake Disorders)	0
Conduct Disorder	0
Conversion Disorder	1
Cyclothymia	-1
Delusional Disorder	1
Dependent personality Disorder	0
Depersonalization Disorder	1
Developmental Coordination Disorder	-3
Disorder of Written Expression (Specific Learning Disorder)	-1
Dissociative Amnesia	0
Dissociative Identity Disorder	2
Dysthymic Disorder (Persistent Depressive Disorder)	0
Encopresis	0
Enuresis	0
Exhibitionism	1
Factitious Disorder	1
Feeding Disorder of Infancy or Early Childhood (Avoidant/Restrictive Food Intake Disorder)	4
Female Orgasmic Disorder	0
Fetishism (Fetishistic Disorder)	0
Frotteurism (Frotteruristic Disorder)	1
Gender Identity Disorder (Gender Dysphoria in Adults)	1
Gender Identity Disorder (Gender Dysphoria in Children)	0
Generalized Anxiety Disorder	0
Histrionic Personality Disorder	0
Hypoaffective Sexual Desire Disorder (Male Hypoactive Sexual Desire Disorder)	-1
Intermittent Explosive Disorder	-2
Kleptomania	0

Table 1 (continued)

Major Depressive Disorder	1
Male Erectile Disorder (Erectile Disorder)	-1
Male Orgasmic Disorder (Delayed Ejaculation)	-2
Mania (Bipolar I)	0
Mathematics Disorder (Specific Learning Disorder)	-1
Mental Retardation (Intellectual Disability)	1
Narcissistic Personality Disorder	0
Narcolepsy	2
Nightmare Disorder	1
Obsessive Compulsive Disorder	1
Obsessive Compulsive Personality Disorder	0
Oppositional Defiant Disorder	0
Panic Disorder	-1
Paranoid Personality Disorder	0
Pathological Gambling (Gambling Disorder)	0
Pedophilia (Pedophilic Disorder)	0
Phonological Disorder (Speech Sound Disorder)	0
Pica	0
Posttraumatic Stress Disorder	1
Premature Ejaculation	-2
Primary Hypersomnia (Hypersomnolence Disorder)	1
Primary Insomnia (Insomnia Disorder)	-3
Pyromania	0
Reading Disorder (Specific Learning Disorder)	-1
Rumination Disorder	0
Schizoid Personality Disorder	0
Schizoaffective Disorder	-1
Schizophrenia	-1
Schizophreniform Disorder	-1
Schizotypal Personality Disorder	-1
Selective Mutism	-1
Separation Anxiety Disorder	-1
Sexual Masochism (Sexual Masochism Disorder)	-1
Sexual Sadism (Sexual Sadism Disorder)	-1
Social Phobia (Social Anxiety Disorder)	-1
Specific Phobia	-1
Stereotypic Movement Disorder	-1
Stuttering (Child-Onset Fluency Disorder)	-2
Tourette's Disorder	-2
Transient Tic Disorder (Provisional Tic Disorder)	-2
Transvestic Fetishism (Transvestic Disorder)	-2
Trichotillomania	-2
Voyeurism (Voyeuristic Disorder)	-3

Note: names in parentheses represent DSM-5 revisions.

Three types of revisions received negative net scores indicating that they were used to increase exclusivity: duration of symptoms (-15), age requirements (-4), and frequency of symptoms (-2). Averaging across all types of changes, the net score was 10. These results indicate that the various types of revisions conducted in the DSM-5 were primarily used to increase inclusivity.

*Discussion*

The purpose of the current review was to determine if the DSM-5 revision process was biased toward expanding the criteria of mental disorders. Each metric used to examine the DSM-5 revisions showed overall trends toward increased inclusivity rather than exclusivity. The number of disorders shifting toward inclusivity exceeded those shifting toward exclusivity. Similarly, more categories of disorders shifted toward inclusivity than toward exclusivity. Also, seven out of 10 possible types of DSM revisions moved toward inclusivity. Overall, these results provide clear evidence for continued expansion of the concept of mental disorder in the DSM-5.

