Chapter 3: Classification in Psychiatry

Gin S. Malhi

Academic Department of Psychiatry, Kolling Institute, Northern Clinical School, Faculty of Medicine and Health, The University of Sydney, Australia, CADE Clinic and Mood-T, Royal North Shore Hospital, Northern Sydney Local Health District, Australia, Visiting Professor, Department of Psychiatry, The University of Oxford, UK, and Oxford Uehiro Centre for Practical Ethics, Faculty of Philosophy, The University of Oxford, Oxford, UK.

and

Erica Bell

Academic Department of Psychiatry, Kolling Institute, Northern Clinical School, Faculty of Medicine and Health, The University of Sydney, Australia, and CADE Clinic and Mood-T, Royal North Shore Hospital, Northern Sydney Local Health District, Australia.

Introduction

The need to describe and define mental disorders and have a classificatory system that is logically organised is undeniable. The first problem one faces however, when embarking upon such a task, is what precisely should be included, and how should the description of things that are to be included be organised so that the architecture of the taxonomy makes sense. These uncertainties remain a matter of considerable debate, and this is not surprising given that in addition to discriminating between different kinds of mental illness, it is necessary first to differentiate abnormal experiences and behaviours from what is generally regarded as normal – whatever that may be. This is necessarily difficult and requires careful consideration, noting that there is no absolute normal and that most boundaries in psychiatry are subject to judgement.

The two main taxonomies that are used worldwide to define mental illnesses are the American Psychiatric Association Diagnostic and Statistical Manual (DSM) of mental disorders (American Psychiatric Association, 2013; American Psychiatric Association, 2022), which is now in its 5th edition (DSM-5) and has been further revised (DSM-5-TR) (American Psychiatric Association, 2022), and the mental, behavioural or neurodevelopmental disorders section of the International

Classification of Diseases (ICD) (World Health Organization, 2019). The latter has also been updated recently, and its 11th version, (ICD 11) was released in 2022. When DSM-5 was published a decade ago in 2013, the US National Institute of Mental Health (NIMH) proposed a new approach to 'capture' psychiatric phenomena. The novel taxonomy was abbreviated to RDoC, which stands for Research Domain Criteria (The National Institute of Mental Health (NIMH), 2013). It was intended largely for research, pursuing transdiagnostic phenomena such as irritability(Bell et al., 2021b; Bell et al., 2021a), however, it was also meant to inform clinical decision-making and practice.

Alongside these main taxonomies, there are many local manuals that describe different cultural interpretations and traditions, however in this textbook, reference is made mainly to DSM and ICD. In this chapter, we examine a number of examples of diagnoses and disorders within these classificatory systems and the controversies surrounding them, to illustrate some of the challenges that arise when trying to define and classify psychiatric disorders.

Dimensional or Categorical?

As a doctor, one of the primary considerations when diagnosing any illness is to determine whether a set of symptoms meet a specified threshold to define an illness or disorder. This is easier if there is pathology that is known to be associated with the illness. The clinical diagnosis can then be confirmed based on the findings of a relevant test (e.g. plasma levels of a hormone) or investigation (e.g. an x-ray examination of the chest). Alternatively, there may be signs that can be reliably elicited and are highly characteristic of the illness, perhaps even pathognomonic.

In psychiatry, this is seldom the case, and most diagnoses rely predominantly on symptoms and occasionally some signs, but to date there are no tests that can definitively diagnose a psychiatric disorder such as depression. Nevertheless, for classificatory purposes and even more importantly, to communicate with patients, it is necessary to invoke the concept of a 'category'. This is because patients, quite reasonably, want to know if what they are experiencing is abnormal, and if so, whether it is an illness. In clinical practice this means sorting individuals into those that have an illness or disorder and those that do not. The problem with this approach when considering psychiatric conditions is that it is often difficult to identify a clear demarcation between what is normal and abnormal. A good example of where this distinction is challenging concerns the symptom of anxiety, which is most often a normal physiological response that is necessary for day-to-day functioning. However, it can be deemed abnormal if severe or sustained and it begins to limit functioning. Conversely, extremely low mood may be 'normal' in the context of a severe loss such as bereavement. But even when

there is a prima facie understandable reason for feeling low such as a stressful life event, it still may be thought of as depression, i.e. a psychiatric disorder. In other words, a clear and confident delineation between normality and abnormality on the basis of symptoms and signs alone may simply not be possible.

