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# Medicine in Africa

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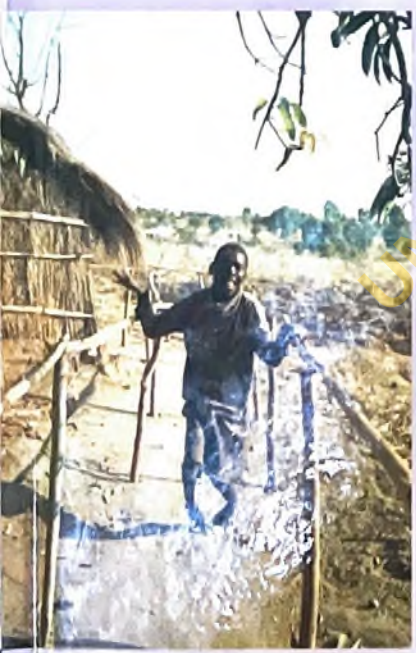

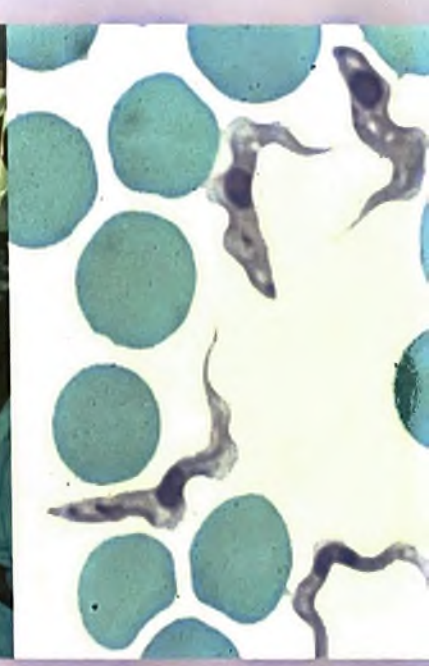

CAMBRIDGE Medicine

Chapter

# 62 Mental health

Oye Gureje and Bibilola Oladeji

Mental illnesses are common. They occur in people of all ages, and can be found in every culture and racial group. Even though the form in which disorders manifest may be different across cultures and social–cultural differences may affect outcomes significantly, there is a general consensus that the major categories of mental disorders are present among humans wherever they happen to reside. These disorders include unipolar depression, bipolar affective disorder, schizophrenia, alcohol and drug use disorders, post-traumatic disorder, panic disorder, Alzheimer's disease and other dementias and primary insomnia. The prevalence of mental disorders is generally higher than that of any other class of chronic condition. However, the burden attributable to mental disorders results not only from their high prevalence, but also from the relatively early age of the onset of the more common types, and the tendency of many mental disorders to be chronic or recurrent. For example, the median age of onset for anxiety disorders is early teenage, and many affected individuals will go on to develop other types of mental disorder in adulthood.

Among persons seeking help in primary care or general health care settings, the proportion with mental disorders can be as high as 25 per cent (Ustun and Sartorius, 1995). These persons may be seeking care for physical conditions that are occurring along with the mental health problems or that are in fact resulting from the mental health problems. Mental disorders are also highly prevalent in the community. A number of large-scale community surveys have shown that between 25 and 50 per cent of adults will develop one mental disorder or another in their lifetime. In a 12-month period, between 1 in 10 and 1 in 5 adults will have significant levels of symptoms sufficient for a categorical diagnosis (Demyttenaere *et al.*, 2004). The estimates reported from different studies tend to vary as a result of differences in the mode of ascertainment, the diagnostic categories covered and the age groups covered. There is also variability between countries. For example, the largest mental health survey ever conducted, the World Mental Health Surveys, report rates of 12-month disorder that vary between 4.7 per cent in Nigeria and 26.3 per cent in the USA (Demyttenaere *et al.*, 2004). Whether this reflects the performance of the assessment tools, the reporting styles of people from different cultural backgrounds or a true difference in propensity to develop mental disorders is still unknown. The likelihood is that some or all of these factors are involved. Irrespective of where they are conducted, it is a common observation that prevalence rates in the general adult population typically under-estimate projected lifetime risk, so that more people are indeed likely to develop mental disorders in their lifetime than cross-sectional estimates suggest.

