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Bipolar disorder in the International Classification of Diseases-Eleventh version: A review of the changes, their basis, and usefulness

Chakrabarti S. ICD-11 bipolar disorder

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Abstract

The World Health Organization's 11th revision of the International Classification of Diseases (ICD-11) including the chapter on mental disorders has come into effect this year. This review focuses on the "Bipolar or Related Disorders" section of the ICD-11 draft. It describes the benchmarks for the new version, particularly the foremost principle of clinical utility. The alterations made to the diagnosis of bipolar disorder (BD) are evaluated on their scientific basis and clinical utility. The change in the diagnostic requirements for manic and hypomanic episodes has been much debated. Whether the current criteria have achieved an optimum balance between sensitivity and specificity is still not clear. The ICD-11 definition of depressive episodes is substantially different, but the lack of empirical support for these changes has meant that the reliability and utility of bipolar depression are relatively low. Unlike the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5), the ICD-11 has retained the category of mixed episodes. Though the concept of mixed episodes in the ICD-11 is not perfect, it appears to be more inclusive than the DSM-5 approach. Additionally, there are some uncertainties about the guidelines for the subtypes of BD and cyclothymic disorder. The initial results on the reliability and clinical utility of BD are promising, but the newly created diagnostic categories also appear to have some limitations. Although further improvement and research are needed, the focus should now be on facing the challenges of implementation, dissemination, and education and training in the use of these guidelines.

Key Words: ICD-11 guidelines; Bipolar disorder; Utility; Reliability

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Core Tip: This review evaluates the clinical utility and the scientific basis for the changes made to the section on ¹bipolar disorders in the 11th version of the International Classification of Diseases. The diagnostic requirements for many categories have changed. However, some of these alterations are still controversial ⁷based on the existing evidence. The examination of the reliability and utility of the newly created categories has yielded encouraging results, but certain limitations are evident. Thus, there is scope for further improvement, but the greater challenge will be to implement and disseminate the new guidelines and train the potential users of these guidelines.

INTRODUCTION

Bipolar disorder (BD) is a complex condition with several facets that influence its diagnosis and treatment^[1,2]. Some of these aspects include early onset, a lifelong course characterized by frequent relapses and recurrences, inter-episodic morbidity consisting of residual symptoms, cognitive dysfunction, and functional impairment, high rates of psychiatric and medical comorbidity, and high risks for self-harm or violence. There is a predominance of depression, from the onset of the illness and throughout its course including the inter-episodic periods. Therefore, distinguishing BD from unipolar depression is difficult. The full spectrum of BD commonly includes milder and subthreshold disorders that overlap with normal variations of mood, personality, and other non-mood disorders. In contrast, the more severe forms such as psychotic BD are often indistinguishable from schizophrenia. These complexities mean that the accurate diagnosis and initiation of treatment are often delayed by several years.

In the absence of laboratory tests, the diagnostic process in psychiatry relies on signs, symptoms, and the course of psychiatric disorders^[3-5]. Psychiatric classifications utilize these features to frame operational definitions that enhance the

diagnostic accuracy of the disorders. Apart from naming and providing explicit descriptions of the disorders, psychiatric classifications also determine their place in the organizational structure. This provides a theoretical perspective that aids research regarding their scientific basis. The creation of classificatory systems in psychiatry has a long history and much effort is spent on revising them to keep pace with the recent advancements in the field.

The principal psychiatric classifications are the ¹²Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association and the International Classification of Diseases (ICD) of the World Health Organization (WHO). The fifth version of the DSM (DSM-5) has been published in 2013^[6]. The WHO's 11th revision of the ICD (ICD-11) including the chapter on mental, behavioural, or neurodevelopmental disorders has ³¹come into effect from January 2022^[7]. The ¹¹draft versions of the ICD-11 guidelines including the one on mood disorders are available on the Global Clinical Practice Network (GCPN) website^[8].

Revising the ICD is a part of the core responsibility of the WHO. Its ²⁰Department of Mental Health and Substance Abuse was responsible for developing the ICD-11 guidelines for the ¹¹chapter on mental, behavioural, or neurodevelopmental disorders^[9-13]. The benchmarks for the revision of this ICD-11 chapter included attention to several guiding principles and priorities. These are summarized in Table 1.

²⁶This review focuses on the “Bipolar or Related disorders” section of the ICD-11, Clinical Descriptions and Diagnostic Requirements (CDDR) on mood disorders. It summarizes the changes that have been made in this section and attempts to evaluate the scientific basis and the usefulness of these changes.

SUMMARY OF THE CHANGES MADE

New nomenclature and revised organizational structure

The name of the section has been changed from mood (affective) disorders ²in the tenth revision of the ICD (ICD-10)^[14] to mood disorders in the ICD-11 version. Consequently, the term “bipolar affective disorder” has become “bipolar disorder”. This is appropriate since the word “affective” was redundant, while the label BD is

more precise^[15]. Additionally, the part on BD is now labelled “Bipolar or ¹Related Disorders” which is similar to the DSM-5.

During their development, efforts were made to forge a comparable organizational structure for both the DSM-5 and the ICD-11 CDDR^[16,17]. Reviews regarding the placement of BD concluded that considering the available evidence, the best possible solution would be an independent cluster for BD^[18,19]. The DSM-5 thus created a separate chapter for BD. The ICD-11 organization was also influenced by these efforts and its structure is largely similar to the DSM-5^[13,20]. However, the ICD-11 configuration was also determined by surveys of mental health professionals and studies examining their conception of a more clinically useful structure^[13,21-24]. The structure of mood disorders in the ICD-11 was changed based on these studies. The “Mood Disorders” section was retained to refer to a “superordinate” grouping of bipolar and depressive disorders. This avoided cutting the cord between BD and depressive disorders, which belong to the same spectrum^[25,26]. Following the spectrum approach, the ICD-11 has grouped cyclothymia with BD. The “Mood Disorders” section opens with the definitions of mood episodes. The longitudinal pattern of mood episodes determines the diagnosis of either depression or BD^[13]. This simpler and more clinically useful “building blocks” approach to diagnosing mood disorders^[27] is in line with the DSM-5.

Manic and hypomanic episodes

The descriptions of ¹manic and hypomanic episodes in the ICD-11 guidelines differ substantially from ones in the ICD-10 but are analogous to those in the DSM-5^[6,28]. This is depicted in Table 2.

There are only minor differences between the two classifications. Nevertheless, the ICD-11 definitions are somewhat broader than the DSM-5 ones. This is the result of a flexible diagnostic approach used by the ICD-11 CDDR, which avoids rigid and often arbitrary cut-offs imposed in the DSM-5^[29]. The requirements for a minimum number of accessory symptoms for mania and hypomania and a minimum duration of symptoms for hypomania have been avoided. This circumvents many difficulties associated with these diagnoses^[30]. Moreover, it places greater emphasis on

exercising clinical judgment and therefore resembles the diagnostic process in everyday practice^[31,32]. The differences in the two diagnostic approaches also reflect the differences between the prototype-based methods followed by the ICD-11 guidelines in contrast to the operational diagnostic criteria used by the DSM-5^[33-37]. Though prototype-based methods are not infallible, they are often more congruent with the clinician's diagnostic practices and therefore preferred by them. They are less complex and cumbersome than the operational criteria, but equally reliable and useful in diagnosing mood disorders. The ICD-11 guidelines attempted to enhance the utility of the prototype approach by using a standardized content form that contained systematic and consistent diagnostic information for all disorders^[10,13].

