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CPE Special Issue 2022: Innovations in ICD-11

Editorial

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Editorial

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The ICD-11 Diagnoses in the Mental Health Field – An Innovative Mixture

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The development of ICD-11 in the mental health field has been innovative in several ways. Perhaps most notable is that it has become equally relevant to clinicians and researchers. Before discussing these two aspects in more detail, it should be mentioned that the processes by which the ICD-11 was created were also innovative and, moreover, that clinical psychologists and psychiatrists were equally involved at several crucial points in the ICD-11 development. This began with Dr. Geoffrey Reed, a US clinical and medical psychologist, as the responsible WHO senior project officer for new developments in the mental health field and who set important impulses at all stages of the process (e.g., Reed, 2010).

From the beginning, the Lebanese psychologist Brigitte Khoury and the Mexican psychologist Maria Elena Medina-Mora served on the International Advisory Group for this field. Both have published on important milestones and outcomes of regional meetings (Khoury et al., 2011; Medina-Mora et al., 2019). Furthermore, the author of this editorial, in his capacity as a psychologist, was one of the working group leaders of the ICD-11 development (Maercker et al., 2013). This new way of composing decision-making bodies represented an important step in the development of the international Mental and Behavioral Disorder classification. This was further supported by the inclusion of clinicians and researchers from the fields of clinical social work and psychiatric nursing sciences in the committees. Thus, the whole ICD-11 development relied on a very multidisciplinary process.

What, then, were the innovations for clinicians worldwide? From the very start, the aim was that "clinical usability" should be the focus of development (First et al., 2015). The rationale for this was that global applicability should be ensured both in countries with few and with ample health system resources. The intention was to avoid creating complex and costly diagnostic algorithms that would be unrealistic for the time and human resources available in some regions of the world. Regarding clinical usability, the arguments were also based on the limited memory capacity for information elements known from general psychology, which typically does not allow for an overly complex diagnostic decision process without the loss of information. Here, experts distinguished their approach from highly complex diagnostic algorithms in the DSM (Diagnostic and Statistical Manual of Mental Disorders), which, for example, had different minimum numbers of required symptoms for several symptom groups. In addition, the DSM in its various versions contained lists of symptoms and criteria that grew longer and were almost unmanageable in each new version (DSM-III, DSM-III-R, DSM-IV, DSM-IV-TR).

Therefore, the International Advisory Group made a preliminary decision to follow a prototype approach to disorder definitions. This meant that a few symptoms define the core of a diagnosis (core symptoms or essential features), with a number of other associated symptoms (accessory symptoms or additional clinical features), which must not all be present to assign a diagnosis. The International Advisory Group also made the decision to omit subtypes from the diagnoses as much as possible, which was later widely adopted in the ICD-11 development.

Further means of increasing clinical usability was the introduction of new sections in the definition texts: e.g., Boundary with Normality, Developmental Presentations, Culture-Related Features, Sex- and/or Gender-Related Features, Boundaries with Other Disorders and Conditions (Differential Diagnosis). These helpful new sections of ICD-11 are discussed in most of the articles in this Special Issue. These sections are, in fact, included as standard in the central internet publication of ICD-11 as so-called *Clinical Descriptions and Diagnostic Recommendations* (CDDR) and, as with all material from the WHO, are also available free of charge.

How about the scientific innovations? It is impossible to list all innovations in the present context. In terms of methodology, innovations were based on the serious consideration of and alignment with the customer orientation. Customers of a classification system include the global clinicians or practitioners, as well as the patients or clients in the health care system – Both of these groups were involved throughout the entire process. Furthermore, survey studies were conducted with the World Associations of Psychologists and Psychiatrists to ask about previous diagnostic habits, as well as missing, problematic, and stigmatizing diagnoses (Robles et al., 2014). The results of these studies were implemented whenever possible. For example, 12% of these studies (of over 3200 clinicians from 13 countries across six continents) indicated a need for a diagnosis that went beyond "classic" PTSD to include more complex trauma sequelae.

This finding informed the development of the diagnosis of complex PTSD that now exists in ICD-11 (see the paper in this Special Issue). Moreover, the patients or people affected by the disorders were also involved in the feedback process of the ICD-11 development (Hackmann et al., 2019).

For the subsequent steps of ICD-11 finalization, the Global Clinical Practice Network (https://GCP.network) handled the involvement of global clinicians and practitioners. This network operates in nine world languages (including six European languages) and comprises approximately 10,000 people to date (operating in collaboration with Columbia University, New York). Beta versions of the new diagnostic proposals were submitted to this network in 2015, and for more recent surveys, the revised diagnoses were also submitted for further review. It is noteworthy to mention that one can also enroll in online continuing education courses in this network.

It is impossible to provide an overview of the various innovations and their details here, as they are too extensive for an overview. This Special Edition of *Clinical Psychology in Europe (CPE)* is very pleased to present five very different topic areas: The Autism Spectrum Disorder (which belongs to the Neurodevelopmental Disorders), the Disorders Specifically Associated with Stress (a separate subchapter), the Personality Disorders (also a separate subchapter), the Disorders of Substance Use (with the emphasis here on Alcohol Use and a smaller focus on Addictive Behaviors), as well as Chronic Pain (a separate, overarching subchapter).

It is very fortunate that our journal *Clinical Psychology in Europe* is addressing the topic of ICD-11 diagnoses, and as mentioned earlier, that many other regions of the world have already highlighted it as an area of particular prominence and innovation. It is interesting to note that the majority of international research activities on the individual disorders of ICD-11 come from outside the United States, with European research activities playing a prominent role. Not incidentally, these activities merge closely with WHO-sponsored programs on culturally appropriate interventions for global application (Heim & Kohrt, 2019; Heim et al., 2021). However, in recent years, there has also been an incipient trend of an increasing number of US studies being devoted to ICD-11 (e.g., Cloitre et al., 2019). CPE will certainly continue to have a focus on contributions related to this global classification system, which is equally useful for both clinicians and researchers.

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Scientific Update and Overview

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Disorders Specifically Associated With Stress in ICD-11

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Abstract

Background: After almost three decades of ICD-10 use for diagnostic purposes, the World Health Organization has conducted a systematic and elaborate evaluation to revise the classification of mental disorders in this system. This revision resulted in the 11th version (ICD-11), introduced in 2022. As one new feature, the ICD-11 forms a new grouping of mental disorders specifically associated with stress.

Method: The current review presents an overview of the diagnostic features and cultural specifications of disorders specifically associated with stress. This grouping includes posttraumatic stress disorder and complex posttraumatic stress disorder, prolonged grief disorder, adjustment disorder, as well as two diagnoses for children, reactive attachment disorder and disinhibited social engagement disorder.

Results: Overall, there is evidence for the improved clinical utility and applicability of these disorders. The disorders have been defined in a parsimonious way by few features, but they suffice for scientific purposes as well.

Conclusion: However, more research is needed to evaluate assessments for the diagnoses and diagnostic features in the ICD-11.

Keywords

disorders specifically associated with stress, ICD-11, posttraumatic stress disorder, complex posttraumatic stress disorder, prolonged grief disorder, adjustment disorder

Highlights

- In the area of trauma and stress, there are two newly specified diagnoses and further redefinitions of the content of the existing diagnoses.
- The ICD-11 features a new grouping of disorders specifically associated with stress.

For almost 30 years, the 10th version of the International Classification of Diseases (ICD-10) was the standard in diagnosing physical diseases as well as mental disorders around the globe. On 1 January 2022, the World Health Organization (WHO) introduced the 11th revision of this diagnostic system and set a new milestone in the classification of mental disorders. Back in 2011, the WHO had appointed several international working groups for revising the section on mental disorders in the ICD-10. One of these working groups was commissioned to create the grouping of *d*iagnoses *s*pecifically *a*ssociated with *s*tress (DSAS). For the development of the 11th revision of the ICD, the ICD-11, the WHO placed particular emphasis on improving the clinical utility and applicability of the diagnoses.

For DSAS, several methodological preparations for the general revision of the ICD-11 were particularly important. For instance, several global mental health surveys were conducted to assess the needs of psychologists and psychiatrists regarding mental health diagnoses (Evans et al., 2013; Reed et al., 2011, 2013). These preliminary mental health surveys concluded that there is a considerable need among health care professionals to create scientifically based diagnoses for stress-related phenomena like complex trauma and pathological grief reactions (Robles et al., 2014). The advisory board of the WHO therefore expected the international working group on DSAS to further evaluate these stress-related phenomena.

Researchers and clinicians with a broad global distribution took part in the working group for DSAS, from Africa (Lynne M. Jones, Ashraf Kagee), America (Marylene Cloitre, Cecile Rousseau), Asia and Australia (Asma Humayan, Daya Somasundaram, Yuriko Suzuki, Richard Bryant), and Europe (Chris Brewin, Andreas Maercker, Simon Wessely), as well as members from global organizations such as the WHO (Michael B. First, Mark van Ommeren, Geoffrey Reed) and the International Committee of the Red Cross (Renato Souza). This composition of experts was chosen to ensure a global applicability of the diagnostic criteria for the new disorders in consideration.

For the proposed mental disorders of the ICD-11 and specifically for DSAS, a comprehensive clinical evaluation was conducted. Between the start of the working group and the final implementation of the ICD-11, several evaluation steps were implemented:

- Diagnostic propositions of the working group for disorders specifically associated with stress were published and discussed in scientific journals (e.g., Maercker et al., 2013) and in the Global Clinical Practice Network[1].

- For the entire ICD-11 section of mental disorders, approximately 20 working groups worked on different disorder groupings as well as cross-sectional features. Each working group developed clinical best practices, organized regional meetings with health care professionals, and consulted local patient representatives for a comprehensive validation of the working groups' proposals.
- 13 different research centres across the globe implemented clinical case studies to finalize the new disorder and symptom characterizations (Reed et al., 2018).
- More detailed clinical descriptions and diagnostic recommendations (CDDR) for individual disorders were developed. For the CDDR, the WHO pursued an open access approach. Complementary to the frozen release of diagnostic features, the WHO published open access descriptions to implement future diagnostic changes[2].

As a major aspect of all revisions, the complexity of mental disorder's characteristics was reduced. For this purpose, previous disorder subtypes were erased or limited (see Reed, 2010). Furthermore, only symptoms with a particular sensitivity and specificity were implemented as diagnostic features. As a consequence, the clinical utility and applicability of ICD-11 diagnoses was significantly improved. Regarding DSAS, the expert group also discussed the inclusion of diagnoses such as embitterment disorder, burnout, continuous trauma disorder, and a more pronounced relation to – or even inclusion of – dissociative disorders. However, these proposals were not realized in the ICD-11. Furthermore, the diagnosis of an acute stress reaction was moved to the ICD-11 section 'Factors influencing health status', as such reactions are considered to be normal and are expected to be resolved within a short period after experiencing an aversive life event.

Disorders Specifically Associated With Stress in Adults

Table 1 presents an overview of disorders specifically associated with stress in the ICD-11 and the corresponding stress-related disorders in the ICD-10 and the DSM-5 (APA, 2013). The diagnostic features of the ICD-11 diagnoses will be outlined in the following sections.

1) https://gcp.network

2) https://icd.who.int/dev11/l-m/en#/

Table 1

Disorders Related to Stress and Trauma According to the ICD-11, the ICD-10, and the DSM-5

ICD-11	ICD-10	DSM-5
6B40: Posttraumatic stress disorder	F43.1: Posttraumatic stress disorder	309.81: Posttraumatic stress disorder
6B41: Complex posttraumatic stress disorder	F62.0: Enduring personality change after catastrophic experience	–
6B42: Prolonged grief disorder	–	–
6B43: Adjustment disorder	F43.2X: Adjustment disorders	309.X: Adjustment disorders
6B4Y & 6B4Z: Other specified or unspecified disorders specifically associated with stress	F43.8 & F43.9: Other specified or unspecified reactions to severe stress	309.89 & 309.9: Other specified or unspecified trauma and stressor-related disorders
QE84: Acute stress reaction (in subchapter 24 – no longer a diagnostic entity but a 'factor influencing health status')	F43.0: Acute stress reaction	308.3: Acute stress disorder

Posttraumatic Stress Disorder

For this category, there was essentially a revision and tightening up of the previous definition. Posttraumatic stress disorder (PTSD) may develop after experiencing an extremely distressing or life-threatening event or series of events, such as sexual abuse or a serious accident (WHO, 2022). A core symptom of PTSD is the re-experiencing of the aversive life event in vivid memories. In most cases, such intrusive re-experiencing manifests as flashbacks or nightmares. However, intrusive symptoms can also involve other modalities or body-related re-experiencing, so that odours, sentiments, or other sensations from the traumatic event may be experienced again. Intrusive re-experiencing typically occurs in combination with strong and overwhelming emotions such as fear or horror (see Bar-Haim et al., 2021). In the ICD-11, repetitive or burdensome thinking of the experienced traumatic event is no longer considered to be a manifestation of intrusive re-experiencing as part of a PTSD. Repetitive thoughts have also been found to be characteristic of resilient trauma survivors. Even though remembering the traumatic event might be distressing for these individuals, such thoughts are not specifically associated with PTSD.

The second symptom feature of PTSD is avoidance of memories, activities, situations, or people related to the traumatic event. Importantly, this avoidance behaviour is deliberately produced by the affected individuals. In past conceptualizations, PTSD has sometimes been associated with amnesia as an unconscious avoidance strategy. Such phenomena are no longer part of the avoidance symptoms in the ICD-11, as they rarely

occur and are not consciously reflected by affected individuals. In addition, symptoms such as numbing, diminished interest, and emotional alienation have been removed from avoidance definitions, as they are understood as manifestations of comorbid depressive symptoms.

The third symptom group of PTSD consists of persistent perceptions of current heightened threat. Such perceptions may manifest as hypervigilance or enhanced startled reactions to stimuli such as unexpected noises. Due to their unspecific relation to PTSD, hyperarousal phenomena such as disturbed sleep, concentration problems, and increased irritability are no longer listed as PTSD symptoms in the ICD-11.

As for all disorders specifically associated with stress, PTSD is characterized by a significant impairment in personal, social, educational, occupational, or other important areas of functioning. However, some affected individuals are able to maintain a normal level of functioning, which is only possible through considerable psychological and physical effort. Importantly, clinicians need to account for such compensatory behaviours in the diagnostic process to adequately assess the impairment level of an individual (see also Rodriguez et al., 2012).

PTSD typically emerges within several weeks after experiencing the traumatic life event, but it is possible for PTSD symptoms to emerge many months or years after the traumatic life experience. The ICD-11 includes the possibility of delayed onset of PTSD symptoms, without specifying this phenomenon as a subtype. However, no time limit is introduced for this feature because specific time limits do not accurately reflect psychological processes (see Reed et al., 2018). Furthermore, the ICD-11 no longer defines specific stressor characteristics of the traumatic life event, as it has been shown that the type of trauma is not particularly decisive for the subsequent psychopathology. There is empirical evidence showing that the described pattern of PTSD symptoms only occurs in traumatized individuals, thus allowing a reliable differentiation of individuals with and without PTSD (Berntsen et al., 2003; Brewin et al., 2009). It can therefore be strongly assumed that the symptom pattern in the ICD-11 sufficiently describes the phenomenology of PTSD without the inclusion of stressor types.

The ICD-11 features a particular focus on the cultural characteristics of mental disorders. In the case of PTSD, the ICD-11 states that symptoms such as increased anger, headaches, intensified nightmares, or somatic symptoms might occur with different prevalence in certain cultural groups. The ICD-11 also specifies that intrusive re-experiencing is not considered as something unusual in all cultures; rather, it might be seen as an intense but normal way of remembering a critical life event. Furthermore, certain symptoms can also trigger dysfunctional health beliefs. For instance, anxiety-related symptoms such as persistent perceptions of heightened current threat might be interpreted as a lifelong condition of weak nerves or a weak heart, as is sometimes observed in Latin American countries or in Cambodia. All these aspects need to be considered when working with individuals from different cultural groups.

Complex Posttraumatic Stress Disorder

Complex posttraumatic stress disorder (CPTSD) may develop after experiencing a traumatic life event that is particularly horrific or threatening (WHO, 2022). In most cases, the stressor consists of a series of traumatic situations or an ongoing event, such as slavery or repeated abuse. Many psychosocial stressors with an extremely threatening nature have the potential to cause CPTSD. However, as is the case for PTSD, the diagnosis mainly depends on symptomatic presentation instead of specific event characteristics (Maercker et al., 2022).

Regarding the psychopathological features of CPTSD, all symptom requirements of PTSD need to be met, including intrusive re-experiencing, avoidance, and persistent perceptions of heightened current threat. In addition, CPTSD is characterized by disturbances in self-organization (DSO), which is indicated by several symptom patterns. First, DSO features problems in affect regulation, which might manifest as frequent excitability, anger, rage, or an increased self-harming behaviour. Second, individuals with CPTSD exhibit beliefs about the self as worthless, defeated, or diminished, which is often accompanied by feelings of guilt, shame, or failure related to the stressful life event. The third feature of DSO constitutes interpersonal problems. The inability to trust, a susceptibility to hyperbolic views, and difficulties in partnership interactions are particularly characteristic for this symptom group. Individuals with CPTSD also show an increased tendency for dissociation (see also Hyland et al., 2020), which includes depersonalization experiences, clouding of consciousness, and amnesia. Contrary to the DSO symptoms, however, dissociation is not a diagnostic requirement for CPTSD.

The introduction of CPTSD as a new disorder in the ICD-11 generated significant criticism. For instance, one criticism is that CPTSD only represents a comorbidity between PTSD and borderline personality disorder, which makes an introduction of a new disorder redundant (Resick et al., 2012, see Maercker, 2021). However, empirical findings demonstrated that CPTSD possesses a distinct, reliable, and useful symptom profile (Brewin et al., 2017; Kazlauskas et al., 2018), which finally led to the inclusion of CPTSD in the ICD-11. In the ICD-10, CPTSD was classified as an enduring personality change after catastrophic experiences. However, continuous research showed that the related symptomatic features were part of a posttraumatic syndrome, which is why this psychopathological type has been reallocated to disorders specifically associated with stress.

According to the ICD-11, CPTSD also exhibits an important cultural variation. In particular, dissociative and somatic symptoms are believed to increasingly emerge in certain cultural groups. Furthermore, migrants across the globe are of particular concern in trauma sequelae. As they are frequently and often repeatedly confronted with severely stressful life events, migrants have a highly increased prevalence of suffering from CPTSD. When migrating to countries with a different cultural background, CPTSD might be triggered and intensified by the ongoing stressors experienced related to migration.

As refugees are sometimes faced with continuous violence or discrimination in host countries, they represent a group that is particularly vulnerable to severe disorders specifically associated with stress. Even though research has not yet identified a distinct set of cultural properties of CPTSD, recent publications have started to shed light on these characteristics (see Heim et al., 2022).

