## An organization- and category-level comparison of diagnostic requirements for mental disorders in ICD-11 and DSM-5

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In 2019, the World Health Assembly approved the 11th revision of the International Classification of Diseases (ICD-11). In 2013, the American Psychiatric Association (APA) published the 5th edition of its Diagnostic and Statistical Manual of Mental Disorders (DSM-5). It has often been suggested that the field would benefit from a single, unified classification of mental disorders, although the priorities and constituencies of the two organizations are quite different. During the development of the ICD-11 and DSM-5, the World Health Organization (WHO) and the APA made efforts toward harmonizing the two systems, including the appointment of an ICD-DSM Harmonization Group. This paper evaluates the success of these harmonization efforts and provides a guide for practitioners, researchers and policy makers describing the differences between the two systems at both the organizational and the disorder level. The organization of the two classifications of mental disorders is substantially similar. There are nineteen ICD-11 disorder categories that do not appear in DSM-5, and seven DSM-5 disorder categories that do not appear in the ICD-11. We compared the Essential Features section of the ICD-11 Clinical Descriptions and Diagnostic Guidelines (CDDG) with the DSM-5 criteria sets for 104 diagnostic entities that appear in both systems. We rated 20 disorders (19.2%) as having major differences, 42 disorders (40.4%) as having minor definitional differences, 10 disorders (9.6%) as having minor differences due to greater degree of specification in DSM-5, and 31 disorders (29.8%) as essentially identical. Detailed descriptions of the major differences and some of the most important minor differences, with their rationale and related evidence, are provided. The ICD and DSM are now closer than at any time since the ICD-8 and DSM-II. Differences are largely based on the differing priorities and uses of the two diagnostic systems and on differing interpretations of the evidence. Substantively divergent approaches allow for empirical comparisons of validity and utility and can contribute to advances in the field.

**Key words:** ICD-11, DSM-5, diagnosis, classification, mental disorders, neurodevelopmental disorders, primary psychotic disorders, mood disorders, anxiety and fear-related disorders, disorders specifically associated with stress, disorders due to substance use, personality disorders, neurocognitive disorders

The International Classification of Diseases (ICD) and the Diagnostic and Statistical Manual of Mental Disorders (DSM) have separate and intertwining histories that can be traced back to the mid-19th century, with both the World Health Organization (WHO) and the American Psychiatric Association (APA) having a "legitimate historical claim to the intellectual foundations of modern classifications of mental disorders"<sup>1, p.78</sup>.

The harmonization of the two classifications reached its peak with the ICD-8<sup>2</sup> and DSM-II<sup>3</sup>, which were nearly identical, as a result of the close collaboration between the two sponsoring organizations in their development. The introduction to the DSM-II indicates that this reflected "the growth of the concept that the people of all nations live in one world; with the increasing success of the World Health Organization in promoting its uniform International Classification of Diseases, already used in many countries, the time came for psychiatrists of the United States to collaborate"<sup>3</sup>, p.vii.

Although there were parallel developments on both sides of the Atlantic<sup>1,4</sup>, the DSM-III<sup>5</sup> is widely credited with introducing an empirical approach to mental disorder diagnosis that was neutral with respect to causality and included explicit diagnostic criteria originally developed for research.

An early question for the DSM-III Task Force was whether to participate in the development of the ICD-9<sup>6</sup>, already underway at that time. According to R. Spitzer, the chair and driving force of the DSM-III, the Task Force believed that, despite the value of a single international classification system, it was more important that psychiatric classification benefit from new developments in the US: "We were relatively unconcerned by frequently having a different definition of a DSM category than of a corresponding ICD-9 category. We believed it was a small price to pay for our ability to be innovative." <sup>7, p.353</sup>. Although the DSM-III was intended primarily for use in the US, it was translated into 13 languages<sup>8</sup> and had substantial international impact<sup>9</sup>.

There was considerable collaboration between the developers of the ICD-10<sup>10</sup> and DSM-IV<sup>11</sup>. Beginning In 1978, the US Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) sponsored a 16-year collaboration with the WHO and APA that was instrumental to the development and harmonization of those diagnostic systems<sup>12</sup>. Both the WHO and APA agreed that, for the purpose of international collaboration and research, differences between the two systems should be minimized.

To evaluate the success of the ICD-10/DSM-IV harmonization effort, M. First conducted a detailed analysis<sup>13</sup> of the 176 criteria sets included in both the DSM-IV and the ICD-10 Research Diagnostic Criteria<sup>14</sup>, which was the version of the ICD-10 most similar to the DSM-IV. This analysis revealed that the two sets of criteria were identical for only one disorder (transient tic disorder). In contrast, 21% of the criteria sets had conceptually based differences that appeared to be intentional, and 78% had differences reflecting dissimilar ways of operationalizing the same diagnostic construct, which often appeared to be arbitrary or unintentional.

Both the ICD-10 and DSM-IV had substantial impact on global psychiatric practice and research. While the DSM-IV was used much more often in research around the world<sup>1</sup>, a study of nearly 5,000 psychiatrists in 44 countries conducted by the World Psychiatric Association and the WHO indicated that, for a substantial majority of psychiatrists outside the US, the ICD-10 is the classification most used in daily clinical practice<sup>15</sup>. A subsequent study<sup>16</sup> indicated that the version of the ICD-10 most used in clinical practice is the Clinical Descriptions and Diagnostic Guidelines (CDDG)<sup>17</sup>, developed by the WHO Department of Mental Health and Substance Use for "general clinical, educational and service use"<sup>17, p.1</sup> by psychiatrists and other mental health professionals.

As with the ICD-10 and DSM-IV, the ICD-11 classification of mental disorders and the DSM-5<sup>18</sup> were developed during overlapping time periods, and both the WHO and APA again noted the desirability of harmonization. Several aspects of the ICD-11 and DSM-5 development processes promoted this goal. An ICD-DSM Harmonization Group was appointed and met several times, with discussions primarily focused on the organization of the groupings in the classifications (referred to as the "metastructure"<sup>19</sup>). The DSM-5 leadership attended meetings of the ICD-11 Advisory Group, and the leadership of the ICD-11 group attended DSM-5 Task Force meetings. Most ICD-11 Working Groups included individuals who were also members of the corresponding DSM-5 Workgroups.

The stated task of ICD-11 Working Groups included an evaluation of the DSM-5 proposals in their area of work and whether these were suitable for global application (because the ICD-11 Working Groups had just started their work as the DSM-5 development process was drawing to a close, there was no similar opportunity for the DSM-5 Workgroups to examine drafts of the ICD-11 material). While there was no prohibition against ICD-11 proposals deviating from the DSM-5, the expectation was that such deviations be intentional rather than arbitrary or accidental, and that the Working Groups be able to articulate a rationale for the differences.

The purpose of the present analysis is to evaluate the success of these harmonization efforts, as well as to provide a guide for practitioners, researchers and policy makers describing the important differences between the two systems. We compared the version of the ICD-11 intended for use by mental health professionals in clinical settings (the ICD-11 CDDG<sup>20</sup>) with the DSM-5 in terms of the degree to which the two systems are harmonized at both the organizational and the disorder-by-disorder level.

#### HARMONIZATION AT THE ORGANIZATIONAL LEVEL

The ICD-DSM Harmonization Group was mostly focused on harmonizing the organization of the diagnostic groupings in the classifications, or "metastructure". As can be seen in Table 1, this effort was largely successful. The initial chapters (through Dissociative Disorders) are almost completely harmonized, except for the absence of an overarching Mood Disorders grouping in the DSM-5, and Catatonia being a separate grouping in the ICD-11. From Feeding and Eating Disorders onward, there are differences both in the ordering of the diagnostic groupings and in granularity. For example, Disorders of Bodily Distress and Bodily Experience, Factitious Disorders, and Psychological and Behavioural Factors Affecting Disorders or Diseases Classified Elsewhere, each of which is a separate diagnostic grouping in the ICD-11, are all subsumed by the Somatic Symptom and Related Disorders grouping in the DSM-5.

Moreover, some DSM-5 diagnostic groupings correspond to groupings located in parts of the ICD-11 outside the chapter on Mental, Behavioural and Neurodevelopmental Disorders (Chapter 6). In the ICD-11, Sleep-Wake Disorders is a separate chapter (Chapter 7) that combines entities previously located across the ICD-10 chapters on Mental and Behavioural Disorders, Diseases of the Nervous System, and Diseases of the Respiratory System. The new ICD-11 chapter on Conditions Related to Sexual Health (Chapter 17) contains Sexual Dysfunctions and the Gender Incongruence grouping, which corresponds to the DSM-5 Gender Dysphoria grouping. There are significant differences between the ICD-11 and DSM-5 with regard to these sexual health conditions, which have been reviewed in this journal<sup>21</sup>.