The expanded gate criterion is the most important alteration in the definitions of mania and hypomania both in the ICD-11 CDDR and the DSM-5. It was not present in the earlier versions of both these classifications including the ICD-10 guidelines. Changes in both mood and activity or energy are mandatory for the diagnosis now. This change was made to improve the diagnostic accuracy, specificity, and reliability of mania and hypomania^[13,38-40]. It was also meant to differentiate the diagnoses from normal mood fluctuations, particularly in the case of hypomania. The intention was to prevent the overdiagnosis of manic or hypomanic episodes as well as BD. Simultaneously, this change aimed to facilitate the earlier detection of BD by minimizing the under-reporting of hypomania in those with major depression.

Adding overactivity to mood symptoms is evidence-based and considered to be a well-founded change^[30,38,41-43]. The empirical support for including hyperactivity as a core criterion derives from factor-analytic investigations of mania and large-scale community studies of BD. Recent reviews of the factor-analytic studies of mania have indicated that overactivity is the most prevalent symptom of this condition^[44,45]. It is more common than mood changes and is associated with several other key symptoms of mania. Although community-based studies have also shown that any of the three criteria, euphoria, irritability, and overactivity are sufficient for diagnosing mania or hypomania, overactivity is the foremost diagnostic criterion with the maximum sensitivity^[46-50]. In contrast, there is less evidence for irritability being an entry-level criterion for mania or hypomania. Irritability is common in

many other disorders and is not specifically associated with mania or hypomania. Moreover, it is rarely associated with overactivity^[30,40,41]. The ICD-11 draft also includes lability of mood as a symptom of mania and hypomania, but its diagnostic role is not clear. Though there is a high prevalence of mood lability during manic episodes^[51], very few factor-analytic studies have found it to be an important constituent of mania^[45].

Additionally, the inclusion of antidepressant treatment-induced prolonged manic or hypomanic switches is also reasonable because such switches occur mainly in those predisposed to bipolarity^[41,49,52]. In contrast, the exclusion of mood episodes secondary to medical conditions or substance use is considered faulty because it is based on causal attributions^[53]. Lastly, the ICD-11 guidelines have added functional impairment to the definition of mania to ⁴⁹bring it more in line with the DSM-5. The ICD-10 had avoided using functional impairment as a diagnostic requirement because cultural factors were thought to confound socio-occupational performance. However, the ICD-11 has included impaired functioning as a part of the diagnosis because it helps in distinguishing mood disorders from normal mood changes, determining their severity, and improving their clinical utility^[5,9,10].

The change that has generated the maximum debate is the diagnostic requirement of combined mood changes and overactivity for mania and hypomania. Proponents of this change have insisted that the combination provides an optimal balance between diagnostic specificity and sensitivity^[42,43]. Moreover, the higher diagnostic threshold reduces the chances of a false positive diagnosis of BD. They argue that an incorrect diagnosis of BD may be more harmful than being falsely diagnosed with major depression. However, the majority of the other researchers feel that this requirement is too restrictive^[31,39,41,53,54]. They believe that the dyadic criterion decreases the ⁴⁵chances of diagnosing mania and hypomania. Consequently, the prevalence of ⁴⁵type I BD (BP-I) or ⁴⁵type II BD (BP-II) will decline because many patients will be relegated to the categories of subthreshold BD or major depression. They point out that community studies of BD have demonstrated that either mood change or overactivity is sufficient for the diagnosis. Thus, using either mood change or overactivity as entry-level criteria could increase the sensitivity of the manic and

hypomanic diagnoses without affecting the prevalence of BD^[29,40,53]. These contrasting propositions have been examined in some studies¹ on the prevalence of BD using the DSM-5 and ICD-11 criteria. These are included in Table 3.

This table shows that prevalence studies using the DSM-5 criteria are far more common. Only one study has considered the ICD-11 guidelines. Angst *et al*^[31] (2020) used the ICD-10, DSM-5, and the ICD-11 criteria to re-analyse the prevalence of mania and hypomania according to the Zurich cohort study. They proposed that the rate of hypomania will be doubled with the ICD-11 criteria compared to the ICD-10 and the DSM-5. This was presumably because of the broader definition of hypomania in the ICD-11 and the inclusion of patients with antidepressant-induced prolonged hypomanic switches. The lifetime prevalence of DSM-5 defined BD appears to be unchanged^[55-58]. In contrast, several DSM-5-based studies have found about a 20%-60% reduction in the point prevalence of manic and hypomanic episodes or BD^[38,59-61]. In these studies, patients diagnosed according to the DSM-5 criteria had more severe manic symptoms^[40,59,61] than those diagnosed with DSM-IV criteria^[62,63]. Moreover, these studies suggested that the prevalence with DSM-5 criteria was lowest early in the course of BD and increased with time^[38,58,59]. This was confirmed by the study of newly diagnosed patients with BD, in which the rate of DSM-5 BD was reduced by 62% at the baseline, but only by 50% on long-term follow-up^[61]. This is because newly diagnosed patients are a more heterogeneous group and are less likely to meet the stricter DSM-5 definitions than those with more chronic illnesses^[40]. Thus, the reduction in the prevalence of BD attenuated with time and there were no differences in the lifetime rates or clinical characteristics of mania, hypomania, and BD diagnosed with DSM-5 or DSM-IV criteria^[39,40,61]. These findings imply that although the DSM-5 criteria may prevent overdiagnosis of BD as intended, patients with less severe and recent-onset BD may be missed^[40]. Extrapolating from these results, it appears that though the short-term prevalence of BD may be reduced, the long-term prevalence of BD is likely to remain unchanged despite the use of the new definitions in the ICD-11 CDDR^[39,40,61].

The description of hypomanic episodes in the ICD-11 draft brings it closer to the DSM-5 definition in several aspects. Both distinguish mania from hypomania based

on the lack of marked functional impairment, no requirement for hospitalization, and the absence of psychotic symptoms in hypomania. However, these distinguishing features of hypomania are not without their problems. ⁴ For example, the lack of marked impairment in functioning is often difficult to make out with certainty^[64-66]. There are no clear criteria to determine the level of impairment and it is often a subjective judgement on the part of the clinician. Moreover, many patients with hypomania report an improvement in their functioning. Similarly, the decision to hospitalize someone with hypomania is often determined by several cultural, socioeconomic, or health-service-related factors than simply by the lesser clinical severity of the episode^[31,65,67]. In many instances, those with hypomania are more likely to be hospitalized than those with mania^[65]. Lastly, there is some evidence of an association between psychosis and hypomania, particularly from longitudinal community-based studies^[68,69]. Then again, other studies have shown that ⁵ patients with hypomania/BP-II disorder are much less likely to experience psychotic episodes, or be hospitalized because of psychosis than those with BP-I disorder^[66].

Finally, the issue that has been the bone of contention for a long time is the requirement for a minimum duration of four days for hypomania in the DSM-5. The existing evidence derived mainly from large community studies shows that there is no difference between hypomanic episodes lasting less or more than four days in terms of prevalence, clinical features, and associated impairment^[29,53,54,65,66]. However, the proposal to include short-lasting hypomanic episodes was not accepted by the DSM-5 because of concerns about the overdiagnosis of BD^[29]. Nevertheless, the DSM-5 has included some of these short-lasting presentations in the category of “Other Specified Bipolar and Related Disorders” and its section three as a condition for further study. By defining the minimum duration as “several days”, the ICD-11 guidelines seem to have avoided this controversy, but they are likely to have the same limitations as the DSM-5 criteria for hypomania^[65]. It is also unclear whether the lack of clear thresholds will hamper the clinical utility of the ICD-11 diagnosis^[70].