## The problem in Africa

Several studies in primary care (Abas and Broadhead, 1997; Abiodun, 1993; Gureje, 2002), in the general adult population (Leighton *et al.*, 1963; Gureje & Lasebikan, 2006; Kebede *et al.*, 2005), as well as in children and adolescents (Gureje *et al.*, 1994) have shown that mental disorders are highly prevalent in African countries, just as they are elsewhere. Even though concerns about the applicability of some measures to the various African cultures remain, there is now no doubt that the most commonly reported mental disorders in other racial groups are present among African peoples. The earlier claims that some conditions were either not present or were so different in their presentations as to question their equivalent identity with similar conditions in Western Europe or North America now seem substantially repudiated (Majodina and Johnson, 1983; Prince, 1967; Binitie, 1981; Odejide *et al.*, 1989; Patel *et al.*, 1995; Gureje, 2007). Nevertheless, cultural differences in the phenomenology and explanatory models of common mental disorders are supported by research evidence (Patel *et al.*, 1995; Makanjuola, 1987a; Swartz, 1998).

Typically, anxiety disorders constitute the most common group of mental disorders in the community. Lifetime estimates of anxiety disorders of up to 25 per cent have commonly been reported. Among these, specific phobia is the most prevalent, followed by social phobia, post-traumatic disorder and generalized anxiety disorder. Mood disorders, in particular major depressive disorder, are also highly prevalent, with some studies suggesting that up to one in five adults may experience at least one episode of depression in their lifetime. Substance-use disorders may affect up to 10 per cent of adults in their lifetime with alcohol abuse being the most prevalent among these conditions. While anxiety and mood disorders tend to be more prevalent among females, substance use disorders are more common among males. There is often considerable variation in the rates of substance-use disorders, reflecting availability of these substances as well as cultural and religious attitudes to their use.

Non-affective psychotic disorders and dementias are less common. Schizophrenia has a lifetime risk of about 1 per cent. Males are more affected than females, with a male to female ratio of about 4:1, Bipolar disorder also has a lifetime morbid risk of about 1 per cent. However, recent studies suggest that sub-threshold bipolar syndrome, which is also a disabling disorder, has a much higher prevalence. In addition, several studies have now documented widespread experience of psychotic symptoms in the community, although the consequences of such experiences for disability are not yet fully



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understood. Many such experiences are transient and do not have the features that would qualify them for specific diagnosis. About 1 per cent of persons aged 65 years will have dementia. However, with the prevalence of the disorder doubling every 5 years, over 40 per cent of elderly persons 90 years and above will have the disorder.

Mental disorders are also common in childhood and adolescence. Indeed, many adult mental disorders start during this period, and childhood disorders often predict chronicity of adult disorders. Indications are that about 10–20 per cent of children and adolescents world-wide suffer from a serious mental illness. A large percentage of the global burden of disease is attributable to neuropsychiatric conditions in children and adolescents (World Health Organization, 2001).

## Co-morbidity of mental disorders

Many people affected by mental disorders have more than one disorder, a phenomenon referred to as co-morbidity. Defined as the presence, either simultaneously or in succession, of two or more specific disorders in an individual within a specified period of time, co-morbidity is often associated with higher disability, symptom severity and increased demand for services than would occur with single disorders. Rates of co-morbidity among persons with lifetime history of mental disorder can be as high as 50 per cent, while in those with disorders in any given 12-month period, up to 40 per cent may have another co-occurring disorder.

Mood and anxiety disorders often occur together. More than 50 per cent of patients with a mood disorder meet diagnostic criteria for an anxiety disorder. Other conditions that may be co-morbid with mood disorders include alcohol use disorders, personality disorders, dysthymia, somatoform disorders, drug abuse and dependence and impulse control disorders. A substantial proportion of patients with schizophrenia have symptoms of obsessive–compulsive disorder (OCD), and schizophrenia patients with OCD may differ from those without OCD in severity of schizophrenia symptoms. Mental and substance-use disorders often occur together. Up to two-thirds of patients attending alcohol and drug services have a co-morbid mental disorder, and alcohol-related problems are common in patients attending mental health services.

Depressed children and adolescents have higher rates of anxiety disorders, oppositional disorders and attention deficit hyperactivity disorder (ADHD). Childhood bipolar disorder is associated with high rates of alcohol and drug use, ADHD and disruptive disorders. More than 50 per cent of children with ADHD may have other co-morbid psychiatric disorders, with the most common conditions being oppositional defiant disorder, conduct disorder, depression and anxiety disorders.

The presence of multiple co-occurring disorders leads to poor outcome. Co-morbidity is associated with increased case severity, lower satisfaction with life, greater disability, longer illness course and increased likelihood of attempting suicide. Furthermore, even though co-morbidity increases the chance of seeking treatment and increases the chance of detection by primary care clinicians, it often complicates treatment and leads to poor response to treatment. In patients with major depressive disorders, co-morbidity predicts longer duration of episode, recurrence of symptoms and psychosocial impairment.

