# CHAPTER 2
# Classification

## Introduction

Chapter 1 outlined the symptoms and signs of psychiatric disorder. In Chapter 3 we describe the psychiatric assessment, by which these symptoms and signs are elicited, interpreted, and used as the basis upon which psychiatric diagnoses are made. Before doing so, in this chapter we discuss the principles of psychiatric diagnosis and classification, since this provides the framework within which this clinical process happens. The term *nosology* is sometimes used to refer to classification and its study.

Classification is needed in psychiatry for several purposes:

- to enable clinicians to communicate with one another about the diagnoses given to their patients
- to aid patients and their families, by allowing clinicians to provide a framework for them to understand their symptoms and difficulties, and for proposed treatments
- to understand the implications of these diagnoses in terms of their symptoms, prognosis, and treatment, and sometimes their aetiology
- to relate the findings of clinical research to patients seen in everyday practice
- to facilitate epidemiological studies and the collection of reliable statistics

- to ensure that research can be conducted with comparable groups of subjects.

Of these, the first four are the most relevant to clinical practice. Indeed, it is difficult to imagine, or justify, how psychiatry could be practised in any reasonable or evidence-based manner without the order that classification provides (Craddock and Mynors-Wallis, 2014). In this respect, the position of classification as one of the fundamental and essential 'building blocks' of psychiatry is no different from that in the rest of medicine. However, in other respects psychiatric classification does raise particular challenges and controversies, largely as a consequence of the uncertain aetiology, or independent biological validation, of most disorders, which means that its diagnostic categories are almost entirely *syndromal*—a collection of symptoms and signs. The resulting difficulties are of two kinds. The first is conceptual, relating to the nature of mental illness and the question of what, if anything, should be classified. The second difficulty is a practical one, concerning how categories are defined and organized into a classificatory scheme. In this chapter, the conceptual issues and criticisms are covered first, followed by a historical perspective to classification. We then describe and compare the

two schemes in widespread use at present, namely Chapter V of the *International Classification of Diseases, 10th edition* (*ICD-10*; World Health Organization, 1992b), and the *Diagnostic and Statistical Manual of Mental Disorders, 5th edition* (*DSM-5*; American Psychiatric Association, 2013a).

## Concepts of mental illness

In everyday speech the word 'illness' is used loosely. Similarly, in psychiatric practice the term 'mental illness' is used with little precision, and often synonymously with 'mental disorder'. In this context, the terms 'mental' and 'psychiatric' are also used interchangeably.

A good definition of mental illness is difficult to achieve, for both practical and philosophical reasons, as outlined here. In routine clinical work the difficulty is important mainly in relation to ethical and legal issues, such as compulsory admission to hospital. In forensic psychiatry the definition of mental illness (by the law) is particularly important in the assessment of issues such as criminal responsibility.

Diverse discussion of the concepts of mental illness can be found in Lazare (1973), Kendell (1975), Zachar and Kendler (2007), and Tyrer (2013).

### Definitions of mental illness

Many attempts have been made to define mental illness, none of which is satisfactory or uniformly accepted. A common approach is to examine the concept of illness in general medicine and to identify any similarities or analogies with mental illness. In general medicine there are five types of definition:

- *Absence of health*. This approach changes the emphasis of the problem but does not solve it, because health is even more difficult to define. The World Health Organization, for example, defined health as 'a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity.' As Lewis (1953) rightly commented, 'a definition could hardly be more comprehensive than that, or more meaningless.' Many other definitions of health have been proposed, all equally unsatisfactory.

- *Disease is what doctors treat*. This definition has the attraction of simplicity, but does not really address the issue. The notion that disease is what doctors *can* treat has somewhat more merit, since there is evidence that, as a medical treatment for a condition becomes available, it becomes more likely that the condition will be regarded as a disease (Campbell *et al.*, 1979).

- *Biological disadvantage*. The idea of defining disease in terms of biological disadvantage was proposed by Scadding (1967), and is the most extreme biomedical view of disease. Scadding never defined biological disadvantage, but the term has been used in psychiatry to include decreased fertility (reproductive fitness) and increased mortality. Viewing disease in terms of 'evolutionary disadvantage' is a similar concept (Wakefield, 1992).

- *Pathological process*. Some extreme theorists, most notably Szasz (1960), take the view that illness can be defined only in terms of *physical* pathology. Since most mental disorders do not have demonstrable physical pathology, according to this view they are not illnesses. Szasz takes the further step of asserting that most mental disorders are therefore not the province of doctors. This kind of argument can be sustained only by taking an extremely narrow view of pathology. It is also arbitrary, based on current knowledge, and is increasingly incompatible with the evidence of a genetic and neurobiological basis to the major psychiatric disorders, and their associated morbidity and mortality.

- *Presence of suffering*. This approach has some practical value because it defines a group of people who are likely to consult doctors. A disadvantage is that the term cannot be applied to everyone who would usually be regarded as ill in everyday terms. For example, patients with mania may feel unusually well and may not experience suffering, although most people would regard them as mentally ill.

### Biomedical versus social concepts

The above concepts may be divided into those that view mental illnesses in purely biomedical terms, and those that consider them to be social constructs or value judgements. This debate is still ongoing, and depends in part on one's opinion about their

aetiology, but it is now generally accepted that value judgements play a part in all diagnoses, even if the disorders themselves are considered from a biomedical perspective (Fulford, 1989). For example, beliefs and emotions are central to most psychiatric disorders, yet it is a value judgement as to whether a given belief or emotion is 'reasonable' or 'unhelpful' for a given individual in their particular social context, and therefore what, if any, diagnostic significance it has. Would we use 'useful' or 'dysfunctional' to decide whether a belief was 'illness'? Would 'normal' or 'abnormal' be better?