Prolonged Grief Disorder

Compared to other disorders specifically associated with stress, stressors leading to a prolonged grief disorder (PGD) are defined more precisely. PGD might develop after the death of a loved person, such as a partner, parent, child, other family member, or another person close to the bereaved (WHO, 2022). Importantly, animals are not included in this definition. The event of loss causes an intense and long-lasting grief reaction, which can take on many individually different manifestations. However, in terms of common symptoms, PGD is defined by intensive yearning and longing for the deceased, as well as by intrusive preoccupation with the death of the loved person or the implications of this event. In addition to these core symptoms, the ICD-11 defines several accessory symptoms, including guilt, sadness, denial, anger, blame, difficulty accepting the loss, an inability to be in a positive mood, numbness, and a diminished interest in activities. However, the ICD-11 does not define the number of accessory symptoms needed for a PGD diagnosis.

More cultural characteristics are specified for PGD than for other mental disorders. Cultural practices and attitudes towards bereavement strongly differ across the globe. Ideas and concepts of the afterlife manifest a broad range of clinical presentations and behaviours related to bereavement, which may also increase the chance for a prolongation of grief. For instance, the ICD-11 states that in some religions, death is regarded as an important step in the transition to the afterlife. Cultural beliefs focusing on rebirth, but also on karma, heaven, or hell, can have an enormous impact on a bereaved person. PGD might therefore be additionally triggered by concerns about the afterlife of the deceased. According to some religious beliefs, such as those common in southern Europe, an encounter with the spirit of a deceased person – which may be regarded as a symptom of re-experience – is not considered as an abnormal event and may even be perceived as a positive experience. Another culturally diverse feature in relation to PGD is the duration of grief, as there are different norms across the globe concerning mourning periods. In some countries, a one-year mourning period is considered as normal, whereas in other cultures, mourning periods are considered to trigger negative emotions and are therefore kept relatively short.

Due to these various cultural manifestations, the ICD-11 states that for the diagnosis of PGD, the cultural background of patients needs to be evaluated thoroughly. The diagnosis of PGD should only be made if the grief reaction clearly exceeds the respective cultural norms of the individual. In general, the ICD-11 states that PGD may be

diagnosed no earlier than six months after the death of the loved person. However, due to the cultural variations outlined before, the duration of grief should correspond to the cultural background when considering a PGD diagnosis. Long-lasting grief reactions that are still within a cultural norm are classified as a normal grief reaction and not as PGD. The extent to which different cultures affect the expression of symptoms remains the subject of further research.

There were also some objections to the introduction of PGD as a new IDC-11 diagnosis. For instance, one criticism was that the introduction of PGD as a new diagnosis represents disease mongering and that grief should always be classified as a natural process of life. However, it should be noted that in the past, prolonged grief has mostly been falsely diagnosed as depression, PTSD, or adjustment disorder, even for the small number of those it affects. Such diagnoses are not only clinically inaccurate but can also cause inadequate treatment. For individuals affected by mental disorders, a diagnosis can be helpful to understand and address psychological problems, presupposing that the underlying problems are correctly identified in the first place.

Adjustment Disorder

Another disorder specifically associated with stress is adjustment disorder (AjD). This disorder may develop after one or several critical life event(s), such as involuntary job loss, severe illness, or a relationship breakup (WHO, 2022). On a symptomatic level, AjD is characterized by an intrusive preoccupation with the aversive life event or its implications, which mainly manifests as repetitive and distressing thoughts of the event. Failure to adapt constitutes a further AjD symptom, which may take the form of sleep and concentration problems or an inability to recuperate. Due to the high levels of distress that individuals with AjD experience, suicidal tendencies are not uncommon as part of the disorder. Importantly, the diagnosis of AjD specifies that disorder-related symptoms persist no longer than six months after the aversive life event. However, in the case of a prolonged exposure to a stressor, such as an ongoing illness, AjD may also be diagnosed for longer than six months.

In general, all aversive life events have the potential to trigger AjD, which makes it particularly difficult to differentiate such experiences from traumatic events and sequelae. However, a great majority of individuals diagnosed with PTSD and CPTSD have been confronted with life-threatening experiences, whereas events leading to AjD are not particularly overwhelming in most cases. Even though stressors like a divorce might be extremely stressful for those affected, such events are usually not associated with a threat to one's core identity and basic tenets of life during exposure to the stressor and therefore do not cause typical posttraumatic symptoms (Brewin, 2014; Eberle & Maercker, 2022).

The manifestation of AjD varies across the lifespan. According to the ICD-11, children with AjD may typically exhibit increased disruptive or oppositional behaviour,

hyperactivity, irritability, concentration problems, increased clinginess, tantrums, regression, sleep disturbances, or bedwetting. In contrast to children, adolescents may manifest an intensification of substance use as well as increased behaviours of acting out or risk taking. Children and adolescents with AjD often fail to verbalize their emotions related to the stressful experience. Therefore, it is important to account for this interactive inhibition in the diagnostic process and relate reports of critical life events to changed behaviour patterns. Meanwhile, older adults diagnosed with AjD increasingly manifest psychosomatic symptoms as a reaction to critical life events. Consequently, in this age group, the core AjD symptom of preoccupation is especially focused on their own health (for more age-specific information, see also Mulligan, 2018; WHO, 2022).

The ICD-11 states that in some cultural groups, AjD might intensify significantly in the case of lacking family or community support. Furthermore, local idioms of distress and concepts of suffering can play a significant role in the manifestation of AjD. For example, exposure to aversive life events may result in particularly strong anxiety reactions, as it has been observed in individuals from Central America.

Additional Disorders for Children

In the ICD-11, diagnoses for children and adolescents are no longer separately coded but are rather implemented in the disorder group of the appropriate life-span diagnoses. This means that the grouping of disorders specifically associated with stress also features two diagnoses for children and adolescents: disinhibited social engagement disorder and reactive attachment disorder (WHO, 2022). One childhood-specific stress-related diagnosis listed in the ICD-10 has not been transferred to the ICD-11. Due to the phenomenological overlap, autism spectrum disorder is an important exclusion criterion for both childhood disorders specifically associated with stress in the ICD-11.

Disinhibited social engagement disorder develops as a consequence of grossly inadequate childcare, such as institutional deprivation, severe neglect of the child's physical or emotional needs, a constant change of primary caregivers, parenting in inadequate settings, and child abuse (see also Zeanah et al., 2016). According to the ICD-11, children with disinhibited social engagement disorder are characterized by an indiscriminate approaching of adults, a lack of restraint to approaching, an overly familiar behaviour towards strangers, and a willingness to go away with unfamiliar adults. Disinhibited social engagement disorder is relatively rare and has been found to develop only in a small proportion of children who have experienced inadequate care.

Reactive attachment disorder, as the second child-specific stress-related disorder in the ICD-11, is also characterized by highly inadequate childcare. The disorder features an inhibited attachment behaviour of the child. According to the ICD-11, this may manifest as an unwillingness to return to the primary caregiver for nurture, comfort, or support, even though an adequate caregiver is available. Furthermore, the child does not respond

when comfort is offered and rarely displays security-seeking behaviours towards any adult (Zeanah et al., 2016).

Questionnaires and Clinical Interviews

With its revised diagnostic features for mental disorders, the ICD-11 also requires an adaptation in the assessment of these disorders. In recent years, new measurement instruments for DSAS have been developed. For the development of these diagnostic assessment tools, a European-American consortium has been founded: the International Trauma Consortium[3], which offers freely available diagnostic instruments in numerous languages. While English versions of the developed scales are already fully validated, the validation processes for other languages, such as German or Arabic, are not yet completed.

The ICD-11 in Clinical Practice

The new ICD-11 diagnoses have been repeatedly evaluated. For instance, various disorders have been cross-compared with mental health conceptualizations from the ICD-10 and the DSM-5, as will be shown in the following paragraphs. However, with regard to prevalence studies, data sets based on epidemiological and high-risk samples often cover individuals who are not in treatment. Therefore, studies with patients undergoing actual treatment are most relevant for an evaluation of the ICD-11 in clinical practice. In addition, many previous studies have not assessed the diagnostic features of impairment in personal, family, social, educational, occupational, or other important areas of functioning, even though this feature is a critical diagnostic element. These limitations need to be kept in mind when diagnostic findings are compared. Regarding childhood disorders, studies have not yet managed to replicate the prevalence numbers of the disorders, which is why the following section will not evaluate disinhibited social engagement disorder and reactive attachment disorder.

PTSD and CPTSD

Regarding PTSD, the first study to evaluate different diagnostic systems involving the ICD-11 was conducted as part of the world mental health surveys (Stein et al., 2014). The assessment applying the ICD-11 indicated that 3.2% of screened individuals met the diagnostic criteria for PTSD. In comparison, a prevalence of 4.4% was found with the ICD-10 and a prevalence of 3.0% was found with the DSM-5. Among all individuals

3) www.traumameasuresglobal.com

who received a PTSD diagnosis with the ICD-11, the ICD-10, or the DSM-5, 75% were diagnosed accordingly in all three classification systems. Another study including a high-risk sample of older adults found a PTSD prevalence of 10.3% when diagnosed with the ICD-11. In comparison, according to the ICD-10, 15% of individuals met all diagnostic features of PTSD (Glück et al., 2016).

Prevalence numbers differ for more specific populations, such as members of the military. Wisco et al. (2016) found that, in a high-risk sample of US military personnel, 34% were diagnosed with PTSD according to the ICD-11, while 45% were diagnosed with the ICD-10 and 34% with the DSM-5. The diagnostic overlap between the ICD-11 and the DSM-5 was 89%. A similar study has been conducted in the German military: Kuester et al. (2017) found PTSD rates of 48% for the ICD-11, 30% for the ICD-10, and 56% for the DSM-5. The diagnostic overlap between the ICD-11 and the DSM-5 was 84%. However, both of these studies only used validated DSM instruments for their assessment, which were adapted to also capture ICD diagnoses. Furthermore, Møller et al. (2020) investigated PTSD and CPTSD in a patient sample. Of the patients who received a PTSD diagnosis according to the ICD-10, 46% were also diagnosed with PTSD according to the ICD-11, 28% were diagnosed with CPTSD, and 26% were diagnosed with another mental disorder.

In summary, empirical studies show that the diagnostic overlap between different classification systems must be estimated at roughly 60–90%. In clinical practice, this means that even though a patient might receive a PTSD diagnosis according to the ICD-10 or the DSM-5, a PTSD diagnosis may no longer be assigned when using the ICD-11. Such empirical findings might seem upsetting, as all diagnostic systems are supposed to ensure valid diagnostic results. However, it must be considered that diagnostic tools are always subject to a minimal level of uncertainty, which may lead to different results. Furthermore, the theoretical background for diagnostic characteristics have changed between different classification systems. For instance, symptoms of re-experience have been laid out more strictly in the ICD-11. If an individual exhibits distressing repetitive thoughts of a trauma but no vivid flashbacks or severe nightmares, the diagnosis of PTSD is no longer indicated by the ICD-11.

AjD and PGD

Prevalence numbers for both AjD and PGD are not yet conclusively determined due to sparse research activity and changing disorder definitions over the last years. A diagnostic evaluation based on the ICD-10 found that across different countries, AjD exhibits a prevalence of approximately 1% (Ayuso-Mateos et al., 2001). This finding was replicated in a German study by Maercker et al. (2012), which found an AjD prevalence of 0.9% by implementing ICD-11 features. Therefore, in contrast to other disorders specifically associated with stress, AjD appears to show little variability in the prevalence figures of the different diagnostic systems. Since PGD was newly introduced in the ICD-11, no comparison with broadly established conceptualizations of grief is possible.

However, the DSM-5 defines persistent complex grief disorder as a research diagnosis. Maciejewski et al. (2016) compared this diagnosis with the ICD-11 definition and found a kappa coefficient of 0.82, which indicates a big overlap between the two disorders. Importantly, in the upcoming DSM-5-TR, PGD will be included as a regular disorder in the classification system (Moran, 2021). Hence, it is hoped that future research will be able to conduct thorough comparisons between classification systems and adequate prevalence estimations.

Conclusion

Disorders specifically associated with stress encompass a set of psychopathological sequelae emerging after exposure to a stressful life event. Research shows that these revised disorders entail an increased clinical utility and applicability. However, more studies are needed to investigate the long-term benefits of the new DSAS grouping of disorders. It is hoped that the ICD-11, which will guide clinicians and their therapeutic actions over the next decades, proves to be beneficial for individuals suffering mental disorders from the kinds of external sources outlined here. We may see further steps towards convergence with the DSM-5 as well, such as with PGD, which was included in the DSM-5-TR (**t**ext **r**evision) in 2022.

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Scientific Update and Overview

Chronic Pain in the ICD-11: New Diagnoses That Clinical Psychologists Should Know About

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Abstract

Background: In the 10th revision of the International Classification of Diseases and Related Health Problems (ICD-10), chronic pain was not represented adequately. Pain was left undefined and not recognized as a biopsychosocial phenomenon. Instead, a flawed dualism between psychological and somatic factors was implied. Individual diagnoses were ill-defined and scattered randomly through different chapters. Many patients received diagnoses in remainder categories devoid of meaningful clinical information.

Method: The International Association for the Study of Pain launched a Task Force to improve the diagnoses for the 11th revision of the ICD and this international expert team worked from 2013-2019 in cooperation with the WHO to develop a consensus based on available evidence and to improve the diagnoses.

Results: A new chapter on chronic pain was created with a biopsychosocial definition of pain. Chronic pain was operationalized as pain that persists or recurs longer than three months and subdivided into seven categories: Chronic primary pain and six types of chronic secondary pain. All diagnoses were based on explicit operationalized criteria. Optional extension codes allow coding pain-related parameters and the presence of psychosocial aspects together with each pain diagnosis.

Conclusion: First empirical studies demonstrated the integrity of the categories, the reliability, clinical utility, international applicability and superiority over the ICD-10. To improve reliability

and ease of diagnosis, a classification algorithm is available. Clinical psychologists and other clinicians working with people with chronic pain should watch the national implementation strategies and advocate for multimodal and interdisciplinary treatments and adequate reimbursement for all providers involved.

Keywords

ICD-11, classification, biopsychosocial model of chronic pain, chronic primary pain, chronic secondary pain, implementation

Highlights

- A systematic chapter on chronic pain in the ICD-11 improves the representation of chronic pain.
- Chronic pain is pain that persists or recurs for more than three months.
- Chronic pain in the ICD-11 is regarded as biopsychosocial.
- ICD-11 introduces chronic primary pain and distinguishes six types of chronic secondary pain.

Background

What Was Wrong With the Representation of Chronic Pain in the ICD-10?

In the previous version of the International Classification of Diseases and Related Health Problems (ICD), the ICD-10, chronic pain was represented neither systematically nor adequately. The main shortcomings were: Firstly, the ICD-10 did not reflect the widely accepted biopsychosocial model of pain (Rief et al., 2010; Rief et al., 2008; Treede et al., 2010), which is also a central aspect of the internationally widely accepted definition of pain by the *International Association for the Study of Pain* (IASP) (Raja et al., 2020). Secondly, for many important types of chronic pain, no diagnoses were available at all: Chronic neuropathic pain, chronic pain associated with cancer and its treatment, or chronic pain after surgery or accidents were missing in the ICD-10 (Rief et al., 2012). Thirdly, even if a diagnosis was available in the ICD-10, it often lacked clear definitions and criteria, e.g., "R52.2 Other chronic pain". In most cases, not even the information whether the pain was chronic or acute could be recorded (e.g., "M54.4 Low back pain") – despite agreement that highly relevant differences exist between acute and chronic pain (Kröner-Herwig, 2017; Treede, 2019). As a result, one of the most frequently used diagnoses for chronic pain was the ill-defined residual category "R52.2 other chronic pain", which held next to no information value for clinicians, patients or health statistics. Fourthly, the diagnoses that were available in ICD-10 were scattered rather arbitrarily among different chapters (Rief et al., 2010; Rief et al., 2012), depending upon the medical specialty that tended to treat them. For example, the diagnosis "M54.5 low back pain" was found in the chapter for diseases of the musculoskeletal system and connective

tissue while different types of headache ("G43 migraine") were listed among the diseases of the nervous system (World Health Organization, 2019).

Clinical psychologists are probably most familiar with the chronic pain diagnosis "F45.4 persistent somatoform pain disorder" available in the so-called "ICD-10 F-chapter" for mental and behavioral disorders. This diagnosis recognizes the role of psychological factors in the development and maintenance of the chronic pain and gives a definition that specifies the chronic course of the pain (World Health Organization, 2019). However, the contribution of biological or physiological factors is excluded. By definition, the diagnosis F45.4 cannot be assigned if a patient has chronic pain associated with an underlying disease such as, for example, rheumatoid arthritis. This contributes to the artificial and problematic dichotomy of "psychological" vs. "somatic" chronic pain in the ICD-10 (Arnold et al., 2017; Rief et al., 2008; Treede et al., 2010). The German modification of the ICD-10 includes an additional chronic pain diagnosis, "F45.41 chronic pain with somatic and psychological factors" which, for the first time, recognized the contribution of *both* biological and psychological factors to chronic pain (Nilges & Rief, 2010) thereby overcoming the dichotomy (Arnold et al., 2017; Treede et al., 2010). This was a great step forward and the frequency with which this diagnosis has since been used (Häuser et al., 2013) shows it is well-accepted – probably because it offers a much-needed way of classifying chronic pain according to the biopsychosocial model. Despite these advances, the diagnosis F45.41 had to compromise. Its location in the chapter on mental and behavioral disorders was a theoretical compromise since chronic pain is neither. The fact that the diagnosis is only available in the German modification (ICD-10-GM), is a practical compromise since it means that the diagnostic advance is geographically limited to countries that use this national version (World Health Organization, 2022b).

What Were the Consequences of the Deficient Representation of Chronic Pain in ICD-10?

Negative consequences arose from the inadequate representation of chronic pain in the ICD-10 for patient treatment, research into chronic pain as well as health statistics and health policies. Most importantly, the distinction of "psychological" chronic pain on the one hand and "somatic" chronic pain on the other, is not useful because chronic pain is always an interplay of psychological, biological, and social factors (Raja et al., 2020; Rief et al., 2008; Treede et al., 2010). Since in many healthcare systems, ICD codes are relevant for treatment choice and treatment access (Boerma et al., 2016; Jakob, 2018a, 2018b), patients with chronic pain may be excluded from specific multimodal interdisciplinary pain treatment programs as well as from psychological treatment (Nilges & Rief, 2010; Rief et al., 2009; Rief et al., 2008), unless they also receive a diagnosis of a mental disorder, such as F45.4. On an individual level, this meant that many patients tended to receive multimodal therapies including psychological treatments at a very late stage, often only when treatment providers and patients felt they had exhausted the somatic

treatments without much progress. This made it unnecessarily hard for patients to accept the biopsychosocial model and engage with psychological treatments. Individually, this may mean more distress and suffering. At a public health level, this translates into a larger societal burden of chronic pain and direct and indirect costs (Blyth et al., 2019; Blyth & Huckel Schneider, 2018).