There are also some differences regarding the placement of certain disorders in diagnostic groupings, reflecting differences in perspectives and underlying organizational principles in the ICD-11 and DSM-5. In the ICD-11, Hypochondriasis is defined as a preoccupation with or fear about the possibility of having a serious, progressive or life-threatening illness, accompanied by either repetitive and excessive health-related behaviours, such as repeatedly checking of the body for evidence of illness, or by maladaptive avoidance behaviour. It is included in the grouping of Obsessive-Compulsive and Related Disorders based on shared phenomenological features (repetitive thoughts about having an illness, and repeated and excessive behaviours driven by the preoccupation)<sup>22</sup>, high rates of co-occurrence and tendency to run in families with the other disorders of the grouping<sup>23</sup>, and a similar response to treatments<sup>24</sup>. The presence of somatic symptoms is not an essential feature of Hypochondriasis in the ICD-11, although they may occur transiently and be a focus of considerable preoccupation when they occur<sup>22</sup>. On the other hand, the DSM-5 classifies cases of Hypochondriasis as either Somatic Symptom Disorder or Illness Anxiety Disorder

(both of which are located in the Somatic Symptom and Related Disorders grouping) depending on whether or not the person's excessive concerns are related to somatic symptoms that the person is currently experiencing. Analogously, Functional Neurological Symptom Disorder is included in the Somatic Symptom and Related Disorders grouping in DSM-5, whereas its ICD-11 counterpart (Dissociative Neurological Symptom Disorder) is included in the Dissociative Disorders grouping, reflecting the fact that ICD-11 conceptualizes the neurologic-like symptoms as being the result of a dissociative process ("involuntary disruption or discontinuity in the normal integration of motor, sensory or cognitive functions").

The ICD-11 also differs from the DSM-5 in its placement of Secondary Mental or Behavioural Syndromes Associated with Disorders or Diseases Classified Elsewhere, which correspond to Mental Disorders Due to Another Medical Condition in the DSM-5. By ICD-11 convention, these syndromes are all placed together in a single etiology-based diagnostic grouping. The DSM-5, instead, distributes these conditions to the various diagnostic groupings with which they share the symptomatology (e.g., Psychotic Disorder Due to Another Medical Condition is included in the Schizophrenia Spectrum and Other Psychotic Disorders grouping), giving priority to facilitating differential diagnosis. It should be noted that the ICD-11 for the first time allows the same disorder to be listed in multiple diagnostic groupings at the same time, with one of the appearances denoted as primary. Therefore, the "secondary" disorders in ICD-11 are also cross-listed in the respective symptomatic groupings.

#### HARMONIZATION AT THE DISORDER LEVEL

The current analysis focused primarily on the examination of differences between the ICD-11 CDDG and the DSM-5 diagnostic criteria at the disorder level, following a systematic methodology.

The disorders in the ICD-11 CDDG and the parallel disorders in the DSM-5 were first reviewed to identify those that appear in both diagnostic systems. Disorders in the DSM-5 that correspond to disorders that are now included in other chapters of ICD-11 (Sleep-Wake Disorders, Sexual Dysfunctions, and Gender Incongruence) were excluded from the comparison. Other and Unspecified categories were also excluded from the analysis.

For each disorder that appears in both the ICD-11 and DSM-5, the two principal authors (MBF and GMR) compared the Essential Features section<sup>20</sup> of the ICD-11 CDDG to the DSM-5 diagnostic criteria, and rated the extent of agreement according to four designations.

A rating of "major difference" was assigned if there were either: a) significant conceptual differences between the ICD-11 and DSM-5 diagnostic requirements, or b) cases in which the two systems were likely to identify different individuals as having the disorder. A rating of

"minor definitional difference" was assigned if both the ICD-11 and DSM-5 were describing the same diagnostic entity on a conceptual level, but differed in how an aspect of the disorder was defined. A rating of "minor difference due to degree of specification" was assigned if both the ICD-11 and DSM-5 were identifying essentially the same diagnostic entity on a conceptual level, but differed in the specificity of operationalization. A rating of "essentially identical" was assigned if the definitions were entirely identical or the differences in wording were judged to be so inconsequential that exactly the same group of individuals was likely to be identified.

MBF and GMR assigned their ratings independently and then discussed divergent ratings in order to achieve a consensus. These ratings were not based on empirical evidence, as there has been only a small number of studies comparing the ICD-11 CDDG and DSM-5 criteria for a particular disorder in terms of whether they are identifying the same people or yield similar prevalence estimates<sup>25,26</sup>. Rather, these ratings reflected the judgment of the two principal authors. Differences in available qualifiers (specifiers in the DSM-5) and their definitions were not covered in the current analysis. When a single disorder in one system corresponded to more than one disorder in the other system, the disorders were counted as a single diagnostic entity.

A total of 26 disorders appear in one system but not in the other, with 19 disorders included in the ICD-11 but not in the DSM-5, and seven disorders in the DSM-5 but not in the ICD-11 (see Table 2). Of those that are in the ICD-11 but not in the DSM-5, eleven are newly added disorders, the rationale for the inclusion of most of which has been previously described in this journal<sup>27</sup>.

The main reason why these disorders appear in the ICD-11 but not in the DSM-5 is the difference in the criteria for inclusion of a new disorder based on the priorities of the sponsoring organizations. The WHO tended to prioritize public health needs in its decisions<sup>28</sup>: if there was convincing empirical evidence for the existence of a particular condition and that it was a legitimate focus of health care services, it was consistent with the purpose of the ICD-11 to include it in the classification. From the APA's perspective, in contrast, concerns about the proliferation of new psychiatric diagnoses going back to DSM-IV<sup>29</sup> resulted in the requirement for a considerable degree of supporting empirical evidence in order for a diagnosis to be added. This requirement became so stringent in the DSM-5<sup>30</sup> that only a few proposed diagnoses were ultimately approved for inclusion.

Diagnoses added to the DSM-5 that are not in the ICD-11 include Social (Pragmatic) Communication Disorder and Disruptive Mood Dysregulation Disorder. There continues to be controversy about the empirical support for their designation as separate diagnostic categories<sup>31,32</sup>, and ICD-11 Working Groups viewed the available evidence as insufficient to justify their inclusion in the ICD-11.

The 104 disorders appearing in both the ICD-11 and DSM-5 were rated regarding the extent and nature of the differences in their diagnostic requirements in the two systems. Based on the consensus assessment, disorders rated as having major differences between the two systems (20 diagnostic entities, or 19.2% of those rated) are shown in Table 3. Disorders rated as having minor definitional differences (42 disorders; 40.4%) are listed in Table 4, and those with minor differences due to greater degree of specification in the DSM-5 (10 disorders; 9.6%) are shown in Table 5. Those rated as essentially identical (31 disorders; 29.8%) are listed in Table 6. The following sections of this paper focus on the major differences between the ICD-11 and DSM-5 and some of the most important instances of minor differences, including the rationale and related evidence.

#### **Neurodevelopmental Disorders**

### Developmental Language Disorder / Language Disorder plus Social (Pragmatic) Communication Disorder

The ICD-11 CDDG for Developmental Language Disorder and the DSM-5 criteria for Language Disorder require deficits in the acquisition and use of language skills (e.g., limited sentence structure, reduced vocabulary), but the ICD-11 also includes "the ability to understand and use language in social contexts, for example making inferences, understanding verbal humour and resolving ambiguous meaning (i.e., pragmatics)". Individuals with deficits primarily in this area would receive the diagnosis of Developmental Language Disorder with the qualifier "impairment of mainly pragmatic language".

Individuals with these same deficits, but without the additional features characteristic of Autism Spectrum Disorder, are diagnosed in the DSM-5 as having Social (Pragmatic) Communication Disorder. These people were previously receiving, according to the DSM-IV, the diagnosis of Pervasive Developmental Disorder Not Otherwise Specified, but this category has been eliminated from the DSM-5<sup>33</sup>.

Although the ICD-11 Working Group considered adding the category of Social (Pragmatic) Communication Disorder, it concluded that there was insufficient evidence of a disorder in social communication separable from Autism Spectrum Disorder on the one hand and Developmental Language Disorder on the other<sup>32,34</sup>.

#### Autism Spectrum Disorder

The ICD-11 CDDG and the DSM-5 criteria for Autism Spectrum Disorder are similar in their conceptualization of autism as a broad category ("spectrum") comprising many different

presentations, and in their specific phenomenological requirements of: a) persistent deficits in social communication/social interaction; and b) restricted, repetitive and inflexible patterns of behaviour, interests or activities. However, although they are intended to identify the same people, there are some differences in diagnostic requirements.

For deficits in social communication, the DSM-5 requires all three of the following: a) deficits in social-emotional reciprocity, b) deficits in nonverbal communication, and c) deficits in developing, maintaining and understanding relationships. Consistent with its general approach of focusing on the diagnostic concept rather than on symptom counts, the ICD-11 is less prescriptive, stating that "manifestations may include the following" and providing a list of seven items that include examples which correspond to the three DSM-5 requirements.