## Impairment, disability, and handicap

It is useful in medicine, and particularly in psychiatry, to describe and classify the consequences of a disorder. This approach is related to the concept of disease as involving dysfunction (Wakefield, 1992), as incorporated into the definitions of mental disorder used in ICD-10 and DSM-5 (see below). Three related terms, derived from medical sociology and social psychology, are used to describe the harmful consequences of a disorder.

- *Impairment* refers to a pathological defect—for example, hemiparesis after a stroke.
- *Disability* is the limitation of physical or psychological function that arises from an impairment—for example, difficulties with self-care that are caused by the hemiparesis.
- *Handicap* refers to the resulting social dysfunction—for example, being unable to work because of the hemiparesis.

*Incapacity* may be seen as another harmful consequence of illness, although the term usually refers in a legal sense to the effect that illness has on one's competence to make treatment decisions, as enshrined in the United Kingdom by the Mental Capacity Act (see Chapter 4).

## Diagnoses, diseases, and disorders

The term 'diagnosis' has two somewhat different meanings. It has the general meaning of 'telling one thing apart from another', but in medicine it has also acquired a more specific meaning of 'knowing the underlying cause' of the symptoms and signs about which the patient is complaining. Underlying causes are expressed in quite different terms from the symptoms. For example, the symptoms of acute appendicitis are distinct from the idea that will form in the mind of the doctor that the appendix is inflamed and producing peritoneal irritation. To be able to make a diagnosis of this type is, of course, satisfying for the doctor and useful for the patient, since it immediately suggests what investigations and treatment are needed. Its clear utility also makes redundant most theoretical or philosophical concerns about classification. Unfortunately, for most psychiatric patients it is rarely possible to arrive at this type of diagnosis, the only exception to this being, by definition, 'organic' psychiatric disorders (see page 26).

The lack of clear disease categories, in a medical sense, has led to the use of the more general term 'disorder'. The definition of a psychiatric disorder in ICD-10 is:

*. . .a clinically recognizable set of symptoms or behaviour associated in most cases with distress and with interference with personal functions. Social deviance or conflict alone, without personal dysfunction, should not be included in mental disorder as defined here.*

(World Health Organization, 1992b, p. 5).

The DSM-5 definition of a mental disorder is longer but similar:

*. . .a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities. An expectable or culturally acceptable response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behavior (e.g. political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above.*

(American Psychiatric Association, 2013a, p. 20).

Despite the similarity, there is an important difference between the two definitions. 'Interference with personal functions' in ICD-10 refers only to such things as personal care and one's immediate environment, and does not extend to interference with work and other social roles. In DSM-5, as in the extract above, impairment refers to all types of functioning.

Both definitions illustrate that most psychiatric disorders are based not upon theoretical concepts, or presumptions about aetiology, but upon recognizable clusters of symptoms and behaviours. This reliance explains much of the debate about the reliability and validity of the categories being classified, as will be discussed later in this chapter.

## Criticisms of classification

In contrast to the view that classification is an essential, albeit insufficient and imperfect, basis for clinical practice (Craddock and Mynors-Wallis, 2014; Tyrer, 2014), the use of psychiatric classification is sometimes criticized as being inappropriate or even harmful. In part, such criticisms arise from the various controversies outlined above: if the concept of mental disorder is itself disputed, then so will any classifications thereof. These criticisms were most prevalent and trenchant at the height of the 'anti-psychiatry' movement in the 1960s, although they continue to be voiced by a vociferous 'critical psychiatry' lobby (Bracken *et al.*, 2012). Three main criticisms of this kind are made.

- *Allocating patients to a diagnostic category distracts from the understanding of their unique personal difficulties.* However, the good clinician always considers and takes into account a patient's unique experiences, qualities, and circumstances when making diagnoses, not least because this contextual information often affects treatment and prognosis.
- *Allocating a person to a diagnostic category is simply to label deviant behaviour as illness.* Some sociologists have argued that such labelling serves only to increase the person's difficulties. There can be no doubt that terms such as epilepsy or schizophrenia attract stigma (see Box 2.1, but this does not lessen the reality of disorders that cause suffering and require treatment. However, it does emphasize that mental illness should not be defined solely in terms of socially deviant behaviour. The presence of the former must be separately established based on the psychiatric history and mental state examination. Moreover, if mental illness is inferred from socially deviant behaviour alone, political abuse may result. A serious example of the latter occurred in the former Soviet Union, where some psychiatrists colluded with the government in being willing to classify political dissent as evidence of mental illness. A further reason for excluding purely social criteria from the definition of mental illness, and from diagnostic criteria, is that many behaviours are appraised differently in different countries and at different times. For example, homosexuality was considered to be a mental disorder in the United Kingdom until the 1970s.

- *Individuals do not fit neatly into the available categories.* Although it is not feasible to classify a minority of disorders (or patients), this is not a reason for abandoning classification for the majority.

It is certainly true that at times classification has been inappropriately used as part of a broader abuse of psychiatry, whether for political, financial, or other reasons. Although such abuses are fortunately rare, they are an extreme illustration of the fact that making diagnoses and classifying patients are not neutral acts, but carry significant ethical and other implications (see Chapter 4). One of these implications concerns *stigma*, which remains a serious problem for patients with mental health problems, even if one does not accept the rest of the sociological thesis outlined above. It is incumbent on all those who use psychiatric diagnostic terms that they do so appropriately and judiciously, paying due attention to their correct usage and purpose, and the context in which they are being applied. Doing so can help to reduce the problem of stigmatization, but cannot solve it, because stigma results from many other factors too (Thornicroft, 2006). The issue of stigma in psychiatry is discussed in Box 2.1.

Although these criticisms are important, they are arguments only against the improper use of, or over-reliance upon, classification. Disorders and their harmful consequences cannot be made to disappear by ceasing to give names to them. ICD-10 and DSM-5, to be discussed later, emphasize that classification is a means of communication and a guide to decision-making, but acknowledge that they are provisional and imperfect schemes. Psychiatrists, other mental health professionals, and researchers must use their clinical experience and common sense, as well as being guided by the descriptions of the disorders that make up the classifications.