Missing diagnoses meant that for treatment purposes, precise and appropriate codes for the chronic pain were lacking and clinicians chose various ways of expressing chronic pain diagnoses, often with recourse to entities such as "chronic intractable pain" (R52.1). This led to numerous problems in communication with patients and health providers. Considering the role of outcome expectations that have been shown for many areas (Auer et al., 2016; Di Blasi et al., 2001; Laferton et al., 2017) labeling a person's pain as "intractable" may convey a nihilistic therapeutic attitude to clinician and patient alike. Apart from problems of treatment and management of individual cases, the lack of diagnostic codes also rendered the different types of chronic pain and the associated burden invisible from the perspective of public health policy.

The vague definitions and ambiguous diagnoses also presented difficulties for the communication between patients and healthcare providers as well as for the information exchange among healthcare professionals. On a larger scale, it impeded the formulation of fruitful research agendas. Referring to a large variety of chronic pain syndromes as "non-cancer pain" or "non-specific pain" underestimated the differences between the syndromes – while researching only into very specific syndromes glossed over the commonalities. Finally, in epidemiological and register studies based on inadequate representation, the true prevalence of chronic pain and its associated disease burden remained underestimated. Such underestimation, in turn, was likely to influence health policy decisions and funding allocation (Blyth et al., 2019; Rice et al., 2016; Treede et al., 2010).

Method

Developing a New Set of Chronic Pain Diagnoses for ICD-11

To remedy the situation of chronic pain in the ICD-10, the community of pain specialists had long worked together and argued for a classification better reflecting the empirical and theoretical advances. In 2012 the IASP formed an international and interdisciplinary task force and collaborated with the World Health Organization (WHO) to reform the classification of chronic pain for the next revision of the ICD. The WHO demanded consensus and evidence in order to enter diagnoses into the ICD-11 (World Health Organization, n.d.). The Task Force provided both by striving for a consensus among the professionals working with patients with chronic pain and publishing the results in a series of papers (Aziz et al., 2019; Bennett et al., 2019; Benoliel et al., 2019; Nicholas et al.,

2019; Nugraha et al., 2019; Perrot et al., 2019; Scholz et al., 2019; Schug et al., 2019; Smith et al., 2019; Treede et al., 2019; Treede et al., 2015). The development was accompanied by formative evaluations (Barke et al., 2018; Barke et al., 2022) and evaluative studies (Hay et al., 2022; Korwisi, Garrido Suarez, et al., 2022; Korwisi et al., 2020; Zinboonyahgoon et al., 2021). In 2019, the World Health Assembly endorsed the ICD-11 with the new classification of chronic pain (World Health Assembly, 2019). The ICD-11 came into effect on January 1st, 2022 for international mortality reporting (World Health Organization, 2022a). Many countries are currently preparing the implementation of the ICD-11 within their national healthcare systems.

Results: The New Chronic Pain Diagnoses in ICD-11 and How They Address the Problems in ICD-10

An Improved Definition of Chronic Pain

The chronic pain classification implemented in the ICD-11 forms one structured chapter, which contains all chronic pain diagnoses in one logical order (for details see below), which are subdivisions of the clearly operationalized entity "chronic pain" (MG30, ID: http://id.who.int/icd/entity/1581976053)

The definition of chronic pain was aligned with the updated IASP diagnosis of pain (Raja et al., 2020): "Pain is an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage." It continues to specify chronic pain as "pain that persists or recurs for longer than 3 months", providing a clear operationalization of chronic pain. The defining sentence is immediately followed by the clause regarding the typical nature of chronic pain: "Chronic pain is multifactorial: biological, psychological and social factors contribute to the pain syndrome." This sentence expresses the biopsychosocial model for all types of chronic pain. It is open for variable weights of the respective factors in different chronic pain syndromes, but unequivocally affirms the general model for all subdiagnoses that characterize specific syndromes. Here it is important to note that in the ICD-11 the subordinate diagnoses (called "children") inherit the characteristics of the higher-order diagnoses (called "parents"), without repeating all the features in each child diagnosis. Throughout the whole chapter of chronic pain, chronic pain is defined as explained here. With this definition, the ICD-11 addressed and remedied a major criticism leveled at the earlier editions, and now accurately reflects the widely accepted biopsychosocial model of pain.

Adding Missing Diagnoses

The second major criticism was that for many important types of chronic pain, no diagnoses were available at all in the ICD-10. Diagnoses were missing for chronic neuropathic pain, chronic pain associated with cancer or its treatments, chronic pain after surgery and accidents, as well as many types of chronic orofacial pain. The ICD-11 classification contains systematically ordered diagnoses in these fields. Chronic pain has seven subdivisions:

MG30.0 Chronic primary pain (Nicholas et al., 2019)
MG30.1 Chronic cancer related pain (Bennett et al., 2019)
MG30.2 Chronic postsurgical or post traumatic pain (Schug et al., 2019)
MG30.3 Chronic secondary musculoskeletal pain (Perrot et al., 2019)
MG30.4 Chronic secondary visceral pain (Aziz et al., 2019)
MG30.5 Chronic neuropathic pain (Scholz et al., 2019)
MG30.6 Chronic secondary headache or orofacial pain (Benoliel et al., 2019)

The reasoning behind these subtypes and the diagnoses classified there have been explained and discussed in the dedicated papers for each subtype. Here we can only give a brief resumé – for fuller details we recommend the specific articles.

Chronic Primary Pain

Chronic primary pain is defined as chronic pain in one or more anatomical regions that is associated with significant emotional distress and/or significant functional disability (Nicholas et al., 2019). The diagnosis should be assigned unless the symptoms are better accounted for by another diagnosis in the section of chronic secondary pain.

The definition of the new diagnosis of chronic primary pain is formulated to be agnostic regarding the etiology of the pain syndrome and is purely descriptive. Subsuming a diagnostic term here does not commit us to the claim that no somatic factors contribute to the diagnosis. Neither does it commit us to the claim that psychosocial factors are the main contributors. This is true on the level of diagnostic entities: classifying Fibromyalgia as a type of chronic primary pain does not imply the empirical judgement that central sensitization or other somatic processes do not play a part in the Fibromyalgia syndrome. At the patient level, assigning a diagnosis of chronic primary back pain does not mean to deny that biological factors contribute to the chronic pain or to claim that psychological factors dominate. This descriptive nature is viewed as a distinct advantage. If another diagnosis accounts better for the chronic pain, one of the secondary diagnoses should be assigned, usually in combination with the respective underlying condition. Note, however that – again – this does not imply that no psychosocial factors may be present or relevant regarding the pain. The biopsychosocial model of chronic pain applies to chronic primary and chronic secondary pain in exactly the same way and thus psychosocial factors may be relevant in both instances. The difference is that:

A. For chronic primary pain significant distress or functional interference (or both) are required as part of the definition.
B. For chronic secondary pain a clearly defined somatic factor as expressed in another ICD-11 diagnosis is required and should be co-diagnosed.

In the section on chronic primary pain several frequent pain syndromes are classified, including chronic pain often referred to as 'functional gastrointestinal disorders', as characterized by the Rome criteria (Drossman & Hasler, 2016). See Table 1 for an overview.

Table 1

Overview of Chronic Primary Pain and its Subdiagnoses in the ICD-11

Chronic Primary Pain in the MMS Linearization (MG 30.0) / Subdiagnoses classified here	**Foundation ID[a]**
Chronic primary visceral pain (MG30.00)	**679352876**
Chronic primary chest pain syndrome	128474405
Chronic primary epigastric pain syndrome	1983908934
Chronic primary bladder pain syndrome	2093682836
Chronic primary pelvic pain syndrome	1663013388
Chronic primary abdominal pain syndrome	709631177
Chronic widespread pain (MG30.01)	**849253504**
Fibromyalgia syndrome	236601102
Chronic primary musculoskeletal pain (MG30.02)	**1236923870**
Chronic primary cervical pain	2014134682
Chronic primary thoracic pain	642165115
Chronic primary low back pain	1291385632
Chronic primary limb pain	413174579
Chronic primary headache or orofacial pain (MG30.03)	**2104869000**
Chronic migraine	1336990680
Burning mouth syndrome	618998878
Chronic primary orofacial pain	1545281608
Chronic primary temporomandibular disorder pains	975254799
Chronic tension-type headache	107534985
Complex regional pain syndrome (MG30.04)	**1834504950**
CRPS Type I	2067142665
CRPS Type II	1415867395

[a]To locate the entities using their foundation ID please use the ICD-11 Foundation Browser (https://icd.who.int/dev11/f/en) and paste the ID number in the search field. This is only required in case you would like to access the subdiagnoses that for technical reasons do not have an MG30 code. Further details and explanations regarding these technical aspects can be found in (Korwisi, Barke, et al., 2022).

The terms chronic "primary" and chronic "secondary" were adapted from the headache classification (Headache Classification Committee of the International Headache Society [IHS], 2018). They were chosen to express the fact that the chronic pain constitutes a health problem in its own right with high clinical priority for the patient and is not directly associated with another disease accounting for the pain. The term was preferred by the WHO and seen to have a number of advantages over other terms that might have been considered, such as "non-specific", "functional" or "idiopathic".

Chronic Secondary Pain

Chronic secondary pain is chronic pain that accompanies underlying diseases or health conditions that are coded elsewhere in the ICD. In this section, chronic pain in connection with cancer or its treatment (Bennett et al., 2019), chronic pain after surgery or accidents (Schug et al., 2019), chronic musculoskeletal pain due to underlying conditions such as rheumatoid arthritis (Perrot et al., 2019), chronic visceral pain due to persisting inflammation or mechanical causes (Aziz et al., 2019), chronic neuropathic pain (Scholz et al., 2019) and chronic secondary headache (Benoliel et al., 2019) (including medication overuse headache) can be classified. It should again be noted that these diagnoses are also children of chronic pain, and thus inherit the fundamental biopsychosocial model.

The diagnoses listed under chronic secondary pain address the criticism that many chronic pain conditions could not be diagnosed within ICD-10. A typical case is chronic cancer-related pain. Due to medical advances, many more people survive cancer (Glare et al., 2022). In a significant number of cases, the cancer survivors suffer from chronic pain, either due to the cancer itself or due to the often aggressive treatments needed. For both types of chronic pain codes were created: The former can be coded as "Chronic cancer pain" (MG30.10), the latter as "MG30.11 Chronic post cancer treatment pain" (MG30.11). For the affected person and their families, the diagnosis can mean better understanding and acknowledgement of the chronic pain and improvements in the access to multimodal and interdisciplinary care. Statistically, the chronic pain people suffer as a result of cancer and its therapies and the associated burden become visible and can be taken into account in health planning. The same is true for chronic neuropathic pain, chronic postsurgical pain and chronic pain after accidents.

Addressing Unclear Criteria and Ambiguous Diagnoses

Other diagnoses were part of the ICD-10, but lacked clear criteria. This issue was addressed in the ICD-11 by introducing operationalized diagnostic criteria, which at all levels state criteria that are individually necessary and jointly sufficient for the respective diagnosis. On average, each diagnosis relies on 4-7 explicit criteria. Each diagnosis inherits the criteria of the diagnosis above and adds more specific criteria. In total, the diagnoses in the section on chronic pain are based on c. 200 explicit criteria.

Better Representation of Relevant Factors and Pain Parameters

Given the centrality of the biopsychosocial model of chronic pain, it is justified to expect that biopsychosocial factors can be expressed better in the ICD-11. Indeed, there are several ways in which they can be coded alongside all chronic pain diagnoses, primary and secondary. The tools provided for this purpose are "extension codes". With extension codes, information can be added to the categorical diagnoses. In the section of chronic pain, extension codes for "pain severity" and the "presence of psychosocial factors" allow the expression of psychosocially relevant information. A further extension code can be assigned to communicate "temporal features" of the pain (continuous, episodic or continuous with additional flare-ups).

The pain severity specifier captures three important aspects of chronic pain: its intensity (*How much does it hurt? How intense is the pain?*), the pain-related emotional distress experienced by the person (*How much does the pain distress you?*) and the pain-related interference with everyday life and functioning (*How much does the pain interfere with your daily life?*). All three aspects should be rated on a numerical rating scale from 0 – 10, or – if preferred – on a visual analogue scale by the patient (see Box 1 for the exact wording as well as a case vignette showing their application). The numeric scores can be used for individual documentation. However, they can also be converted into severity codes of "none – mild – moderate – severe", which can be included with any chronic pain diagnosis in ICD-11, thereby providing a fuller picture of the chronic pain and how it affects the individual person.

More specifically, the presence of psychosocial factors can be coded with the extension code "presence of psychosocial factors". This code is designed to allow coding problematic cognitive (e.g., catastrophizing, excessive worry, Eccleston & Crombez, 2007; Sullivan et al., 2001), emotional (e.g., fear, anger; Thibodeau et al., 2013; Trost et al., 2012), behavioral (e.g. avoidance, endurance; Hasenbring & Verbunt, 2010; Vlaeyen & Linton, 2012) and social factors (e.g. work-related and economic factors (Haukka et al., 2011; Rios & Zautra, 2011)) that accompany the chronic pain. It is important to note that the extension code should be used only in cases in which there is positive evidence that psychosocial factors contribute to the cause, the maintenance or the exacerbation of the pain or the associated disability, or when the chronic pain results in negative psychobehavioral consequences (e.g. demoralisation, hopelessness, avoidance, withdrawal). Assigning the code requires ascertaining the psychosocial factors, e.g. by use of exploration of the patient and / or psychometric questionnaires. The inference "no somatic cause of the pain can be found, therefore the pain must have a psychological cause" is flawed and cannot form the basis of a use of the extension code "with psychosocial factors". Assigning the code does not entail any specific causal path: the psychosocial factors can be the consequence of the burden of living with chronic pain just as much as a mechanism contributing to the experienced functional interference. The intended use of the code is communicative – the possible presence of psychosocial factors should be

Box 1

Case Vignette: Paul (55 Years)

History: Paul works as a mechanic in the automotive industry. About 22 months ago, Paul had been diagnosed with cancer of the prostate. He underwent surgery to remove the prostate. The surgery went well. After the initial shock of the diagnosis, he was glad that the surgery was over and he had very few side effects. On his doctor's advice, he began a course of chemotherapy with Docetaxel. During the chemotherapy, he developed neuropathic pain in the hands and feet. He was told that in many cases the pain resolves a while after the last dose, but in some cases, it does not. For Paul, the pain did not remit.

Paul was on sick leave during the surgery and the subsequent recovery. Afterwards, he went back to work, only pausing for a few days for each course of chemotherapy. When the neuropathic pain developed, he found his work harder and harder. Hoping the pain would go away after the last treatment, he gritted his teeth and carried on working full hours despite the pain and the interference with his work. He is determined to continue in his present work schedule as a matter of pride. The family had bought a house a few years ago and there were a few years of mortgage payment left. Paul worries a lot about his pain and how it affects his and his family's life. He finds it difficult to fall asleep due to the pain and the worry. He feels exhausted and overstretched and often withdraws from activities he used to like. His family-life suffers from his dejected mood and irritability. On a scale from 0-10 he rates his pain in the last week as "7" ("How strong was your chronic pain in the last week [on average]?") and the pain-related interference as "5" ("How much did the pain interfere with your activities in the last week [on average]?"), his pain-related distress he rates as a "7" ("How much pain-related distress did you experience in the last week because of your pain [on average]?").

Diagnoses According to the ICD-11	
MG30.11 Chronic post cancer treatment pain	
Associated with:	XS7G Psychosocial factors present
Has severity:	XS2E severe pain [pain intensity]
Has alternate severity 1:	XS7N severe distress [pain-related distress]
Has alternate severity 2:	XS2L moderate pain-related interference [pain-related interference]
Has causing condition:	2C82.Y Other specified malignant neoplasms of prostate
Final code: MG30.11&XS7G&XS5D&XS7C&XS5R/2C82	

Note. This code is optimized for machine readability and does not have to be memorized by humans – it is chosen via computer interface. However, it contains all of the above information. It could be augmented even further with information regarding the neoplasm itself (e.g. staging).

discussed between patient and clinician, their presence recorded and communicated to other health providers with the diagnosis. Ideally, they are used to point to a treatment relevance of the psychosocial factors. In the future, such a code should entitle the person to multimodal care including psychological treatments.

Discussion

Empirical Support for the New Chronic Pain Classification

The classification of chronic pain in the ICD-11 was developed with a view to the empirical evidence accrued over many years. The classification and its implementation itself have also undergone first empirical evaluations. Important targets of the revision process of the ICD were clinical utility and international applicability of the new classification (Jakob, 2018a; Reed, 2010; Üstün & Jakob, 2005; Üstün et al., 2007). Clinical utility can be regarded as an approximation of validity and reflects how much a classification system offers a useful conceptualization of the diagnostic entities, enables selecting of adequate treatments, and is easy and feasible to use. High clinical utility allows application in routine practice, facilitates communication and documentation and – ideally – is predictive of treatment outcomes. (First et al., 2004; Keeley et al., 2016)

The integrity of the diagnostic categories is an important prerequisite for the utility of a classification. Diagnostic categories should not overlap, but have clear boundaries (distinctness); together, the categories should cover the whole phenomenological space (exhaustiveness). These aspects were investigated in formative field tests (Barke et al., 2018). In a sample of unselected patients, the categories demonstrated good distinctness and exhaustiveness: less than 3% could not be assigned one of the seven main categories of chronic pain, thus dramatically reducing the number of patients who received a diagnosis reflecting a non-descript remainder category. This favorable result has since been confirmed by a documentation-based retrospective coding study (Zinboonyahgoon et al., 2021).

As a further condition, clinical utility requires reliability of the code assignments. The WHO led extensive field tests of coding aspects of the ICD-11. The results obtained for chronic pain showed that the ICD-11 diagnoses outperformed ICD-10 on all counts, including correct code assignments, ease of application, level of detail and fewer perceived ambiguities (Barke et al., 2022). A next step in reliability testing was testing the interrater-reliability of clinicians assigning diagnoses to real consecutive patients. In an international field testing study, consecutive patients were independently diagnosed by two clinicians and substantive Kappa coefficients for interrater reliabilities reported ($0.596 < \kappa < 0.783$) (Korwisi, Garrido Suarez, et al., 2022).

The clinicians were asked to rate the clinical utility of the diagnoses and it was rated as high throughout all studies (Barke et al., 2018; Barke et al., 2022; Korwisi, Garrido

Suarez, et al., 2022). In addition, preliminary results of a survey among people with the lived experience of chronic pain also showed that they judged the new diagnoses to be helpful for communicating with health professionals, their families and others (Korwisi et al., 2019). The detailed categories increased the visibility of the chronic pain diagnoses when compared with ICD-10 diagnoses (Zinboonyahgoon et al., 2021).

International applicability was addressed in a multi-country field testing study in India, Cuba and New Zealand. Details of the testing are described in the study protocol (Korwisi et al., 2020). Clinicians in specialist pain centers in each country were introduced to the ICD-11 classification in training workshops and subsequently coded n = 353 consecutive patients with the ICD-11 classification as well as their usual diagnostic system. They provided data for the interrater-reliability and rated the clinical utility of the ICD-11 and the standardly used system, showing a clear preference for the ICD-11 classification (Korwisi, Garrido Suarez, et al., 2022). This study provides evidence that the classification is clinically useful in a range of international settings, including countries with limited resources.