The results of the current study are consistent with several lines of previous research. To begin, the current research matches less systematic evaluations of the DSM. Many critics have characterized the DSM as being in a general state of diagnostic inflation (Frances and Widiger, 2012; Paris, 2013; Pierre, 2013). Evidence that the DSM-5 revision process was biased toward expansion also replicates a previous review of revisions from DSM-III through the DSM-IV-TR (Boysen, 2011). The review showed that 53% of disorders became more inclusive during the revision that produced the DSM-III-R, and 32% of disorders became more inclusive with the DSM-IV (the DSM-IV-TR is omitted here because it included only four revisions). Similar to these results for previous revisions, the current study illustrated that 36% of disorders became more inclusive with the DSM-5. In addition, the exact same types of revisions moved toward exclusivity and inclusivity in the DSM-5 as occurred in previous revisions.

A conceptual review of DSM criteria is not directly comparable to epidemiological research, but this study's evidence of expansion is consistent with some limited evidence for increased prevalence when using the DSM-5 diagnostic criteria. ADHD underwent a large expansion in the DSM-5 that was primarily focused on making the disorder easier to diagnose among adults, and one study has demonstrated a concomitant increase in prevalence using the new criteria (Vande Voort et al., 2014). Both Anorexia and Bulimia underwent revisions that increased inclusivity, and three studies have documented increased prevalence rates with the DSM-5 criteria (Allen et al., 2013; Machado et al., 2013; Stice et al., 2013). Not all prevalence studies align so clearly with this study's results, however. Gambling Disorder's exclusivity did not change in this study, but one prevalence study demonstrated increased rates using the DSM-5 criteria (van de Glind et al., 2014). PTSD underwent a complex revision with numerous major and minor changes. Some aspects of the revision were intended to make the criteria more exclusive (Friedman et al., 2011), but the current review indicates an overall shift toward inclusiveness. Perhaps reflecting the complexity of the changes, epidemiological research has produced conflicted results concerning whether the PTSD revision increases or decreases the disorder's prevalence (Carmassi et al.,

2013; Kilpatrick et al., 2013). It will take many more studies before the effect of PTSD revisions is fully understood, and the same is true of the dozens of other disorders that have DSM-5-based prevalence rates that have yet to be investigated. Nonetheless, the current study provides no reason to believe that rates will fall rather than continuing their steady rise.

Despite an overall trend toward inclusiveness, expansion of diagnostic criteria in the DSM-5 appears to be somewhat attenuated from that found in the DSM-IV, which in turn showed less expansion than the DSM-III-R (Boysen, 2011). Although the percentage of disorders with increased inclusiveness was similar between the DSM-IV and the DSM-5, there were more disorders that moved toward exclusivity than in any previous revision of the DSM. Tightening of diagnostic criteria was accomplished most commonly through two types of revisions: the addition of duration requirements and the addition of age requirements. A host of disorders received new duration requirements. Most of the Learning Disorders, Anxiety Disorders, and Sexual Dysfunctions that did not previously have duration criteria must now last at least six months according to the DSM-5. It seems that this change represents an intentional effort at tightening diagnostic thresholds because the addition of duration requirements is one way to ensure a certain level of clinical significance among individuals who manifest the symptoms of a disorder (Bögels et al., 2010; LeBeau et al., 2010; Segraves, 2010; Whittchen et al., 2010). The second most common type of exclusionary revision occurred with age requirements. Many of the Neurodevelopmental Disorders added age requirements for onset that were implicit in the previous editions of the DSM. Taken together, these results suggest that the trend toward expansion of diagnostic criteria has slowed, but it must be recalled that the results only apply to disorders that have remained constant across editions; new diagnoses are a completely separate matter.