Depressive episodes and bipolar depression

The ICD-11 CDDR has made many changes to the definition of the ICD-10 depressive episode so that the ICD-11 description corresponds to the DSM-5 definition^[13,29,30]. These changes are shown in Table 4.

There are certain minor differences between the ICD-11 and DSM-5 definitions, but the major difference is the inclusion of the “bereavement exclusion” criterion while diagnosing depression in the ICD-11 draft^[29,30]. The DSM-5 has been widely criticized for removing the (operationally defined) “bereavement exclusion” criterion and supplanting it with the application of clinical judgement. The ICD-11 has followed the DSM-IV approach in setting a higher threshold in terms of duration and severity while diagnosing depression in the context of bereavement. Nevertheless, the subject of “bereavement exclusion” remains controversial, with some justifying its removal^[71,72] and others claiming its retention to be more in agreement with the evidence^[73,74].

Another problem is that the definitions of depressive episodes in the ICD-11 and the DSM-5 lack empirical support^[29,75,76]. These definitions arbitrarily impose a categorical threshold on what is essentially a dimensional concept. Accordingly, the distinction between major depression and normality, minor depression, and severe melancholic depression is unclear. The functional impairment criterion does not resolve this threshold problem. Therefore, major depression is a heterogeneous category both in terms of the diagnostic criteria and the patients meeting these criteria. Moreover, it has been shown that the current definitions do not include the most important symptoms and that simpler definitions of major depression may be more appropriate. All these limitations lead to poor reliability and clinical utility of the current category.

The definitions of unipolar depression and bipolar depression are identical in both the ICD-11 and the DSM-5^[29,54]. This is primarily because the existing evidence indicates that there are no characteristic features that could distinguish the two categories^[77-79]. However, certain symptoms, course characteristics, and family history are more common in either unipolar or bipolar depression and in those with unipolar depression who convert to BD. These features could be used to distinguish between unipolar or bipolar depression^[77]. Although this “probabilistic” approach

might have reasonable predictive power^[80,81], there are obvious difficulties in incorporating such a scheme in the current classifications. Nevertheless, the lack of distinction between unipolar and bipolar depression is problematic, because one of the reasons that the diagnosis of BD is often missed is the inability to distinguish between the two types of depression^[82].

Mixed episodes

Mixed states consist of an admixture of the usual manic and depressive symptoms along with certain characteristic features such as agitation, irritability, and hostility^[83-87]. More than a third (30%-70%) of the patients with BD present with mixed mania or mixed depression. Mixed states are associated with a more severe form of BD, higher comorbidity, poorer course and outcome, inadequate treatment response, higher disability, and greater risk of suicide.

The DSM-IV TR definition of mixed episodes was thought to be too restrictive because it required the concurrent presence of full manic and depressive syndromes. Since the most common presentation of mixed episodes is subsyndromal with a few symptoms of the opposite polarity, the DSM-5 replaced mixed episodes with a “mixed features” specifier^[83]. This was defined by the presence of a full mood episode of one polarity accompanied by at least three contrapolar symptoms, excluding those common to both kinds of episodes (overlapping symptoms). The DSM-5 also made it possible to use the specifier for major depressive episodes because of the high rates of subthreshold bipolarity in unipolar depression. It was anticipated that this definition would be better at capturing the subsyndromal manifestations of mixed presentations in BD^[82,83]. Indeed, studies showed that with the use of the new DSM-5 specifier mixed presentations were about three times more common than with the DSM-IV TR^[85,87]. However, several problems with the new specifier have gradually become apparent. The DSM-5 decision to leave out overlapping symptoms has often led to the exclusion of symptoms that are considered to be central to the presentation of mixed states. Several reviews on the subject have pointed out that psychomotor agitation is the principal component of these core features, followed by irritability or hostility (dysphoric mood), mood

lability, and distractibility^[86-90]. Though these features are more prominent in mixed manic episodes, they are present in both mania/BD and depression/unipolar disorder. Accordingly, the DSM-5 definition of mania or hypomania with mixed features is consistent with the existing evidence^[29]. However, the category of major depression with mixed features has been criticized because it leaves out many of these key symptoms while including relatively rare ones such as euphoria and grandiosity^[85,88-90]. Leaving out the characteristic symptoms means that a considerable proportion of those with mixed depression will be missed by the DSM-5 criteria. Moreover, it has been demonstrated that patients with major depression and mixed features often convert to BD and therefore should be included with the bipolar spectrum disorders^[84,91,92]. Additionally, the minimum number of contrapolar symptoms required for the specifier is unclear^[84,87,93]. Lastly, the specifier is likely to have poor clinical utility because of its poor predictive validity and uncertain treatment implications of the symptoms included^[91,94].

Therefore, it was suggested that the ICD-11 should retain the mixed episode category rather than adopt the DSM-5 approach^[95,96]. Retaining the category allows for further research examining its usefulness and treatment requirements. It also ensures that information about mixed states is properly captured because the category is coded. The ICD-10 definition of mixed episodes only required the rapid alternation of prominent manic, hypomanic, and depressive symptoms for two weeks. Although it was less restrictive and more in tune with the existing concepts, it was neither too detailed nor precise. Additionally, the two-week duration was considered to be excessive. Consequently, a departure from the ICD-10 approach was also proposed^[95,97]. The need to include the core symptoms of agitation, irritability, lability, and distractibility was endorsed, as was the retention of the rapid alternating pattern of symptoms^[95,96]. Nevertheless, the ICD-11 draft has essentially followed the ICD-10 approach by including the concurrent presence or rapid alternations of manic or depressive symptoms for two weeks or less if treatment is initiated^[13,29]. Unlike the ICD-10, it has included all the core contrapolar symptoms mentioned above. However, no threshold has been set for the number of such symptoms required for diagnosis. The episodes should cause significant functional

impairment. The diagnosis of a mixed episode will automatically signify a diagnosis of BP-I disorder. Therefore, the ICD-11 does not have a category equivalent to major depression with mixed features in the DSM-5. The exclusion of mixed episodes from the BP-II diagnosis is also debatable because of their high prevalence in this subtype^[98,99]. Though the concept of mixed episodes in the ICD-11 is not perfect, it may still turn out to be more inclusive than the DSM-5 approach, but this can only be established by further research.

Bipolar I disorder

A history of at least one manic or mixed episode will be sufficient to make a diagnosis of BP-I disorder in the ICD-11 CDDR, unlike the ICD-10 which required the presence of at least two episodes. The reliance on a single episode of mania to define BP-I disorder is based on the current evidence, which demonstrates that the occurrence of mania predicts the typical course of BDs, and separates it from other mood and psychotic disorders^[30]. Consequently, an independent diagnosis of a manic episode is no longer possible as it was in the ICD-10. However, like the ICD-10, the ICD-11 draft consigns the illnesses characterized by recurrent manic or hypomanic episodes without depression to the “Other Specified Bipolar or Related Disorders” category. Recently, Angst *et al*^[31,53,100] have presented evidence that contradicts the traditional view of recurrent mania as a rare condition indistinguishable from BD^[27]. Rather, epidemiological studies have found recurrent mania to be common^[101] and clinical studies indicate that about 15%-20% of the patients with BD have this condition^[102]. The rates are considerably higher in Asian studies coupled with the predominantly manic course of BD in these countries^[103]. Moreover, recurrent mania can be reliably distinguished from BP-I disorder in terms of its diagnostic stability, lifetime course, familial-genetic features, and treatment response^[31,53,100,102,104]. Therefore, reviving the recurrent mania diagnosis has been proposed.