The Relationship With the Diagnoses in the Chapter on Mental and Behavioural Disorders

The ICD-10 chapter on mental and behavioural disorders includes the group of somatoform disorders, with a subdiagnosis on somatoform pain disorder. This led to several critical comments. The mind-body-dualism seemed to be amplified with this somatoform pain diagnosis, because a psychological etiology of pain conditions was emphasized in its definition. However, the whole category of somatoform disorders was associated with various problems (Creed, 2006). Despite substantial prevalence rates of 9% and above in the general population (Creed et al., 2012), in countries like the US, these diagnoses were rarely used (Dimsdale et al., 2011). Based on this critique, DSM-5 decided to revise this chapter substantially, and introduced the somatic symptom and associated disorders category. The relevance of whether somatic symptoms are medically explained or not was completely abolished, while psychological factors that are associated with the suffering from these physical complaints play a major role for the diagnosis of a somatic symptom disorder (Rief & Martin, 2014).

The ICD-11 decided to introduce a new category on "Disorders of bodily distress and bodily experience", and its prototypic diagnosis is called "Bodily Distress Disorder (BDD)". BDD has a similar concept to somatic symptom disorder in DSM-5: it requires bodily symptoms that are persistent, and present on most days for at least several months. As a psychological criterion, excessive attention is directed toward the symptoms. While the description acknowledges that pain symptoms are among the most common symptoms of BDD, no pain subtype is defined yet. It remains unclear whether the German modification will stick to the current F45.41 diagnosis of chronic pain with psychological and somatic factors. Therefore, at this stage, we recommend the chronic

primary pain diagnoses if chronic pain is the leading somatic complaint, and the other criteria for chronic pain are fulfilled.

Future Directions

Over the next 5-10 years, the ICD-11 will be implemented in many European countries' health systems (World Health Organization, 2022a). Even in countries in which it is not the basis for health planning and reimbursement, governments will provide data based on ICD-11 diagnostic categories to the WHO in fulfillment of treaty obligations for the reporting of health data. It is recommended that for pain research the new diagnoses are used to inform research programs and utilize the improved diagnostic criteria as well as the specifiers (Barke et al., 2020; Treede et al., 2019). Implementing changes in classification entails changes in other areas, including adaptations in administration and information technology, reimbursement practices and student education. In addition, it requires thorough training for clinicians, administrative and coding staff. A helpful resource when beginning to familiarize oneself with the ICD-11 and the new chronic pain diagnoses, may be a paper in which questions regarding the classification were collected systematically and answers provided (Korwisi, Barke, et al., 2022).

To improve the diagnostic reliability further and facilitate the training, a classification algorithm (CAL-CP) was developed (Korwisi, Hay, et al., 2021) that guides the users through the criteria and diagnoses with a binary decision tree. The user decides for each diagnostic criterion whether it is present in a given patient and then follows the respective "yes" or "no" arrow. The decision tree guides the user through all levels that are available for the new diagnoses. In some settings, a less specific diagnosis might be sufficient (e.g., MG30.0 Chronic primary pain in primary care) while the most specific diagnoses will probably be required in pain research and specific pain treatment (e.g., MG30.02 Chronic primary musculoskeletal pain: Chronic primary low back pain). Hence, the algorithm is a central tool to apply the new diagnoses in practice as well as in research.

The clinicians participating in the international field test had used a pilot version of the algorithm and rated it favourably (Korwisi, Hay, et al., 2021). Currently an authorized version (a pdf with active hyperlinks) is available as digital supplement to the original publication (http://links.lww.com/PAIN/B277). A large test using online virtual patients is underway and its results will provide the basis for a digitized version.

A further aspect, which will have to be discussed and decided on a national level, will be the implications of the new diagnoses in terms of treatment authorization and reimbursement policies. Since the new diagnoses are based on the biopsychosocial model and it is recommended that chronic pain is no longer classified as a somatoform disorder, in some health systems, political and professional negotiations may be required to allow multimodal and interdisciplinary treatments including psychological interventions to be offered and reimbursed by multidisciplinary teams. For instance, in Germany,

psychotherapists and psychosomatic hospitals are currently limited to treating disorders that are classified in the ICD-10 chapter V (Mental and Behavioural Disorders). Clinical psychologists and other health professionals working with people with chronic pain need to be aware of these developments in their respective countries and should seek to advocate for state of the art multimodal treatments for patients with chronic pain delivered by those who are qualified practitioners.

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Alcohol and Substance Use Disorders Diagnostic Criteria Changes and Innovations in ICD-11: An Overview

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Abstract

Background: The new revision of the ICD came into effect on January 1st, 2022, and significant changes have been introduced in the section related to substance use disorders.

Method: In the present work we describe the new ICD-11 section "Disorders due to Substance Use and Addictive Behaviors" and outline the innovations in classification and diagnosis introduced, with a view to addressing the most important issues in terms of new opportunities for identifying and caring for people in need of treatment.

Results: The main innovations introduced in the ICD-11 chapter of interest are the expanded classes of psychoactive substances, the introduction of single episodes of substance use, the introduction of harmful patterns of substance use and severity qualifiers for substance intoxication. Furthermore, the new category "Disorders due to addictive behaviors" has been added, including "Gambling disorder" and the new diagnostic category "Gaming disorder".

Conclusions: ICD-11 calls for renewed public health response and policies fostering the multi-professional and multidisciplinary management of alcohol and substance abuse treatment, giving to these forms of addiction new chances also towards the reaching of the UN 2030 Agenda Sustainable Development Goals.

Keywords

Disease International Classification, ICD-11, substance use disorders, addictive behaviors, public health, psychoactive substances

Highlights

- ICD-11 represents a new opportunity for those who are in need for treatment to be timely identified.
- ICD-11 allows to fill the existing therapeutic gap and increase the coverage of substance use disorders.
- ICD-11 pushes for necessary changes in the post-COVID era: an integrated approach aimed at using standard tools and training for adequate intervention.
- The new definitions adopted by ICD-11 are in line with the UN 2030 Agenda, aimed at ensuring healthy lives and promote well-being for all ages.

On January 1st, 2022, the 11th revision of the International Classification of Disease (ICD) system, ICD-11, came into effect. The ICD is a collection of human disorders and related health conditions which is used from approximately 180 countries around the globe and is periodically revised from the World Health Organization (WHO). Disease classification and coding is crucial not only for accurate clinical diagnosis and effective communication between medical professionals, but also for epidemiological data gathering in order to monitor trends in disease prevalence and incidence, and for providing a basis for precision in research (Sanusi et al., 2022; Saunders, 2017).

Within the wide spectrum of recognized disorders that have an impact on human health and society, of non-trivial importance are disorders related to psychoactive substance use. Psychoactive substances, when taken in or administered into a person's system, affect mental processes such as consciousness, cognition, perception, mood and emotions. Especially if untreated, substance use disorders increase morbidity and mortality risks, and can lead to major suffering and impairment in important areas of functioning, such as family, occupational and social life. Substance use disorders are associated with significant costs to society due to lost productivity, premature mortality, increased health care expenditure, and costs related to criminal justice, social welfare, and other social consequences (World Health Orgnization, 2022). Therefore, careful consideration of these spectrum of diseases within the international coding systems is necessary and unavoidable.

The section of the ICD-11 dedicated to mental health is called "Mental, Behavioral or Neurodevelopmental Disorders" (MBND), and is the result of a wide international, multidisciplinary and participative process that involved many experts and stakeholders around the World, such as mental health professionals and users of mental health services (Gaebel et al., 2020; Reed et al., 2019). The WHO Department of Mental Health and Substance Abuse (DMHSA) assigned a dedicated advisory group for the revision of ICD-10 chapter on mental health, and working groups were established worldwide in order to collaborate to the development of the new MBND chapter in ICD-11. Based on the available evidence, the working groups proposed improvements to the classification system related to mental health, resulting in a beta draft that was made available online

from 2015, in order to receive additional comments and inputs (Gaebel et al., 2020). The 11th version of the ICD was approved in May 2019 by the World Health Assembly, after which the WHO DMHSA published the Clinical Description and Diagnostic Guidelines (CDDG) for the ICD-11 MBND, as the result of a multidisciplinary and international collaboration process that lasted for over a decade (Reed et al., 2019). The main criteria adopted for the development of the ICD-11 MBND process have been the consideration of clinical utility, adherence to scientific soundness, and global applicability. Furthermore, since the development of the Diagnostic and Statistical Manual of Mental Disorders (DSM)-5 was partially contemporary to the one of the ICD-11 Clinical Descriptions and Diagnostic Guidelines, the coherence between the two tool was considered of crucial importance, particularly in terms of minimizing arbitrary differences between the two (Reed et al., 2019).

The DSM is one of the most widely used diagnostic tools for mental disorders, it is published from the American Psychiatric Association (APA), and the 5th revision was completed in 2013. The DSM covers all categories of mental health disorders and has a widespread importance and influence on how disorders are diagnosed, treated, and investigated. Although great efforts have been made to harmonize the ICD-11 with the DSM-5, the two systems do have some differences, also considering that they have, to some extent, different aims. While the DSM-5 aims at providing a common research and clinical language for mental health problems, the ICD-11 pays particular attention to issues of clinical utility in a broad range of settings, aiming at global applicability, and especially the area of 'addictions' has been handled by the latest revisions of the two systems with somewhat divergent approaches, that will be discussed later in this article (Grant & Chamberlain, 2016).

The ICD-11 MBND chapter includes disorders related to substance use in the section "Disorders due to Substance Use and Addictive Behaviors" (Saunders et al., 2019; World Health Organization, 2019). Several important changes have been made in this section with this last revision, that reflect adjustment to modern times, in terms of new substances, behaviors and psychological dynamics (Poznyak et al., 2018). In this work we describe the changes in substance use disorders and addictive behaviors classification between ICD-10 and ICD-11 and their implications, specifically:

1. expanded classes of psychoactive substances;
2. introduction of single episodes of substance use;
3. introduction of harmful patterns of substance use;
4. severity qualifiers for substance intoxication;
5. introduction of the category "Disorders due to addictive behaviors" that includes "Gambling disorder" (previously under "Habit and impulse disorders") and the new diagnostic category "Gaming disorder".

Globally, the need for treatment for substance use disorders did not yet reach a satisfying level and the changes introduced in the ICD-11 have important implications for public health in terms of opportunities for improved monitoring, prevention and treatment and for restructuring of health services in such a way that patient-centered care is prioritized. Interventions must be supported from informed strategies and one of the main priorities in this respect is to provide health professionals with an effective tool for identifying people in need (Poznyak et al., 2018). Therefore, with the present manuscript we aim at providing professionals with valuable insights by outlining the main changes in the 11th revision of the ICD that will have important implications in terms of public health approaches.

ICD-11 "Disorders due to Substance Use and Addictive Behaviors"

Chapter 6 of the ICD-11, "Mental, behavioral and neurodevelopmental disorders", includes a new grouping of conditions in the 12th section called "Disorders due to Substance Use and Addictive Behaviors" (see Figure 1) which is described as follows:

> "*Disorders due to substance use and addictive behaviors are mental and behavioral disorders that develop as a result of the use of predominantly psychoactive substances, including medications, or specific repetitive rewarding and reinforcing behaviors*" (World Health Organization, 2019).

The WHO strategic approach to minimize harm from substance use is reflected in this new version of the ICD-11, where the public health approach to substance use and addictive behaviors is emphasized from diagnoses (Reed et al., 2019). The section is divided itself in two parts, "Disorders due to substance use" and "Disorders due to addictive behaviors".

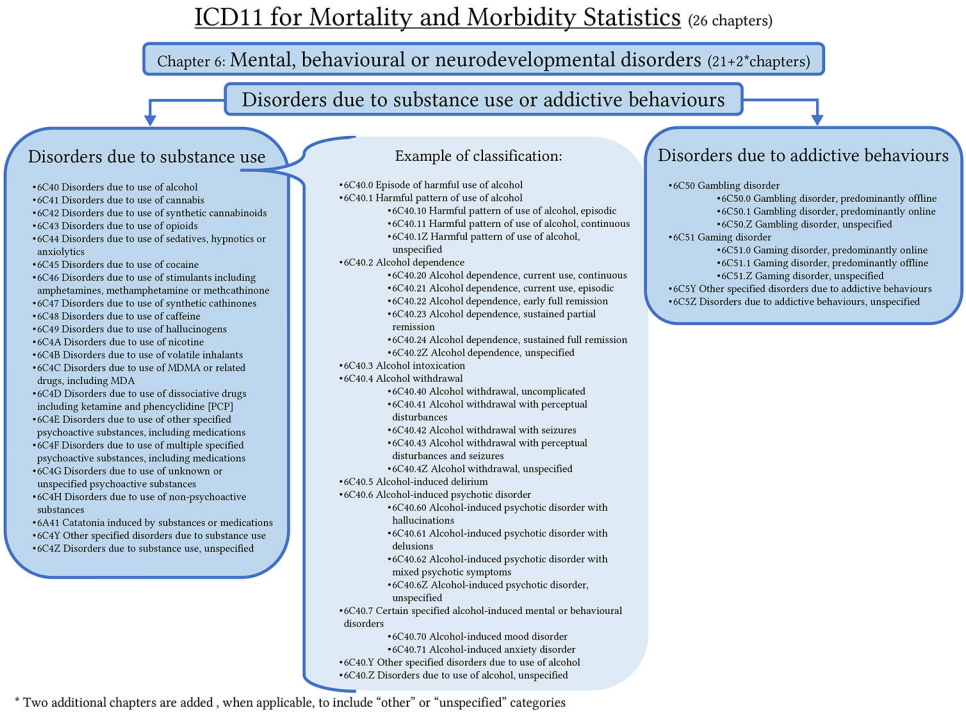
Disorders Due to Substance Use

Expanded Classes of Psychoactive Substances in ICD-11

Disorders due to substance use include disorders that result from a single occasion or repeated use of substances that have psychoactive properties, including certain medications, and are classified according to the substance. The list of substances has been broadened from 9 (ICD-10) to 14, to comprehend contemporary patterns of use: alcohol, cannabis, synthetic cannabinoids, opioids, sedative hypnotics and anxiolytics, cocaine, stimulants including amphetamine methamphetamine or methcathinone, synthetic cathinones, caffeine, hallucinogens, nicotine, volatile inhalants, MDMA and related drugs, dissociative drugs including ketamine and phencyclidine (Poznyak et al., 2018). Other

Figure 1

Schematic Representation of Chapter 6 of the ICD-11, "Disorders due to Substance Use and Addictive Behaviors"



classes have been added to include for those substances that are not mentioned and are known of not known: "Disorders due to use of…" other specified psychoactive substances, including medications; multiple specified psychoactive substances, including medications; unknown or unspecified psychoactive substances; non-psychoactive substances. Figure 2 illustrates the differences between the list of substances in ICD-10 and ICD-11. The structure of the classification implies that diagnosis should start from the substance rather than the clinical syndrome. The grouping revision is meant to allow capturing health information to be used in different contexts, support accurate monitoring and inform prevention and treatment. Following the list of substance classes is the list of specific diagnostic categories that apply to the classes of psychoactive substances (Reed et al., 2019; World Health Organization, 2019).

Figure 2

List of Substances in ICD-10 and ICD-11

ICD-10	ICD-11
Chapter V: "Mental and behavioural disorders"	Chapter 6: "Mental, behavioural or neurodevelopmental disorders"
F10-F19 Mental and behavioural disorders due to psychoactive substance use	Disorders due to use or addictive behaviours
Mental and behavioural disorders due to use of... F10 alcohol F11 opioids F12 cannabinoids F13 sedatives or hypnotics F14 cocaine F15 other stimulants, including caffeine F16 hallucinogens F17 tobacco F18 volatile solvents F19 multiple drug use and use of other psychoactive substances	Disorders due to use of... 6C40 alcohol **6C41 cannabis** 6C42 cannabinoids 6C43 opioids 6C44 sedatives, hypnotics or **anxiolytics** 6C45 cocaine 6C46 stimulants including **amphetamines, methamphetamine or methcathinone** 6C47 **synthetic cathinones** 6C48 **caffeine** 6C49 hallucinogens 6C4A **nicotine** 6C4B volatile **inhalants** 6C4C **MDMA or related drugs, including MDA** 6C4D dissociative drugs including **ketamine and phencyclidine [PCP]** 6C4E other specified psychoactive substances, including medications 6C4F multiple specified psychoactive substances, including medications 6C4G **unknown or unspecified psychoactive substances** 6C4H **non-psychoactive substances** 6A41 Catatonia induced by substances or medications 6C4Y Other specified disorders due to substance use 6C4Z Disorders due to substance use, unspecified

Note. Entries in bold show the new or differently classified/named substances in ICD-11 compared to ICD-10.

Substance Use Related Diagnoses: Innovations in ICD-11

Introduction of single episodes of substance use and of harmful patterns of substance use are among the main features introduced in this version of the ICD for classification of primary diagnoses of substance use disorders (SUD): while with the ICD-10 these were only "Substance dependence" and "Harmful substance use" classifications, with the ICD-11 the primary diagnoses classes are "Substance dependence", "Harmful Pattern of Psychoactive Substance Use" and "Episode of Harmful Psychoactive Substance Use". One of these three diagnoses, or "Disorder due to substance use, unspecified" – when the use pattern in unknown at the time of evaluation – must be given when making a diagnosis of a disorder due to substance use (World Health Organization, 2019). These categories are hierarchical and mutually exclusive, in such a way that only one of these can diagnosed for one substance group, therefore removing overlapping and ambiguity.

Early identification and response of SUD can be eased from having different categories for harmful substance use and substance dependence as these can be addressed with different intervention schemes, for instance there are substance use patterns that may

benefit from brief psychological interventions (for instance motivational interviewing), while other require more extensive treatment (such as detoxification or agonist maintenance). In addition, the WHO considers harmful consumption categories to be very important for understanding the impact of substance use on public health in morbidity and mortality statistics (First et al., 2021).

Furthermore, there are a number of diagnoses that can be added to the primary ones, which include "Substance intoxication", "Substance withdrawal" and different "Substance induced mental disorders". The manual includes also categories related to "Hazardous substance use", which are classified in Chapter 24, 'Factors Influencing Health Status or Contact with Health Services', and not considered to be mental disorders and can be referred to in cases where no evident harm has occurred but the pattern of use increases the risk of harmful health consequences to the user, or to others, in a way that advice from health professionals is needed (Reed et al., 2019; World Health Organization, 2019).

Episode of Harmful Psychoactive Substance Use

Inclusion of the single episode of harmful substance use in the ICD-11 is noteworthy, as it allows for early intervention and prevention of increased use and worsening of the condition and harm. The diagnosis should follow an episode where damage has been caused to someone's physical or mental health, not only referred to the user but also to others: this is an important added value of the ICD-11, where harm to the health of others is explicitly included (Reed et al., 2019). The episode of harmful use usually refers to acute effects and may include substance-induced psychological disorders and should not include harm due to a known harmful pattern of use (World Health Organization, 2019).