Therefore, in addition to having set criteria in terms of specific symptoms and their duration, there is also a requirement for some degree of functional impairment. Nevertheless, in practice these judgements remain complicated, as the process of definition is also dependent on individual characteristics, and thresholds of distress differ from one individual to the next. For example, some stoic individuals may have a higher pain threshold than others and similarly resilience in dealing with stress varies considerably across the population - especially as it is also a composite construct (Malhi et al., 2019). However, in practice, it is necessary to be able to differentiate between those that do have an illness so that they can be helped and offered treatment, and those that do not require any special medical or psychological assistance.

In addition to differentiating disorders from normality, and distinguishing between disorders, further subcategorisation occurs *within* certain disorders, to define specific *kinds* of illness. Again, it is important to note that the 'depth' of any such distinction is largely descriptive in most cases, and only occasionally is it causal. Staging and subtyping are common terms that are used to describe entities within psychiatric disorders. For example, depression may be 'mild' or 'severe', it may be described as 'atypical' or 'melancholic', or there may be different types of depression such as that occurring in bipolar disorder (bipolar depression) and that featuring psychotic symptoms (psychotic depression). However, it should be noted once again that these so-called categories do not have crisp boundaries and that many seemingly separate categories necessarily overlap, and some delineations remain highly disputed.

An alternative approach is to describe illnesses dimensionally. This certainly accords with clinical experience, where sadness for example varies by an imperceptible degree as does anxiety. So too the number of symptoms and their duration seems to lie on a continuum. However, there are exceptions, for example the emergence of hallucinations or clear-cut delusions is often 'all or nothing'. But the dimensional perspective, whilst perhaps more accurate in reflecting reality, makes the distinction of normal and abnormal difficult and hinders the stratification of disorders in line with treatments and therefore boundaries need to be defined, and hence this is why current approaches artificially partition the dimensional experiences of psychiatric phenomena into categories. Having accepted that this is a somewhat theoretical and pragmatic way forward, the resulting classificatory system does for all intents and purposes provide a useful way of conceptualizing psychiatric

diagnoses. Within this framework, diagnoses are symptoms that have been aggregated into syndromes and labelled as disorders, provided they meet a certain threshold, whilst noting that many of them overlap with other disorders and probably lie on a fundamental substrate that is essentially continuous. In other words, our clinical schema for psychiatric diagnoses likely does not reflect the psychological and biological mechanisms underlying mental distress.

Biological or Contextual?

Yet another way of defining and understanding psychiatric disorders is through understanding their causes. This aetiological perspective assumes that there are specific causes that lead to psychiatric manifestations. It draws upon the biomedical model and in particular the microbial model of illness and disease, in which a single bacterium for example can be the primary cause of an illness. The complexity of how the disease manifests is evident by considering the effects of the microbium within physiological processes, for example infections often lead to changes in temperature, and gut sensitivities resulting in nausea and vomiting. Infections also often cause lymphadenopathy, pain, and inflammation. Classification solely on the basis of these downstream sets of symptoms is likely to be potentially inaccurate and misleading, and hence why knowing the pathogen is of tremendous importance. The classification of psychiatric disorders, or at least the identification of some psychiatric disorders that are thought to have a discrete pathophysiology, is modelled on similar thinking, that is, specific causal pathways can perhaps be mapped and a deeper understanding of the processes that lead to the illness can be determined.

Enthusiasm for this line of inquiry has been fuelled by the enormous advances in technology over the past three decades. To this end, research using the latest technological advances and insights in medicine, such as those afforded by genetics and neuroimaging, have provided many clues as to the perturbations that are associated with psychiatric disorders. They have also led to greater understanding of many biological processes and the impact of treatments. However, alas, as yet, *a complete and satisfactory pathophysiology of any psychiatric disorder is yet to be achieved* and thus *classification according to causes is not possible*. Despite this, in formulating psychiatric disorders, many of the diagnoses are discussed in terms of their potential causes, particularly when planning management. In depression for example, it is often the case that a life event or stressor is closely associated with the onset of an episode of illness or that the illness is being maintained by such contextual factors. At the same time, many illnesses that seem to cluster in families are described as familial and thought to be hereditary – the implication being that there is a biological component such as a genetic predilection.