The inability to account for expansion in the form of new disorders or disorders that underwent complete revisions is one limitation of the current research. In terms of new disorders in the DSM-5, Disruptive Mood Dysregulation Disorder, Hoarding Disorder, Excoriation Disorder, and Binge Eating Disorder had no direct equivalent in the DSM-IV-TR (Binge Eating Disorder was previously in the Disorders for Further Study section). These disorders have varying potential to expand the concept of mental disorder. Hoarding Disorder and Excoriation Disorder will likely be diagnosed in less than 2% of the population (American Psychiatric Association, 2013), and they require the type of extreme, observable behaviors that will likely prevent diagnostic inflation. Binge Eating Disorder also has a prevalence rate below 2%, but that will likely make it the most common of the three major eating disorders (American Psychiatric Association, 2013; Stice et al., 2013). Given the many normal variants of binge eating, there is a potential for overdiagnosis of Binge Eating Disorder. Of all the disorders, Disruptive Mood Dysregulation has the greatest potential to cause

diagnostic inflation; the disorder is intended to end the faddish overdiagnosis of Bipolar Disorder among temperamental children (Frances, 2013; Paris, 2013). However, the temper tantrums that make up the main symptomology of Disruptive Mood Dysregulation Disorder are less severe than mania, and this makes it possible that even more children will end up with a diagnostic label for their misbehavior.

Disorders that were completely revised in the DSM-5 are also unaccounted for in the current review, but several of them seem to represent expansions as well. Autism moved toward a spectrum diagnosis designed to cover a wide range of symptoms. Some clinicians have expressed concern that high functioning individuals formally diagnosed with Asperger's Disorder will not meet the new criteria, and early epidemiological research provides some support for that notion (Matson et al., 2012). However, the new Autism Spectrum Disorder combines five previous DSM-IV-TR disorders, eliminates certain language symptoms, and makes age requirements more inclusive. With these changes, the DSM-5 framers have intentionally expanded the diagnosis of autism to include a broader spectrum of behaviors. The Substance-Related disorders of Substance Abuse and Substance Dependence were also combined into one disorder. The revision of these disorders may actually produce a net decrease in prevalence because it eliminated the extremely low-threshold diagnosis of Substance Abuse, which required only a single, recurrent symptom. However, some have expressed concern that the new diagnosis will expand the DSM disorder intended to represent the concept of addiction to include individuals with non-pathological substance-use problems (Martin et al., 2011). To illustrate, craving and tolerance are now sufficient symptoms for diagnosis, and these symptoms are likely to apply to a huge number of regular substance users that, nonetheless, have no major substance-related problems. A final set of major revisions worthy of discussion is the Somatic Symptom Disorders, which were largely transformed into two diagnoses, Somatic Symptom Disorder and Illness Anxiety Disorder. These new disorders represent, respectively, distress about physical symptoms of illness and distress about health in the absence of symptoms. Many researchers have argued that these new disorders lack validity and will be applicable even to individuals with legitimate and normal concern over serious medical problems (Brakoulias, 2014; Frances and Chapman, 2013; Häuser and Wolfe, 2013; Starcevic, 2014). Although the DSM-5 taskforce chair defended the manual against accusations of expansion by saying the revision would be the first not to increase the number of disorders (Kupfer, 2012), diagnoses such as Somatic Symptom Disorder illustrate that expansion of the concept of mental illness can occur even when the total number of diagnoses goes down.

Why is the DSM expanding? Proponents of the DSM tend to emphasize the fact that revisions are driven by expansion of knowledge about disorders (Michels, 2013; Regier et al., 2013). They also argue that expansion of the DSM represents medical advancement because it reduces people's suffering through the identification and

treatment of previously overlooked psychological problems. By way of an analogy, hypertension could be seen as an expansion of the concept of disease, but the diagnosis and treatment of hypertension has assisted people in living healthier lives and avoiding later heart problems. In contrast, critics of the DSM argue that motivations for expansion are not primarily altruistic or empirical. According to the critics, expansion is largely caused by the financial and professional benefits to be had by diagnosing and treating an ever-increasing number of people (Francis, 2013; Horwitz, 2007; Houts, 2002). Continuing with the hypertension example, having an official medical diagnosis for elevated blood pressure results in recognition for physicians who have expertise on the condition, more funding for research on the topic, and increased profits from treatment. Despite their differences, both DSM proponents and critics can probably agree that a host of scientific and nonscientific factors have led to expansion of the DSM; their main area of disagreement is the relative impact of those factors.