For restricted, repetitive and inflexible patterns, the DSM-5 item list is dominated by symptoms that tend to be found in children with both Autism Spectrum Disorder and Disorders of Intellectual Development (e.g., flipping objects, strong attachment or preoccupation with unusual objects, excessive smelling or touching of objects, echolalia). This reflects the emphasis on the association between autism and intellectual disability at the time that diagnostic criteria for autism were initially developed<sup>35</sup>. The ICD-11 examples include items that are more characteristic of individuals without intellectual disability, previously diagnosed as having Asperger's Syndrome but now encompassed within the autism spectrum. Again, the DSM-5 is more prescriptive than the ICD-11, requiring two out of a list of four items, whereas the ICD-11 provides a list of seven items as examples.

#### Attention Deficit Hyperactivity Disorder

The ICD-11 and DSM-5 diagnostic requirements for Attention Deficit Hyperactivity Disorder (ADHD) are broadly similar. While both diagnostic systems provide separate lists of inattention and hyperactivity-impulsivity symptoms, there are differences in the specifics, again consistent with ICD-11's focus on the overall diagnostic concept.

In the DSM-5, both the inattention and hyperactivity-impulsivity lists contain a total of nine symptoms. At least six out of the nine (or at least five if the person is age 17 or older) on either list is required for the diagnosis. The ICD-11 does not include a precise symptom count requirement, but instead provides two broad groups of symptoms which are intended to reduce the internal redundancy of the items, and requires "several" symptoms to be present in at least one of the areas.

Moreover, while all of the DSM-5 symptoms are included as examples in the ICD-11 symptom groupings, the ICD-11 includes an additional item for hyperactivity-impulsivity that is not included in the DSM-5 list: "a tendency to act in response to immediate stimuli without deliberation or consideration of risks and consequences (e.g., engaging in behaviours with

potential for physical injury; impulsive decisions; reckless driving)". This item was added to better correspond to adult manifestations of impulsivity<sup>36</sup>.

There is also a difference in the symptom onset requirement: while both the DSM-5 and ICD-11 require manifestations of ADHD by age 12, the ICD-11 requires evidence of *significant* inattention and/or hyperactivity-impulsivity symptoms prior to age 12, whereas the DSM-5 only requires that "several" symptoms be present prior to age 12.

#### Schizophrenia and Other Primary Psychotic Disorders

#### Schizophrenia

The ICD-11 and DSM-5 diagnostic requirements for Schizophrenia differ in several ways. First, the two diagnostic systems have maintained the historical difference in the minimum duration: as in the ICD-10, the required minimum duration in the ICD-11 definition is "a period of 1 month or more", whereas the DSM-5, like the DSM-IV, requires that "continuous signs of the disturbance persist for at least 6 months". The DSM-5 requirement for an additional 5 months of symptoms can include prodromal or residual symptoms. Although both diagnostic systems require a full month of the defining psychotic symptoms, the DSM-5 diagnostic requirements are more likely to identify patients with a higher tendency to chronicity<sup>37</sup>.

The ICD-11's shorter duration requirement, along with the introduction of a first-episode course qualifier (also introduced in DSM-5), is intended to encourage earlier initiation of appropriate treatment, which has been shown to improve patient outcomes<sup>38</sup>. The DSM-5 category of Schizophreniform Disorder, which differs primarily from Schizophrenia with respect to the duration of symptoms (an episode lasting at least 1 month but less than 6 months), is not included in the ICD-11.

The required pattern of symptoms differs as well. While both the DSM-5 and ICD-11 require at least two types of symptoms lasting at least 1 month, the ICD-11 includes "experiences of influence, passivity or control" as a separate core symptom. These disturbances in the "ego-world boundary"<sup>39</sup> involve patients having experiences such as their thoughts, actions or emotions being imposed by an outside force (passivity experiences), their thoughts being physically removed from their mind (thought withdrawal), or their thoughts being transmitted to others (thought broadcasting).

Such disturbances were included among Schneider's first-rank symptoms<sup>39</sup>, which he considered to be characteristic of schizophrenia in the absence of organic conditions. Although first-rank symptoms have been de-emphasized in the ICD-11<sup>40</sup>, experiences of influence, passivity or control were judged to be sufficiently important and distinctive to be retained. In the DSM-5, these symptoms are considered to be examples of delusions, while the ICD-11

keeps "experiences" separate from the delusions ("beliefs") which may or not be based on them.

While the DSM-5 restricts negative symptoms of Schizophrenia to diminished emotional expression and avolition, the ICD-11 also includes alogia or paucity of speech, asociality and anhedonia. Furthermore, the DSM-5 requires a deterioration in functioning in one or more major areas, such as work, interpersonal relations or self-care since the onset of the disturbance. There is no such requirement in the ICD-11, although the text mentions that the diagnosis is "frequently associated" with significant functional impairment. This reflects the WHO's position that functional impairment should not be included in clinical descriptions of mental disorders unless this is necessary to distinguish disorder from normality<sup>28</sup>.

Although the DSM-5 and ICD-11 both allow specification of the level of severity for various symptom domains, these domains and their assessment are different in the two systems. The ICD-11 identifies six symptom domains, rated on a 4-point scale (not present, mild, moderate, severe): positive symptoms (which include delusions, hallucinations, experiences of passivity and control, disorganized thinking, and disorganized behaviour), negative symptoms, depressive mood symptoms, manic mood symptoms, psychomotor symptoms, and cognitive symptoms. The DSM-5 identifies three separate domains (hallucinations, delusions, disorganized speech) corresponding to the single ICD-11 positive symptom dimension, in addition to the domains of negative symptoms, impaired cognition, abnormal psychomotor behaviour, depression and mania. These domains are rated on a 5-point scale (not present, equivocal, mild, moderate, severe). In the DSM-5, these ratings are included in an appendix entitled "Emerging Measures and Models", whereas in the ICD-11 they appear in the main body of the CDDG.

#### Schizoaffective Disorder

There are significant differences between the ICD-11 and DSM-5 in their conceptualization of Schizoaffective Disorder.

In the ICD-11, the diagnostic requirements for schizophrenia have to be met concurrently with those for a moderate or severe depressive episode, a manic episode or a mixed episode, with a duration of at least one month, and an onset of the psychotic and mood symptoms either simultaneously or within a few days of each other. Because this definition focuses on the pattern of symptoms during the current episode, an individual's presentation can meet the diagnostic requirements for Schizoaffective Disorder, Schizophrenia or a Mood Disorder during different episodes of his/her illness.

In contrast, as in the DSM-IV, the DSM-5 diagnostic criteria involve a retrospective assessment of the interplay between mood and psychotic symptoms across the entire course

of the disturbance. The DSM-5 requires that there be: a) an uninterrupted period of illness during which there is a major depressive or manic episode concurrent with the symptomatic criteria for schizophrenia; b) a period of delusions or hallucinations lasting at least 2 weeks occurring in the absence of a major depressive or manic episode at some point during the lifetime duration of the illness; and c) symptoms that meet criteria for a major depressive or manic episode for the majority of the total duration of the active and residual portions of the illness.

All of this can lead to different diagnoses in the DSM-5 and ICD-11. For example, some cases that would receive a diagnosis of Schizoaffective Disorder in the DSM-5 (e.g., one month of delusions and hallucinations evolving into a month of delusions and hallucinations concurrent with a major depressive episode) would be diagnosed with Schizophrenia according to the ICD-11. On the other hand, some cases that would receive a diagnosis of Major Depressive Episode with Psychotic Features in the DSM-5 (e.g., delusions and hallucinations occurring entirely within the mood episode) would be diagnosed with Schizophrenia according to the ICD-11.

These approaches to the diagnosis of Schizoaffective Disorder in the ICD-11 and DSM-5 partly reflect different decisions regarding the trade-off between diagnostic stability (an aspect of diagnostic validity)<sup>41</sup> and diagnostic feasibility, which strongly influences reliability. Because the DSM-5 diagnosis depends on a consideration of the lifetime course of the symptoms, it is designed to be relatively stable. But this same lifetime approach can make the achievement of good diagnostic reliability quite challenging. Indeed, reliability problems have long been noted in the DSM diagnosis of Schizoaffective Disorder<sup>42</sup>. In contrast, the ICD-11 approach highlights the changing nature of the clinical presentation of many psychotic disorders over time.

#### Acute and Transient Psychotic Disorder / Brief Psychotic Disorder

This ICD-11 category of Acute and Transient Psychotic Disorder involves the acute onset of psychotic symptoms within 2 weeks, changing rapidly both in nature and intensity from day to day, and lasting up to three months (although most commonly from a few days to one month).

Unlike the ICD-10, which included several possible presentations, the ICD-11 restricts the diagnosis to the presentation referred to as "polymorphic" in the ICD-10, based on its greater diagnostic stability<sup>43,44</sup>, and discourages the use of this category for early presentations of Schizophrenia.

The closest available DSM-5 category, Brief Psychotic Disorder, is based entirely on the duration of psychotic symptoms (less than 1 month) and has no requirement for fluctuating symptoms.