Bipolar II disorder

The most noticeable change in the ICD-11 CDDR, distinguishing it from the ICD-10 is the inclusion of the BP-II subtype. Similar to the DSM-5, a diagnosis of BP-II disorder will require a history of at least one hypomanic episode and one depressive episode. The BP-II subtype was officially recognized in the DSM-IV, based on its diagnostic stability and familial-genetic links with BD^[105]. Although historically perceived to be a milder form of BD, it is now clear that BP-II disorder is a chronic and highly recurrent condition that is equally, if not more disabling than the BP-I subtype. A predominance of depressive pathology during the acute episodes, subthreshold depression in the inter-episodic periods, and suicidal behavior are more common in BP-II disorder^[29,106]. The initial evidence suggested that BP-II disorder could be distinguished from BP-I disorder based on its epidemiology, familial-genetic aspects, longitudinal course, and higher suicidal risk^[98,107,108]. However, subsequent reviews concluded that there were more similarities than differences between the two subtypes^[109-111]. More recently, this debate has been revived in a slightly different fashion. The essential controversy seems to be whether to use a dimensional or a categorical model of BD. Those that favor a dimensional model have argued that BP-II disorder has to be subsumed under the broader bipolar spectrum diagnosis^[70,99,112-114], whereas others who favor a categorical approach maintain that there is sufficient evidence for an independent BP-II category^[115-119]. The actual evidence in terms of validators provides almost equal support for both the dimensional and the categorical approaches. Moreover, the size of the evidence base is small and plagued by numerous methodological problems. Additionally, most of the differences seem to arise from the way BP-II disorder (and hypomania) is defined and assessed across the different studies^[32,42,111,120]. Nevertheless, the final verdict seems to be that it would be premature to abandon the BP-II subtype. Rather, it should be retained to encourage further research that may improve its definition and utility^[118,119,121-123]. The controversies surrounding the BP-II diagnosis in the ICD-11 and the DSM-5 classifications are detailed in Table 5.

Cyclothymic disorder

The ICD-11 draft has made substantial changes to the diagnostic requirements for cyclothymic disorder compared to the ICD-10 version, bringing the definition closer to the one in the DSM-5. These changes are shown in Table 6.

Unlike the DSM-5, there is no requirement for mood symptoms to be present more than half the time in the ICD-11 version. Moreover, the diagnosis of hypomania can be made at any time after the onset of the disorder, and that of depressive disorder after the first two years. Thus, the definition is less rigid than the DSM-5 one.

However, the existing literature suggests that cyclothymic disorder is not only characterized by persistent subsyndromal mood changes, but also by mood lability, irritability, increased emotional sensitivity, and a lifelong pattern of impulsivity and interpersonal difficulties that make up the cyclothymic temperament^[124-126]. Moreover, cyclothymic temperament seems to be the central part of the presentation of cyclothymia and has been linked to an increased risk of suicide. Accordingly, the selective emphasis on mood changes and the neglect of personality characteristics in the ICD-11 definition may be misplaced. Moreover, the complex diagnostic requirements may reduce the utility of the disorder^[127]. The decision to allow hypomanic episodes creates further difficulties. Mixed states are very common in cyclothymia but they have been excluded from the ICD-11 because they denote a diagnosis of BP-I disorder. Therefore, more comprehensive and precise guidelines may be required to improve the reliability and clinical utility of cyclothymia in the ICD-11 CDDR.

Bipolar spectrum disorders

The ICD-11 has followed a somewhat contradictory approach to introducing a dimensional aspect to the BD category. Although it has tacitly accepted the existence of a bipolar spectrum by including BP-II disorder, mixed episodes, cyclothymia, and antidepressant-induced mania as a part of BD, it has stopped short of including other categories from this spectrum. This is contrary to the evidence supporting a wider spectrum of BDs^[128-132]. This evidence indicates that bipolar spectrum disorders are possibly more common than BP-I and BP-II disorders^[133-136]. Additionally, up to half of those with major depression show signs of subthreshold

bipolarity. Spectrum disorders are clinically significant forms of BD, often associated with a poor prognosis and enhanced risk of converting to BP-I or BP-II disorders. The failure to detect spectrum disorders often leads to inappropriate or delayed diagnosis and ineffective or harmful treatment. However, the ICD-11 draft chose not to include these disorders. This was because of the concerns about the uncertain boundaries of spectrum disorders and the risk of overdiagnosis and inappropriate treatment^[132-135]. The relative lack of external validators, the problems with diagnostic and prognostic validity, and the absence of controlled data on treatment also proved problematic. Incidentally, the DSM-5 has included some of these disorders in the “Other specified Bipolar and Related Disorders” category. Moreover, a community study utilizing DSM-5 criteria for BD has shown that the spectrum disorders are as frequent and disabling as BP-I and BP-II disorders^[55].

Specifiers

Much like the DSM-5, the ICD-11 CDDR uses several specifiers for mood disorders to create more homogeneous subgroups. These specifiers are also intended to increase diagnostic specificity, assist treatment selection, and help prognostication^[29]. They include those related to the course, severity, and descriptive symptom patterns. However, unlike the DSM-5 all specifiers can be coded in the ICD-11 draft so that this information is preserved. The primary specifiers include psychotic symptoms, severity in the case of depressive disorders, and course specifiers such as partial or full remission. Additional specifiers for melancholia and chronicity apply to depressive episodes. The rapid cycling specifier is used to describe BP-I and BP-II disorders. Specifiers common to both depression and BD include the presence of prominent anxiety symptoms, panic attacks, seasonal patterns, and the puerperal onset of episodes. Though most of these specifiers have been included in successive DSM classifications and are evidence-based, there are some uncertainties about their definitions and clinical utility^[29]. However, the anxiety symptoms specifier is new to both the ICD-11 and the DSM-5. It is based on the evidence for the frequent occurrence of anxiety symptoms and the influence of these symptoms on the course and outcome of BD^[137-140].

Clinical utility

The notion of clinical utility and its examination in the ICD-11 was influenced by different aspects of the concept. These included its working definition^[141,142], the need for clinical utility^[143-145], levels of utility^[141,145], and clinical, research, and public health aspects of utility^[146-148]. These are shown in Table 7.

Although clinical utility has been a consideration for the DSM-5 and the earlier versions of both classifications, systematic attention to its study was much greater during the preparation of the ICD-11 CDDR^[147,148]. Notably, it was the guiding principle at all stages of the development of the ICD-11 draft, from its adoption as the primary principle, framing an operational definition, using it to guide the evidence review and the description of diagnostic categories, and conducting field trials to examine its relevance^[9-11,13,141].

The ICD-11 field studies

The clinical utility of the ICD-11 CDDR categories was examined in a series of studies with a varied methodology in naturalistic settings. These studies were coordinated and conducted by the Field Studies Coordination Group and the GCPN^[10,11,149,150]. They included internet-based surveys and clinic-based studies conducted at the field trial centres (FTCs). The formative field trials were conducted early during the guideline development and were meant to provide data to help improve the ICD-11 draft. These included surveys of mental health professionals to elicit their opinions and utilization patterns. Studies on the clinicians' organizational map were meant to inform the structure of the ICD-11 CDDR. Evaluative field studies were designed to assess the utility and reliability of the classification and the individual categories. They included internet-based studies using clinical vignettes and clinic-based FTC studies. The results of these studies regarding BD or mood disorders are shown in Table 8.