Although the results of this study are consistent with several lines of previous research, it is important to note the limitations of the coding method utilized in this review. There was inherent subjectivity in the method. The coding results represent an expert conceptual analysis, but they do not have the weight of objective, empirical data. Another limitation of the review method was the equality with which all revisions were treated. All revisions affected ratings of inclusivity or exclusivity by one unit (i.e., 1 or -1) regardless of their potential effect on prevalence. For example, reducing a disorder's required duration by a month would receive the same code as eliminating the duration requirement altogether. As the example makes clear, not all revisions receiving the same code will have equivalent effects on prevalence. However, judging the practical effect size of revisions on prevalence is only possible through epidemiological research, which was not the purpose of this review.

### *Conclusion*

The fifth edition of the DSM continues the established trend toward diagnostic expansion. Revisions to the manual tended to expand diagnostic criteria to allow more individuals to meet the criteria for mental disorders. Although the trend toward expansion was smaller than in previous editions, the cumulative effects of expansion are not trivial. Epidemiological research has begun to place lifetime prevalence rates of mental illness above 60% among young adults, and this has led to the entirely serious conclusion that "psychiatric illness is a nearly universal experience" (Copeland, Shanahan, Costello, and Angold, 2011, p. 252). Should mental and physical illnesses be considered equivalent such that everyone experiences them at some point in their life? The current research offers no answer to this difficult question, but it does illustrate the process by which mental disorders are becoming universal.