Harmful Pattern of Psychoactive Substance Use

The harmful pattern of use definition, instead, indicates a case where interventions must be intensified, and refers to a situation where clinically significant harm to a person's physical or mental health is evident, and can be due not only to the direct intoxicating effects of the substance, but also to secondary effects or harmful route of administration. The pattern can be further specified as episodic or continuous and should be detected for a period of at least one year for episodic use and at least one month for continuous use. Furthermore, harm to health should not be better accounted for by another medical condition or another mental disorder, including another disorder due to substance use, such as substance withdrawal or substance dependence. Harm caused by substance dependence can be similar to that observed in harmful pattern of psychoactive substance use, however, alcohol dependence also includes additional features of the diagnosis and requires at least two of three central features to be present at the same time: impaired control after substance use, substance use becomes an increasing priority in life, phys-

iological features that indicate neuroadaptation to the substance, such a tolerance and withdrawal symptoms (World Health Organization, 2019).

Severity Qualifiers for Substance Intoxication

Diagnosis of substance intoxication requires some essential characteristics, that include transient and clinically significant alteration – such as in behavior, consciousness or coordination – that appear during or shortly after substance use, the pharmacological effects of which must be compatible with the symptoms. Intoxication can last from only a few minutes or even several days after the episode of use. The effects of intoxication are limited in time and fade away as the substance is cleared from the body and symptoms are not better attributable to other medical conditions or mental disorders. The ICD-11 allows for specification of severity of intoxication, that can be classified as mild, moderate or severe, and depends on a variety of factors, such as the amount of substance used, its half-life and the route of administration, and of course individual susceptibility which can be influenced from body weight, tolerance or concurrent conditions such as kidney of liver impairment. Substance intoxication is considered mild if disturbances in psychophysiological functions and responses (for instance attention, judgement or motor coordination) are clinically recognizable but there is no – or little – disturbance in the level of consciousness. In moderate intoxication, instead, the above-mentioned disturbances are evident and the tasks that require psychophysiological functioning and response are substantially impaired. There is also some disturbance in the level of consciousness.

Severe substance intoxication is a state in which motor coordination, attention and judgement are obviously impaired, as well as the level of consciousness. The person may not be capable of self-care or self-protection and may not be capable to communicate or cooperate with assessment and intervention. The intensity of intoxication decreases after reaching a peak of absorption of the substance, and the effects eventually disappear in there is no further use of the substance (World Health Organization, 2019).

Disorders Due to Addictive Behaviors

The new section introduced in the 6th ICD-11 chapter, called "Disorders due to addictive behaviors", includes "Gambling disorder", which was previously listed in the category "Habit and impulse control disorders (ICD-10)", and the new diagnostic category "Gaming disorder" (Saunders, 2017). Diagnosis of gambling and gaming disorders need the manifestation of clinical signs and functional impairment that are observed for a period of at least 12 months, unless severe symptoms arise. Both gambling and gaming disorders are classified as "predominantly online" or "predominantly offline" and are characterized by a pattern of persistent or recurrent behavior. The disorders are defined by impaired control over gambling or gaming, increasing priority given to it, and continuation or escalation despite the occurrence of negative consequences. The pattern of the behavior may be continuous or episodic and recurrent, and results in marked distress or signifi-

cant impairment in important areas of functioning, such as occupational, family and social life.

Gambling Disorder

In ICD-10 gambling was classified under the "Disorders of adult personality and behavior" section "Habit and impulse disorders" and was named "Pathological gambling". Since recent evidence shows important phenomenological analogies between substance use disorders and disorders due to addictive behaviors, gambling has been associated, together with gaming, in the "Disorders due to Substance Use and Addictive Behaviors" section. This change is important also because a high co-occurrence has been detected within the phenomena, as well as the fact that they are both initially pleasurable and then followed by progression to loss of hedonic value and need for increased use. There is also some scientific evidence that disorders due to substance use and disorders due to addictive behaviors share similar neurobiology, especially activation and neuroadaptation within the reward and motivation neural circuits (Fauth-Bühler et al., 2017; Reed et al., 2019).

Gaming Disorder

Gaming disorder, either 'digital gaming' or 'video-gaming', is described as pattern of persistent or recurrent gaming behavior, which may be online or offline, characterized by impaired control over gaming in terms onset, frequency, intensity, duration, termination, and context. Furthermore, increasing priority is given to gaming in such a way that it takes precedence over other life interests and daily activities and, despite the occurrence of negative consequences, the disorder shows continuation or escalation of gaming (World Health Organization, 2019). Solid evidence and intensive discussions among experts over the past years recognized excessive gaming patterns as a clinically significant syndrome, leading to the inclusion of gaming disorder in the 11th revision of the ICD, making a diagnosis for this disfunction a real possibility for patients and clinicians, where the issue is of such a nature and intensity that it results in marked distress or significant impairment in personal, family, social, educational or occupational functioning (Borges et al., 2021; World Health Organization, 2018). In fact, implications of gaming disfunction are not limited to gaming itself, but come along with other health issues, such as aggressive behaviors, depression, insufficient physical activity, unhealthy diet, eyesight and hearing issues and sleep deprivation (Higuchi et al., 2021; World Health Organization, 2018). Unlike gambling disorder, gaming disorder does not involve the betting of money or other valuables with the hope of obtaining something of greater value. If gaming behavior is focused on wagers (for instance internet poker), gambling disorder is generally the more appropriate diagnosis (World Health Organization, 2019).

ICD-11 and DSM-5

The ICD and the DSM both have a substantial impact of psychiatric practice and research worldwide, and much effort has been made over the years to harmonize the two classifications and both the WHO and the American Psychiatric Association believe that the differences between the two systems should be minimized and maintained only if conceptually justified (First et al., 2021; Reed et al., 2019). Nevertheless, there are some significant differences in the classification of SUD between the ICD-11 and the DSM-5.

The ICD-11 paragraph "Disorders due to substance use and addictive behaviors" has a corresponding one in the DSM-5: "Substance-related and addictive disorders". In order to facilitate data collection on their public health impact, some psychoactive substances have been added in the ICD-11 due to their increasing global importance (European Monitoring Centre for Drugs and Drug Addiction and Eurojust, 2016): synthetic cannabinoids (in the DSM-5 are included in the cannabis class), cocaine (in the DSM-5 are included in the stimulant class), synthetic cathinones (in the DSM-5 included in the "other or unknown" class), and methylenedioxyphenethylamine (MDMA) (in the DSM-5 are included in the hallucinogen class) (First et al., 2021).

Distinct categories for pattern of use included in the ICD-11 are discussed above, the DSM-5, instead, considers only one "Substance use disorder" category, and identifies three levels of severity depending on the number of recognized symptoms among a list of 11: two or three symptoms identify mild SUD, four or five symptoms identify moderate SUD, and six or more symptoms identify severe SUD. Furthermore, DSM-5 does not consider classification of SUD based on harm caused to the person's physical or mental health or health of others.

Although there is a noticeable similarity between the DSM-5 11 classifications for SUD and the three ICD-11 categories, a number of cases detected with DSM-5 would not find correspondence in the ICD-11: diagnosis of SUD in ICD-11 requires two out of three items, while in DSM-5 two out of 11. "Craving" and "Recurrent use in situations which are physically hazardous" are two items of DSM-5 that are not included nor have a correspondence in ICD-11. Furthermore, all the items related to a substance taking over in daily life activities described in the DSM-5: 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, in ICD-11 are represented in only one category: "increasing precedence of substance use over other aspects of life" (First et al., 2021). All the above might imply that, since there is not a complete homogeneity between the two tools in identifying all the SUD categories, different diagnoses can be made for some groups of SUD (Degenhardt et al., 2019).

As for gaming disorder, some studies suggest that there might be noticeable differences between the two classification systems in gaming disorder cases detection, where prevalence of cases detected with the DSM-5 are much higher compared to ICD-11

(Borges et al., 2021). However, clinical validity studies are needed in order to assess these differences.

Conclusions

Overall, ICD-11 can represent a new opportunity for several harmful behaviors and for those who are in need for treatment to be timely identified, filling the existing therapeutic gap and increasing the coverage of alcohol and substance use disorders. ICD-11 also pushes for some needed changes, particularly in the post-COVID era (López-Pelayo et al., 2020), to support a much more integrated approach aimed at using standard tools to identify the level of risk as well as training on how to ensure an adequate form of intervention valuing renewed treatment systems for substance use disorders. Finally, the new definitions adopted by ICD-11 call for renewed public health response and policies fostering the multi-professional and multidisciplinary management of alcohol and substance abuse treatment, giving to these forms of addiction new chances also towards the reaching of the UN 2030 Agenda Sustainable Development Goals (SDGs) (United Nations, 2015), aimed at ensuring healthy lives and promote well-being for all ages by mean "strengthen the prevention and treatment of substance abuse including narcotic drug abuse and harmful use of alcohol".

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Personality Disorder Diagnoses in ICD-11: Transforming Conceptualisations and Practice

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Abstract

Background: Until the advent of the ICD-11, classification of personality disorders was based on categorical prototypes with a long history. These prototypes, whilst familiar, were not based in the science of personality. Prototypical classifications were also complex to administer in non-specialist settings requiring knowledge of many signs and symptoms.

Method: This article introduces the new structure of ICD-11 for personality disorders, describing the different severity levels and trait domain specifiers. Case studies illustrate the main aspects of the classification.

Results: The new ICD-11 system acknowledges the fundamentally dimensional nature of personality and its disturbances whilst requiring clinicians to make categorical decisions on the presence or absence of personality disorder and severity (mild, moderate or severe). The connection between normal personality functioning and personality disorder is established by identifying five trait domain specifiers to describe the pattern of a person's personality disturbance (negative affectivity, detachment, dissociality, disinhibition, and anankastia) that connect to the *Big 5* personality traits established in the broader study of personality.

Conclusions: Whilst new assessment measures have been and are in development, the success of the new system will rely on clinicians and researchers embracing the new system to conceptualise and describe personality disturbances and to utilise the classification in the investigation of treatment outcome.

Keywords

personality disorder, severity of personality disorder, ICD-11, trait domains

Highlights

- Introduces the new structure of ICD-11 for personality disorders.
- Describes the different severity levels and trait domain specifiers.
- Case studies illustrate the main aspects of the classification.
- Discusses the issue of stigmatization in clinical practise.

Problems With ICD-10: The Case for Change

Personality disorder is perhaps the most stigmatising diagnosis to receive (Bonnington & Rose, 2014). We all have a personality and our personality is often central to how we perceive ourselves in the world. So, to be told that this part of ourselves – or indeed our whole self – is disordered is extremely stigmatising and potentially highly damaging. Thus, for a clinician to make the diagnosis they must be sure that the benefits outweigh the costs. There are now a number of treatments developed for people who experience the problems that commonly are labelled personality disorder, particularly borderline personality disorder (Storebø et al., 2020), and therefore the cost benefit ratio has changed. In this context, withholding the identification of problems for which there are effective interventions becomes a different ethical challenge, whether the diagnosis is stigmatising or not.

How clinicians conceptualise personality disorder impacts their ensuing discussions with their clients and patients about the diagnosis. These discussions provide significant opportunities to mitigate stigma, especially as evidence indicates that it is often mental health professionals who hold the most stigmatising views of all (Newton-Howes et al., 2008; Ring & Lawn, 2019). ICD-10 like the DSM, was based in clinically derived prototypes that were not based in scientific research that can, as Tyrer and Mulder (2022) argue, be traced back to the conceptualisations of Schneider. Each of the ten prototypes (personality disorders) had a substantial list of symptoms which meant that making a diagnosis required clinicians to be familiar with a long list of symptoms and how they related. Often these symptoms overlapped. Such complexity presented particular challenges in the many low and middle income countries using the classification where there are very few psychiatric specialists, much less personality disorder experts. This inherent structure of the classification resulted in two significant problems. Firstly, rarely did clinicians use anything other than three of the diagnostic categories (Emotionally Unstable Personality disorder; Antisocial Personality Disorder; and Personality Disorder Not Otherwise Specified), making the remainder of the classification effectively redundant and also raising questions about its utility. Secondly, often people met criteria for more than one, sometimes many more than one, personality disorder diagnosis resulting

in multiple 'comorbidities' which were more apparent than real. Consequently, some individuals were loaded up with diagnoses providing added stigma with no realistic prospect of benefit. In response to these not insignificant problems, ICD-11 fundamentally changes the way in which personality disorder diagnoses are conceptualised. It recognises that personality and personality disorder are continuous with each other, and although a categorical structure is maintained, the system recognises that the underlying structure is dimensional. The new system also establishes a connection between basic personality research and the diagnosis of personality disorder.

In fundamentally changing the structure of personality diagnosis ICD-11 provides the potential for a more compassionate framing of personality disorder in discussions between clinicians and the people who come to them requiring help. To mitigate stigma clinicians must root their discussions of personality and its disorders in a psychological understanding of the development of personality rather than within the terminology of psychiatric nosology. Personality develops in the transaction between our biology and our early life experiences. Personality characteristics have a strongly heritable component (Vukasović & Bratko, 2015) and can be seen in early temperament, which has a high degree of stability across the life span (Roberts & DelVecchio, 2000). Early trauma, however, can have a significant impact on the developing brain. These impacts may make a child more sensitive, or aggressive further prompting adverse experiences such as invalidation or punishment from caregivers which may increasingly impact the child's neurobiology. Thus, personality and personality disorder develop in the transaction between biology and environment and can be conceptualised as a person's best efforts to function and cope with their familial and social environment given their biological heritage and early life experiences. Conceptualising personality dysfunction as learned patterns of coping – which may have been functional in the person's early context, and may continue to function in some environments – that have become problematic for the person, potentially provides a supportive and less stigmatising context in which to discuss personality and its disorders. ICD-11's new structure which is strongly connected to the study of human personality provides a context for furthering these initial discussions with clients and patients. A study with health professionals of the respective utility of ICD-10 versus ICD-11 found that the new structure was more useful with respect to formulating interventions, communicating with clients, comprehensively describing a person's difficulties and ease of use (Hansen et al., 2019). Whether clients themselves experience clinicians' discussions using the new structure as less stigmatising will require systematic research. If this aspiration is to be realised, initial service user responses indicate that clinicians will need to be more adept at understanding internal distress and that patterns of behaviour were adaptive responses to early adversity (Hackmann et al., 2019).

Aims of the New Classification

Simplification and greater utility are the primary aims of the new classification. The initial two step-process of diagnosing PD (do the person's difficulties meet the threshold for disorder and, if they do, how severe are they) are much simpler than the previous system and therefore potentially more clinically useful, especially in non-specialist settings. The new system removes the artificial comorbidity of ICD-10 and also significantly decreases the number of symptoms clinicians need to assess in determining the diagnosis thus potentially improving clinical utility. Focusing on severity explicitly foregrounds risk, potentially improving the identification of risk in clinical settings. Severity directly links to treatment intensity, frequency, setting and level of care required, thus, helping services to decide on the complexity of interventions required (Bach & Simonsen, 2021). Whether the classification delivers on these aims will be a matter for subsequent research and implementation studies to decide. What follows is a description of the changes in ICD-11, illustrated by three case studies, and a discussion of issues in assessment.

Description of the Changes

In sum, the new diagnostic classification requires two steps with two further optional steps if required. In the first step clinicians assess whether the person's difficulties meet the general requirements for a personality disorder diagnosis. Secondly, if these requirements are met, then clinicians further assess to determine the severity of the difficulties. The third and first optional step requires further assessment of the person's personality trait domains to more comprehensively describe an individual's personality disturbance. Finally, and if applicable, a borderline pattern specifier can be applied. Each of these steps will be considered in further detail.

Description of the Core Features of Personality Disorder

The central features of personality disturbance in ICD-11, as in DSM-5, are disturbances in aspects of both self and interpersonal functioning. For a diagnosis, these disturbances must be enduring – so present for a minimum of two years. Self-dysfunction may manifest as persistent difficulties in maintaining a stable sense of identity, a pervasive sense of impoverished or highly over-valued self-worth, inaccuracies in self-perception or challenges in self-direction and decision making. Persistent difficulties in making and sustaining close relationships or in the ability to understand other people's perspectives are typical manifestations of the interpersonal dysfunction. Managing conflict in relationships may also present significant challenges. These two main features will manifest in maladaptive patterns of cognition, emotional experience and expression and behaviour which must be evident across a range or personal and social situations.

When considering the disturbance demonstrated or described by the person there are several important factors to consider. First, the disturbance must be present across a range of personal and social situations and not limited to single contexts, although, particular types of situation or common prompting events may elicit the same behaviour across contexts. For example, a person may become repeatedly aggressive when their views are contradicted and this pattern maybe evident with family, and in both social and work contexts. Secondly, when working with young people the developmental context must be considered. Interpersonal difficulties and a degree of unstable self-identity are developmentally normative during the adolescent period. Clinicians, therefore, must be certain that the behaviours reported or demonstrated are significantly different to behaviour of young people of that age and developmental stage within their specific cultural context. Clinicians must carefully assess whether the young person's behaviours are normative responses to adverse environmental situations. For example, a young person may run away from home frequently, getting into fights, using drugs and self-harming because they are being physically and sexually abused at home. Similar difficulties may arise in the situation of women subjected to coercive control and domestic violence and in both cases the person may have significant difficulties in alerting the assessor to the truth of the situation they find themselves in. A proper assessment of context, therefore, is required to ensure that presenting problems truly warrant a diagnosis of personality disorder. Third, and following on from the previous point, the disturbance must not be explained primarily by social and cultural factors, including socio-political conflict. Assessors must take especial care when assessing a person from a different culture or heritage to their own to guard against their own culturally defined assumptions about behaviour, thought and emotional expression. Fourth, the disturbance must not be a direct effect of medication or of some other substance, including withdrawal effects. Finally, the disturbance must be associated with substantial distress of significant impairment in personal, family, social, educational, occupational or other important roles.

Severity Ratings

Once a determination has been made that a person's disturbance meets threshold for a personality disorder diagnosis, the severity of that disturbance (mild, moderate or severe[1]) needs to be considered. Researchers recently have argued for the importance of severity from a conceptual and methodological perspective (Pincus et al., 2020; Sharp & Wall, 2021). Selecting this feature as the next required feature of diagnosis, however, relates to the strong relationship between severity and clinical outcomes (Clark et al., 2018; Crawford et al., 2011; Yang et al., 2010). Severity is determined by several factors:

1) Sub-threshold difficulties which present problems in specific contexts (e.g. in effectively accessing healthcare) may be coded as *Personality Difficulty*, which can be found in the section of the ICD-11 classification *Factors Influencing Health Status or Contacts with Health Services*.

i. The degree and pervasiveness of disturbance in the person's relationships and their sense of self
ii. The intensity and breadth of the emotional, cognitive and behavioural manifestations of the person's disturbance
iii. The extent to which these patterns and problems cause distress or psychosocial impairment
iv. The level of risk of harm to self and others.

As personality disorder becomes more severe an increasing number of areas of a person's life become affected by their difficulties and evidence of harm to self or others becomes more prevalent. For example, in mild personality disorder a smaller number of areas of a person's life will be affected, for example, work and close friendships but perhaps not family or hobbies; or if the difficulties affect all of these areas, they will be mild in severity. Severe personality disorder in contrast affects all areas of a person's life, will be clearly evident to other people around them and will always entail harm to self or others.