At the first glance, the results are encouraging. The clinical utility and utilization of the ICD-11 BD and mood disorders were very high^[22,151-154]. The overall structure of the ICD-11 version and the structure of the mood disorders section was endorsed

by the clinicians^[23,24]. The diagnostic accuracy of BP-II disorders in the ICD-11 CDDR was better than the ICD-10 guidelines^[155,156]. The clinical utility and inter-rater reliability of BP-I disorder, BD, and mood disorders all proved to be high^[142,157-160]. While the clinical utility of these ICD-11 categories was similar to the ICD-10^[161,162] and the DSM-5 diagnoses^[163], their inter-rater reliability was better than the corresponding DSM-5 categories^[164,165]. However, there were a few limitations. There was a divergence of opinion between psychiatrists and other mental health professionals in certain studies^[151,153]. Although the ICD-11 categories were not inferior to the ICD-10 ones in terms of utility and reliability, there were no substantial differences between the two versions^[155,156,161,162]. The reliability of BP-II disorder though adequate was relatively low^[157]. Certain aspects of the clinical utility, *e.g.*, making treatment decisions based on the diagnoses were difficult^[160]. Patients' perceptions were not invariably favourable^[158]. Finally, methodological limitations such as a selection bias towards those positively predisposed to the ICD-11 and inadequate generalization of the results to routine clinical practice could confound these findings^[149]. Therefore, there is much scope for improving the utility and reliability of the ICD-11 guidelines as well as conducting further research on the subject.

CONCLUSION

The ICD-11 guidelines on BD have been more or less finalized following a protracted and complicated process. Many changes have been suggested. Many limitations are also evident, mostly arising from the conflicting nature of the existing evidence. Imperfections are also due to the consensus-based system of creating classifications^[166] and the limitations of the current state of knowledge about the aetiology of psychiatric disorders^[167-171]. The conservative approach followed may lead to some frustration. However, it has to be accepted that any change can only be incremental and that the scope for paradigmatic shifts is limited at present^[30,172]. It is also time to move beyond the endless debates about the necessity of revisions^[145,173,174] and focus on the challenges of implementation, dissemination, and education and training of the potential users of these guidelines. A provision for

continuous upgrading similar to the DSM-5^[175] and a greater focus on treatment-utility is also needed^[148]. Though the initial results of clinical utility and reliability of BD seem promising, it will take several years and many studies to evaluate the real impact of the ICD-11 guidelines on the current psychiatric practice. It would be imperative that all stakeholders including the policymakers, professionals, and the people impacted by mental illnesses are engaged in this process^[9]. Ultimately, only they will determine if the revision was worth the effort.

Table 1 Benchmarks for the revisions of the new classifications^[9-13]

Principles and priorities	ICD-11-CDDR	DSM-5 ¹
Guiding principles		
Public health imperative	The guidelines should be useful in alleviating the global mental health burden, especially the burden in the low-and middle-income countries	The manual is meant to be used as a tool for collecting and communicating accurate public health statistics on mental disorders
Clinical imperative	Clinical and public health utility were accorded the greatest priority followed by scientific validity	Clinical utility was accorded the highest priority followed by the scientific evidence
Stakeholders	The guidelines are meant for use in all countries, for all professionals, and for all service users	The manual is meant for all professionals and service users
Multiple uses	The guidelines are meant for clinical, research, teaching, and training purposes, and for collecting data	The manual is meant for clinical, research, teaching, and training purposes, and for collecting data
Settings	The guidelines are meant for all settings including specialist and primary-care settings, with special emphasis on primary-care settings in low-and middle-income countries	The manual should be applicable to all settings including specialist, primary-care, community, and forensic settings
Cross-cultural	The revision should be relevant and	Cultural aspects relevant to the

applicability	acceptable to clinicians from all cultures	diagnosis was a key consideration
Priorities		
Global applicability	Global and universal applicability the guidelines should be relevant for all countries, all stakeholders, and in all settings	Professionals from 39 countries were involved in developing the scientific basis of the diagnostic criteria
Clinical utility	Clinical and public-health utility were accorded the highest priority during the process of revision	The manual is primarily intended for clinical use and should be feasible for clinical practice
Scientific validity	The scientific basis should be based on best available evidence. Compromises for the sake of utility should be avoided	The revision was guided by a thorough review of the best scientific evidence
Harmonization	¹ Efforts to harmonize the ICD-11 revision with the DSM-5 involved enhancing similarities and minimizing arbitrary differences between the two systems	The APA collaborated with the WHO to develop a common and globally applicable research base for the DSM-5 and the ICD-11 disorders

¹The priorities of the DSM-5 classification were quite similar to the ICD-11.

⁹APA: American Psychiatric Association; DSM-5: Diagnostic and Statistical Manual of Mental Disorders, 5th edition^[6]; ICD-11-CDDR: International Classification of Diseases, 11th version, ⁴⁶Clinical Descriptions and Diagnostic Requirements^[8]; WHO: World Health Organization.

Table 2 Comparison of diagnostic criteria for manic and hypomanic episodes

ICD-11-CDDR		DSM-5
Manic episode		
Gate/entry criteria	level	Both extreme and persistent mood changes (euphoria, irritability, expansiveness, mood lability) and abnormally increased activity or subjective experience of increased energy ¹⁹
Accessory criteria		Significant and noticeable changes in three of the seven areas: talkativeness/pressured speech, flight of ideas/racing thoughts, increased self-esteem/grandiosity, decreased need for sleep, distractibility, impulsive/reckless behaviour, increased sexual or social drive/increased goal directed activity ²⁵
Persistence duration	and	Symptoms present most of the day, nearly every day for a minimum of one week unless shortened by hospitalization ⁸
Functional impairment		Significant impairment in all the areas of functioning; the patient may require intensive treatment/hospitalization to prevent self-harm or violence; the episode may be accompanied by psychotic symptoms ²⁸
Exclusions		Mania secondary to medical conditions or substance use; symptoms ³⁰

	use; mixed episodes excluded	manic episodes with mixed features allowed
Effects of antidepressant treatment	<p>The episode should be considered a manic one if all the criteria are met even after the effects of treatment have diminished</p> <p>Severity not graded</p>	<p>The episode should be considered a manic one if all the criteria are met even after the effects of treatment have diminished</p> <p>Severity graded as mild, moderate, or severe based on the number of symptoms, their intensity, and functional impairment</p>
Grading of severity		
Psychotic symptoms	No distinction between mood-congruent and incongruent symptoms	Mood-congruent and incongruent symptoms distinguished
Hypomanic episode		
Gate/entry criteria	Both persistent mood changes (elevation, irritability, mood lability) and abnormally increased activity or subjective experience of increased energy that are significantly different from the usual mood state; changes are apparent to others and do not include changes that are appropriate to the circumstances ²	Both abnormal and persistent mood changes (elevated, expansive, or irritable) and abnormal and persistent increase in activity or energy; changes in mood differ significantly from the usual state and are apparent to others
Accessory criteria	Significant changes in several of the seven accessory symptoms that are identical to the definition of mania; these changes are apparent to others	Significant and noticeable changes in three of the seven accessory symptoms, four if mood is only irritable; accessory criteria are the same as those for mania and almost identical to the ICD-11 definition
Persistence	and Symptoms present most of the day, nearly every day for a	Symptoms present most of the day, nearly every day for a

duration	at least several days	minimum of four consecutive days
Functional impairment, hospitalization, and psychotic symptoms	Socio-occupational functioning is not markedly impaired; the patient does not require intensive treatment or hospitalization to prevent self-harm or violence; the episode is not accompanied by psychotic symptoms	Clear change in socio-occupational functioning from the usual state apparent to others, but functioning is not markedly impaired; the patient does not require hospitalization to prevent self-harm or violence; the episode is not accompanied by psychotic symptoms
Exclusions	Hypomania secondary to medical conditions or substance use; mixed episodes are excluded	Hypomania secondary to substance use ³ ; hypomanic episodes with mixed features allowed
Effects of antidepressant treatment	The episode should be considered a hypomanic one if all the criteria are met even after effects of treatment have diminished	The episode should be considered a hypomanic one if all the criteria are met even after effects of treatment have diminished; however, full syndromal manifestation of hypomania is necessary

¹Updated in 2015 to persistent increase in activity or energy (“goal-directed” removed)^[28].