## References

- Agrawal, A., Heath, A. C., and Lynskey, M. T. (2011). DSM-IV to DSM-5: The impact of proposed revisions on diagnosis of alcohol use disorders. *Addiction*, 106, 1935–1943. doi:10.1111/j.1360-0443.2011.03517.x
- Allen, K. L., Byrne, S. M., Oddy, W. H., and Crosby, R. D. (2013). DSM-IV-TR and DSM-5 eating disorders in adolescents: Prevalence, stability, and psychosocial correlates in a population-based sample of male and female adolescents. *Journal of Abnormal Psychology*, 122, 720–732. doi:10.1037/a0034004
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (third edition). Washington, DC: Author.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (fourth edition, revised). Washington, DC: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (fifth edition). Washington, DC: Author.
- Andrews, G., and Hobbs, M. J. (2010). The effect of the draft DSM-5 criteria for GAD on prevalence and severity. *Australian and New Zealand Journal of Psychiatry*, 44, 784–790.
- Batelaan, N.M., Spijker, J., de Graaf, R., and Cuijpers, P. (2012). Mixed anxiety depression should not be included in DSM-5. *The Journal of Nervous and Mental Disease*, 200, 495–498. doi:10.1097/NMD.0b013e318257c4c9
- Batstra, L., and Frances, A. (2012). DSM-5 further inflates attention deficit hyperactivity disorder. *The Journal of Nervous and Mental Disease*, 200, 486–488. doi:10.1097/NMD.0b013e318257c4b6
- Batstra, L., Hadders-Algra, M., Nieweg, E., Van Tol, D., Pijl, S. J., and Frances, A. (2012). Childhood emotional and behavioral problems: Reducing overdiagnosis without risking undertreatment. *Developmental Medicine & Child Neurology*, 54, 492–494. doi:10.1111/j.1469-8749.2011.04176.x
- Bögels, S. M., Alden, L., Beidel, D. C., Clark, L., Pine, D. S., Stein, M. B., and Voncken, M. (2010). Social anxiety disorder: Questions and answers for the DSM-V. *Depression and Anxiety*, 27, 168–189. doi:10.1002/da.20670
- Boysen, G. A. (2011). Revision of the DSM and conceptual expansion of mental illness: An exploratory analysis of diagnostic criteria. *Journal of Mind and Behavior*, 32, 295–315.
- Breslau, N., and Kessler, R. C. (2001). The stressor criterion in DSM-IV posttraumatic stress disorder: An empirical investigation. *Biological Psychiatry*, 50, 699–704. doi:10.1016/S0006-3223(01)01167-2
- Brakoulias, V. (2014). DSM-5 bids farewell to hypochondriasis and welcomes somatic symptom disorder and illness anxiety disorder. *Australian and New Zealand Journal of Psychiatry*, 48, 688. doi:10.1177/0004867414525844
- Carmassi, C. C., Akiskal, H. S., Yong, S. S., Stratta, P. P., Calderani, E. E., Massimetti, E. E., . . . Dell’Osso, L. L. (2013). Post-traumatic stress disorder in DSM-5: Estimates of prevalence and criteria comparison versus DSM-IV-TR in a non-clinical sample of earthquake survivors. *Journal of Affective Disorders*, 151, 843–848. doi:10.1016/j.jad.2013.07.020
- Conrad, P., and Potter, D. (2000). From hyperactive children to ADHD adults: Observations on the expansion of medical categories. *Social Problems*, 47, 559–582. doi:10.1525/sp.2000.47.4.03x0308v
- Copeland, W., Shanahan, L., Costello, E. J., and Angold, A. (2011). Cumulative prevalence of psychiatric disorders by young adulthood: A prospective cohort analysis from the Great Smoky Mountains Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 50, 252–261. doi: 10.1016/j.jaac.2010.12.014
- David, A. S. (2011). Should the diagnostic boundaries of schizophrenia be expanded? *Cognitive Neuropsychiatry*, 16, 97–100. doi:10.1080/13546805.2011.554276
- Francis, A. (2009). Whether DSM-V? *The British Journal of Psychiatry*, 195, 391–392. doi:10.1192/bjp.bp.109.073932
- Francis, A. (2010). Opening Pandora’s box: The 19 worst suggestions for DSM 5. Retrieved from [psychiatrictimes.com](http://psychiatrictimes.com)
- Frances, A. J. (2011). *Psychologists start petition against DSM 5: A users’ revolt should capture APA attention*. Retrieved from <http://www.psychologytoday.com/blog/dsm5-in-distress/201110/psychologists-start-petition-against-DSM-5>