Other criticisms of classification in psychiatry are mostly concerned with the specifics rather than the principles—for example, whether a particular diagnostic category is reliable and valid, and the severity threshold at which the diagnosis should be made. These issues are introduced later in this chapter, and at various points throughout the book.

## Box 2.1  Stigma

People stigmatize others when they judge them not on their personal qualities but on the basis of a mark or label which assigns them to a feared or unfavoured group. The tendency to stigmatize seems to be deeply rooted in human nature as a way of responding to people who appear or behave differently. Stigmatization is based on fear that those who seem different may behave in threatening or unpredictable ways, and it is reduced when it becomes clear that the stigmatized person is unlikely to behave in these ways.

### Stigma in psychiatry

People fear mental illness and they stigmatize those who are affected by it. The reasons for this are complex. They include the notion that people with mental illness cannot control their own behaviour, and that they may act in odd, unpredictable, and possibly violent ways. Thus they are seen as directly threatening, and perhaps also as indirectly threatening because their lack of self-control threatens our belief in our ability to control our actions. Whatever the underlying psychological mechanisms, fear of mental illness makes people react to mentally ill individuals in the same cautious and unfavourable way—that is, to stigmatize them.

Diagnoses, as labels, have the potential to be stigmatizing (e.g. leprosy and AIDS). It has been suggested that the stigma of mental illness would be reduced if diagnoses such as schizophrenia were abandoned. This proposal misses the point that the basis of stigma is fear, and that simply removing the label does not reduce the fear. The mentally ill were stigmatized long before modern diagnostic terms were in use, and people who fear mental illness invent their own labels, such as 'nutter', which are far more stigmatizing than a diagnosis. To reduce stigma it is necessary to reduce fear, and this requires accurate information about mental illness and better understanding of mentally ill people.

Psychiatric stigma arises from a number of false beliefs. For example, concern about dangerousness is a major component of psychiatric stigma. Other important components are ideas that:

- people with mental illness are unpredictable
- people with mental illness feel different from the rest of us

- people with mental illness are hard to talk and relate to
- mental illness cannot be cured, and people with mental illness do not recover.

These beliefs make people draw back from those with mental illness and discourage them from engaging in social relationships. Consequently they do not learn that their assumptions are wrong. In the same way, fear of being stigmatized adds greatly to the problems of people with mental illness. It discourages them from seeking help at an early stage, and from sharing their distress with relatives and friends. Stigma also has wider social effects—for example, it makes it harder for mentally ill people to obtain work. Stigmatization may also affect the allocation of resources for the care of people with mental illness, with a reluctance to fund care in the community or to give appropriate priority to mental health services generally.

### Reducing stigma

Campaigns to reduce stigma generally include:

- information about the true nature of mental illness, and about the low frequency of dangerous behaviour
- encouragement to persuade public figures who have had a mental illness to speak out about their experiences
- a focus on young people, whose attitudes may be less fixed than those of their elders.

Although stigma can be reduced, this cannot be done easily or quickly. In the past, people with epilepsy were stigmatized, but as knowledge of the condition spread and as treatment improved, attitudes gradually changed. Changes are now beginning to be seen in the stigma attached to some psychiatric disorders. For example, autism is now generally a much less stigmatizing term than it was previously, whereas schizophrenia is not. Thus there is an ongoing need for public education campaigns to reduce the fear and misunderstanding that perpetuate stigma. However, existing anti-stigma programmes have had only modest benefits (Griffiths *et al.*, 2014). For reviews of stigma and its reduction, see Sartorius *et al.* (2010) and Henderson *et al.* (2013).

## The history of classification

Efforts to classify abnormal mental states have occurred since antiquity. One reason for including a chronological perspective here is that contemporary psychiatric classifications are, in part, a 'hybrid' of various historical themes and opinions.

The early Greek medical writings contained descriptions of different manifestations of mental disorder—for example, excitement, depression, confusion, and memory loss. This simple classification was adopted by Roman medicine and developed by the Greek physician Galen, whose system of classification remained in use until the eighteenth century.

Interest in the classification of natural phenomena developed in the eighteenth century, partly stimulated by the publication of a classification of plants by Linnaeus, a medically qualified professor of botany who also devised a less well-known classification of diseases in which one major class was mental disorders. Many classifications were proposed, notably one published in 1772 by William Cullen, a Scottish physician. He grouped mental disorders together, apart from delirium, which he classified with febrile conditions. According to his scheme, mental disorders were part of a broad class of 'neuroses', a term that he used to denote diseases which affect the nervous system (Hunter and MacAlpine, 1963). Cullen's classification contained an aetiological principle—that mental illnesses were disorders of the nervous system—as well as a descriptive principle for distinguishing individual clinical syndromes within the neuroses. In Cullen's usage, the term neurosis covered the whole range of mental disorders, as well as many neurological conditions. The modern narrower usage developed later (see page 27).

In the early nineteenth century, several French writers published influential classifications. Pinel's *Treatise on Insanity*, which appeared in English in 1806, divided mental disorders into mania with delirium, mania without delirium, melancholia, dementia, and idiocy. Pinel's compatriot, Esquirol, wrote another widely read textbook, which was published in English in 1845, and added a new category, 'monomania', characterized by 'partial insanity', in which there were fixed false ideas that could not be changed by logical reasoning (i.e. delusions). Like other psychiatrists of the time, Pinel and Esquirol did not discuss neuroses (in the modern sense), because these conditions were generally treated by physicians.