Mild Personality Disorder

The most notable aspect of mild personality disorder is that only some areas of personality function are affected. For example, a person might have difficulty making decisions or deciding on the direction of their career yet have a strong sense of self-worth and identity. Problems in many interpersonal relationships or in the performance of social and occupational roles are evident but some relationships are maintained or social roles carried out. The manifestations of a person's difficulties are generally mild and not typically associated with harm to the self or others. For example, they may struggle to recover from minor setbacks or criticisms when stressed or they may distort how they perceive situations or other people's motives without losing total contact with reality. Whilst the personality disturbance may be mild, the person may still experience substantial distress and impairment. The distress and impairment are limited to a narrower range of functioning or, if the difficulties are across many areas, the difficulties are less intense.

Mr R (see Text Box 1) illustrates these features of mild personality disorder. Mr R has sustained his work history for many years and indeed his personality traits, of which more later, have served him well. Difficulties in the work context have only recently begun as a result of a change of demand necessitating more team working where his high standards have interfered with effective working relationships. His difficulties in close interpersonal relationships have been evident for many years within the family context, yet he is able to still maintain some social relationships and family connections.

Text Box 1

Mr R: Mild Personality Disorder With Negative Affectivity and Anankastia

Mr R is 54 years old and has been referred for assessment by his employer. He arrives at the appointment with his sister with whom he has lived for 15 years since the breakdown of his marriage.

Mr R describes how he was recently promoted to head up a team to run a major project. He was promoted because of his track record of delivering high quality work on time. For the first time he has been required to both lead and co-ordinate a team. His high standards and desires for perfection have caused difficulties with colleagues infuriated by Mr R's exacting standards and frequent requests for work to be re-done. Previously when working alone co-workers have tolerated his style of working because it had minimal impact on them.

Mr R was previously married and has three children. He describes his former wife as exceptionally difficult to live with as she was 'extremely untidy, disorganised and slovenly'. They disagreed about how to raise their children and he found his children's 'noise and chaos' impossible. He laments that children are no longer 'seen and not heard'. In a separate interview with his sister, she reports that Mr R is extremely punctilious about household standards and she thinks that his wife was no untidier and more disorganised than most people. They live effectively together by having separate spaces in their old family home so that she is not impacted by his standards – except in the kitchen where she does not mind following his 'rules' about how things must be maintained. Mr R now sees his children, now adults, relatively often. He says he is surprised how well they turned out given their 'chaotic start'.

Mr R is the secretary for his local cricket club and the local church. His organisational skills are much appreciated, although, he occasionally argues with other members of these groups when they disagree about how things should be organised.

Moderate Personality Disorder

For moderate personality disorder, disturbance affects multiple areas of personality functioning such as identity, sense of self, formation and maintenance of intimate relationships, capacity to control and moderate behaviour. Despite these difficulties, some areas of functioning may be relatively less affected. Occasionally moderate personality disorder will be associated with harm to self or others. When this is present, typically, it will be of moderate severity.

Text Box 2

Ms T: Moderate Personality Disorder With Negative Affectivity and Disinhibition (Borderline Pattern Specifier)

Ms T is a veterinary student, aged 26. Her course tutor suggested that she seek assistance as her behaviour on her current programme of study is likely to lead to suspension of her studies if it does not change. This is not the first time that Ms T has presented to services. She describes a history of suicidal thoughts and self-harm behaviours that began in her middle teenage years. Whilst in her early twenties suicidal and self-harm behaviours were less common, they have increased in frequency following a series of break-ups of romantic relationships. Ms T describes that she often feels that she can no longer cope with her life and her emotions and that considering suicide and self-harm provides a degree of relief from the intensity of these thoughts and feelings. Ms T says that she believes she experiences emotions more intensely than other people.

Ms T describes intense and frequent mood changes that have worsened as a result of the interpersonal difficulties she has been experiencing. She describes intense emotions often in response to minor things. For example, her current presentation was prompted after she had yelled and thrown things during a meeting with her Programme Director and her other course mates where her next placement was being discussed and she had not got the placement that she had hoped for. She realised almost immediately that she had acted inappropriately and was extremely tearful and apologetic. Incidents like these have resulted in her peers treading carefully around her or avoiding her altogether. She discovered recently that she had not been invited on an outing and she believes this is a consequence of her reactivity.

Ms T describes a history of frequent romantic relationships. She falls in love rapidly and intensely. Recent relationships have ended as a result of the intensity of her attraction, her jealous rages and, when she believes her partner is unfaithful, she herself then initiates casual sexual contacts with other people.

Ms T's parents were highly critical of her as she was growing up. Academic achievement was extremely important to them. She was very close to her grandmother and spent much of her early teenage years living with her as her parents travelled extensively with their work. Her grandmother suffered from a chronic illness and Ms T cared for her during this time and was devastated when she died when Ms T was 16. She describes her grandmother as the only supportive person in her life. After her grandmother's death she would often run away from home for days at a time drinking heavily and initiating casual sexual encounters. Despite this she maintained good grades at school as she wanted to be a vet – an ambition her grandmother also had but was unable to fulfil.

Marked problems in interpersonal relationships will be evident. Relationships may be tumultuous, characterised by high levels of conflict and frequent ruptures. Alternatively, a person may be conflict avoidant and withdraw from relationships or they may be highly dependent on one or two relationships being either submissive or dominant.

Ms T (see Text Box 2) fulfils the requirements for moderate personality disorder as a much greater number of areas of functioning are affected. There is also evidence of harm to self. Her academic skill is well preserved, however, capitalising on her abilities in her chosen profession is compromised by her emotional regulation difficulties and their interpersonal consequences. Her social relationships are also heavily impacted.

Severe Personality Disorder

People with severe personality disorder have major disturbances in their sense of self functioning. For example, they may have no sense of who they are, experience intense numbness or report that what they believe and think changes dramatically from one context to another. Some individuals may have a very rigid view of themselves and the world and have very regimented routines and approaches to situations. A person's sense of self may be grandiose or highly eccentric or characterized by disgust and self-contempt.

Unsurprisingly, virtually all relationships in all contexts are adversely affected. Often relationships are very one-sided, unstable or highly conflictual. There may even be a degree of physical violence. Family relationships are likely to be severely limited or highly conflictual. The person's ability, and sometimes willingness, to fulfil social and occupational roles is severely impaired. So, for example, a person may be unwilling or unable to sustain regular work as a result of lack of interest, or effort, or poor performance. Alternatively, the poor work performance may derive from interpersonal difficulties or inappropriate behaviour such as angry outbursts or insubordination. Severe personality disorder is often associated with harm to the person or other people. Severe impairment is evident in all areas of the person's life.

Mr D (Text Box 3) presents with severe personality disorder. All areas of his life are affected. He has no meaningful relationships with family or friends and the only connections he has made are with his victims who he has exploited for personal gain. Yet he seems unwilling or unable to appreciate the damage and harm that he has inflicted upon them.

Trait Domain Specifiers

Once the two obligatory steps for diagnosing PD are completed, there are two further optional steps both of which involve further describing the type of difficulties that a person presents with. In some jurisdictions the first two steps will be all that is required. In countries with more advanced systems in place for supporting people who receive a personality disorder diagnosis the first of these next two steps would be encouraged. As

Text Box 3

Mr D: Severe Personality Disorder With Detachment and Dissociality

Mr D aged 34 has been referred for evaluation pending trial. He has been arrested on charges of befriending and then defrauding elderly people. Over the last ten years he has befriended 5 different elderly people, all of whom lacked family nearby. He would begin the relationship by introducing himself as a representative of a local charity that supported elderly people in organising practical tasks about their home e.g arranging gardeners, decorators etc. He would then spend increasing amounts of time with his intended victim and then pour out a story about how his mother had a serious medical illness for which treatment was only available in the US and how distressed he was that he could not afford it. He would eventually accept funds from his victims after protesting for a short while that he could not possibly accept their generosity. His victim's reported that his persistent refusal over a period of time was in part what was so convincing. Mr D is confident that he will be found not guilty as he maintains that all of the money was given as 'gifts'. He maintains that his victims were simply grateful to him for all the support and help that he offered them. His victims, in contrast, describe how he was initially helpful but latterly would easily become irritated and aggressive if they did not follow his advice and they found it hard to resist his suggestions.

Mr D in recent years has had no regular employment and has relied on the funds that he obtained from his victims to sustain himself. His family have severed all contact with him– including his mother- because of his constant demands for money and his aggressive behaviour when his demands are not met. He has no reliable place to live, frequently being asked to leave where he is living because of non-payment of rent. Mr D describes other people as a nuisance and as parasites and says that he can see no need of relationships or connections with others.

Mr D had difficulties originating in childhood. He described his father as an abusive man who frequently told him to stand up for himself. He often fought with other children and complained that he was constantly disrespected although he was often described as a bully. He left school with minimal qualifications and although he began a college course he was dismissed for a combination of non-completion of the course and aggressive behaviour towards other students.

is evident from the descriptions of severity above, the manifestations of severity vary significantly, and these expressions are in accordance with the trait domains of normal personality function. ICD-11 describes five trait domain specifiers that are continuous with normal personality characteristics, consistent with the *Big 5* model of personality

(McCrae & Costa, 1987) and have been found in most if not all mental disorders. Trait domain specifiers are not diagnostic categories rather they represent a set of dimensions corresponding to the underlying structure of personality in all people. Factor analytic studies broadly speaking support the ICD-11 five factor structure (Bach et al., 2017; Mulder et al., 2016), although some studies have found four factors rather than five, where one factor captures the two polar opposites of disinhibition versus anankastia (Bach et al., 2020; Oltmanns & Widiger, 2018). As many trait domain specifiers can be applied as are appropriate to describe a person's characteristics. Individuals with more severe personality disturbance tend to have a greater number of prominent traits although it is possible to have severe personality disorder and manifest only one trait domain e.g. dissociality. Each of the trait domain specifiers will now be considered in turn.

Negative Affectivity

Tendency to experience a broad range of negative emotions forms the central element of negative affectivity. In people with a personality disorder diagnosis this typically means that they experience a broad range of negative emotions with a frequency and intensity that others judge as being out of proportion to the situation. Nevertheless, given the person's life experiences and genetic heritage their responses make sense in terms of their own learned experiences. Common negative emotions include anxiety, worry, sadness, fear, anger, hostility, guilt and shame. The person often experiences emotional lability with accompanying difficulties in regulating their emotions. They are often easily distressed and it takes them longer than average for their emotions to return to their baseline levels.

As a result of intense and frequent emotions, negative thoughts and attitudes commonly occur which, in turn, further fuel strong emotional reactions. Hopeless thoughts are frequent and a tendency to assume that interventions or solutions suggested by friends, family and professionals will not help their situation. Individuals often have low self-esteem and self-confidence which may result in avoiding situations or activities as they anticipate difficulty. Often, they do find situations difficult, because of their emotional sensitivity. They may become highly dependent on others for advice, reassurance, help and direction. At times, they may be understandably envious of other's abilities and successes given their own challenges. In more severe cases they may experience intense feelings of worthlessness and suicidal ideation.

Negative affectivity may be very evident both in a person's report and behaviour, as might be seen in the case of Ms T or it may be heavily disguised and may not even be reported directly as is the case with Mr R. Interactions with other personality traits influence how negative affectivity manifests. In individuals with traits of greater disinhibition negative affectivity is more likely to be clearly evident and to present

earlier in life, whereas in those with detachment and anankastia it may present later, be less directly evident and may even not be reported.

Detachment

Detachment can be either social or emotional. Social detachment in people with a personality disorder diagnosis consists of significant avoidance of social interactions and what they may consider unnecessary interpersonal contact. The person may often respond in ways that actively discourage social interaction. As a result, the person often lacks friends or even acquaintances, often avoiding intimacy of all kinds, including sexual intimacy. Emotional detachment is evident in a reserved and aloof manner with limited emotional expression and experience, both verbally and non-verbally. In extreme cases a person may report a lack of emotional experience altogether; they may be unreactive to positive or negative events and both report and demonstrate a limited capacity for enjoyment. Mr D shows evidence of both social and emotional detachment

Dissociality

Mr D also shows strong evidence of the dissociality trait specifier. Disregard for the feelings and rights of others which includes self-centeredness and lack of empathy is at the centre of this trait domain. People with this trait may demonstrate a sense of entitlement, expecting others to admire them. They may endeavour to attract the attention of others or to ensure that they are at the centre of other people's attention. If others do not respond as they wish they may dramatically express their dissatisfaction. Dissociality may lead to a disregard of the importance of others and the person may have a relentless focus on their own needs, desires and comfort.

Disinhibition

Impulsive action in response to immediate internal or environmental stimuli without consideration of longer-term consequences forms the basis of the disinhibition trait domain. People with this trait tend to act rashly without considering the impact of their actions on themselves or others in the longer term and this can include putting themselves or others at risk. Difficulties delaying reward or satisfaction result in strong associations with such behaviours as substance use, gambling, and unplanned sexual activity. Alongside impulsive action, appraisal of risk is impaired combined with an absence of an appropriate sense of caution resulting in, for example, reckless driving, dangerous sports and activities without appropriate training and preparation. Ms. T shows elements of disinhibition in her reactions in romantic relationships and in her responses to her current placement.

People with this trait are frequently distractible, becoming easily bored or frustrated with routine, difficult or tedious tasks and may often be seen scanning the environment for more pleasurable options. People with a personality disorder with this trait often

demonstrate a lack of planning preferring spontaneous over planned activities with a focus on immediate emotions and sensations with little attention to long-, and sometimes even short-, term goals. Consequently, they often fail to reach any of the goals that they set themselves.

Anankastia

Individuals high on Anankastia have a very clear and detailed personal sense of perfection and imperfection that extends beyond the typical standards of their community. They believe strongly that everyone should follow all rules exactly and meet all obligations. Like Mr. R, individuals high on Anankastia may redo the work of others because it does not meet their perfectionistic standards.

Individuals with this trait strongly believe in controlling themselves and situations to ensure that their perfectionistic standards are met. They have a preoccupation with social rules and obligations and what should be considered right and wrong. They focus intensely on detail and are highly systematic and organized to the point of being rigid. Their intensity of focus on issues or orderliness, neatness and structure frequently leads to interpersonal difficulties because they expect these same high standards from everyone else. They may also have extreme difficulty making decisions as they are not sure that they have considered every aspect of the situation.

Applying the same rules of order to their emotional and behavioural expression such that they do not express emotions or only in a very minimal way is common manifestation of the trait. Their extreme planfulness means that they are often incapable of spontaneity or of making changes to their schedule. They are very risk aware and so are highly unlikely to engage in any activity that would be likely to have a negative consequence.

Borderline Pattern

The original intention with the new ICD-11 classification was to end after the identification of trait domains. Extensive concern was expressed by the clinical and academic community about the changes to the classification and in particular about continued access to treatments (Herpertz et al., 2017). Following discussions with representatives from concerned groups, a concession was agreed primarily to ensure that no one was disadvantaged by the removal of the ‘borderline’ / ‘emotionally unstable’ personality disorder diagnosis. In some jurisdictions without this diagnosis payment for some specialist treatments would be unavailable and so in order to limit this possibility a borderline pattern specifier was introduced which essentially has the same diagnostic features for BPD as in DSM.

The Special Case of Adolescents

One noteworthy feature of the ICD-11 classification is the removal of any age specification for the diagnosis. Previously diagnosis was either forbidden in under 18s or strongly discouraged and reluctance to diagnose in clinicians was well documented (Chanen et al., 2020). The reasons for this were primarily a concern about assigning a stigmatising diagnosis to a young person especially when their personality was still in development. Whilst this concern is legitimate, it resulted in the paradoxical position that a disorder known to begin in adolescence could not be identified and addressed because of the restrictions on classification. With ICD-11, clinicians can make a diagnosis and this opens up the opportunity for early intervention for young people whose behaviours may meet the essential requirements for a diagnosis and yet because of their youth these behaviours may be less entrenched and more open to change (Chanen et al., 2020). Caution is still required, however. As discussed earlier, young people may demonstrate concerning behaviours that may be better accounted for by other diagnostic descriptions e.g. what could be described as personality disorder with traits of detachment and anankastia may be much better accounted for by an autism spectrum diagnosis or their behaviour may be a response to adverse environmental circumstances. Thorough assessment and consideration are required.

Assessment

Given the risks and potential harms of a personality disorder diagnosis careful assessment is required. Typically, clinicians utilise clinical interviews, observation and psychometric assessment, although, the ICD-11 system is designed to be used without use of formal psychometric measures and, in some non-specialist settings, this will be all that is available. Robust assessment requires more than one meeting with the person and would also involve discussion with people who know the person well (with the consent of the person being assessed). A comprehensive clinical interview should begin with the person's current functioning and its history paying particular attention to a developmental history, early adversity and trauma. Throughout the clinician will seek to establish the breadth of areas which are impacted, considering functioning in social, educational, occupational and familial roles. Sufficient duration of difficulties must be considered and, as discussed earlier, alternative explanations, diagnoses or contextual factors must be ruled out.

Newly developed measures are now available to measure both severity and trait domains to augment clinical interview and observations. The ICD-11 Personality Disorder Severity Scale (PDS-ICD-11; Bach et al., 2021) is a 14-item measure that shows promise and provides a rapid assessment of the severity of personality dysfunction. Bach et al. (2017) and Sellbom et al. (2020) describe a method of scoring the ICD-11 trait specifiers utilising the Personality Inventory for DSM-5. Clark et al. (2021) have recently developed

a self-report measure of both self and interpersonal functioning as well as the trait domains. For clinicians interested in a more nuanced assessment of the facets that comprise the trait domains, Oltmanns and Widiger (2020) have developed a 121-item facet-level assessment of the ICD-11 model. The recently modified PID5BF+ captures both ICD-11 and DSM-5 trait domains using three facets per domain (Bach et al., 2020).

Conclusion

ICD-11 personality disorder diagnosis moves away from a Schneiderian typology that has governed personality disorder classification for almost a century and established the connection with the psychological study of 'normal' personality structure. In so doing ICD-11 provides an opportunity to root our conceptualisations of a person's established patterns of emotions, thoughts and behaviour within a psychological case formulation that understands these patterns as a person's best attempts at functioning in often less than ideal environments. Whilst transitioning away from well-understood and familiar concepts presents a challenge, the simplified structure of the classification opens up potential benefits in terms of simplicity and clinical utility, increased awareness of risk and better matching of resource intensive therapies to severe presentations. How far these benefits are realised will depend upon clinicians embracing the new classification, on researchers further developing measures to capture the new method of classifying and on treatment developers evaluating their treatments using the new structure.

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Innovations of the ICD-11 in the Field of Autism Spectrum Disorder: A Psychological Approach

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Abstract

Background: This article aims to explain and elaborate upon the recently released ICD-11 criteria for Autism Spectrum Disorder (ASD, World Health Organization), which endorse a medical model.