- Frances, A. J. (2013). *Saving normal: An insider's revolt against out-of-control psychiatric diagnosis, DSM 5, big pharma, and the medicalization of ordinary life*. New York: Harper Collins.
- Frances, A., and Chapman, S. (2013). DSM-5 somatic symptom disorder mislabels medical illness as mental disorder. *Australian and New Zealand Journal of Psychiatry*, 47, 483-484. doi:10.1177/0004867413484525
- Frances, A. J., and Widiger, T. (2012). Psychiatric diagnosis: Lessons from the DSM-IV past and cautions for the DSM-5 future. *Annual Review of Clinical Psychology*, 8, 109-130. doi:10.1146/annurev-clinpsy-032511-143102
- Friedman, M. J., Resick, P. A., Bryant, R. A., and Brewin, C. R. (2011). Considering PTSD for DSM-5. *Depression and Anxiety*, 28, 750-769. doi:10.1002/da.20767
- Gernsbacher, M. A., Dawson, M., and Goldsmith, H. H. (2005). Three reasons not to believe in the autism epidemic. *Current Directions in Psychological Science*, 14, 55-58. doi:10.1111/j.0963-7214.2005.00334.x
- Häuser, W., and Wolfe, F. (2013). The somatic symptom disorder in DSM-5 risks mislabeling people with major medical diseases as mentally ill. *Journal of Psychosomatic Research*, 75, 586-587. doi:10.1016/j.jpsychores.2013.09.005
- Hazen, E. P., McDougle, C. J., and Volkmar, F. R. (2013). Changes in the diagnostic criteria for autism in DSM-5: Controversies and concerns. *Journal of Clinical Psychiatry*, 74, 739-740. doi:10.4088/JCP.13ac08550.
- Horwitz, A. V. (2007). Transforming normality into pathology: The DSM and the outcomes of stressful social arrangements. *Journal of Health and Social Behavior*, 48, 211-222. doi:10.1177/002214650704800301
- Houts, A. C. (2002). Discovery, invention, and the expansion of the modern *Diagnostic and Statistical Manual of Mental Disorders*. In L. E. Beutler and M. L. Malik (Eds.), *Rethinking the DSM: A psychological perspective* (pp. 17-65). Washington, DC: American Psychological Association.
- Hudson, J. I., Coit, C. E., Lalonde, J. K., and Pope, H. G. (2012). By how much will the proposed new DSM-5 criteria increase the prevalence of binge eating disorder? *International Journal of Eating Disorders*, 45, 139-141. doi:10.1002/eat.20890
- Karlsson, L., Marttunen, M., Karlsson, H., Kaprio, J., and Hillevi, A. (2010). Minor change in the diagnostic threshold leads into major alteration in the prevalence estimate of depression. *Journal of Affective Disorders*, 122, 96-101. doi:10.1016/j.jad.2009.06.025
- Kilpatrick, D. G., Resnick, H. S., Milanak, M. E., Miller, M. W., Keyes, K. M., and Friedman, M. J. (2013). National estimates of exposure to traumatic events and PTSD prevalence using DSM-IV and DSM-5 criteria. *Journal of Traumatic Stress*, 26, 537-547. doi:10.1002/jts.21848
- Kim, Y., Fombonne, E., Koh, Y., Kim, S., Cheon, K., and Lenthal, B. L. (2014). A comparison of DSM-IV pervasive developmental disorder and DSM-5 autism spectrum disorder prevalence in an epidemiologic sample. *Journal of the American Academy of Child and Adolescent Psychiatry*, 53, 500-508. doi:10.1016/j.jaac.2013.12.021
- Kupfer, D. J. (2012). *Dr. Kupfer defends the DSM-5*. Retrieved from <http://www.medscape.com/viewarticle/764735>
- LeBeau, R. T., Glenn, D., Liao, B., Wittchen, H., Beesdo-Baum, K., Ollendick, T., and Craske, M. G. (2010). Specific phobia: A review of DSM-IV specific phobia and preliminary recommendations for DSM-V. *Depression and Anxiety*, 27, 148-167. doi:10.1002/da.20655
- Machado, P. P., Gonçalves, S., and Hoek, H. W. (2013). DSM-5 reduces the proportion of EDNOS cases: Evidence from community samples. *International Journal of Eating Disorders*, 46, 60-65. doi:10.1002/eat.22040
- Maenner, M. J., Rice, C. E., Arneson, C. L., Cunniff, C., Schieve, L. A., Carpenter, L. A., . . . Durkin, M. S. (2014). Potential impact of DSM-5 criteria on autism spectrum disorder prevalence estimates. *JAMA Psychiatry*, 71, 292-300. doi:10.1001/jamapsychiatry.2013.3893
- Martin, R. (2013). Progress is preferable to stagnation. *Canadian Journal of Psychiatry*, 58, 566-567.
- Martin, C. S., Steinley, D. L., Verges, A., and Sher, K. J. (2011). Letter to the Editor: The proposed 2/11 symptom algorithm for DSM-5 substance-use disorders is too lenient. *Psychological Medicine*, 41, 2008-2010. doi:10.1017/S0033291711000717
- Matson, J. L., Hattier, M. A., and Williams, L. W. (2012). How does relaxing the algorithm for autism affect DSM-V prevalence rates? *Journal of Autism and Developmental Disorders*, 42, 1549-1556. doi:10.1007/s10803-012-1582-0