Meanwhile, in Germany, Kahlbaum formulated two requirements for research on nosology, namely that the total clinical picture, and its entire course, were both fundamental to the definition of a mental illness and thus to classification. These ideas were adopted at the end of the nineteenth century by Emil Kraepelin, who used these criteria to make the landmark distinction between manic–depressive psychosis (bipolar disorder) and schizophrenia. Successive editions of Kraepelin's textbook made further refinements to the classification of mental illness, which form the basis of today's systems.

At the same time, separate developments in the emerging specialty of neurology led to decreasing medical interest in the 'nervous patient', a term used throughout the nineteenth century in the United Kingdom and North America to refer to a large group of patients with varied complaints. These were gradually seen as a part of the new specialty of psychiatry alongside the major mental illnesses. The writings of Sigmund Freud and his contemporaries led to greater recognition of the psychological causes of nervous symptoms and 'neurotic' disorders, and to the modern concepts of hysteria and anxiety disorder.

For a review of nosological models in psychiatry, see Pichot (1994) and Zachar and Kendler (2007).

## Organizing principles of contemporary classifications

As well as these historical roots, it is worth considering the major issues that contemporary classifications have faced with regard to their organizing principles.

### Organic and functional

The first issue concerns the distinction that is conventionally drawn between organic and functional disorders. Organic disorders are those that arise from a demonstrable cerebral or systemic pathological process; the core disorders are dementia, delirium, and the various neuropsychiatric syndromes (David *et al.*, 2009). 'Functional disorder' is consequently an umbrella or default term for all other psychiatric disorders. The organic–functional dichotomy has two main implications for classification.

- It has a philosophical dimension, being inextricably linked to dualism and concepts of mind and body. At its extreme, the implication is that functional disorders have no biological basis, whilst psychological and social factors are irrelevant to organic disorders. This polarization can be reflected in the apparent divide between psychiatry and neurology. The same dualism may also unintentionally encourage psychiatrists to be either 'mindless' or 'brainless', rather than seeing that both aspects of aetiology always make a contribution (Eisenberg, 1986; Anonymous, 1994). Equally, it has led to the suggestion that the two specialties should use a merged classificatory system (White *et al.*, 2012).

- It has practical implications, since the term 'organic' defines disorders aetiologically or pathologically, whereas all other psychiatric disorders are, by default, purely descriptive and based on clusters of symptoms and signs. This is not only unsatisfactory for psychiatry (Arango and Fraguas, 2016) but leads to inconsistencies and difficulties at the intersection; these are currently best illustrated with regard to schizophrenia and organic schizophrenia-like disorders (Chapter 11).

There is general agreement that, for these and other reasons, the organic–functional dichotomy is neither valid nor helpful (Spitzer *et al.*, 1992). However, it has proved difficult to come up with an alternative. The ways in which ICD-10 and DSM-5 deal with the issue are discussed below and in Chapter 14.

## Neurosis and psychosis

In the past, the concepts of neurosis and psychosis were important in most systems of classification. Although neither is used as an organizing principle in ICD-10 or DSM-5, in everyday clinical practice these terms are still useful as general descriptors, so it is of relevance to understand their history.

### Psychosis

The term *psychosis* was suggested by Feuchtersleben, who in 1845 published a book entitled *Principles of Medical Psychology*. He proposed the use of the term for severe mental disorders, whilst he used the term *neurosis* for mental disorders as a whole. Thus he wrote that 'every psychosis is at the same time a neurosis, but not every neurosis is a psychosis' (Hunter and MacAlpine, 1963, page 950). As the concept of neurosis narrowed, psychosis (also used in the plural, psychoses) came to be regarded as independent. Many of the difficulties encountered today in defining the terms neurosis and psychosis are related to these origins.

In modern usage, the term psychosis refers broadly to severe psychiatric disorders, including schizophrenia, and some organic and affective disorders. Numerous criteria have been proposed to achieve a more precise definition, but there are problems with all of them. Greater severity of illness is a common suggestion, but some cases are relatively mild (and some neuroses are severe and at least as disabling). Lack of insight is often suggested as a criterion, but insight itself is difficult to define (see page 20). A somewhat more straightforward criterion is the inability to distinguish between subjective experience and external reality, as shown by the presence of delusions and hallucinations. Indeed, the presence of a delusion is sometimes regarded as sufficient to diagnose a psychosis. However, as well as the problems involved in fully defining these terms (ICD-10 even avoids defining delusion), the label 'psychosis' is unsatisfactory because the conditions embraced by the term have little in common, and it is usually more informative to classify the particular disorder concerned. For these reasons, the neurosis–psychosis distinction, which was a fundamental organizing principle, was abandoned in ICD-10 and DSM-IV. Nevertheless, psychosis remains a convenient term for disorders that are usually severe, and which feature delusions, hallucinations, or unusual or bizarre behaviour (presumed to be secondary to these phenomena), especially when a more precise diagnosis cannot yet be made. The adjectival form is also useful, and survives in ICD-10 categories such as 'Other nonorganic psychotic disorders'. Another example is the use of the term 'antipsychotic' drugs.

### Neurosis

As already noted, the term *neurosis* was introduced by Cullen to denote diseases of the nervous system. Gradually the category of neurosis narrowed, first as neurological disorders with a distinct neuropathology (e.g. epilepsy and stroke) were removed, and later with the development of a separate category of psychosis.

The objections to the term neurosis are similar to the objections to the term psychosis, and explain its removal as an organizing principle in current classification. First, the concept is difficult to define (Gelder, 1986). Second, the conditions that neurosis embraces have little in common. Thirdly, more information can be conveyed by using a more specific and descriptive diagnosis, such as 'anxiety disorder'. A further objection is that the term neurosis has been widely used with the unproven assumption of an aetiological meaning in the psychodynamic literature.

In the same way as for psychosis, the terms 'neurosis' and 'neurotic' remain useful as simple descriptors,

especially if the specific disorder cannot yet be determined, to indicate disorders that are often comparatively mild, and usually associated with some form of anxiety. Reflecting its familiarity and utility, ICD-10 retains the adjective in the heading of one group of disorders, namely 'Neurotic, stress-related, and somatoform disorders'. In DSM-5, even the adjectival form is not used.