The separation of various causal factors is inherently difficult and even if this were possible, whether individual causal elements reliably inform treatment remains, unclear. Naturally, if an obvious stressor is compounding an illness or is the direct cause of a set of symptoms, as is often the case in phobias, then this can be addressed directly. However, in most psychiatric diagnoses, such as mood disorders and psychoses, such causal links are less direct, especially as some putative causal factors can also be self-driven adaptations and attempts to ameliorate symptoms. For example, substance misuse clearly impacts mental health, but often excessive use begins as a strategy to overcome symptoms of an underlying illness in the first place. Hence, the strong reciprocal associations between mood disorders and alcohol use, for example.

Nevertheless, despite all these limitations, the biological versus contextual approach does provide a schema for exploring the associated factors of any psychiatric disorder and assists in formulating the clinical management plan. To this end a biopsychosocial approach is often useful as it provides a broad framework for different sets of interventions and provides a richer contextual understanding of the illness whilst respecting the fact that many factors are unknown and that some of these are likely to be intrinsic.

Mixed Mood States

In some instances, the assumptions and approximations made to define categories, or the adoption of a purely pragmatic approach, can mean that clinical diagnoses become somewhat estranged from reality. Put another way, real disorders are not captured by the diagnostic label. For example, in the chapters on depressive disorders (Chapter 16), you will read about 'mixed mood states' along with the polar extremes of melancholia (depression) and mania, even though mixed mood states are not formally captured in DSM-5 TR. Instead, they are referred to broadly and simply as 'features' or 'specifiers'. This is a problem, as mixed mood states are common in clinical practice and feature in up to a third of bipolar presentations (Judd and Akiskal, 2003). The fundamental problem here is that the classificatory framework for mood disorders is contingent on having two poles - depression and mania - and the symptoms of mood are necessarily constrained as they have to be diametrically opposed and be assigned to either pole. In other words, using this framework, all symptoms are categorical and mutually exclusive. Instead, if symptoms are conceptualized dimensionally, it becomes evident that almost all mood symptoms exist on a spectrum that extends from depression to mania and that symptoms can also occur independent of their polar groupings. In other words, not all the symptoms of depression necessarily co-occur and that at times symptoms of both mania and depression may coexist thus creating a 'mixed mood state'. To accurately capture this, a dimensional perspective is needed and at the same time it

helps if the symptoms can be put into domains as has been done by the ACE (Activity, Cognition and Emotion) model for bipolar disorders and more recently by ICD-11 for depressive episodes (Malhi et al., 2018; Malhi and Bell, 2023).

The ACE model (Malhi et al., 2018), which is discussed further in the chapter on bipolar disorder (Chapter 17), shows that by grouping symptoms into domains of activity, cognition, and emotion and regarding individual symptoms as functionally independent, the occurrence of mixed states can be explained. In this way, the ACE model provides a useful means of capturing the clinical presentations of mood disorders as well as targeting treatments. The model also helps explain how various mood symptoms become uncoupled and how this may be brought about by interventions such as antidepressants. This is important because the prescription of antidepressants in bipolar disorder can precipitate what is commonly referred to as a 'treatment-induced mixed state'. This arises because some of the domains of symptoms are more susceptible to the effects of the antidepressant and therefore symptoms that usually occur in unison become separated. For example, the person is full of energy and has no need for sleep and yet simultaneously feels low in mood and is unable to enjoy themselves. Therefore, in a categorical model such as DSM-5-TR, mixed mood states warrant being a separate category, but because the symptoms themselves are not conceptualised dimensionally, the mere existence of such a category cannot be acknowledged. This is illustrative of the difficulty of needing to have diagnostic entities that have practical boundaries while trying to capture a clinical picture that comprises continua and is intrinsically dimensional in nature.

Schizoaffective Disorder

In contrast to mixed states, wherein current diagnostic labels fail to capture a distinct entity, some DSM-5-TR psychiatric disorders serve as examples of diagnostic labelling attempting to categorise discrete, separate disorders which do not necessarily have any evidence base to support their separation. For example, schizoaffective disorder (SAD), within both DSM-5-TR and ICD-11, essentially describes an overlap of psychotic phenomena and mood episodes, wherein an individual meets the criteria for both schizophrenia and a mood episode (these can be either depressive or manic)(Malhi et al., 2008). However, despite being introduced to DSM-III over 40 years ago, the diagnosis lacks both reliability and validity and provides no specific insight as regards appropriate treatments, illness course or prognosis(Malhi and Bell, 2019). Indeed, no clinical practice guidelines for the management of schizoaffective disorder have been produced in this time period, despite the diagnosis being widely applied in specialised mental health services(Morgan et al., 2012). Thus, clinically, the management of schizoaffective

disorder is generally an amalgamation of strategies for managing schizophrenia and mood disorders, with no strategies specific to schizoaffective disorder itself.