- Matson, J. L., Kozlowski, A. M., Hattier, M. A., Horovitz, M., and Sipes, M. (2012). DSM-IV vs DSM-5 diagnostic criteria for toddlers with autism. *Developmental Neurorehabilitation*, 15, 185-190. doi:10.3109/17518423.2012.672341
- McNally, R. J. (2004). Conceptual problems with the DSM-IV criteria for Posttraumatic Stress Disorder. In G. M. Rosen (Ed.), *Posttraumatic Stress Disorder: Issues and controversies* (pp. 1-14). New York: Wiley.
- Michels, R. (2013). Progress is preferable to stagnation. *Canadian Journal of Psychology*, 58, 566-567.
- Nemeroff, C. B., Weinberger, D., Rutter, M., MacMillan, H. L., Bryant, R. A., Wessely, S., . . . Lysaker, P. (2013). DSM-5: A collection of psychiatrist views on the changes, controversies, and future directions. *BMC Medicine*, 11, 202.
- Paris, J. (2013). *Fads and fallacies in psychiatry*. London: RCPsych Publications.
- Peer, K., Rennert, L., Lynch, K. G., Farrer, L., Gelernter, J., and Kranzler, H. R. (2013). Prevalence of DSM-IV and DSM-5 alcohol, cocaine, opioid, and cannabis use disorders in a largely substance dependent sample. *Drug and Alcohol Dependence*, 127, 215-219. doi:10.1016/j.drugalcdep.2012.07.009
- Pelissolo, A., André, C., Moutard-Martin, F., Wittchen, and Lépine, J. P. (2000). Social phobia in the community: Relationship between diagnostic threshold and prevalence. *European Psychiatry*, 15, 25-28. doi:10.1016/S0924-9338(00)00214-5
- Petersen, R. C., Roberts, R. O., Knopman, D. S., Boeve, B. F., Geda, Y. E., Ivnik, R. J., . . . Jack, C. R. Jr. (2009). Mild cognitive impairment: Ten years later. *Archives of Neurology*, 66, 1447-1455. doi:10.1001/archneuro.2009.266
- Pierre, J. M. (2013). Overdiagnosis, underdiagnosis, synthesis: A dialectic for psychiatry and the DSM. In J. Paris and J. Phillips (Eds.), *Making the DSM-5: Concepts and controversies* (pp. 105-124). New York: Springer.
- Proctor, S. L., Kopak, A. M., and Hoffmann, N. G. (2014). Cocaine use disorder prevalence: From current DSM-IV to proposed DSM-5 diagnostic criteria with both a two and three severity level classification system. *Psychology of Addictive Behaviors*, 28, 563-567. doi:10.1037/a0033369
- Regier, D. A., Kuhl, E. A., and Kupfer, D. J. (2013). The DSM-5: Classification and criteria changes. *World Psychiatry*, 12, 92-98.
- Schützwohl, M., and Maercker, A. (1999). Effects of varying diagnostic criteria for posttraumatic stress disorder are endorsing the concept of partial PTSD. *Journal of Traumatic Stress*, 12, 155-165. doi:10.1023/A:1024706702133
- Segraves, R. (2010). Considerations for diagnostic criteria for erectile dysfunction in DSM V. *Journal of Sexual Medicine*, 7, 654-660. doi:10.1111/j.1743-6109.2009.01684.x
- Shorter, E. (2013). The history of DSM. In J. Paris and J. Phillips (Eds.), *Making the DSM-5: Concepts and controversies* (pp. 3-20). New York: Springer.
- Spitzer, R. L. (2001). Values and assumptions in the development of the DSM-III and DSM-III-R: An insider's perspective and a belated response to Sadler, Hulgus, and Agich's "On Values in Recent American Psychiatric Classification." *The Journal of Nervous and Mental Disease*, 189, 351-359.
- Starcevic, V. (2014). Should we deplore the disappearance of hypochondriasis from DSM-5? *Australian and New Zealand Journal of Psychiatry*, 48, 373. doi:10.1177/0004867413515058
- Stice, E., Marti, C., and Rohde, P. (2013). Prevalence, incidence, impairment, and course of the proposed DSM-5 eating disorder diagnoses in an 8-year prospective community study of young women. *Journal of Abnormal Psychology*, 122, 445-457. doi:10.1037/a0030679
- Trace, S. E., Thornton, L. M., Root, T. L., Mazzeo, S. E., Lichtenstein, P., Pedersen, N. L., and Bulik, C. M. (2012). Effects of reducing the frequency and duration criteria for binge eating on lifetime prevalence of bulimia nervosa and binge eating disorder: Implications for DSM-5. *International Journal of Eating Disorders*, 45, 531-536. doi:10.1002/eat.20955
- van de Glind, G., Konstenius, M., Koeter, M. J., van Emmerikvan Oortmerssen, K., Carpentier, P., Kaye, S., . . . van den Brink, W. (2014). Variability in the prevalence of adult ADHD in treatment seeking substance use disorder patients: Results from an international multi-center study exploring DSM-IV and DSM-5 criteria. *Drug and Alcohol Dependence*, 134, 158-166. doi:10.1016/j.drugalcdep.2013.09.026
- Vande Voort, J. L., He, J., Jameson, N. D., and Merikangas, K. R. (2014). Impact of the DSM-5 attention-deficit/hyperactivity disorder age-of-onset criterion in the US adolescent population. *Journal of the American Academy of Child and Adolescent Psychiatry*, 53, 736-744. doi:10.1016/j.jaac.2014.03.005