The different approach to Acute and Transient Psychotic Disorders in the ICD-11 is in part related to the international nature of this classification system and evidence that those conditions are particularly frequent in low- and middle-income countries and among migrant populations<sup>43,45</sup>.

#### Mood disorders

#### Depressive Episode / Major Depressive Episode

The ICD-11 and DSM-5 definitions of a (major) depressive episode are nearly the same: at least five symptoms persisting nearly every day for at least 2 weeks, of which at least one must be depressed mood or loss of interest or pleasure. The only difference is that the ICD-11 requires five symptoms out of a list of ten, whereas the DSM-5 list includes only nine symptoms. The additional symptom in the ICD-11 is hopelessness about the future, which was included because of empirical evidence that it performs more strongly than about half of the other depressive symptoms in differentiating depressed from non-depressed individuals<sup>46</sup>. In contrast, the DSM-5 includes "feeling hopeless" as one example of a subjective indicator of depressed mood.

The ICD-11 and DSM-5 also differ in their instructions for diagnosing a Depressive Episode during the grieving process. The ICD-11 CDDG direct the clinician to make a diagnosis of Depressive Episode only if the symptoms are not better accounted for by bereavement<sup>47</sup>, providing the following guidance: "the presence of a Depressive Episode during a period of bereavement is suggested by persistence of constant depressive symptoms a month or more following the loss (i.e., there are no periods of positive mood or enjoyment of activities), severe depressive symptoms such as extreme beliefs of low self-worth and guilt not related to the lost loved one, presence of psychotic symptoms, suicidal ideation, or psychomotor retardation". Although the DSM-5 does not include a criterion instructing the clinician not to diagnose a depressive episode if the symptoms represent a normal grief reaction, it does provides a note stating the "presence of a Major Depressive Episode in addition to the normal response to a significant loss should... be carefully considered", and then provides a footnote describing some of the differences between normal grief and a Major Depressive Episode.

The ICD-11 approach to this issue has been supported by longitudinal prospective studies<sup>48,49</sup>, reporting that the risk of subsequent depressive episodes in individuals with

baseline bereavement-related depression was not different from people without a history of depression at baseline, and significantly lower than individuals with baseline nonbereavement-related depression, suggesting that bereavement-related episodes should not be considered equivalent to other depressive episodes.

#### Mixed Episode / Major Depressive, Manic or Hypomanic Episode with mixed features

The ICD-11 Mood Disorders section provides guidelines for four types of mood episodes: Depressive Episode, Manic Episode, Mixed Episode and Hypomanic Episode. Mixed Episode is defined as a period lasting at least one week characterized by the presence of several prominent manic and depressive symptoms which either occur simultaneously or alternate very rapidly (from day to day or within the same day). It is specified that, when manic symptoms predominate, common contrapolar symptoms are dysphoric mood, expressed beliefs of worthlessness, hopelessness and suicidal ideation. When depressive symptoms predominate, common contrapolar symptoms are irritability, racing or crowded thoughts, increased talkativeness and psychomotor agitation.

The DSM-5 includes only three types of mood episodes: Major Depressive, Manic and Hypomanic. Rather than including a Mixed Episode, it provides a "mixed features" specifier that can be applied to all three types of mood episodes. When applied to a manic or hypomanic episode, this specifier indicates that at least three characteristic symptoms of depression have been present for a majority of days of the episode. When applied to a major depressive episode, it indicates that at least three characteristic symptoms of mania (e.g., elevated or expansive mood, increased self-esteem, increased involvement in risky activities) have been present for a majority of days of the depressive episode.

The DSM-5 characterization of major depression with mixed features has been criticized, because it does not include several elements that are regarded as characteristic of mixed depression in both the classic and the recent literature (i.e., psychomotor agitation and irritability)<sup>50</sup>. Indeed, the implications of a DSM-5 diagnosis of major depression with mixed features in terms of treatment response have been found to be different from those of mixed depression as usually defined in the literature<sup>51</sup>. Furthermore, the DSM-5 does not account for "unstable" mixed episodes, in which depressive and manic symptoms alternate rapidly rather than occurring simultaneously.

#### Dysthymic Disorder / Persistent Depressive Disorder

The ICD-11 continues to have a separate category for Dysthymic Disorder (persistent depressed mood accompanied by additional depressive symptoms for most of the day, more

days than not, without full depressive episodes during the first two years). After the first two years, if the diagnostic requirements for Single Episode Depressive Disorder or Recurrent Depressive Disorder are met, the appropriate diagnosis may be assigned in addition to Dysthymic Disorder. The qualifier "current episode persistent" may be applied to Single Episode Depressive Disorder or Recurrent Depressive Disorder if the current episode has persisted for more than 2 years.

In contrast, the DSM-5 combines dysthymic disorder and chronic major depressive disorder into a single category, Persistent Depressive Disorder, giving priority to chronicity over symptomatic variation and severity. This approach was not adopted in the ICD-11 because the current diagnostic scheme was considered to be more precisely descriptive at any given time, with related treatment implications, and because the evidence that chronic depressive disorder and dysthymic disorder are the same disorder was felt by the Working Group to be insufficient.

#### **Anxiety and Fear-Related Disorders**

#### Generalized Anxiety Disorder

For a diagnosis of Generalized Anxiety Disorder (GAD), both the ICD-11 and DSM-5 require symptoms of anxiety that persist for more days than not. The two descriptions, however, differ in the duration requirement and in the manifestations of anxiety.

Whereas the minimum required duration of GAD symptoms in the DSM-5 is 6 months, the ICD-11 only requires that the symptoms be present "for at least several months", following evidence that individuals with GAD-like presentations lasting less than 6 months are similar to those with episodes of 6 months or more in terms of onset, persistence, impairment, comorbidity, parental GAD, and socio-demographic correlates<sup>52</sup>.

Both systems allow the diagnosis to be assigned based on the core feature of anxiety and worry focused on a number of different events, activities or aspects of life, but the ICD-11 also allows general apprehensiveness that is not restricted to any environmental circumstance (so-called "free-floating anxiety") as a basis for the diagnosis. This is supported by evidence that some patients are unable to describe the cognitive content of their worries<sup>53</sup> and that cross-cultural application of the DSM-5 requirement may miss cases<sup>54,55</sup>.

The ICD-11 and DSM-5 lists of associated symptoms also differ slightly. They share five out of six symptoms, but the ICD-11 includes "sympathetic autonomic overactivity" rather than "being easily fatigued" in the DSM-5, because of its greater utility in differentiating GAD from a depressive episode<sup>56</sup>.

#### **Obsessive-Compulsive and Related Disorders**

#### Hypochondriasis / Somatic Symptom Disorder or Illness Anxiety Disorder

The ICD-11 defines Hypochondriasis as a persistent preoccupation with or fear about the possibility of having a serious medical illness, associated with a catastrophic misinterpretation of bodily symptoms, which can be manifest either in repetitive and excessive health-related behaviours or in maladaptive health-related avoidance<sup>55</sup>.

Such cases would be diagnosed in the DSM-5 as either Somatic Symptom Disorder or Illness Anxiety Disorder, depending on whether the person's excessive concerns about medical illness stem from misinterpreting the significance of somatic symptoms currently being experienced (in which case the diagnosis would be Somatic Symptom Disorder) or the health anxiety is occurring in the absence of significant somatic symptoms (in which case the diagnosis would be Illness Anxiety Disorder).

#### **Disorders Specifically Associated with Stress**

#### Post-Traumatic Stress Disorder

The ICD-11 provides two separate diagnostic categories for psychiatric symptoms lasting at least several weeks that develop in the context of exposure to severely traumatic events: PTSD and Complex Post-Traumatic Stress Disorder (CPTSD). PTSD is intended to capture the core of post-traumatic response (re-experiencing the traumatic experience in the present, avoidance of traumatic reminders, and heightened sense of current threat). CPTSD is intended to describe more pervasive post-traumatic reactions that, in addition to the core PTSD symptoms, also include the development of persistent symptoms of affect dysregulation, negative self-concept, and difficulties in relationships<sup>58,59</sup>.

The DSM-5 offers only the single category of PTSD for post-traumatic symptoms. Three of its constituent symptom clusters ("intrusion symptoms associated with the traumatic event", "avoidance of stimuli associated with the event", and "marked alteration in arousal and reactivity") generally correspond to the three ICD-11 core symptoms. The DSM-5, however, includes an additional symptom cluster ( "negative alterations in cognitions and mood") which incorporates two of the three additional required elements of ICD-11 CPTSD (persistent beliefs about oneself as diminished, defeated or worthless; persistent difficulties in sustaining relationships and in feeling close to others).