Method: We integrate insights from several disciplines (e.g., psychology, linguistics, sociology and lived experiences) to reflect the scientific and ethical insights derived from the biopsychosocial, neurodiversity perspective on autism.

Results: First, we describe the core domains of ASD's behavioural characteristics and then the lifetime, developmental perspective on the manifestations of these behaviours. Subsequently, we discuss potential underlying neuropsychology, related behaviours (i.e. associated features/conditions) and we consider some similarities and differences with the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM 5, American Psychological Association).

Conclusions: Recommendations for clinical application are provided. For instance, diagnostic classification in clinical practise should be a means to provide proper, suitable care, and therefore all diagnostic assessments should be used to tailor interventions and/or care to the capacities and genuine needs of the people that ask for professional help.

Keywords

Autism Spectrum Disorder, ICD-11, diagnostic process policies

Highlights

- Atypical responses to sensory stimuli are included as part of the diagnostic requirements in ICD-11, in contrast to ICD-10, where unusual sensory processing was not yet considered a core (diagnostic) feature.
- In ICD-11 it is recognized that some individuals with Autism Spectrum Disorder start to experience distress, impairment and overt social challenges once societal demands increase (e.g., during adolescence or adulthood).
- Unlike DSM-5, ICD-11 does not emphasize the criteria related to Disorders of Intellectual Development (ID; such as flipping objects, strong attachment or preoccupation with unusual objects, excessive smelling or touching of objects, echolalia, stimming).

Current ICD-11 Definition, Criteria and Conceptualisations of Autism Spectrum Disorder

According to the current International system for the Classification of Diseases 11th Revision (ICD-11) diagnostic requirements, in order to receive a classification of Autism Spectrum Disorder (ASD), a person's behaviour should be characterised by three essential features. First, "persistent deficits in the ability to initiate and sustain reciprocal social interaction and social communication" (World Health Organization, 2019a). Second, by "a range of restricted, repetitive, and inflexible patterns of behaviour, interests or activities that are clearly atypical or excessive for the individual's age and sociocultural context". Atypical responses to sensory stimuli are now included in this domain, unlike ICD-10, where unusual sensory processing was not considered a core (diagnostic) feature. Third, "symptoms should result in significant impairment in personal, family, social, educational, occupational or other important areas of functioning" and, as in previous definitions, the onset should have been during early development. Yet, some individuals with ASD can function in many contexts through exceptional effort, such that their autistic characteristics are not apparent to others during childhood. ICD-11 recognises that overt symptoms are sometimes only fully manifest later, in adolescence or even adulthood, when social demands exceed capacities. Consequently, the condition can present clinically at all ages. ASD is a "lifelong condition, of which the manifestations and impact are likely to vary according to age [developmental stage], intellectual and language abilities, co-occurring conditions and environmental context".

The ICD-11 is an international system for the Classification of Diseases. As such, it endorses a medical model, conceptualising Autism Spectrum *Disorder* as a medical condition with an inborn, for a substantial part, genetically inherited nature, while

acknowledging that gene-environment interactions also play a pivotal role in neurodevelopment (classifying this category in the over-arching category of Neurodevelopmental Disorders). Although most people agree with this conceptualisation of neuro-biological aetiology, amongst a variety of stakeholders, the preference for a biopsychosocial model with more emphasis on how social factors affect functioning and wellbeing, is increasing (Bolis et al., 2017; Greaves-Lord et al., 2022). In such integrative accounts of ASD, an autistic person's difficulties are not seen as simply caused by individual deficits; but rather are understood as arising from a poor fit between, on the one hand, the individual's characteristics and, on the other hand, the demands placed on them by their environment (Mandy, 2022). According to this perspective, autistic symptoms are seen as a form of neurodiversity, and emphasis is placed on promoting functioning and wellbeing via environmental modifications that can improve person-environment fit.

In this article, we were invited to describe and reflect upon the recently released ICD-11 criteria, therefore, this will be the focus of the paper. Yet, in doing so, we will try to integrate insights from several disciplines (e.g., medical, psychological, linguistic, sociological and lived experiences), to reflect the scientific and ethical insights derived from the biopsychosocial, neurodiversity perspective on autism. We will first go into the core domains of ASD's behavioural characteristics. Then we will emphasize the lifetime, developmental perspective on the manifestations of these core behaviours. Subsequently, we briefly discuss theories on the underlying neuropsychological mechanisms driving the core behaviours. Finally, we discuss related behaviours (i.e. associated features/conditions), consider similarities and differences with the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM 5, American Psychiatric Association, 2013) and make some final remarks for clinical application.

Social Communication

Individuals on the autism spectrum display the full range of intellectual functioning and language abilities; nowadays, especially in high-income countries, an ASD diagnostic classification is increasingly made in individuals who have normal-range verbal and non-verbal intellectual abilities (e.g., Lord et al., 2022; Zeidan et al., 2022).

The key features of an ASD comprise persistent deviations from the norms of social behaviour shown by most non-autistic people, including difficulties with initiating and sustaining social communication and reciprocal social interactions, and responding in a manner considered typical (conventional). Whilst there is a normal distribution of such abilities in the general population, people with an ASD are "outside the expected range of typical functioning", when an individual's age and level of intellectual development are considered (World Health Organization, 2019a). "Specific manifestations will vary according to the individual's chronological age, verbal and intellectual ability", and the overall profile of their autistic characteristics (World Health Organization, 2019a).

There are, however, a number of key characteristics of interpersonal behaviour that are the essence of the condition. First and foremost, is the difficulty of spontaneously understanding the verbal or non-verbal social communications of other people, together with the tendency not to respond typically (conventionally) to those communications. It should be noted that autistic people and professionals are increasingly aware that many of the social difficulties ascribed to autistic people as simply reflecting their impairments, are better understood as reflecting the challenges of 'cross-neurotype' interactions (Chen et al., 2021). Autistic people may struggle to understand non-autistic people, but also, non-autistic people frequently struggle to empathise with autistic people. People with an ASD diagnosis vary in terms of their social motivation, although ICD-11 states that there is a tendency for them, compared to non-autistic people, to show less interest in social interactions, and be less likely to pay attention to other people's verbal and non-verbal social cues. An important nuance to make here, is that although some autistic people show less involvement in social interaction, this might not necessarily be the result of lower social motivation, but rather it may be a consequence of exhaustion from trying to emulate a typical non-autistic style of interaction, known sometimes as camouflaging (e.g., Cook et al., 2021; Livingston et al., 2019). Moreover, there is a critical role of early communicative experiences in the development of individuals' attention towards other people's verbal and non-verbal social communication cues (Vernetti et al., 2018).

"Children vary widely in the age at which they first acquire spoken language and the pace at which their speech and language become firmly established" (World Health Organization, 2019a). Most children with early language delay eventually acquire similar language skills to their same-aged peers. Early language delay alone is not strongly indicative of ASD, unless there is also evidence of limited motivation to engage in social communication and of atypical social interaction skills (World Health Organization, 2019a).

An essential feature of ASD is persistent atypicality in how language is used and understood for social communication. People with an ASD typically do not follow non-autistic norms (conventions) in how they integrate their spoken language with complementary non-verbal cues, such as (considered) appropriate eye-contact, gestures, facial expressions, nodding in agreement, or other demonstrations of acknowledgement. Compared to non-autistic people, they are less likely to use body language to share a perspective, such as pointing to express interest in a distant object, or sharing attention in some external event or object. There is usually reduced tendency to initiate, join, or to sustain a conventional back-and-forth social conversation, which has its origins in early childhood. In general, people with an ASD have difficulty understanding and using language in social contexts that are dominated by non-autistic people, and are less likely to initiate and sustain reciprocal, purely social conversations (especially 'chat'). The pragmatic language difficulties that are typical of ASD can manifest as misunderstandings of others' language due to literal interpretations, together with speech that lacks

'normal' (i.e., non-autistic) prosody and emotional expressiveness, sometimes with a distinctly monotonous tone of voice, or contrastingly, with exaggerative expressiveness. Some autistic people are unaware that, to non-autistic people, their use of language sounds atypical, and may talk with such precision that it is considered pedantic, together with the use of an arcane vocabulary. In isolation, atypical language of this nature is only indicative; the diagnostic classification of an ASD requires there to be broad range of additional social reciprocity difficulties, as well as tendency towards inflexible behaviour and sensory sensitivities (see below).

In the context of social relationships with non-autistic people, especially with unfamiliar individuals, there can be limited social awareness, which can lead to behaviour that is not appropriately modulated according to the social context. Although people with ASD are often characterised as 'lacking empathy', the evidence for diminished empathic capacity in typical ASD is not strong. Some research shows altered affective empathy (e.g., Mazza et al., 2014), but, especially in cognitively able individuals, cognitive empathy can usually be present, although there may be an altered processing speed (i.e. due to a local rather than a global processing style, information is processed somewhat slower, but in more detail; Bölte et al., 2007). According to clinical observations of autistic adults, the empathic response may be over-developed (i.e., the tendency to experience high levels of emotional contagion). Moreover, whilst someone with ASD may not obviously be conventionally responsive to a non-autistic person's feelings, autistic adults often explain their atypical reaction reflects a state of anxious confusion and/or indecision, rather than unawareness or disinterest.

Compared to non-autistic people, those with ASD are less likely to spontaneously share their interests with others, and may assume that others do spontaneously share their own interests and point of view (without the need to explicitly ask them). Given that in social life, non-autistic people are often highly intolerant of even small deviations from social norms, this can lead to challenges making and sustaining typical peer relationships. The impact of such peer problems changes from early childhood to adolescence. Intimate friendships with peers become more significant during adolescence, and difficulties building such relationships often become more overt at that time (e.g., Mandy, 2022). Isolation from or rejection by peers will usually have secondary consequences in terms of impaired mental health (e.g. social anxiety, depression or even trauma). Genuine pervasive lack of interest in making peer relationships is rare. Clinically, it is important to be aware that a young person's withdrawal from social interactions may reflect social anxiety, and could be the result of persistent lack of acceptance by a peer majority non-autistic group. Furthermore, peer victimisation is a common experience for autistic people, and clinical assessment should always explore whether bullying is occurring, how it can be stopped, and its impact on the individual.

Also, non-autistic individuals "vary in the pace and extent to which they acquire and master skills of reciprocal social interaction and social communication" (World Health

Organization, 2019a). A diagnosis of ASD should only be considered if there is marked and persistent difference from the expected range of abilities and behaviours in these domains given the individual's age, level of intellectual functioning, and sociocultural context. Some individuals may exhibit limited/altered social interaction due to shyness (i.e., feelings of awkwardness or fear in new situations or with unfamiliar people, due to anxiety about negative social judgement), behavioural inhibition (i.e., being slow to approach or to 'warm up' to new people and situations) or behavioural disinhibition (i.e. impulsiveness). Limited social interactions in shy or behaviourally (dis)inhibited children, adolescents, or adults are not indicative of ASD. Shyness is differentiated from ASD by evidence of typical, non-autistic social communication behaviours in familiar situations (World Health Organization, 2019a).

Repetitive, Stereotyped Behaviours and Sensory Interests

"Many children go through phases of repetitive play and highly focused interests as a part of typical development. Unless there is also evidence of impaired reciprocal social interaction and social communication, patterns of behaviour characterized by repetition, routine, or restricted interests are not by themselves indicative of Autism Spectrum Disorder" (World Health Organization, 2019a). Clinically significant evidence requires persistent "restricted, repetitive, and inflexible patterns of behaviour, interests, or activities that are clearly atypical and excessive for the individual's age and sociocultural context" (World Health Organization, 2019a).

Typically, children with ASD are slower and/or less able to adapt to new experiences and circumstances. Strong reactions (often one of acute anxiety, distress and/or anger) can be evoked by changes to a familiar environment that, to non-autistic people, seem trivial, or in response to unanticipated events. Characteristic of the response to such unwelcome change and uncertainty is extreme discomfort which manifests in childhood as acute distress. This resistance to change also commonly manifests as the tendency to strongly adhere to particular routines. These may be geographic, such as the need to follow familiar routes, or may require precise timing, such as during mealtimes or when travelling. The tendency to engage in restricted and repetitive behaviours persists over time, although its frequency and overtness may diminish during adolescence. In contrast, insistence on 'sameness', can become more prominent in later life. Other aspects of this underlying need for consistency and predictability can be observed in terms of unusually strong adherence to rules (e.g., when playing games), as well as marked "and persistent ritualized patterns of behaviour (e.g., a preoccupation with lining up or sorting objects in a particular way" (World Health Organization, 2019a) or analysing/systemizing all sorts of information). Historically, such behaviours have been dismissed by non-autistic people as serving no apparent external purpose, but recent qualitative research with verbally

fluent autistic individuals has revealed that the actions of organizing and systemizing can serve to regulate arousal. Thus, as their internal tension builds up, (e.g., in response to increasing social demands) an autistic person might start organizing or performing some systemic routine, in order to calm down (Greaves-Lord et al., 2022).

Specific repetitive or stereotyped behaviours will differ according to the developmental stage of the individual, but the tendency is usually life-long. In contrast, "repetitive and stereotyped motor movements, such as whole-body movements (e.g., rocking), atypical gait (e.g., walking on tiptoes), unusual hand or finger movements and posturing" (World Health Organization, 2019a), are more likely to be observed during childhood and are seen in situations of distress and excitement (i.e. hyperaoursal, see below). Such behaviours can also persist into adulthood, especially in autistic people with a co-occurring Intellectual Disability (abbreviated: ID).

Many individuals with an ASD develop fascinations with specific topics, objects or activities. In ICD-11, these are characterised as persistent preoccupations "with one or more special interests, parts of objects, or specific types of stimuli (including media), or an unusually strong attachment to particular objects (excluding typical comforters)" (World Health Organization, 2019a). The range of special interests is wide, and they may change from time to time during development. A key feature of the intensity of the special interests that are typical of ASD, is their pervasiveness and the fact that they disrupt an individual's ability to conform to conventional norms within a social setting, to some extent. For example, everyday life may be adversely influenced by the need to pursue those interests. In childhood, this could have a negative impact on the family, as could the intense attachment to favoured objects (e.g., because of the distress engendered by their being left behind or lost). Nevertheless, it is important to recognise that these fascinations often enrich autistic peoples' lives, with positive effects on identity and mood. Furthermore, such fascinations can engender skill and expertise that is valued in wider society.

The most recent addition to the diagnostic rubric of ASD symptoms (i.e., a change from ICD 10 to ICD 11) is the presence of lifelong strong and persistent hypersensitivity and/or hyposensitivity to sensory stimuli. Sensory sensitivities can include unusual interests in certain sensory stimuli, which may include sounds, light, textures (especially clothing and food), odours and tastes. Although a strong interest in spinning objects is often illustrated in assessment tool as characteristic of ASD, this clear exemplar of autistic behaviour is mainly observed in individuals with ID and delayed social-emotional development. A positive interest in sensory stimuli is less common than negative reactions to such stimuli, but a strong negative reaction to everyday sensory stimuli can be upsetting for the autistic person and also disruptive of family life. These typically include sensitivities to sounds, especially white noise such as hand dryers or vacuum cleaners. The sounds may not be especially loud; these reactions are most frequently observed in childhood. Other negative reactions can be observed to bright lights, certain

clothing textures including labels, and especially food textures. Negative reactions to textures in food typically include the avoidance of mixed textures, requiring strict food separation. Although such behaviours are not exclusively observed in ASD, their severity and persistence, together with the consequent impact on everyday life, are more typical of ASD.

Life-Course Perspective and Advice on Assessment

When individuals with suspected ASD present in adolescence or in adulthood, it is essential to perform an interview on developmental history, and not to rely exclusively on self-report or observations of current behaviour, however well-structured the observation. This is because one prerequisite for the diagnostic classification (although deliberately formulated in a nuanced way) is evidence that the onset of the atypical behaviours occurred during the early developmental period, typically toddlerhood/childhood (i.e., pre-school/primary school).

In contrast to ICD-10, in ICD-11 there is no longer the requirement of history of delayed onset of language, or clear evidence of autistic symptoms before/around the age of four to five years. This change reflects in part the fact that Asperger syndrome has been discontinued as a valid diagnosis; typically, individuals with normal-range verbal intelligence do not have delayed onset of language and they have been subsumed into the ASD diagnostic rubric. Also, it is now recognized that some individuals with ASD start to experience distress, impairment and overt social challenges once societal demands increase (during adolescence or adulthood).

Late onset symptoms of ASD and their differential diagnosis from personality disorders in adulthood are still a complex and controversial issue. Difficulties in inter-personal functioning (i.e., with understanding others' perspectives, intimacy and self-regulation) are also characteristic of personality disorders. As we do not conventionally diagnose personality disorder in childhood, clear history of early (preschool) social communication difficulties, could be a differentiating feature. Enquiries should attempt to define exactly when the atypical social behaviours started to occur, but more importantly, under what circumstances. Early signs and predictors of later manifest ASD, such as a lack of/altered attention to eyes (Jones & Klin, 2013) and limited facial recognition (Eussen et al., 2015)/limited use of facial expressions, should be investigated.

At the time our conventional diagnostic instruments were developed, most clinically recognised children with autism were also experiencing generalized developmental delay (i.e., ID). Plateauing of social communication and language skills and lack of progress in their development characterises many such children. Yet the minority had a period of normal development (sometimes including age-typical language skills), but then lost their previously acquired skills, often in the second year of life. Such regression can be

rapid, over a period of days or weeks, and usually leads to impaired language and social responsiveness. “Loss of previously acquired skills is rarely (spontaneously) observed after 3 years of age” (World Health Organization, 2019a), but can occur in acquired conditions such as encephalitis. If it occurs after age 3, it is more likely to involve a more generalized loss of cognitive and adaptive skills (including the loss of bowel and bladder control, and impaired sleep), as well as regression of language and social abilities (World Health Organization, 2019a). In rare cases of spontaneous regression, recovery takes place. This is usually slow (over months or years), and usually requires intensive interdisciplinary care that focusses on restoring the lost skills, including support for the development of speech/conversational, adaptive and regulatory skills. Asking and clarifying concrete examples of atypical development is therefore key when performing an interview on developmental history, and especially challenging when done only once the individual and caregivers involved are already older. Therefore, training such interviewing skills is essential when educating mental health professionals.

In preschool children, indicators of an ASD “often include avoidance of mutual eye contact, resistance to (conventional expressions of) physical affection, lack of social imaginary play, language that is delayed in onset, or is precocious” (World Health Organization, 2019a), but not used for conventional back-and-forth social conversation; social withdrawal, marked fascinations with topics that are sometimes notably unusual, and lack of age-typical social interaction with non-autistic peers, characterized by parallel play or apparent disinterest. “Sensory sensitivities to everyday sounds, or to foods, may overshadow the underlying social communication deficits” (World Health Organization, 2019a). These social characteristics are often first reported by a nursery or other preschool placement where the child’s behaviour is observed to differ significantly from the majority. Therefore, obtaining information from such sources (e.g., reports from infant care agencies/pre-school) can be of important additional value when charting the developmental history, especially in older cases.