- Voigt, K., Wollburg, E., Weinmann, N., Herzog, A., Meyer, B., Langs, G., and Löwe, B. (2012). Predictive validity and clinical utility of DSM-5 somatic symptom disorder — Comparison with DSM-IV somatoform disorders and additional criteria for consideration. *Journal of Psychosomatic Research*, 73, 345–350. doi:10.1016/j.jpsychores.2012.08.020
- Wakefield, J. C. (2011). DSM-5 proposed diagnostic criteria for sexual paraphilias: Tensions between diagnostic validity and forensic utility. *International Journal of Law and Psychiatry*, 34, 195–209. doi:10.1016/j.ijlp.2011.04.012
- Wakefield, J. C. (2012). The DSM-5's proposed new categories of sexual disorder: The problem of false positives in sexual diagnosis. *Clinical Social Work Journal*, 40, 213–223. doi:10.1007/s10615-011-0353-2
- Wakefield, J. C., and First, M. B. (2012). Validity of the bereavement exclusion to major depression: Does the empirical evidence support the proposal to eliminate the exclusion in DSM-5? *World Psychiatry*, 11, 3–10.
- Welch, S., Klassen, C., Borisova, O., and Clothier, H. (2013). The DSM-5 controversies: How should psychologists respond? *Canadian Psychology/Psychologie Canadienne*, 54, 166–175. doi:10.1037/a0033841
- Wilson, C., Gillan, N., Spain, D., Robertson, D., Roberts, G., Murphy, C. M., . . . Murphy, D. M. (2013). Comparison of ICD-10R, DSM-IV-TR and DSM-5 in an adult autism spectrum disorder diagnostic clinic. *Journal of Autism and Developmental Disorders*, 43, 2515–2525. doi:10.1007/s10803-013-1799-6
- Wittchen, H., Gloster, A. T., Beesdo-Baum, K., Fava, G. A., and Craske, M. G. (2010). Agoraphobia: A review of the diagnostic classificatory position and criteria. *Depression and Anxiety*, 27, 113–133. doi:10.1002/da.20646
- Yung, A. R., Wood, S. J., McGorry, P. D., and Pantelis, C. (2011). Commentary on “Should the Diagnostic Boundaries of Schizophrenia be Expanded?” *Cognitive Neuropsychiatry*, 16, 107–112. doi:10.1080/13546805.2011.554284