## Categories, dimensions, and axes

### Categorical classification

Traditionally, psychiatric disorders have been classified by dividing them into categories that are supposed to represent discrete clinical entities. As already noted, in the absence of knowledge of underlying pathology, these categories can only be defined in terms of symptom patterns and course. Such categorization facilitates the decisions that have to be made in clinical work about treatment and management, but presents two problems.

- Although definitions and descriptions can be agreed upon (to improve *reliability*; see page 29), there is uncertainty about the extent to which these categories represent distinct entities or 'carve Nature at her joints' (*validity*; see page 30).

- A significant proportion of patients do not closely match the descriptions of any disorder, or meet criteria for two or more categories (*comorbidity*; see page 29).

These are all significant points, and they are addressed further in the following sections. However, a more satisfactory and practical alternative system has not yet been devised.

### Dimensional classification

Dimensional classification does not use separate categories, but characterizes the subject by means of scores on two or more dimensions. In the past, Kretschmer and several other psychiatrists advocated it, and subsequently it was strongly promoted by the psychologist Hans Eysenck, on the grounds that there is no systematic objective evidence to support the existence of discrete categories. Eysenck (1970b) proposed a system of three dimensions—psychoticism, neuroticism, and introversion–extroversion.

The concept of dimensionality has been revived and advanced by epidemiological surveys that have emphasized that there is a continuum between the healthy population and individuals with diagnosed psychiatric disorders. This applies, for example, to psychotic symptoms, and argues that even a severe disorder such as schizophrenia can be seen as occurring at one end of a dimension of psychotic-like experience (Linscott

and van Os, 2013). The dimensional view of psychiatric disorder is comparable to that of hypertension and other medical diagnoses that are really extremes of a normal distribution, and this view reflects the nature of the underlying genetic predisposition and presumed neurobiology (Cuthbert and Insel, 2013; Owen, 2014) much better than a categorical one. However, the problem with dimensions is that they are not of great value in clinical practice. For most patients, yes–no decisions need to be made, the most critical of these being whether the person has a psychiatric disorder that merits treatment, and, if so, which one. These clinical imperatives strongly favour categorical approaches to classification.

### The multiaxial approach

The term *multiaxial* is applied to schemes of classifications in which two or more separate sets of information (such as symptoms, aetiology, and personality type) are coded. Essen-Møller was probably the first to propose such a system for use in psychiatry, using one axis for the clinical syndrome and another for aetiology (Essen-Møller, 1971). Multiaxial classification is available within ICD-10. However, although attractive for several reasons, there is a danger that multiaxial schemes are too complicated and time-consuming to be suitable for everyday use, especially if the clinical utility of each axis has not been demonstrated. Indeed, for these reasons, DSM-5 removed the multiaxial diagnostic classification system used in DSM-IV, replacing it with a simpler approach. A multiaxial scheme remains popular in child and adolescent psychiatry, with the axes describing intellectual level, functional impairment, and psychosocial adversity (Rutter, 2011; see Chapter 16).

## Hierarchies of diagnosis

Categorical systems often include an implicit hierarchy of categories. If two or more disorders are present, it has been conventional (although not always made explicit) to assume that one takes precedence and is regarded as the main disorder for the purposes of treatment and recording. For example, organic disorders 'trump' schizophrenia, and schizophrenia takes precedence over affective disorders and anxiety. This type of assumption is justified because there is some clinical evidence for an inbuilt hierarchy of significance between the disorders. For instance, anxiety symptoms occur commonly with depressive disorders, and are sometimes the presenting feature. If the anxiety is treated, there is little response in the depressive symptoms, but if the depressive disorder is treated, there is often improvement in anxiety

as well as in the depressive symptoms. These points may be important when making decisions about the order of treatment to be used and when deciding which disorder to record in service statistics if only one is required. Nevertheless, they must not obscure the importance of noting in the case record all disorders and symptoms that are present, and how they change with time and treatment.

## Comorbidity

Recently, less emphasis has been placed on hierarchies of diagnosis, with greater weight being placed on comorbidity (also called *dual diagnosis*). This has occurred for three reasons. First, research has shown that comorbidity is very common (Kessler, 2004). For example, about 50% of patients with major depressive disorder also meet the criteria for an anxiety disorder. Secondly, it reminds the clinician to focus on all the various disorders that may be present, and not to assume that the disorder highest in the hierarchy is necessarily the only, or even the most important, target for treatment. The advent of multiaxial systems of classification, mentioned above, in part reflects this

perspective. Thirdly, the diagnostic 'rules' used in current classificatory systems allow, if not encourage, multiple diagnoses to be made, and it has been argued that at least some psychiatric comorbidity is in fact an artefact of this (Maj, 2005), and that a simpler classificatory system which reduced it would be desirable (Goldberg, 2010).

The term *comorbidity* covers two different circumstances:

- *Disorders that are currently considered to be distinct but which are probably causally related*. In other words, there is one disease process, but there are two or more clinical manifestations, which are currently diagnosed separately owing to lack of knowledge or because of clinical convention.
- *Disorders that are causally unrelated*. This refers to the chance co-occurrence of two disorders—for example, the onset of presenile dementia in a person with long-standing panic disorder.

Note that comorbidity applies only when the criteria for two or more diagnoses are met. It should not be used for patients who fall between diagnostic categories but who do not meet the criteria for any one of them.