²In the ICD-11 CDDR, the word “extreme” is not used to describe the mood change in hypomania as in manic episodes, possibly denoting a reduced severity of mood alterations; no such distinction is present in the DSM-5.

³Updated in 2015 to include hypomania secondary to medical conditions^[28].

¹⁴DSM-5: Diagnostic and Statistical Manual of Mental Disorders, 5th edition^[6]; ICD-11-CDDR: International Classification of Diseases, 11th version, Clinical Descriptions and Diagnostic Requirements^[8].

Table 3 Prevalence of bipolar disorder according to the ²⁴International Classification of Diseases, 11th version and the Diagnostic and Statistical Manual of Mental Disorder, 5th edition criteria

Study	Criteria sets	Patients	Bipolar types	Type of prevalence	Results regarding the prevalence of BD
No change in the prevalence of bipolar disorder					
Fassassi <i>et al</i> ^[53] , 2014	DSM-5	Community-based	BP-I, BP-II, Other BD ¹	12-mo and lifetime	Prevalence similar to earlier studies of BD
Calvó-Pexas <i>et al</i> ^[56] , 2015	DSM-5	Community-based	BP-I, Other BD	Lifetime	Prevalence was within the range of previous reports of BD
Blanco <i>et al</i> ^[57] , 2017	DSM-5	Community-based	BP-I	Lifetime	Prevalence was within the range of previous reports of BD
Gordon-Smith <i>et al</i> ^[58] , 2017	DSM-IV and DSM-5	Community-based and outpatients	BP-I, BP-II	Lifetime	Up to 94% of the patients with DSM-IV BD also met the DSM-5 criteria
Decrease in the prevalence of bipolar disorder					
Angst <i>et al</i> ^[53] , 2013 ²	DSM-5	Analysis based on a previous community study (BRIDGE)	BD	Lifetime	About 22% reduction in prevalence
Machado-Vieira <i>et al</i> ^[38] , 2017	DSM-IV and DSM-5	Outpatients	Mania and hypomania	Point prevalence	The prevalence of mania and hypomania according to the DSM-5 criteria was reduced by about 50%
Fredskild <i>et al</i> ^[59] , 2019	DSM-IV TR and DSM-5	Outpatients	Mania and hypomania	Point prevalence	A reduction of 35% in the prevalence of mania and hypomania

Faurholt-Jepsen <i>et al</i> ⁶⁰ , 2020	DSM-5	Patients taking part in trials	Mania and hypomania	Smartphone-based activity assessments over 6-9 mo	The prevalence of hypomania according to the DSM-5 criteria was substantially less (0.12%) than patients not meeting these criteria (24%)
Fredskild <i>et al</i> ⁶¹ , 2021	DSM-IV and DSM-5	Outpatients	Mania and hypomania	Assessments at baseline and at 3-year follow-up	The prevalence of mania and hypomania according to the DSM-5 criteria was reduced by 62% at baseline and by 50% on follow-up

Increase in the prevalence of bipolar disorder

Angst <i>et al</i> ³³ , 2013 ³	DSM-5	Analysis based on a previous community study (BRIDGE)	BP-II	Lifetime	Prevalence of BP-II disorder will be twice as much with the DSM-5 than earlier
Angst <i>et al</i> ³¹ , 2020 ⁴	ICD-10, DSM-5, and ICD-11	Analysis based on an earlier community study (Zurich cohort study)	Mania (BP-I) and hypomania (BP-II)	Lifetime	Prevalence of hypomania (BP-II) will be doubled with the ICD-11 criteria compared to the ICD-10 and the DSM-5 criteria; no change in the prevalence of mania (BP-I) is likely

¹The Other BD group refers to the “Other Specified Bipolar and Related Disorders” category of the DSM-5.

²This reduction is proposed to be a consequence of the mandatory requirement for both mood changes and overactivity.

³The increase in prevalence is proposed to be a consequence of inclusion of patients with antidepressant-induced prolonged hypomanic switches.

⁴The increase in prevalence is proposed to be a consequence of a somewhat broader definition of hypomania in the ICD-11 and the inclusion of patients with antidepressant-induced prolonged hypomanic switches.

²⁹BD: Bipolar disorder; BP-I: Type I bipolar disorder; BP-II: Type II bipolar disorder; BRIDGE: Bipolar disorders: Improving diagnosis, Guidance, and Education⁽⁴⁹⁾; DSM-IV/DSM-IV TR: Diagnostic and Statistical Manual of Mental Disorders, 4th edition/Text revision^(62,63); DSM-5: Diagnostic and Statistical Manual of Mental Disorders, 5th edition⁽⁶⁾; ICD-10: International Classification of Diseases, 10th version⁽¹⁴⁾; ICD-11: International Classification of Diseases, 11th version⁽⁸⁾.

¹⁰**Table 4 Changes to the diagnostic guidelines for bipolar depression in the International Classification of Diseases, 11th version**

	ICD-11-CDDR	DSM-5	ICD-10
Core symptoms	One of the following: Depressed mood ⁴ or diminished interest or pleasure	One of the following: Depressed mood or loss of interest or pleasure	Two of the following: Depressed ¹⁸ mood, loss of interest and enjoyment, and reduced energy leading to increased
Accessory symptoms	Reported or observed changes	Reported or observed changes	Fatiguability, diminished activity, and marked tiredness
	Change from usual functioning	Change from usual functioning	
	Eight symptoms including the new symptoms of hopelessness, fatigue, and	Seven symptoms: Hopelessness is not included, but fatigue and views of future instead of	Seven symptoms: Bleak and pessimistic

	agitation/retardation	psychomotor changes are included	hopelessness, no psychomotor changes or fatigue that are part of the core symptoms
	Other symptoms (unchanged) are-inattentiveness, changes in sleep and appetite, low self-worth or guilt, and suicidal ideation	Other symptoms are the same as in the ICD-11	Other symptoms are the same as in the ICD-11
Persistence and duration	Symptoms occur most of the day, nearly every day during a minimum period of two weeks	Symptoms occur most of the day, nearly every day during a minimum period of two weeks	Minimum duration of two weeks usually required but shorter periods suffice if symptoms are unusually severe and of rapid onset
Diagnostic threshold	Five out of ten symptoms	Five out of nine symptoms	Four out of ten symptoms
Functional impairment	Part of the diagnostic criteria	Part of the diagnostic criteria	Used to rate severity
Exclusions	Depression secondary to medical conditions or substance use and mixed episodes; mixed episodes excluded.	Depression secondary to medical conditions or substance use; diagnosis of depressive episodes with mixed features possible	No clear exclusions
Bereavement exclusion	Operationalized definition present	Only an explanatory note that advises the use of clinical judgement	Not mentioned as a part of the diagnostic guidelines