This lack of separation between schizoaffective disorder and schizophrenia in particular is evident within the classificatory systems themselves. In ICD-11 for example, the 'first-episode' specifier of schizoaffective disorder cannot be applied if the patient has experienced a prior episode of schizoaffective disorder or schizophrenia, as the disorders are apparently considered interchangeable in this regard.

Schizoaffective disorder is emblematic of the use of psychiatric classificatory systems beyond the scope for which they were originally developed. Rather than accurately capturing diagnoses that provide insights regarding aetiology, course, prognosis and treatments, some diagnostic labels such as schizoaffective disorder have been misused to facilitate the administration of treatments such as antipsychotics, while circumventing a more accurate diagnosis such as schizophrenia, because it carries significant stigma or conveys a poor prognosis. In and of itself this is not necessarily problematic, and it is understandable that early in the course of an illness a definitive diagnosis may not be positive, but once a label is applied it is seldom revised and rarely removed, and this is a problem.

Conclusion

This chapter has briefly introduced and outlined the primary purpose of classificatory systems in psychiatry, which is, to describe and define mental disorders to inform diagnosis and treatment and to provide an understanding of prognosis and illness course. However, it has also highlighted the limitations and flaws within our current taxonomies and illustrated these using some contemporary examples. The principal point to bear in mind is that these classificatory systems are not written in stone, nor are they necessarily reflective of clinical reality, and therefore in clinical practice they must always be viewed critically and utilised judiciously.

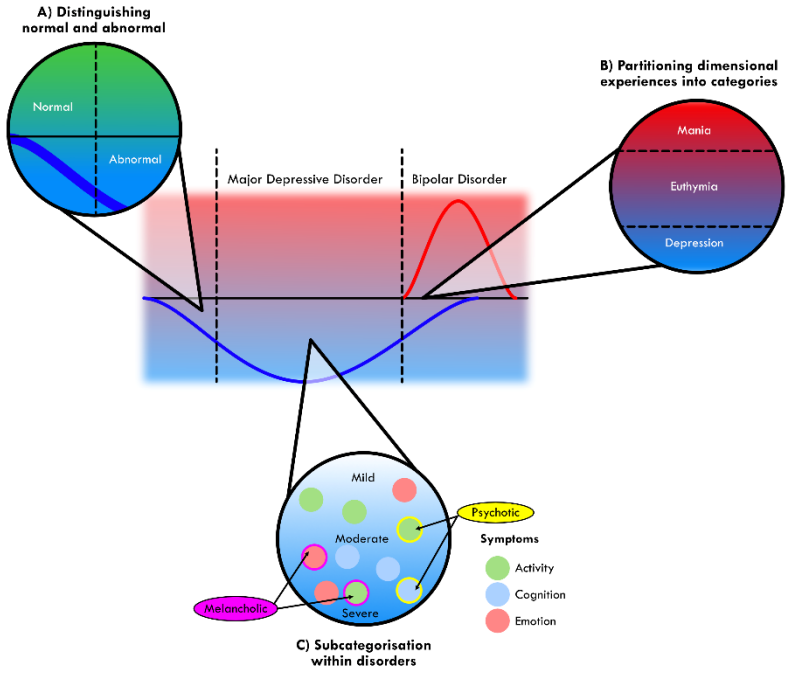

Figure 3.1. Schematic illustrating dimensional and categorical conceptualisation of psychiatric disorders. A) Primary purpose of diagnosis: the distinction of normal experiences from those that are deemed abnormal. B) Artificial partitioning of a spectrum of experiences into distinct diagnostic categories such as a depressive or a manic episode. C) Subcategorisation within disorders. For example, depression can be further specified (subcategorised) in terms of severity (e.g. 'mild', 'moderate' or 'severe') or according to descriptors derived from the pattern of how specific symptoms manifest such as 'melancholic' or 'psychotic'. Finally, models such as the ACE model capture clinical presentations of depression by grouping symptoms according to the domains of activity, cognition and emotion; a similar approach has been adopted by ICD-11 with the development of clusters.

Further Reading

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