A comparison of the ICD-11 and DSM-5 diagnostic requirements for PTSD at the item level reveals that, while the disorder is more broadly defined in the ICD-11 in terms of the

qualifying traumatic events, it is more narrowly defined in terms of the symptomatic response to those events. The ICD-11 requires for both PTSD and CPTSD that the trauma be "of an extremely threatening or horrific nature" and offers a list of examples that are explicitly not exhaustive. In contrast, the DSM-5 requires that the qualifying traumatic events involve "exposure to actual or threatened death, serious injury, or sexual violence" and specifies four possible modes of exposure: directly experiencing the traumatic event, witnessing it in person as it occurred to others, learning about a violent or accidental traumatic event that has occurred to a close family member or friend, or "experiencing repeated or extreme exposure to aversive details of traumatic events (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse)". The specificity and exclusivity of the DSM-5 requirements are at least partly in response to forensic concerns about the potential misuse of the PTSD diagnosis in personal injury and disability cases. These narrower stressor requirements mean that all qualifying events under the DSM-5 would qualify under the ICD-11, but not vice versa.

From a symptomatic perspective, the ICD-11 core symptoms of re-experiencing the traumatic experience in the present and a heightened sense of current threat are more narrowly defined than their DSM counterparts. The ICD-11 includes intrusive memories, flashbacks, nightmares, and re-experiencing the same types of emotions or physical sensations occurring at the time of the trauma as manifestations of re-experiencing the traumatic event. The corresponding DSM-5 symptom cluster is more broadly defined in that it also includes psychological distress or physiological symptoms triggered by reminders of the trauma that are not restricted to emotions or physical sensations experienced at the time of the trauma. The ICD-11 core symptom of perception of heightened threat, restricted to hypervigilance and exaggerated startle response, is much more narrowly defined than the corresponding "marked alteration in arousal and reactivity" cluster in the DSM-5, which also includes irritable behaviour and angry outbursts, reckless or self-destructive behaviour, problems with concentration, and sleep disturbance. So, while the ICD-11 requires that every case of PTSD include hypervigilance or exaggerated startle response, the DSM-5 allows for the diagnosis without either of these classic PTSD symptoms.

Studies comparing the ICD-11 and DSM-5 diagnostic requirements have found somewhat lower PTSD prevalence rates using the ICD-11<sup>60,61</sup>, and that the two diagnostic systems do not identify the same people<sup>25</sup>. Moreover, the inclusion in the DSM-5 of sleep disturbance and problems with concentration, which are also characteristic of many mood and anxiety disorders, as well as items such as persistent negative emotional state, diminished interest or participation in significant activities, and persistent inability to experience positive emotions, may result in inflated rates of co-occurrence with other disorders, especially Depressive Disorders<sup>62</sup>.

#### Adjustment Disorder

Both the ICD-11 and DSM-5 describe Adjustment Disorder as characterized by symptoms developing in response to an identifiable stressor that do not meet the definitional requirements for another mental disorder.

Adjustment Disorder has often been criticized as a poorly defined condition consisting of a sub-threshold symptomatology related to a stressor that is often identified *post-hoc*<sup>63</sup>. In response, the ICD-11 has added a requirement – not included in the DSM-5 – that specific symptoms be present indicating a maladaptive reaction to the stressor: "preoccupation with the stressor or its consequences, including excessive worry, recurrent and distressing thoughts about the stressor, or constant rumination about its implications"<sup>64,65</sup>.

#### Acute Stress Reaction / Acute Stress Disorder

In contrast to its status in both the ICD-10 and DSM-5, Acute Stress Reaction is no longer considered to be a mental disorder in the ICD-11, and is located instead in the chapter on Factors Influencing Health Status or Contact with Health Services.

Acute Stress Reaction describes potentially severe responses to an event or situation of an extremely threatening or horrific nature (the same types of traumas included in the definition of PTSD). By definition, the response to the traumatic event or situation should be judged by the clinician to be "normal given the severity of the stressor". These responses may include transient emotional, somatic, cognitive or behavioural symptoms, such as being in a daze, confusion, sadness, anxiety, anger, social withdrawal, amnesia, depersonalization or stupor. Intervention may be required even though the response is considered to be non-pathological.

In the DSM-5, Acute Stress Disorder is a diagnostic category in the Trauma- and Stressor-Related Disorders grouping, requiring at least nine symptoms from a list of 14 (most of which appear in the PTSD criteria set), divided into five groups: intrusion symptoms, negative mood, dissociative symptoms, avoidance symptoms, and arousal symptoms. These manifestations typically begin immediately after the trauma, but persistence for at least 3 days and up to 1 month is required to meet the disorder criteria. Acute Stress Disorder may progress to PTSD after 1 month, or may remit within 1 month of trauma exposure.

#### **Dissociative Disorders**

#### Dissociative Identity Disorder

Both the ICD-10 and DSM-IV included a category (Multiple Personality Disorder and Dissociative Identity Disorder, respectively) involving the presence of two or more distinct personality states that recurrently take control of the person's behaviour. However, available evidence indicated that, in a substantial proportion of cases, the multiple personality states did not recurrently take executive control<sup>66</sup>. For this reason, changes were made in both the ICD-11 and DSM-5, but in different ways.

The DSM-5 broadened the Dissociative Identity Disorder category by removing the requirement that two or more personality states recurrently take control of the person's behaviour. The ICD-11, instead, added a new category, Partial Dissociative Identity Disorder, in which one personality state dominates in daily life but is intruded upon by one or more non-dominant personality states.

The other main difference is that Dissociative Identity Disorder in the DSM-5 requires "recurrent gaps in the recall of everyday events, important personal information, and/or traumatic events that are inconsistent with ordinary forgetting", while the ICD-11 does not require dissociative amnesia for the diagnosis of either Dissociative Identity Disorder or Partial Dissociative Identity Disorder. Nevertheless, the ICD-11 guidelines for Dissociative Identity Disorder Identity Disorder do note that "substantial episodes of amnesia are typically present at some point during the course of the disorder", while in individuals with Partial Dissociative Identity Disorder do note that "substantial episodes of amnesia are typically present at some point during the course of the disorder", while in individuals with Partial Dissociative Identity Disorder dissociative amnesia is absent<sup>67</sup> or "brief and restricted to extreme emotional states or episodes of self-harm".

#### **Feeding and Eating Disorders**

#### Bulimia Nervosa and Binge Eating Disorder

In both the ICD-11 and DSM-5, Bulimia Nervosa and Binge Eating Disorder are characterized by frequent recurrent episodes of binge eating. In Bulimia Nervosa, this is accompanied by repeated inappropriate compensatory behaviours (e.g., self-induced vomiting, fasting, using diuretics, strenuous exercise).

The ICD-11 and DSM-5 differ, however, in their definition of binge eating. While both diagnostic systems require the subjective experience of a loss of control over eating behaviour<sup>68</sup>, the DSM-5 also requires an objective component, i.e., that the amount of food eaten in a discrete period of time (e.g., within any 2-hour period) is larger than what most

individuals would eat. The ICD-11 simply requires that the individual eat notably more and/or differently than usual.

Consequently, some behaviour that would be considered to be binge eating in the ICD-11 (i.e., episodes in which the amount of food eaten may be within normal limits, but the individual feels unable to stop eating or limit the type or amount of food eaten) would not qualify as binge eating in the DSM-5. Studies to date<sup>69-72</sup> indicate that individuals with subjective binge eating report comparable distress, psychological disturbance, and reduction in quality of life as those whose binge eating is defined objectively.

#### **Disorders Due to Substance Use / Substance Use Disorders**

There are several significant differences in the classification of substance use disorders between the ICD-11 and DSM-5.

The ICD-11 includes several substance classes that are not specifically listed in the DSM-5: synthetic cannabinoids (comprised within the DSM-5 cannabis class), cocaine (included within the DSM-5 stimulant class), synthetic cathinones (comprised within the DSM-5 Other or Unknown class), and methylenedioxyphenethylamine (MDMA) (included within the DSM-5 hallucinogen class). These classes were added to the ICD-11 because of their increasingly important global health significance<sup>73</sup>, with the goal of facilitating the collection of data regarding their public health impact.

There are also important conceptual differences in the specific disorders that are included. The ICD-11 identifies three disorders on the basis of the pattern of substance use: Episode of Harmful Substance Use (an episode of use that has caused clinically significant damage to a person's physical or mental health or that has resulted in behaviour leading to harm to others); Harmful Pattern of Substance Use (a pattern of repeated or continuous use that has caused damage to a person's physical or mental health or resulted in behaviour leading to harm to others); and Substance Dependence (characterized by impaired control over substance use, increasing precedence of substance use over other aspects of life, and persistence of use despite harm or negative consequences).

Separate categories for Harmful Substance Use and Substance Dependence are intended to facilitate early recognition and intervention for substance use problems, helping to distinguish between patterns of substance use behaviour that may respond to brief psychological interventions such as motivational interviewing and those needing more substantial treatment that may include detoxification or agonist maintenance treatment<sup>74</sup>. Moreover, the harmful use categories are seen by the WHO as important for capturing the public heath impact of substance use in morbidity and mortality statistics<sup>75</sup>.