Severity ratings	in such instances	
	Mild, moderate and severe depressive episodes based on symptom-severity and functional impairment; no requirement for a minimum number of symptoms	Grading similar to the ICD-11; no requirement for a minimum number of symptoms required for grading different levels of severity; clinical judgement also advised
Psychotic symptoms	Moderate depression with psychotic symptoms is a new category	Mood congruent and incongruent symptoms distinguished
Description of melancholia	Descriptions similar to the ICD-10, but no requirement for a minimum number of symptoms	Descriptions similar to the ICD-11; a minimum of four symptoms required
Additional specifiers	With prominent anxiety, panic attacks, chronicity, seasonal pattern, puerperal onset	No other specifiers
<div>9</div> <div>6</div> <div>DSM-5: Diagnostic and Statistical Manual of Mental Disorders, 5th edition^[6]; ICD-10: International Classification of Diseases, 10th version^[14]; ICD-11-CDDR: International Classification of Diseases, 11th version, Clinical Descriptions and Diagnostic Requirements^[8].</div>		

Table 5 The controversy about type two bipolar disorder

Controversies	For retaining BP-II disorder	Against retaining BP-II disorder
The definition of hypomania	Current definitions of BP-II disorder in the ICD-11 and the DSM-5 represent an optimal balance between sensitivity and specificity; they will prevent the over-diagnosis and harmful effects of inappropriate treatment of a false positive diagnosis ^[30,38,42,43]	Current criteria are too restrictive and under-diagnose hypomania and BP-II disorder. The minimum duration required is not evidence-based and should be shorter ^[32,113,114,120,121]
Prevalence of BP-II disorder	The prevalence of BP-II disorder is as high as BP-I disorder, or even higher than the BP-I subtype ^[98,108-110]	Data on prevalence is mixed. Prevalence is also influenced by factors such as broader definitions, improved recognition, and increased awareness ^[111,114]
Course of BP-II disorder	Compared to BP-I disorder, BP-II disorder has a more chronic course, greater syndromal and subsyndromal depressive symptoms, and higher episode frequency ^[98,107-109,112]	The seemingly adverse course of BP-II disorder could be a function of confounding factors such as symptom-severity, comorbidity, and the effects of treatment ^[32,70,99,114]
Diagnostic stability of BP-II disorder	The diagnosis of BP-II disorder remains the same for several years. Only 5%-15% of the patients with BP-II disorder develop BP-I disorder ^[6,98,105,109]	The boundaries between BP-II and BP-I disorder, between BP-II disorder and cyclothymia, and between BP-II disorder and personality disorders are unclear ^[70,99,113,115]
The prevalence of psychotic symptoms	Patients with BP-I disorder are more likely than those with BP-II disorder to have psychotic	Psychosis is also associated with hypomania, especially in longitudinal community

	symptoms ^[66,111,115]	studies ^[68,69,113]
Suicidal behaviour	Suicide rates are higher in BP-II disorder than BP-I disorder ^[107-109,120,121]	The higher suicide rates in BP-II disorder could be a function of comorbid personality disorders and comorbid substance use ^[98]
Family-genetics	BP-II disorder runs in families. Genetic studies help distinguish BP-II disorder from BP-I disorder ^[98,110,116,118,121]	Genetic studies show that BP-II and BP-I disorders lie on a continuum of genetic risk without any distinction between the two subtypes ^[106,112,114,120]
Neuroimaging	Some studies suggest quantitative or qualitative differences between the two subtypes ^[116,123]	There are no differences in neuroimaging between the two subtypes ^[98,111,112,114,120]
Neurocognition	Patients with BP-II disorder are less impaired on neuropsychological tests than those with BP-I disorder ^[98]	There is a great degree of overlap in the neurocognitive performance between the two subtypes ^[114,116]
Treatment response	The treatment requirements of patients with BP-II disorder are different ^[115,118,119]	There is no difference in treatment response between the two subtypes ^[98,108,111,114,120]

³ BP-I: Type I bipolar disorder; BP-II: Type II bipolar disorder; DSM-5: Diagnostic and Statistical Manual of Mental Disorders, 5th edition^[6]; ICD-11: International Classification of Diseases, 11th version^[8].

¹⁰ **Table 6 Changes to the diagnostic guidelines in the International Classification of Diseases, 11th version for cyclothymic disorder**

	ICD-11-CDDR	DSM-5	ICD-10
Core features	Chronic mood instability of more than two years consisting of several	Several hypomanic or depressive symptoms for more than two years	³⁵ A persistent instability of mood, involving numerous

	hypomanic and depressive periods (irritability in children and adolescents)		5 periods of mild depression and mild elation (No duration mentioned)
	Hypomanic symptoms may meet the criteria for hypomanic episodes	Symptoms do not meet the criteria for hypomanic or major depressive episodes	None of these symptoms meet criteria for mania/BD or depressive episode/recurrent depressive disorder
Symptom-free periods	Symptom-free periods are no longer than two months during the course of the disorder	Hypomanic and depressive symptoms are present at least half of the time during the course of the disorder	Mood state may be normal and stable for months (No minimum duration for symptom-free periods specified)
		Symptom-free periods are no longer than two months during this period	
Children and adolescents	Duration of one year is appropriate	Duration of one year sufficient	No mention of duration in children and adolescents
Manic, mixed, and depressive episodes	Criteria for manic and mixed episodes are never met. Depressive episodes cannot be diagnosed during the first two years of cyclothymia. After that, they can be diagnosed if criteria are met	5 Criteria for manic, hypomanic, or major depressive episodes are never met during the first 2 years. If the person subsequently experiences major depression, mania, or hypomania, the diagnosis is changed to	4 Criteria for manic, mixed, and depressive episodes are never met

	4 major depressive disorder, BP-I disorder, or other specified or unspecified bipolar and related disorders		
	Criteria for BP-I or BP-II disorder are never met		Criteria for BD or recurrent depressive disorder are never met
Exclusions	27 Cyclothymia secondary to medical conditions or substance use	27 Cyclothymia secondary to medical conditions or substance use	No exclusions
Functional impairment	4 Symptoms result in significant distress and/or functional impairment	Symptoms result in significant distress and/or functional impairment	Symptoms are so mild that patients often do not seek treatment
Progression to BD	Mentioned	Mentioned	Mentioned
Inclusion of additional personality features	Not included-unlike personality disorders, cyclothymia does not include persistent self and interpersonal dysfunction	Included-the person may be temperamental, moody, unpredictable, inconsistent, or unreliable	Included-in some instances, mood changes are less prominent than cyclical disturbances of activity, self- confidence, and social behaviour

3
BP-I: Type I bipolar disorder; BP-II: Type II bipolar disorder; DSM-5: Diagnostic and
Statistical Manual of Mental Disorders, 5th edition^[6]; 6
ICD-10: International
Classification of Diseases, 10th version^[14]; ICD-11-CDDR: International Classification
of Diseases, 11th version, Clinical Descriptions and Diagnostic Requirements^[8].