## Mental disorders and disability

Mental disorders are associated with high burden of disability, causing role impairment in work, social relationships and physical well-being. Indeed, several reports have shown that common mental health disorders cause a higher burden of disability than common chronic physical conditions. This was not obvious until recently. For many years, the public health significance of health conditions was determined by the likelihood that they would lead to premature mortality. This did not take account of the disability resulting from many non-fatal chronic diseases. To allow for a fuller comparison of the societal impact of various health conditions, a new metric was introduced in 1993, the disability-adjusted life year (DALY), which combines information on the impact of premature death and of disability. Using this metric, mental and neurological disorders have been shown to be among the most disabling health conditions, accounting for 12.3 per cent of the total DALYs lost due to all diseases and injuries in 2000. In 2005, neuropsychiatric disorders accounted for 28 per cent of total DALYs lost due to non-communicable diseases.

**Table 62.1.** *Trends in the global burden of diseases: per cent of total DALYs due to disease clusters in different economic groups*

| | | World | High-income countries | Middle-income countries | Low-income countries |
|---|---|---|---|---|---|
| Communicable, maternal, perinatal and nutritional Conditions | 2005 | 38.6% | 5.6% | 20.2% | 53.5% |
| | 2030 | 30.0% | 3.4% | 15.1% | 40.9% |
| Non-communicable diseases | 2005 | 48.9% | 85.7% | 64.7% | 35.0% |
| | 2030 | 56.9% | 89.4% | 72.0% | 45.1% |
| Neuropsychiatric conditions | 2005 | 13.5% | 27.4% | 17.7% | 9.1% |
| | 2030 | 14.4% | 29.4% | 17.5% | 11.0% |
| Injuries | 2005 | 12.5% | 8.7% | 15.1% | 11.5% |
| | 2030 | 13.2% | 7.2% | 12.9% | 14.1% |

In Africa, even though communicable, maternal, perinatal and nutritional disorders continue to constitute the greatest disease burden, neuropsychiatric disorders accounted for about 10 per cent of the total DALYs lost in 2005, and more than 25 per cent of the DALYs lost to non-communicable disease (Ustun *et al.*, 2004; Murray and Lopez, 1996). The contributions of neuropsychiatric disorders to the disease burden in Africa are bound to rise as health systems in the region achieve success in tackling communicable diseases and maternal and child health problems. This trend is shown by the contributions of disease clusters to total DALYs in high-, middle- and low-income countries in 2005 and their projections to 2030 (Table 62.1).

In addition to their effects on occupation, marriage, parenting and social relationships, mental disorders also often impair the performance of activities of daily living, such as ability to maintain personal hygiene, as well as instrumental activities of daily living, such as shopping and doing physical chores. Thus, mental disorders may limit mobility as well as cognition, and may also reduce the capacity of affected individuals for self-care. The Global Burden of Disease study found that depression was the fourth most burdensome of all medical conditions throughout the world in 1990, and predicted that it would become the second most burdensome by 2020 (Mathers & Loncar, 2006). Unipolar depressive disorder accounts for so much disability globally because it is common, with a lifetime occurrence in the general population reaching nearly one in five, and often follows a

chronic course. Common mental disorders are more disabling than some common chronic medical conditions but, paradoxically, persons with mental disorders are much less likely to be in receipt of treatment (Ormel *et al.*, 2008). This was found in both developed and developing countries, the latter including Nigeria and South Africa, even though, as could be expected, both physical and mental disorders were less likely to receive treatment in developing than in developed countries.

## Stigma and mental disorders

Persons with mental disorders are often stigmatized by members of the community in which they reside. Stigma is a social process with cognitive, attitudinal, behavioural and structural elements that lead to social inequities, negative discriminatory treatment and disadvantage to people with mental illness. Stigma can affect a variety of life situations, from befriending to neighbourhood residence, and often limits their opportunities for work. When stigma and discrimination lead to exclusion from the workforce for people with mental illness, the result is not only material deprivation, but a denial of the opportunity for full recovery, and a perpetuation of disability.

Stigma of mental illness often reflects poor knowledge of its causation and the likelihood of the efficacy of treatment. Indeed, many in the community believe that mental disorders are caused by sorcery or are punishments for some wrongdoing on the part of the victims. Even though such beliefs have been rife in most communities in the past, they are much less so now in Europe and North America than in Africa. Experience has shown that such beliefs are amenable to community education, and that persons with mental health problems benefit from the results of such public enlightenment.