## Reliability and validity

### Reliability of psychiatric diagnoses

A prerequisite for any satisfactory classification scheme, whatever its organizing principle, is that the items (diagnoses) that are being classified can be recognized reliably (Kendell, 1975). However, although reliability is now known and is reasonable for most categories, this was not the case until relatively recently, for the reasons described below. Studies conducted in the 1950s and 1960s demonstrated substantial diagnostic disagreement between psychiatrists, which arose for two main reasons (Kreitman, 1961):

- *The interviewing technique and characteristics of the psychiatrist*. This included the way in which symptoms and signs were elicited and interpreted and the weight attached to them. These elements in turn probably reflect many influences, including training, professional culture, etc.
- *The differing use of diagnostic terms and criteria*. At the time, there were no widely accepted glossaries or definitions of key terms. Therefore it was impossible to

ensure that psychiatrists were using the same criteria for symptoms and syndromes. A key study by Stengel (1959) illustrated 'the chaotic state of the classifications in current use' by collecting 28 classifications in a variety of languages. None of the 28 classifications was accompanied by any indication of the meaning of the constituent terms.

Illustrating the importance of these factors, one study concluded that 62% of diagnostic disagreement arose from inadequate use of diagnostic terms, 32% from inadequate interview technique, and only 5% was due to inconsistency in the patient (Ward *et al.*, 1962).

### International studies of diagnostic criteria

The increasing concern in the 1960s about the level of diagnostic disagreement between countries heralded international studies intended to identify the source of the variation, and then to improve the reliability. This work adopted the suggestion of the philosopher Carl Hempel that *operational definitions* should be developed—that is, the specification of a category (e.g. a symptom) by a series of precise inclusion and exclusion statements.

A key study was the US–UK Diagnostic Study (Cooper *et al.*, 1972), which followed on from the demonstration that both diagnostic and admission rates for manic depression and schizophrenia differed considerably between the two countries. For example, the rate for manic–depressive illness in the UK was more than 10 times that in equivalent mental hospitals in the USA, whereas the rate for schizophrenia was about twice as high in the USA (and even higher in New York) as it was in the UK. Another seminal study was the International Pilot Study of Schizophrenia (IPSS), a large international collaborative study organized by the World Health Organization, with centres in nine countries taking part. The IPSS first demonstrated clearly that structured interviews could be translated and used in different cultures, enabling it to show that patients with typical symptoms of schizophrenia could be found in all nine countries (World Health Organization, 1973). The IPSS findings are discussed further in Chapter 11.

### Standardized interview schedules

A major step towards improving diagnostic reliability came with the development of standardized interview schedules that minimize the variations in interviewing technique and symptom rating between psychiatrists. This development was closely linked with the international studies mentioned above. Thus the US–UK Diagnostic Study used the Present State Examination (PSE), one of the first structured psychiatric interviews (Wing *et al.*, 1974). Standardized interview schedules specify the content and sequence of the interview, and provide scoring rules by which the presence and severity of symptoms are rated. They are now widely used and both specialist and lay forms are available, for use in different settings and with different populations. Further examples are given in Chapter 3.

### Diagnosis by computer

The IPSS also revealed that, although a great deal of the variation between psychiatrists in the rating of symptoms could be removed by the use of structured interviews, some variation remained in the resulting diagnoses. This was because of different diagnostic interpretations of the symptoms and behaviours. This led to the development of computer programs such as CATEGO (Wing *et al.*, 1974), which generate a diagnosis using the symptom ratings, eliminating both the personal bias of the diagnosticians and any chance errors made for other reasons. Although computer-generated diagnoses inevitably reflect the diagnostic preferences of whoever wrote the program, they have proved valuable for epidemiological studies, and are widely used in research.

## Validity of psychiatric diagnoses

The above discussion has focused upon the reliability of diagnoses, because without a reasonable level of inter-observer reliability it is not possible to test whether or not a concept is valid. Validity is a much more difficult topic. In a general sense, validity refers to the extent to which a concept means what it is supposed to mean. It is also closely connected with usefulness (utility). For a discussion of reliability and validity in psychiatry, see Jablensky (2016).

Three forms of validity are usually recognized.

- *Face validity* is the correspondence with the clinical concepts and descriptions currently accepted in clinical practice. This is fairly easy to achieve by the careful use of glossaries and lists of criteria (illustrating the fact that reliability and validity are not wholly separate).
- *Predictive validity* is the extent to which disorders predict response to treatment and outcome. This has high utility.
- *Construct validity* is the third and most fundamental form of validity, in which there is a demonstrable relationship between a disorder and its underlying aetiology and pathophysiology. Unfortunately, most psychiatric disorders have an unknown and probably low construct validity, reflecting the descriptive criteria upon which most are currently based.

To date, little progress has actually been made towards establishing the validity of the existing schemes of classification.

## Current psychiatric classifications

### The International Classification of Diseases (ICD), Chapter V

The International Classification of Diseases (ICD) is produced by the World Health Organization (WHO) as an aid to the collection of international statistics about disease. The current version is the 10th edition (ICD-10). Of the 21 chapters, Chapter V is devoted to psychiatry.

Mental disorders were included for the first time in 1948, in the sixth revision (ICD-6), but neither ICD-6 nor

ICD-7 were widely used because they consisted merely of a list of names and code numbers by which national statistics could be tabulated, with no glossary to indicate suggested meanings of the constituent terms. As noted, the survey of Stengel in 1959 was an important first step in much-needed improvements in this regard, setting the stage for an extensive and ongoing WHO programme geared towards achieving a 'common language'. ICD-9, published in 1978, was the first satisfactory and widely used version.

## ICD-10

By the time ICD-10 was due, it had become evident that a major process of international collaboration was needed. The objectives of this process were that ICD-10 Chapter V should be:

- suitable for international communication about statistics for morbidity and mortality
- a reference standard for national and other psychiatric classifications
- acceptable and useful to a wide range of users in different cultures
- an aid to education.

The process started in 1982, and included extensive field trials to demonstrate the reliability and utility of the diagnostic categories. The final version, entitled *Clinical Descriptions and Diagnostic Guidelines*, was published as ICD-10 in 1992 (World Health Organization, 1992b). It contains descriptions of each of the disorders, and the diagnostic instructions for users make it clear that these allow some latitude for clinical judgement.