The DSM-5, in contrast, includes a single Substance Use Disorder category and identifies three levels of severity based on the number of symptom criteria endorsed: mild for two or three, moderate for four or five, and severe for six or more out of 11 symptom criteria. There are no diagnoses corresponding to either Episode of Harmful Substance Use or Harmful Pattern of Substance Use in ICD-11: none of the DSM-5 criterion items can be met based on the pattern of substance use having caused damage to the person's physical or mental health or health of others.

There is a relatively close correspondence between the 11 DSM-5 criteria for Substance Use Disorder and the three core elements of ICD-11 Substance Dependence<sup>76</sup>. However, many cases of DSM-5 moderate to severe Substance Use Disorder would not meet the diagnostic requirements for ICD-11 Substance Dependence due to several factors. The first is the much lower proportion of items needed in the DSM-5 for a diagnosis of Substance Use Disorder (two out of eleven) as compared to ICD-11 (two out of three). Second, the single ICD-11 item "increasing precedence of substance use over other aspects of life" subsumes five DSM-5 items (i.e., time spent using or obtaining substances, failure to fulfill role obligations, continued use despite social or interpersonal problems, important activities given up, and continued use despite physical or psychological problems). Finally, two of the DSM-5 items ("craving" and "recurrent use in situations which are physically hazardous") do not correspond to any of the ICD-11 items.

A study from the World Mental Health Surveys<sup>26</sup>, examining the prevalence of disorders due to alcohol and cannabis use, found a high concordance of the ICD-11 with the ICD-10 and DSM-IV (all k values  $\geq$ 0.94), but the concordance between ICD-11 Substance Dependence and DSM-5 moderate to severe Substance Use Disorder was markedly lower (k $\geq$ 0.70 for alcohol and k=0.63 for cannabis), suggesting that the DSM-5 is identifying different individuals. Additional empirical studies are needed to examine differences in the prevalence of other substance classes and the implications of these differences for clinical care.

#### **Disruptive Behaviour or Dissocial Disorders**

## Oppositional Defiant Disorder with chronic irritability-anger / Disruptive Mood Dysregulation Disorder

The ICD-11 and DSM-5 diagnostic requirements for Oppositional Defiant Disorder (ODD) are essentially the same (i.e., a persistent pattern of markedly defiant, disobedient, provocative or spiteful behaviour that is inconsistent with age and developmental level).

However, the ICD-11 includes two subtypes not present in the DSM-5: ODD with and without chronic irritability-anger. ODD with chronic irritability-anger is characterized by a

prevailing angry or irritable mood and severe temper outbursts. Such chronic irritability-anger is predictive of later depression, anxiety and suicidality<sup>31</sup>. In contrast, the DSM-5 classifies such presentations as a separate condition, Disruptive Mood Dysregulation Disorder (DMDD), within the Depressive Disorders grouping.

DMDD was added to the DSM-5 to provide a prominent diagnostic "home" for children who were being misdiagnosed as having bipolar disorder and were therefore receiving inappropriate treatments such as antipsychotics and mood stabilizers<sup>31,77</sup>.

The rationale for considering a pattern of chronic irritability-anger as a subtype of ODD in the ICD-11 rather than a distinct disorder relates to: a) substantial evidence supporting the validity and clinical utility of the symptom structure of ODD subtypes based on the presence of a pattern of chronic irritability-anger<sup>31</sup>; and b) what the ICD-11 Working Group considered to be the questionable validity of DMDD<sup>78</sup>. Studies in clinical and community samples have found that 70-100% of children with DMDD have symptoms that meet the diagnostic requirements for ODD<sup>77,79-82</sup>, suggesting that the irritability and behavioural symptom dimensions of ODD are not separable into different disorders<sup>31,78</sup>.

A recent Internet-based field study using case vignettes found that the ICD-11 diagnostic guidelines led to more accurate identification of severe irritability and better differentiation from boundary presentations. On the other hand, participants using the DSM-5 often failed to use the DMDD diagnosis when it was appropriate and more frequently applied psychopathological diagnoses to developmentally normative irritability<sup>83</sup>.

#### **Personality Disorders**

In contrast to the DSM-5, which has retained the ten DSM-IV specific personality disorders categories, the ICD-11 approach<sup>84</sup> involves first making a categorical judgement regarding whether or not the general diagnostic requirements for a personality disorder are fulfilled, then determining its severity (mild, moderate or severe), and finally describing the prominent features of the individual that contribute to the personality disturbance using trait domain qualifiers (negative affectivity, detachment, dissociality, disinhibition, and anankastia).

Also available is a "borderline pattern" qualifier, with diagnostic requirements corresponding to those of DSM-5 Borderline Personality Disorder, which was included in response to concerns among clinicians and personality disorder researchers about access to care and continuity with previous research<sup>85</sup>. The ICD-11 also includes a category of Personality Difficulty, listed in the chapter on Factors Influencing Health Status or Contact with Health Services, which refers to pronounced personality characteristics that may affect treatment or health services but do not rise to the level of severity deserving a diagnosis of Personality Disorder.

Although there was a proposal during the development of the DSM-5 to adopt a hybrid categorical/dimensional approach to the diagnosis of Personality Disorders, that effort was ultimately unsuccessful<sup>86</sup>. An Alternative DSM-5 Model for Personality Disorders is presented in one of the appendices (Section III) of the diagnostic system.

#### **Paraphilic Disorders**

In developing the classification of Paraphilic Disorders, the WHO aimed to distinguish between those conditions that are relevant to public health and most commonly seen in clinical and forensic settings and those arousal patterns that more commonly reflect private behaviour<sup>21</sup>. Consequently, the ICD-11 separates paraphilic disorders that involve non-consenting individuals or people whose age or status renders them unwilling or unable to consent (e.g., pre-pubertal children, an unsuspecting individual being viewed through a window) from arousal patterns involving solitary behaviour or consenting individuals.

Among those Paraphilic Disorders in which the arousal pattern involves non-consenting individuals, the ICD-11 includes five named categories (Exhibitionistic Disorder, Voyeuristic Disorder, Pedophilic Disorder, Coercive Sexual Sadism Disorder, and Frotteuristic Disorder) and a residual category (Other Paraphilic Disorder Involving Non-Consenting Individuals). For paraphilias not focused on non-consenting individuals, the ICD-11 provides only a single category, Paraphilic Disorder Involving Solitary Behaviour or Consenting Individuals, which should only be diagnosed if the person experiences marked distress about the arousal pattern that is not simply a consequence of rejection or feared rejection by others, or if the nature of the paraphilic behaviour involves significant risk of injury or death either to the individual or to the partner (e.g., asphyxophilia).

The category of Paraphilic Disorder Involving Solitary Behaviour or Consenting Individuals may therefore be used to diagnose arousal patterns involving sexual masochism, consensual sexual sadism, cross-dressing, or fetishism, which correspond to specific diagnoses in the ICD-10, if the requirements related to distress or harm are met. Specific corresponding ICD-10 categories were not carried over to the ICD-11 as named diagnostic entities, because they were seen as contributing unnecessarily to stigmatization of variations in sexual arousal that are not in themselves associated with distress, functional impairment, harm, or violation of the rights of others<sup>87</sup>.

In contrast, the DSM-5 continues to have separate categories for Sexual Masochism Disorder, Fetishistic Disorder, and Transvestic Disorder; does not distinguish between consensual and non-consensual sadism; and does not exclude distress related to rejection or feared rejection in the diagnostic requirements for consensual or solitary paraphilias.

The DSM-5 also allows Paraphilic Disorder diagnoses to be assigned based on clinically significant distress or functional impairment in the absence of having acted on the arousal pattern. The ICD-11 makes the same allowance for distress but does not include functional impairment in the diagnostic requirements for any of the Paraphilic Disorders, because of concerns about the subjectivity and potential misuse of this element to stigmatize and even criminalize atypical sexual behaviours<sup>87</sup>.

#### **Neurocognitive Disorders**

#### Dementia and Amnestic Disorder / Major Neurocognitive Disorder

In the ICD-11, Dementia is characterized by a decline from a previous level of cognitive functioning, with impairment in at least two cognitive domains that significantly interferes with independence in the person's performance of activities of daily living. In the DSM-5, Major Neurocognitive Disorder has replaced DSM-IV Dementia, and can be diagnosed based on evidence of significant cognitive decline in only one cognitive domain.

The DSM-5 requirement of only one domain is based on a desire to have the definition of Major Neurocognitive Disorder depend on the severity of functional impairment rather than on a broader range of deficits. As a result, Amnestic Disorder, which is characterized by severe memory impairment that is disproportionate to impairment in other cognitive domains, is not considered a form of Dementia in the ICD-11, but would be considered a form of Major Neurocognitive Disorder in the DSM-5.

The ICD-11 and DSM-5 both include specific types of dementia based on their underlying medical or substance-induced etiology, each type with its own definition. While both the ICD-11 and DSM-5 provide definitions for eleven of the most clinically important types (e.g., due to Alzheimer's disease, due to cerebrovascular disease, due to frontotemporal degeneration), the ICD-11 also includes specific categories for Dementia Due to Exposure to Heavy Metals and Other Toxins, Dementia Due to Multiple Sclerosis, Dementia Due to Normal Pressure Hydrocephalus, Dementia Due to Pellagra, and Dementia Due to Down Syndrome.