10
**Table 7 The considerations guiding the notion of clinical utility in the
International Classification of Diseases, 11th version**

Concepts	Application to the ICD-11 CDDR
Working definition	2 Clinical utility of the classification and its categories includes the ability to facilitate communication among clinicians, having characteristics that help clinical practice (diagnostically accurate, easy to use, and feasible), and containing guidance for appropriate treatment choices ^[141,142]
Why clinical utility?	Validity is not a pragmatic goal; enhanced diagnostic reliability has not led to increased validity ^[143,144] . Current classifications have several shortcomings and are not useful in real-world settings ^[11,37,142]
Levels of utility	Clinical utility has two levels including the architectural or organizational level and the category level ^[24,141] , utility should focus on both the levels and emphasize coverage, description of attributes, and ease of use ^[145]
Application to healthcare settings	to The need for utility is the greatest during clinical encounters in routine practice settings. The classification must provide information of value to the clinician in these situations ^[9-11,13,146]
Public health utility	Consideration must be given to the features of the classification that enhance global applicability and reduce global mental health burden ^[9,147]
Contextual aspects	Utility is context-specific; it depends on the purpose for which a classification is used, clinical, research, or for public health ^[9,10,146]
Utility and scientific validity	Clinical utility has to go hand-in hand with the scientific evidence. Moreover, compromising the scientific basis of the classification to meet the needs of clinical utility has to be avoided as far as possible. There is considerable overlap between clinical utility and predictive validity and sometimes it is difficult to distinguish between them ^[105,145,147]
Greater emphasis on clinical utility in the ICD-11	Clinical utility as the ultimate organizing principle is not a new notion, but the ICD-11 has paid the greatest systematic attention to this aspect ^[10,147,148] 1
Improving clinical utility in the ICD-11	1 Clinical utility has been the guiding principle at all the stages, from the evidence review, to content formation, and to the field

trials. The standardized template or content-form was structured to enhance clinical utility. Working Groups were asked to consider the clinical utility of the changes suggested. The prototype-based approach contributed to enhanced clinical utility. Cross-cultural usefulness was addressed. The ICD-11 field-trial studies used methodology specifically designed to examine clinical utility in naturalistic settings. The results of these studies have been used to improve the revision further^[9-13]

¹ Similarities between the ICD-11 and the DSM-5 in this regard are shown in Table 1. ICD-11: International Classification of Diseases, 11th version, CDDR-Clinical Descriptions and Diagnostic Requirements ICD-11^[8].

Table 8 The International Classification of Diseases, 11th version field trials on reliability and clinical utility of bipolar disorder ¹

Study	Results
Formative field trials	
Surveys of mental health professionals: opinions and utilization patterns	
Reed <i>et al</i> ^[22] , 2011 Internet-based survey	The ICD-10 category of BD had considerable clinical utility and was commonly used. The category of single depressive disorder was commonly used and should be retained. Functional impairment should be a diagnostic criterion for mood disorders
Evans <i>et al</i> ^[151] , 2013 Internet-based survey of psychologists	The ICD-10 category of BD was not as commonly used. BD was rated to have low clinical utility, especially regarding its ease of use
Avasthi <i>et al</i> ^[152] , 2014 Internet-based survey	The ICD-10 category of BD was commonly used and was easy to diagnose (high ease of use)
Robles <i>et al</i> ^[153] , 2014 Internet-based survey	The ICD-10 category of BD was considered a problematic diagnosis by about 4% of the participants because of its non-specificity. Only about 1% of the participants felt that BP-II disorder should be included in the current version
Maruta <i>et al</i> ^[154] , 2013	A majority (69%) of the participants felt that BD should be included

Internet-based survey	in a separate category of mood disorders
Studies on the clinicians' organizational map for classifications	
Roberts <i>et al</i> ^[23] , 2012	Clinicians' concepts were in keeping with the current evidence and
Internet-based survey	similar across all groups and countries. BP-I, BP-II, and cyclothymic disorders were considered to be adult rather than developmental onset disorders. Clinicians' views about the organizational structure corresponded more to the ICD-11 classification than the ICD-10 or the DSM-5
Reed <i>et al</i> ^[24] , 2013	Clinicians' concepts were in keeping with the current evidence and
Clinic-based study	similar across all groups and countries. Mood disorders including BP-I, BP-II, cyclothymic, depressive, and dysthymic disorders were grouped together by clinicians. This group was also among the most cohesively organized groups. The results supported the ICD-11 organization of the mood disorders group
Evaluative field trials	
Studies of clinical vignettes	
Gaebel <i>et al</i> ^[155] , 2020	Diagnostic accuracy of the ICD-11 BP-II disorder category was
Internet-based based field study	significantly higher than a modified ICD-10 BP-II category. However, regarding disorders already existing in the ICD-10, <i>e.g.</i> , BD, there were no differences between the ICD-11 and the ICD-10. There were no significant differences in overall clinical utility of BD between the ICD-11 and the ICD-10
Kogan <i>et al</i> ^[156] , 2021	Greater diagnostic accuracy was found for the ICD-10 categories of
Internet-based based field study	BP-I disorder and a modified category of BP-II disorder on initial analysis. However, there were no significant differences on re-analysis. There were no significant differences between the ICD-11 and the ICD-10 categories of cyclothymic disorder. Clinical utility was somewhat lower for the ICD-11 category of BP-I disorder. Ratings of severity of depression were better with the ICD-10
Clinic-based FTC studies	

Reed <i>et al</i> ^[142] , 2018	The clinical utility of BP-I disorder was higher than schizophrenia, ICD-11 diagnoses-
reliability and utility	schizoaffective disorder, and depressive disorders on all three parameters including diagnostic accuracy, ease of use, and clarity. Agreement between the raters was also the highest for BP-I disorder ($k = 0.85$) ^{2,3}
Reed <i>et al</i> ^[157] , 2018	Agreement between the raters was one of the highest for BP-I ICD-11 diagnoses-
reliability	disorder ($k = 0.84$). It was relatively low though adequate for BP-II disorder ($k = 0.62$) ^{3,4}
Hackmann <i>et al</i> ^[158] , 2019	The patients commented on several additional features that were missing from the description of BP-I disorder in the ICD-11 CDR. Qualitative study on patient
perceptions of BP-I disorder	They preferred native language and idioms. A lay language version of the diagnostic descriptions was preferred
Medina-Mora <i>et al</i> ^[159] , 2019	Inter-rater reliability of the mood disorders category was high (percentage agreement-87%). This was higher than schizophrenia ICD-11 diagnoses-
reliability and utility	and most of the other disorders. Clinical utility was also high
Onofa <i>et al</i> ^[160] , 2019	Inter-rater reliability of BP-I disorder ($k = 0.83$) was high. Ratings of ICD-11 diagnoses-
reliability and utility	diagnostic accuracy and ease of use were also high, but the descriptions were felt to be less useful in selecting treatment

¹Only those trials that have included results about the categories of bipolar or mood disorders are shown.

²The results were very similar to two ICD-10 FTC studies of clinical utility^[161,162]. They were also similar to a clinical utility study of the DSM-5^[163].

³The inter-rater reliability for a single depressive episode ranged from k values of 0.43 to 0.64. This was lower than the corresponding ICD-10 category ($k = 0.66-0.73$) Inter-rater reliability of recurrent depressive disorder was higher ($k = 0.74$) and similar to the ICD-10 category ($k = 0.69-0.70$)^[161,162].

⁴The results were comparable to the BD category in the ICD-10 FTC studies ($k = 0.81-0.82$)^[161,162]. Inter-rater reliability was also higher than that found in the DSM-5 FTC studies where reliability for BP-I disorder was 0.56 and for BP-II disorder was 0.40^[164,165].

BD: Bipolar disorder; BP I: Type I bipolar disorder; BP II: Type II bipolar disorder; DSM-5: Diagnostic and Statistical Manual of Mental Disorders, 5th edition^[6]; FTC: field trial centre; ICD-10: International Classification of Diseases, 10th version^[14]; ICD-11: International Classification of Diseases, 11th version, CDDR-Clinical Descriptions and Diagnostic Requirements^[8]; k : kappa value.

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