All of the diagnostic codes start with the letter F and, like the other chapters, it has 10 major divisions (Box 2.2), each of which can be divided into 10 subdivisions, and so on. For example, F20, schizophrenia, can be followed by a further number for the category within the group (e.g. F20.1, hebephrenic schizophrenia), and a fourth character if it is necessary to subdivide further. Although ICD-10 is basically a descriptive classification, available knowledge and ingrained clinical practice mean that aetiology is a defining criterion in some of the main categories, notably organic (F0), substance use-related (F1), and stress-related (F4).

Because ICD-10 is used for several purposes, it exists in several forms, each of which is derived from, and compatible with, the core version. For example, the primary healthcare version has only 27 categories, each with reminders about likely management and treatment. There is a research version (DCR-10), which

contains more specific diagnostic criteria, but DSM-5 is much more widely used for research.

ICD-11 is currently expected to be published in 2018 (see page 34).

## Diagnostic and Statistical Manual (DSM)

### The history of DSM

In 1952 the American Psychiatric Association (APA) published the first edition of the Diagnostic and Statistical Manual (DSM-I) as an alternative to the widely criticized ICD-6. DSM-I was strongly influenced by the views of Adolf Meyer and Karl Menninger, and its simple glossary reflected the prevailing acceptance of psychoanalytic ideas in the USA. DSM-II was published in 1968, and combined psychoanalytic ideas with those of Kraepelin.

DSM-III was published in 1980, and was an important step forward, containing five main innovations.

- Operational criteria were provided for each diagnosis, with explicit rules for inclusion and exclusion (Feighner *et al.*, 1972). This was the first complete classification to do so, and the first to be based on criteria that had been field-tested.

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**Box 2.2  The main categories of ICD-10 Chapter V (F)**

F0 Organic, including symptomatic, mental disorders

F1 Mental and behavioural disorders due to psychoactive substance use

F2 Schizophrenia, schizotypal, and delusional disorders

F3 Mood (affective) disorders

F4 Neurotic, stress-related, and somatoform disorders

F5 Behavioural syndromes associated with physiological disturbances and physical factors

F6 Disorders of adult personality and behaviour

F7 Mental retardation

F8 Disorders of psychological development

F9 Behavioural and emotional disorders with onset usually occurring in childhood or adolescence

Source: data from The ICD-10 classification of mental and behavioural disorders: clinical descriptions and diagnostic guidelines, Copyright (1992), World Health Organization.

- A multiaxial classification was adopted, with five axes (Axis I: Clinical syndromes; Axis II: Personality disorders; Axis III: Physical disorders; Axis IV: Severity of psychosocial stressors; Axis V: Highest level of adaptive functioning in the last year).
- The nomenclature was revised and some syndromes were regrouped. For example, the terms neurosis and hysteria were discarded, and all mood disorders were grouped together.
- Its approach was empirical, and psychodynamic concepts were largely eliminated.
- For some conditions, duration of illness was introduced as a diagnostic criterion.

The next full revision, DSM-IV, followed in 1994. It contained some revisions and additions to diagnostic categories, but retained the basic structures and features from DSM-III.

### DSM-5

When planning for DSM-V (later renamed DSM-5) began, it was hoped that the classification could be based on aetiology (including the use of biomarkers) rather than description (Hyman, 2007). It was also intended to make much greater use of dimensions rather than categories. However, it became apparent that for all major disorders both steps were premature, and DSM-5 retains the same key elements as its predecessors, albeit with some new and revised diagnostic criteria and other features that have generated controversy for several reasons, including concerns about specificity and sensitivity, reliability, and conflicts of interest (Frances and Nardo, 2013; Blashfield *et al.*, 2014).

For a history and critique of DSM, see Blashfield *et al.* (2014).

### Comparing ICD-10 and DSM-5

ICD-10 and DSM-IV were developed in parallel and, to avoid unnecessary differences, there was close consultation between the working parties preparing the two documents. The efforts were largely successful, with the systems sharing most fundamental concepts and categories, but there were some differences (Table 2.1). The arrival of DSM-5 has slightly increased the differences with ICD-10, but most of these are minor and are discussed as appropriate in later chapters. However, a few are worthy of mention here. See also Tyrer (2014) for a comparison of ICD and DSM classifications.

- The duration of the symptoms required for a diagnosis of schizophrenia. ICD-10 specifies 1 month, whereas DSM-5 requires a duration of 6 months, including a prodromal period (see Chapter 11).
- Terms such as *neurotic, neurasthenia, and mental retardation* are not used in DSM-5.
- Bereavement is an exclusion criterion for a depressive episode in ICD-10 (as it was hitherto in DSM) but this exclusion has been removed in DSM-5.
- Dementia and amnesic syndromes have been combined in DSM-5 in a new category of *major neurocognitive disorder* (see Chapter 14).

It is important to realize that the two classifications are complementary rather than in competition. ICD-10 results from an international effort, and was designed for use in all countries with their varied cultures, professional needs, and traditions. DSM-5 is a national classification, and reflects the professional, educational, and financial priorities of its parent organization, the American Psychiatric Association. Notably, even in the USA, hospital records utilize the ICD system, not DSM.

## Current and future issues in psychiatric classification

Many of the issues relating to classification discussed in this chapter continue to be topical and under active debate. This section raises some additional issues, especially those that may influence future developments.

### Cultural issues

Although ICD-10 and DSM-5 make national approaches to classification less important (see Box 2.3), local and cultural factors remain important in classification in several respects.