In addition, many of the DSM-5 specific dementia categories have separate criteria sets for "Probable" and "Possible", which in most cases have been adapted from the neurological literature<sup>88-91</sup>. Separate categories based on the level of diagnostic certainty are not available in the ICD-11.

# Mental or Behavioural Disorders Associated with Pregnancy, Childbirth and the Puerperium / "with peripartum onset" specifier

The ICD-11 includes two categories for Mental or Behavioural Disorders Associated with Pregnancy, Childbirth and the Puerperium, which differ depending on whether their features do or do not include delusions, hallucinations or other psychotic symptoms. In either case, if the symptomatic presentation also meets the diagnostic requirements for another specific ICD-11 mental disorder, that diagnosis is also supposed to be assigned.

The DSM-5 has no such categories, but instead has a "with peripartum onset" specifier (which is not codable) that can be applied to Brief Psychotic Disorder, Bipolar Disorder and Major Depressive Disorder, to indicate that the onset of the disorder was during pregnancy or within 6 weeks of delivery. Thus, the ICD-11 and DSM-5 approaches are functionally equivalent, except that the ICD-11 involves the coding of two diagnoses (e.g., Mental or Behavioural Disorders Associated with Pregnancy, Childbirth and the Puerperium plus a Depressive Episode) whereas the DSM-5 allows the clinician to communicate this using only one diagnosis (e.g., Major Depressive Disorder, with peripartum onset).

The ICD-11 approach was adopted to reflect the diagnostic practices of obstetricians and other health care providers, whose primary clinical focus tends to be on the woman's pregnancy, childbirth, delivery and postpartum care, and who tend to make diagnoses such as "postpartum depression" and "postpartum psychosis". For mental health specialists, the psychiatric presentation is of primary importance, and the fact that its onset is during pregnancy or postpartum is more commonly thought of as a course qualifier.

#### DISCUSSION

Our analysis indicates that the classification of mental disorders as presented in the ICD-11 is substantially more similar to the DSM-5 than was the ICD-10 to the DSM-IV. We identified 31 disorders with essentially identical diagnostic requirements, and 10 additional disorders that differed only in the greater degree of operational specificity in the DSM-5 as compared to the ICD-11 CDDG. This compares with only one identical disorder in First's analysis of ICD-10 and DSM-IV<sup>13</sup>.

There were major differences in slightly less than 20% of the diagnostic entities evaluated, and 26 entities are in one system but not in the other. Minor conceptual differences were present in just over 40% of diagnostic entities. Due to specific steps taken in the development of the ICD-11, these differences are not random or arbitrary, but rather are based on differing

priorities and uses of the two classification systems and differing interpretations of the evidence.

With regard to degree of operationalization, it is generally assumed that a strict criteriabased approach leads to a greater reliability, but only one study restricted to childhood disorders has made a direct comparison (of DSM-II and DSM-III), showing only a slight improvement in reliability<sup>92</sup>. The results of ICD-11 field studies in international clinical settings<sup>93</sup> also call this assumption into question.

With regard to major conceptual differences, R. Kendell made an argument 30 years ago<sup>94</sup> that these were almost inevitable given the different constituencies of the two sponsoring organizations, but that these can "provide the research community with a choice between two genuinely different alternatives"<sup>94, p.299</sup>. Indeed, substantial upticks in research activity can already be seen in some areas of ICD-11/DSM-5 divergence, such as PTSD/CPTSD<sup>59-61</sup>, Personality Disorders<sup>95-98</sup>, and childhood irritability/anger<sup>31,83</sup>. This is one of the most important ways of improving the validity of our concepts over time.

In conclusion, the ICD and DSM classifications of mental disorders are closer today than they have been at any time since ICD-8 and DSM-II. Differences persist based on the differing priorities of the WHO and APA, and the different uses of the two classifications. Divergent ways of describing the same or similar conditions allow for empirical comparison of validity and utility, which can contribute to advances in the field.

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## Table 1 Comparison of the ICD-11 vs. the DSM-5 metastructure

ICD-11	DSM-5
_	
Neurodevelopmental Disorders	Neurodevelopmental Disorders
Schizophrenia and Other Primary	Schizophrenia Spectrum
Psychotic Disorders	and Other Psychotic Disorders
Catatonia	
Mood Disorders	Bipolar and Related Disorders
	Depressive Disorders
Anxiety and Fear-Related Disorders	Anxiety Disorders
Obsessive-Compulsive and Related	Obsessive-Compulsive and Related
Disorders	Disorders
Disorders Specifically Associated with	Trauma- and Stressor-Related
Stress	Disorders
Dissociative Disorders	Dissociative Disorders
Feeding and Eating Disorders	Feeding and Eating Disorders
Elimination Disorders	Elimination Disorders
Disorders of Bodily Distress and Bodily	Somatic Symptom and Related
Experience	Disorders (not in the same order as
	ICD-11; placed before Feeding and
	Eating Disorders)
Disorders Due to Substance Use and	Substance-Related and Addictive
Addictive Behaviours	Disorders
Impulse Control Disorders	Disruptive, Impulse-Control, and
Disruptive Behaviour and Dissocial	Conduct Disorders
Disorders	
Personality Disorders and Related	Personality Disorders (not in the
Traits	same order as ICD-11; placed after
Deneralitie Die endere	Neurocognitive Disorders)
Paraphilic Disorders	Paraphilic Disorders (not in the same
	order as ICD-11; placed after
Factitious Disorders	Personality Disorders)
	Not a separate grouping but included in Somatic Symptom and Related
	Disorders
Neurocognitive Disorders	Neurocognitive Disorders
Mental or Behavioural Disorders	Not a separate grouping; perinatal
Associated with Pregnancy, Childbirth	specifiers available for specific
and the Puerperium	disorders
Secondary Mental or Behavioural	Not a separate grouping but included
Syndromes Associated with Disorders	within the disorder groupings with
or Diseases Classified Elsewhere	which they share phenomenology
Psychological and Behavioural Factors	Not a separate grouping but included
Affecting Disorders or Diseases	in Somatic Symptom and Related
Classified Elsewhere	Disorders

Sleep-Wake Disorders (Chapter 7)	Sleep-Wake Disorders (within mental disorders; placed after Elimination Disorders)
Sexual Dysfunctions (placed in Chapter 17, Conditions Related to Sexual Health)	Sexual Dysfunctions (within mental disorders; placed after Sleep-Wake Disorders)
Gender Incongruence (placed in Chapter 17, Conditions related to Sexual Health)	Gender Dysphoria (within mental disorders; placed after Sexual Dysfunctions)

 Table 2
 Mental disorders included in one system but not the other

ICD-11	DSM-5
Developmental Language Disorder with impairment of mainly pragmatic language	Social (Pragmatic) Communication Disorder*
Schizophrenia or Other Specified Primary Psychotic Disorder	Schizophreniform Disorder
Acute and Transient Psychotic Disorder	Brief Psychotic Disorder
Catatonia Induced by Substances or Medications*	Other Substance-Induced Disorder
Mixed Depressive and Anxiety Disorder Olfactory Reference Syndrome*	Other Specified Depressive Disorder or Other Specified Anxiety Disorder Other Specified Obsessive-
Complex Post-Traumatic Stress	Compulsive and Related Disorder Post-Traumatic Stress Disorder or
Disorder*	Adjustment Disorder (if stressor does not qualify for Post-Traumatic Stress Disorder) or Other Specified Trauma and Stressor-Related Disorder
Prolonged Grief Disorder*	Other Specified Trauma and Stressor- Related Disorder; included among Conditions for Further Study as Persistent Complex Bereavement Disorder
Trance Disorder	Other Specified Dissociative Disorder
Possession Trance Disorder	Dissociative Identity Disorder or Other Specified Dissociative Disorder
Partial Dissociative Identity Disorder*	Dissociative Identity Disorder (for cases with dissociative amnesia), or Other Specified Dissociative Disorder (for cases without dissociative amnesia)
Body Integrity Dysphoria*	Other Specified Mental Disorder
Episode of Harmful Substance Use*	Unspecified Substance-Related Disorder
Other Specified Disorders Due to Use of Hallucinogens	Hallucinogen Persisting Perception Disorder
Nicotine Intoxication	Other Tobacco-Induced Disorder
Volatile Inhalant Withdrawal	Other Inhalant-Induced Disorder
Gaming Disorder*	Other Specified Mental Disorder; included among Conditions for Further Study as Internet Gaming Disorder
Compulsive Sexual Behaviour Disorder*	Other Specified Disruptive, Impulse- Control, and Conduct Disorder