In children with ASD without a Disorder of Intellectual Development (or general developmental delay), "social adjustment difficulties outside the home may not be detected until school entry or adolescence", when atypical social communication all-too-commonly leads to peer rejection, bullying and social isolation (World Health Organization, 2019a). "Resistance to engage in unfamiliar experiences and marked reactions to even minor change in routines is typical" (World Health Organization, 2019a). Furthermore, a strikingly strong "focus on detail as well as rigidity of behaviour and thinking" may be present. Secondary mental health problems are common, and symptoms of anxiety (i.e. social/specific phobia; e.g. Verheij et al., 2015) may become evident at this stage of development (World Health Organization, 2019a).

By adolescence, the capacity to cope with increasing social complexity in peer relationships at a period of ever-more demanding academic expectations is often overwhelmed. In some autistic individuals, their underlying social communication difficulties

may be overshadowed by the symptoms of co-occurring mental and behavioural disorders. Depressive or anxiety symptoms are often a presenting feature (World Health Organization, 2019a), and restrictive eating disorders (including anorexia nervosa) become increasingly common in autistic girls at this age. Thus, clinicians should be aware of potential underlying ASD when performing diagnostic assessment in mental health settings.

In adulthood, the capacity for those with ASD to cope with complex and fluid cross-neurotype "social relationships can become increasingly challenged, and clinical presentation may occur when social demands overwhelm the capacity to compensate. Presenting problems in adulthood may represent reactions to (victimisation and) social isolation" (World Health Organization, 2019a). Also, they may reflect the challenges of planning and organising one's professional and personal life, and regulating emotions, with less support than was received in childhood and adolescence. Compensation strategies may be sufficient to sustain dyadic relationships, but usually come under excessive strain in more complex group situations. "Special interests, and focused attention, may benefit some individuals in education and employment. Work environments may have to be tailored to the capacities (and sensitivities) of the individual. A first diagnosis in adulthood may be precipitated by a breakdown in domestic or work relationships" (World Health Organization, 2019a). As mentioned, if the individual is autistic, there is always history of at least some atypical signs in early childhood social communication and relationships, although this may only become apparent, or interpreted as such, in retrospect.

Because it is now recognised that ASD represents a more intense manifestation of the wide range of behaviours that are observed in the general population, it is critical to consider the impact of those symptoms on everyday life, before making a diagnosis. Diagnostic criteria, as outlined above, stipulate that autistic characteristics should "result in significant impairment in personal, family, social, educational, occupational or other important areas of functioning" (World Health Organization, 2019a; e.g., emotional/physical wellbeing). Some individuals with ASD can function well in many contexts, often through exceptional effort on their part, such that their autistic characteristics are 'camouflaged' and are not apparent to others. A diagnosis of ASD is still appropriate in such cases, especially when such exceptional effort is no longer achievable due to aging or changing social circumstances, during which the autistic characteristics might become more apparent to others over time. Camouflaging is commonly described by autistic people as exhausting and is associated with elevated risk for anxiety, depression and suicidality (Cook et al., 2021).

Hypothesised Neuropsychological Mechanisms Driving the Core Behaviours Defining ASD

Although ASD is defined based on behavioural features, several theories exist on the neuropsychological mechanisms hypothetically underlying these behaviours. Classically, three main theoretical frameworks explaining underlying neuropsychological functioning were presented; Theory of Mind (ToM; e.g., Andreou & Skrimpa, 2020), Executive Functioning (EF; e.g., Demetriou et al., 2019) and Central Coherence (CC; e.g., López et al., 2008). Over time, nuances were made on how these theories each explain particular behavioural aspects of autism (e.g., Happé et al., 2006). More recently, theories have been proposed that combine, integrate and extend these theories, e.g. the Predictive Coding account (PC; e.g., Van de Cruys et al., 2014) and the Polyvagal Theory (PT; e.g., Brown, 2020). Given the scope of this article, we cannot go into detail on all these accounts, nor can we mention the abundant literature. However, we will briefly explain these theories and illustrate them with examples of behaviours seen in autistic people, so that clinical psychologists can a) better understand what mechanisms might be driving certain behaviours, and b) use this to increase the understanding of autistic people they support.

Firstly, ToM refers to the ability to formulate hypotheses on how other people feel, think and thus behave; i.e. mentalizing. Autistic people might sometimes respond differently than conventionally would be expected. Such responses can however be better understood, when being aware that - depending on the circumstances - the response might be either mostly to the verbal information that was primarily processed, or to the visual information that was mainly processed (e.g., Chung et al., 2014).

Secondly, EF refers to a set of capacities used to *consciously* plan ahead, meet goals, display self-control, etc. Speculatively, more *unconscious*, automatically driven cognitive distortions might appear in case of cognitive overload in autistic people (e.g., Autistica, 2021). Sometimes, autistic people show the tendency to categorize things or people as all good or all bad, all right or all wrong (sometimes referred to as 'dichotomous thinking'), rather than - at that instance - being able to *consciously* notice the possibilities in between, sometimes referred to dichotomous thinking.

Weak CC refers to difficulties in ‘seeing the bigger picture’, but rather an associative, non-linear thinking style in autistic people (e.g., Grandin, 2009). Simply put, some people might mainly have a global (bigger picture) processing style, while other (autistic) people might mainly have a local (detail-focussed) processing style (Bölte et al., 2007).

The idea of CC was taken further in PC theory. This theory of brain function stipulates that the brain is constantly generating and updating a mental model of the environment (e.g., Pellicano & Burr, 2012). This model is used to generate predictions of sensory input that are compared to actual sensory input. This comparison results in prediction errors that are then used to update and revise the mental model. An autistic person might be focussed more on the actual sensory input and their brain might be con-

stantly working to minimize the gap between the prediction and actual sensory input. As such, this theory might explain why some autistic people have more intolerance of uncertainty, given the larger prediction errors and the cognitive resources it takes to try and solve these. Finally, although the PT (Porges, 1995) is not yet well substantiated empirically, it's popularity is growing amongst some clinical practitioners and autistic people, as it is relatable. Therefore, we discuss it briefly. Polyvagal theory takes its name from the vagus, a cranial nerve that is the primary component of the parasympathetic nervous system. The autonomic nervous system (ANS) has two parts; the sympathetic nervous system, which is mostly activating ("fight or flight"), and the parasympathetic nervous system, which exists of two distinct branches: a "ventral vagal system" which supports social engagement, and a "dorsal vagal system" which supports immobilisation behaviours, both "rest and digest" and defensive immobilisation or "shutdown". Behavioural responses that derive from the hybrid state of activation and calming are key to the ability to adaptively socially engage. It is speculated that in autistic people, the ANS might (at times) be dysregulated, which could explain emotional melt downs or shut downs in autistic people. Again, we emphasize that in this section we did not provide an extensive explanation of all neuropsychological concepts. Rather, we illustrated some behaviours seen in autistic people and tried to stimulate readers to think about their assumed neurobiological origins. In clinical practice, for most autistic people it is key to connect abstract, neuropsychological concepts to very concrete day-to-day personal experiences, to 'digest' these explanations fully (e.g., Gordon et al., 2015). Thus, in psycho-education, it is essential to help autistic people make these translational connections.

Further Features and Disorders

Some individuals with an ASD experience delay in the development of their intellectual abilities, and qualify for a diagnosis of ID. In countries with well-established facilities for the assessment of autistic symptoms, and with experience in the manifestations of the condition among individuals with good verbal skills, individuals with ID are a minority of those diagnosed with ASD. By contrast, in more under-served areas, those with ID constitute the majority people diagnosed with ASD. "If present, a separate diagnosis of Disorder of Intellectual Development should be assigned, using the appropriate category to designate severity (i.e., Mild, Moderate, Severe, Profound, Provisional). Because social difficulties are a core feature of Autism Spectrum Disorder, the assessment of adaptive behaviour as a part of the diagnosis of a co-occurring Disorder of Intellectual Development should place greater emphasis on the intellectual, conceptual, and practical domains of adaptive functioning than on social skills" (World Health Organization, 2019a). Self-injurious behaviours (e.g., hitting one's face, head banging) occur more often in autistic people with co-occurring Disorder of Intellectual Development, perhaps because

they represent attempts to express and communicate painful feelings, in the absence of verbal means.

Even among individuals with normal-range intellectual abilities, profiles of specific cognitive skills in ASD as measured by standardized assessments, may show striking and unusual patterns of strengths and weaknesses that are highly variable from individual to individual. Clinical experience teaches that such a 'spikey profile' of cognitive strengths and difficulties can affect learning and adaptive functioning to greater extent than would be predicted from the overall scores on measures of verbal and non-verbal intelligence, yet more research on this matter is needed to substantiate such clinical claims. Isolated difficulties in intellectual functioning that are associated with ASD include slow/different processing speed/style (Bölte et al., 2007) and limited verbal or non-verbal working memory, which may occur in the presence of strong verbal and/or visuospatial skills in other domains.

"The degree of impairment in functional language (spoken or signed) should be designated with a second qualifier. Functional language refers to the capacity of the individual to use language for instrumental purposes (e.g., to express personal needs and desires). This qualifier is intended to reflect primarily the verbal and non-verbal expressive language [difficulties] present in some individuals with Autism Spectrum Disorder" (World Health Organization, 2019a), and not the atypical pragmatic language that is a core feature of the condition. ICD-11 requires the assessment of whether the individual has a degree of functional language impairment (spoken or signed) relative to their age in the following terms: i) with mild or no impairment of functional language; ii) with impaired functional language (i.e., not able to use more than single words or simple phrases); iii) with complete, or almost complete, absence of functional language (World Health Organization, 2019a).

It is important to note that the observable manifestation of ASD will be different at different developmental stages (as discussed above), as well as in different groups (e.g., males versus females versus gender-diverse individuals, or those with and without ID). For instance, parental or caregiver concerns about intellectual or other developmental delays (e.g., problems in language and motor coordination) often characterise the presentation in young children during the preschool period. When there is no significant impairment of intellectual functioning, the presentation to clinical services is often prompted by staff at nursery school, who have observed unusual social or other behaviour. In middle childhood, there may be prominent symptoms of anxiety, including social anxiety disorder, school refusal, and specific phobia (Verheij et al., 2015). During adolescence and adulthood, depressive disorders are a common presenting feature. For women, a restrictive eating disorder can drive engagement with mental health services, with their underlying ASD and/or associated social trauma only being identified later (Bentz et al., 2022). Across all ages, there is strong co-occurrence with attention deficit/hyperactivity disorder, and in males impulsive and disruptive behaviour often prompt

referral (especially in middle childhood), although in females the symptoms are more likely to be related to attention difficulties, rather than impulsivity or hyperactivity. Consequently, it is important to be aware that ASD commonly co-occurs with other mental, behavioural or neurodevelopmental disorders across the lifespan. In a substantial proportion of cases, particularly in adolescence and adulthood, it is the co-occurring disorder that first brings the autistic individual to clinical attention. Some people with ASD are capable of functioning even in environments that are poorly adapted to accommodate them, by making an exceptional effort to compensate for their symptoms during childhood, adolescence or adulthood (i.e., 'camouflaging'). Such camouflaging requires sustained effort, is more typical of females (although it is common in all genders), and can have deleterious impact on mental health and well-being (Cook et al., 2021).

"Some young individuals with Autism Spectrum Disorder, especially those with a co-occurring Disorder of Intellectual Development, develop epilepsy or seizures during early childhood with a second increase in prevalence during adolescence. Catatonic states have also been described. A number of medical disorders such as Tuberous Sclerosis, chromosomal abnormalities including Fragile X Syndrome, Cerebral Palsy, early onset epileptic encephalopathies, and Neurofibromatosis" are associated with an ASD diagnosis (World Health Organization, 2019a), with or without a co-occurring Disorder of Intellectual Development. Genomic deletions, duplications and other genetic abnormalities are increasingly described in individuals with ASD, some of which may be important for genetic counselling. Prenatal exposure to valproate is also associated with an increased risk of ASD (World Health Organization, 2019a).

Recently, there is growing recognition of the fact that people with ASD more frequently develop more severe physical illnesses, in the worst case resulting in relatively early death, as compared to other people from the general population. Potentially, this might reflect the fact that autistic people experience high levels of stress, due to having to live in environments that are poorly designed to accommodate them, with consequent elevated levels of mental health, suicidality and substance use problems. Poor physical health outcomes could reflect a combination of two underlying causes. First, autistic people might have a limited capacity to sense and recognize early physical symptoms. This might be due to limited interoception, i.e. hypo-sensitivity or a limited inclination to direct their attention towards internal stimuli of the body (e.g. Garfinkel et al., 2016). Secondly, they might be reluctant to communicate any concerns they have about their physical health to professionals. This might result in their initially not seeking access to medical services, as well as limiting their action in following up any subsequent referral to medical specialists. Research on this topic is still ongoing. Nevertheless, it is important that mental health professionals are aware that there is potentially limited somatic awareness in autistic clients. They should therefore pro-actively bring up the topic of their client's physical health. Psychologists should consider referral to a medical specialist when an autistic client complains about somatic symptoms, and should be

aware of their potential professional biases. Faced with an autistic client who has somatic symptoms they should not automatically assume a psychological explanation, but be aware that an alternative physical condition could be present, and that condition should be adequately investigated. The prevalence of premature mortality affecting people on the autism spectrum, which is excessive, could be attributable at least in part from these risk factors.

Comparison Between ICD-11 and DSM-5

Both systems of diagnosis differ substantially from previous versions (ICD-10 and DSM-IV and DSM IV TR). There are differences in their conceptualization of ASD as a broad category comprising many different conditions (not yet identified, the 'autisms'), and in terms of specific phenotype requirements. Hence the agreed term ASD, reflecting the heterogeneity of those conditions. Both systems recognize that ASD is a set of symptoms that exist on a continuum that blends into normal variation, and they also consider the fact that at one extreme end there is a subset of conditions that are associated with identifiable biological substrates (largely genetic, but also some environmentally induced risks). The greatest difference between the ICD-11 and DSM 5 diagnostic systems is not in the social communication aspects of the condition, but in the patterns of restrictive, repetitive, and inflexible patterns of behaviour that are regarded as atypical.

The blurry boundaries between ID and ASD bedevils research. Experts who are looking at genetic risk factors continue to have a heated debate about whether certain genetic anomalies increase risk for ASD or ID or both. ICD-11 criteria are cognizant of the fact that nowadays most diagnoses of ASD are made in individuals who are of normal-range intelligence. Accordingly, B-scale symptoms are defined in a way that reflects behaviours that are seen in those individuals (more broadly ranging than is discussed in DSM-5). Unlike DSM-5, ICD-11 does not emphasize the ID-related criteria (such as flipping objects, strong attachment or preoccupation with unusual objects, excessive smelling or touching of objects, echolalia, stimming; WHO, 2019b). The associated limited enquiry about symptoms of Repetitive, Restricted and Stereotyped behaviour (RRSB) is one of the reasons why there was, under the former DSM-IV TR criteria, such high prevalence of Pervasive Developmental Disorder – Not Otherwise Specified ('PDD-NOS'). By broadening the criteria and introducing concepts such as 'Lack of adaptability to new experiences and circumstances...' ICD-11 has aimed to reduce the perceived lack of sensitivity of the DSM-5 criteria to cognitively able and older individuals.

Intellectual disability is conceptualized as a homogeneous condition in DSM-5. It is said that ASD may be difficult to differentiate from ID in very young children (under the heading Differential Diagnosis), but this statement exemplifies the problem that in the USA the terms are much closer aligned than the developers of ICD-11 considered to be appropriate. DSM-5 does not make distinctions between levels of intellectual impairment.

In ICD-11, as discussed, there is the possibility to record an associated Disorder of Intellectual Development, and this should be assigned a degree of severity.

DSM-5 criteria state that, to make an ASD diagnosis, the atypical social communication should be more marked than would be anticipated from the individual's developmental level when any associated ID is considered. In ICD-11 a similar statement is made. Both diagnostic systems acknowledge that it is important to distinguish the lack of adaptive behaviours that are indicative of generalized learning disabilities from the specific difficulties that are experienced by individuals with ASD. The difference in emphasis between the systems reflects the expectation in the US that it is important to identify ASD symptomatology in those with ID, whereas in ICD-11 the emphasis is on the importance of identifying intellectual impairment in those with a primary diagnosis of ASD.

In DSM-5 a differential diagnosis is made between ASD and Social (Pragmatic) Communication Disorder, a condition that does not exist in ICD-11. The developers of ICD-11 criteria were not convinced that a specific disorder of this nature could be differentiated clearly from atypical social communication that is associated with ASD, nor from varieties of Specific Language Impairment (Mandy et al., 2017). ICD-11 records the degree of impairment of functional language at three levels, but this distinction is not treated as a differential diagnosis. That decision, to record three levels of impairment appears to be similar, but more structured, than the DSM-5 stipulation to use the specifier 'with or without accompanying language impairment' with an injunction to assess the current level of language and describe it. The choice of three levels reflected the need to be more explicit for clinical purposes, and the ICD-11 developer's estimate that this distinction could be made reliably.

Both systems of diagnosis require the recording of loss of skills. In ICD-11 there is a qualifier that records whether there is loss of previously acquired skills, or not. DSM-5 discusses loss of skills in the context of Development and Course and distinguishes social from loss of other skills (such as toileting or motor skills). ICD-11 acknowledges that the pattern of skill loss will be different at different stages of development.

DSM-5 has a section on differential diagnosis which implies that it is possible that ASD could be confused with other diagnoses, such as selective mutism or ADHD. ICD-11 has taken a different approach, recognizing that these conditions can (and frequently do) co-occur. Hence, in ICD-11 they are included in a section that uses the term 'Boundaries with Other Disorders and Conditions'. The guidelines in ICD-11 provide greater detail than DSM-5 about the distinction between conditions that may present with an autism-like phenotype.

Towards Intervention to Improve Quality of Life and Functioning

In our view, the diagnostic classification of ASD should always inform and serve proper, suitable interventions and support aimed at improving the wellbeing and functioning of the autistic person. Thus, clinical psychologists should remain aware that diagnostic classification is not a purpose in itself. Therefore, as part of the diagnostic assessment process, clinicians should perform assessments with a purpose in mind. If the goal is to primarily acquire new insights for scientific/applied research and/or related mental health care innovations, that purpose of potential additional assessments should be transparently communicated to all involved. Diagnostic classification in clinical practise should be a means to provide proper, suitable care, and therefore all diagnostic assessments should be used to tailor the interventions and/or care to the capacities and genuine needs of the people that ask for professional help. Even though ASD is conceptualized as predominantly inborn, so genetically determined condition, the interaction with social factors is more and more recognized both in society as well as in research. As such, interventions to help autistic people should not simply focus on effecting change in the individual, but should also include steps to improve person-environment fit by making adaptations to the environment. Furthermore, intervention targets should be identified collaboratively with the client and their family, and will often concern improving wellbeing, mental health and societal functioning. Whilst practice may need to be adapted to promote access and inclusion for autistic clients, mental health care providers are in a good position to use their clinical skills to offer effective help. There is growing evidence-base for psychological treatment procedures and social support interventions. Recommendations regarding suitable methods for treatment and support with sufficient evidence as well as preference base will be provided in a future follow up article.

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