Psychiatrists and physicians in countries that have their own longstanding and comprehensive systems of ideas about health and illness, such as India, Pakistan, and China, sometimes complain that classifications developed in Europe and North America give too much emphasis to separation of mind and body. For example, the concept of somatoform disorders depends on viewing mind and body as alternatives. This approach causes problems in western medicine and is not understood at all elsewhere. Investigation of these issues is difficult, as outsiders may not appreciate

**Table 2.1** Differences between ICD-10 and DSM-5

|  | ICD-10 | DSM-5 |
|---|---|---|
| Origin | World Health Organization | American Psychiatric Association |
| Usage | Official global classification, for use by all health practitioners in all health settings | Mainly American psychiatrists, and psychiatric researchers |
| Presentation | Different versions for clinical work, research, and use in primary care | A single document |
| Languages | Available in all widely spoken languages | English version only |
| Structure | Part of overall ICD framework | Stand alone |
| Content | Clinical descriptors and guidance used<br>Guidelines and criteria do not include social consequences of disorders | Operational criteria used<br>Diagnostic criteria usually include significant impairment in social functions |

important cultural and local factors, or the varying ways in which emotions and behaviour are described in different languages.

A list of so-called 'culture-specific' disorders is provided as appendices to ICD-10. The limited and largely anecdotal information available at present suggests that most of these conditions are culturally influenced varieties of anxiety, depression, and violent behaviour, rather than distinct disorders of different types.

Reflecting an increased focus on culture and health (Napier *et al.*, 2014), DSM-5 pays greater attention to cultural issues than earlier versions, and distinguishes three concepts:

- Cultural syndrome: syndromes characteristically found in one cultural group.
- Cultural idiom of distress: terms, phrases, and ways of communicating suffering that are characteristic of a cultural group.

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**Box 2.3 Other national systems of classification**

The widespread international acceptance of ICD-10 and DSM-5 has diminished the importance of pre-existing national diagnostic traditions. However, the latter are of historical interest and, at times, still have some influence on educational programmes.

The descriptive concepts introduced by Kraepelin and Bleuler have been very influential in most European countries, particularly in Germany, UK, and Scandinavian countries. In Scandinavia, emphasis has also been placed on the concept of psychogenic or reactive psychoses (Strömgren, 1985). In addition, Scandinavia was notable for its early concepts of multidimensional diagnoses.

In France, Kraepelinian views of schizophrenia were less widely accepted, and two other diagnostic categories of psychosis not commonly used elsewhere have persisted, namely *bouffée délirante* and *délires chroniques*. *Bouffée délirante* is the sudden onset of a delusional state with trance-like feelings, of short

duration and good prognosis. This disorder is included in ICD-10 within the category of 'acute transient psychotic disorder', which also incorporates features of the Scandinavian concept of reactive psychosis. *Délires chroniques* are conditions that in ICD-10 would be classified as 'persistent delusional disorders', and are subdivided into the 'non-focused', in which several areas of mental activity are affected, and the 'focused', with a single delusional theme, such as erotomania. These disorders are discussed in Chapter 12.

Another example of international variation is the Chinese national classification (*Chinese Classification of Mental Disorders, 3rd edition, CCMD-3*), introduced in 2001. Although largely based upon ICD-10, it excludes almost all of the somatoform disorders, so that particular prominence can be given to the category of *neurasthenia*, which remains one of the most frequent diagnoses in Chinese psychiatry.

- Cultural explanation or perceived cause: a label for, or attribution of, a cause of symptoms or distress that is accepted within a cultural group.

## ICD-11

Originally it was intended that DSM-5 and ICD-11 would be contemporaneous, and with greater harmonization than between their predecessors. However, delays to ICD-11 (now scheduled for completion in 2018) prevented the former, and there is ongoing debate about whether ICD-11 should strive for harmonization with DSM-5 in light of concerns with aspects of the latter (Frances and Nardo, 2013).

The main principles and properties of ICD-11 will remain unchanged from ICD-10, including the lack of operationalized criteria, and the intention that it can be used by many professional groups in all cultures and health systems. Although the detailed content of ICD-11 is not finalized, the following are some of the main changes anticipated compared to ICD-10 (Luciano, 2014):

- Sleep–wake disorders and sexuality-related conditions and dysfunctions will have their own chapters.
- For schizophrenia, first-rank symptoms (see page 255) will be of less diagnostic importance, and the subtypes of schizophrenia omitted.
- In mood disorders, bipolar II disorder will become a distinct entity (as it is in DSM). In contrast, unlike DSM-5, reactions to bereavement will continue to be excluded from diagnosis of a depressive episode.

- In eating disorders, criteria for anorexia nervosa will be broadened, and binge eating disorder recognized as a specific category.
- Mental retardation will be renamed 'intellectual development disorders'.
- The problematic areas of somatoform disorders and personality disorder remain under review.
- A goal of these changes is to improve the clinical utility of the classification, especially in lower-income countries.

## Research domain criteria

The scientific arguments for a dimensional rather than categorical approach to diagnostic classification have been outlined above. One manifestation of this was the move in 2010 by the United States' National Institute for Mental Health to advocate 'domains', and to require these to be used as the basis for research funding, not DSM-5 (or ICD-10) categories (Cuthbert and Insel, 2013). Such domains may include neuropsychological constructs (such as working memory, or reward sensitivity) or brain systems (e.g. corticostriatal circuits), which underpin—and are thought to cut across—current diagnostic categories. The advent of Research Domain Criteria (RDoC) is having a major, if controversial, impact on psychiatric research. However, it is not of clinical relevance until (and unless) it discovers domains that have the necessary utility and reliability to accompany their greater validity.

## Classification in this book

In this book, both ICD-10 and DSM-5 classifications are used, and compared. Where they differ, the ICD-10 approach is usually adopted. As in other textbooks, disorders are grouped in chapters for convenience. The headings of the chapters do not always correspond to the terms used in ICD-10 or DSM-5; any difference means that the heading more appropriately summarizes the scope of the chapter.

## Further reading

American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*. American Psychiatric Association, Washington, DC.

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