Oppositional Defiant Disorder, with	Disruptive Mood Dysregulation
chronic irritability-anger	Disorder*
Paraphilic Disorder Involving Solitary	Fetishistic Disorder
Behaviour or Consenting Individuals	Transvestic Fetishistic Disorder
	Sexual Masochistic Disorder
Amnestic Disorder	Major Neurocognitive Disorder
Secondary Neurodevelopmental	Other Specified Neurodevelopmental
Syndrome*	Disorder
Secondary Dissociative Syndrome	Other Specified Dissociative Disorder
Secondary Impulse Control	Other Specified Disruptive, Impulse
Syndrome*	Control, and Conduct Disorder, or
	Personality Change Due to Another
	Medical Condition

Bold prints indicate that the disorder is included in the corresponding diagnostic system, whereas non-bold prints indicate the closest available category in the other system. Asterisks indicate newly added disorders

**Table 3** Disorders or diagnostic entities with major differences between the two diagnostic systems

Developmental Language Disorder in ICD-11 / Language Disorder *plus* Social (Pragmatic) Communication Disorder in DSM-5

Schizophrenia in ICD-11 / Schizophrenia *plus* Schizophreniform Disorder in DSM-5

Schizoaffective Disorder

Acute and Transient Psychotic Disorder in ICD-11 / Brief Psychotic Disorder in DSM-5

Mixed Episode in ICD-11 / Mood Episode with Mixed Features in DSM-5

Dysthymic Disorder in ICD-11 / Persistent Depressive Disorder in DSM-5

Hypochondriasis (in Obsessive-Compulsive and Related Disorders) in ICD-11 / Somatic Symptom Disorder or Illness Anxiety Disorder in DSM-5

Post-Traumatic Stress Disorder *plus* Complex Post Traumatic Stress Disorder in ICD-11 / Post-Traumatic Stress Disorder in DSM-5

Adjustment Disorder

Acute Stress Reaction (in Factors Influencing Health Status or Contact with Health Services) in ICD-11 / Acute Stress Disorder (in Trauma- and Stressor-Related Disorders) in DSM-5

Dissociative Identity Disorder *plus* Partial Dissociative Identity Disorder in ICD-11 / Dissociative Identity Disorder in DSM-5

Bulimia Nervosa

Binge Eating Disorder

Substance Dependence *plus* Harmful Pattern of Use of Substances in ICD-11 / Substance Use Disorder in DSM-5

Oppositional Defiant Disorder with chronic irritability-anger in ICD-11 / Disruptive Mood Dysregulation Disorder in DSM-5

Personality Disorders

Coercive Sexual Sadism Disorder in ICD-11 / Sexual Sadism Disorder (coercive) in DSM-5

Paraphilic Disorder Involving Solitary Behaviour or Consenting Individuals in ICD-11 / Fetishistic Disorder, Transvestic Disorder, Sexual Masochism Disorder, Sexual Sadism Disorder (noncoercive) in DSM-5

Dementia *plus* Amnestic Disorder in ICD-11 / Major Neurocognitive Disorder in DSM-5

Mental or Behavioural Disorders Associated with Pregnancy, Childbirth and the Puerperium, without and with psychotic symptoms in ICD-11 / "with peripartum onset" specifier in DSM-5

**Table 4** Disorders with minor definitional differences between the two diagnostic systems

Disorders of Intellectual Development / Intellectual Disability (Intellectual Developmental Disorder) in DSM-5 Developmental Speech Sound Disorder in ICD-11 / Speech Sound Disorder in DSM-5 Autism Spectrum Disorder Developmental Learning Disorder in ICD-11 / Specific Learning Disorder in DSM-5 Tourette Syndrome in ICD-11 / Tourette's Disorder in DSM-5 Chronic Motor Tic Disorder plus Chronic Phonic Tic Disorder in ICD-11 / Persistent Motor or Vocal Tic Disorder in DSM-5 Transient Motor Tics in ICD-11 / Provisional Tic Disorder in DSM-5 Attention Deficit Hyperactivity Disorder\* Stereotyped Movement Disorder in ICD-11 / Stereotypic Movement Disorder in DSM-5 **Delusional Disorder** Depressive Episode in ICD-11 / Major Depressive Episode in DSM-5 Recurrent Depressive Disorder in ICD-11 / Major Depressive Disorder, Recurrent, in DSM-5 Cyclothymic Disorder Generalized Anxiety Disorder **Obsessive-Compulsive Disorder** Body Dysmorphic Disorder Hoarding Disorder Reactive Attachment Disorder **Disinhibited Social Engagement Disorder** Bodily Distress Disorder in ICD-11 / Somatic Symptom Disorder in DSM-5 Alcohol Intoxication Alcohol Withdrawal **Opioid Intoxication Opioid Withdrawal** Cannabis Intoxication Cannabis Withdrawal Sedative Intoxication Sedative Withdrawal Stimulant Intoxication Stimulant Withdrawal

Caffeine Withdrawal Hallucinogen Intoxication in ICD-11 / Other Hallucinogen Intoxication in DSM-5 Nicotine Withdrawal in ICD-11 / Tobacco Withdrawal in DSM-5 Volatile Inhalant Intoxication in ICD-11 / Inhalant Intoxication in DSM-5 Dissociative Drug Intoxication Including Ketamine or PCP in ICD-11 / Phencyclidine Intoxication in DSM-5 Gambling Disorder Pyromania Exhibitionistic Disorder Voyeuristic disorder Pedophilic Disorder Frotteuristic Disorder

The asterisk indicates that there are also differences between the two diagnostic systems in terms of degree of specification

**Table 5** Disorders with minor differences between the two diagnostic systems due to greater degree of specification in the DSM-5

Catatonia Associated with Another Mental Disorder Manic Episode Hypomanic Episode Premenstrual Dysphoric Disorder Panic Disorder Agoraphobia Specific Phobia Social Anxiety Disorder Separation Anxiety Disorder Conduct-Dissocial Disorder in ICD-11 / Conduct Disorder in DSM-5 
 Table 6
 Disorders with essentially identical definitions in the two diagnostic systems

Developmental Speech Fluency Disorder in ICD-11 / Childhood Onset Speech Fluency Disorder in DSM-5

Developmental Motor Coordination Disorder in ICD-11 / Developmental Coordination Disorder in DSM-5

Schizotypal Disorder in ICD-11 / Schizotypal Personality Disorder in DSM-5

Single Episode Depressive Disorder in ICD-11 / Major Depressive Disorder, Single Episode in DSM-5

Bipolar Type I disorder in ICD-11 / Bipolar I Disorder in DSM-5

Bipolar Type II Disorder in ICD-11 / Bipolar II Disorder in DSM-5

Selective Mutism

Trichotillomania

**Excoriation Disorder** 

Dissociative Neurological Symptom Disorder in ICD-11 (in Dissociative Disorders) / Functional Neurological Symptom Disorder in DSM-5 (in Somatic Symptom and Related Disorders)

**Dissociative Amnesia** 

Depersonalization-Derealization Disorder

Anorexia Nervosa

Avoidant Restrictive Food Intake Disorder

Pica

Rumination-Regurgitation Disorder in ICD-11 / Rumination Disorder in DSM-5

Enuresis

Encopresis

Kleptomania

Intermittent Explosive Disorder

Factitious Disorder Imposed on Self (in Factitious Disorders in ICD-11 and in Somatic Symptom and Related Disorders in DSM-5)

Factitious Disorder Imposed on Another (in Factitious Disorders in ICD-11 and in Somatic Symptom and Related Disorders in DSM-5)

Delirium

Mild Neurocognitive Disorder

Secondary Psychotic Syndrome in ICD-11 (in Secondary Mental or Behavioural Syndromes Associated with Disorders or Diseases Classified Elsewhere) / Psychotic

Disorder Due to Another Medical Condition in DSM-5 (in Schizophrenia Spectrum and Other Psychotic Disorders)

Secondary Mood Syndrome in ICD-11 (in Secondary Mental or Behavioural Syndromes Associated with Disorders or Diseases Classified Elsewhere) / Bipolar and Related Disorder Due to Another Medical Condition in DSM-5 (in Bipolar and Related Disorders) *plus* Depressive Disorder Due to Another Medical Condition in DSM-5 (in Depressive Disorders)

Secondary Anxiety Syndrome in ICD-11 (in Secondary Mental or Behavioural Syndromes Associated with Disorders or Diseases Classified Elsewhere) / Anxiety Disorder Due to Another Medical Condition in DSM-5 (in Anxiety Disorders)

Secondary Obsessive-Compulsive or Related Syndrome in ICD-11 / Obsessive-Compulsive and Related Disorder Due to Another Medical Condition in DSM-5 (in Obsessive-Compulsive and Related Disorders)

Secondary Personality Change in ICD-11 / Personality change Due to Another Medical Condition in DSM-5 (in Personality Disorders)

Secondary Catatonia Syndrome in ICD-11 / Catatonic disorder Due to Another Medical Condition in DSM-5 (in Schizophrenia Spectrum and Other Psychotic Disorders)

Psychological and Behavioural Factors Affecting Disorders or Diseases Classified Elsewhere in ICD-11 / Psychological Factors Affecting Other Medical Conditions in DSM-5 (in Somatic Symptom and Related Disorders)