## Mental disorders and mortality

Mental disorders are a cause of premature mortality due to both natural and unnatural causes. Standardized mortality ratios (SMRs) for both natural (resulting from somatic diseases) and unnatural (due to accidents and suicide) causes of death in psychiatric patients are more than twice that of the general population. Higher rates of premature mortality have been reported in patients with serious mental illness, such as schizophrenia, dementia, major affective disorder and substance-use disorders. Among such patients, the leading causes of death include cardiovascular diseases, suicides, accidents, respiratory diseases, infections and malignancies. Even though it is generally recognized that the majority of suicides occur in low- and middle-income countries, probably reflecting the large populations of those countries, reliable data are scarce in Africa. In many African countries, death by suicide is viewed as a social and cultural taboo, and families of persons who commit suicide are likely to hide the information.

## Burden on caregivers

Persons suffering from illnesses such as dementia, intellectual disability, schizophrenia and bipolar disorder commonly draw on informal family sources for their care. Indeed, families are important resources in the community care of people with a variety of mental illness. This is more so in traditional African communities with strong family bonds, but also as a natural response to the difficulties in accessing formal care. Parents, children and spouses are the most common informal caregivers. Caring roles can be diverse from supervision, help with activities of daily living to emotional support. Caring for persons with mental illness is a source of distress and burden on the caregivers. Depression is common among carers. Physical strain and health problems are frequent, especially when carers are themselves old. Economic loss is common, especially in lost earnings. Opportunities for social interactions and leisure are constrained, and quality of life of carers is commonly lower than control groups with similar socio-demographic attributes, but with no caring roles.

## Descriptive psychopathology

Psychopathology is the study of abnormal psychic processes. In psychopathology, we seek to understand the subjective experience of persons with emotional disturbances. There are various forms of psychopathology. In analytic or dynamic psychopathology, for example, attempt is made to go beyond the understanding of subjective experiences but to also explain why such experiences occur. Such explanation may delve into early conflicts and development and are often based on theoretical processes such as *transference* or *ego defence mechanisms*. Descriptive psychopathology, on the other hand, is concerned, not with a formulation of the root cause of a psychic experience, but with its observation, description and classification. Psychopathology is, ultimately, a process by which the mind is laid bare in order for the signs and symptoms of mental disorders to become comprehensible.

## Disturbances of consciousness

Consciousness is the awareness of experience. To be conscious is to be aware of objects, including oneself, and to have a subjective experience of self. There are three dimensions of consciousness: *vigilance, lucidity* and *self-consciousness*. Even though the most clinically common abnormalities of consciousness reflect its lowering or diminution and will be the focus of this section, there are also states of heightened consciousness, especially resulting from the use of drugs such as hallucinogens and central nervous system stimulants.

### Clouding of consciousness

A state of impairment of thinking, attention, perception and memory often characterized by a degree of drowsiness, with or without agitation, and reduced awareness of the environment. It commonly occurs in the context of organic brain pathology such as after head injury, with cerebral tumour, or with raised intracranial pressure.

### Coma

Coma represents a quantitatively more severe form of impaired consciousness than drowsiness. In coma, there is sustained unconsciousness even though, in lighter states, strong stimuli may elicit momentary arousal. There are no verbal responses or responses to painful stimuli and the breathing is slow, deep and rhythmic.

### Delirium

A state of impaired consciousness in which attention, memory and emotion are disturbed and intrusive abnormalities of perception, such as illusions and hallucinations, and of thinking, such as delusions, may occur. Anxiety, bewilderment and motor restlessness may also occur. In delirium, the clouding of consciousness may fluctuate in intensity such that the affected person is more impaired in the night than in the daytime.

### Stupor

Stupor describes a state in which the affected person, who may appear awake and alert, is unable to initiate speech or action. Even though eyes may be open and even wander, there is objective lack of awareness of the surroundings.

## Disturbance of attention and concentration

Attention requires the channelling of consciousness, either actively or passively, on an experience. Complete attention requires full consciousness, even though attention may wander in full consciousness. In a state of disturbed attention, there is inability to focus purposefully on an experience. Concentration requires the sustenance of focused consciousness. Concentration is impaired when attention cannot be sustained on the task at hand.

## Disturbances in emotions

Emotion is the feeling tone or response to sensory input from the external environment or mental images. Emotion is subjectively experienced, but may be objectively observable in the form of somatic and behavioural manifestations.

### Affect

Affect is the momentary expression of emotion. Affect is said to be incongruent when it does not fit with the subjectively described emotion of the subject. A reduced range of expression of affect is described as bluntness of affect, while a lack of observable emotion is indicative of a flat affect.

### Mood

Mood is the subjectively reported emotional state. It describes the relationship of the subjective state to the environment. Mood can be low (or sad), high (euphoric or elevated), angry, irritable (easily offended) or normal, that is, neither high nor low (euthymic).

### Apathy

Apathy is the absence of feeling; it may be associated with anergia and lack of volition.

## Disturbances of speech

### Dysarthria

Dysarthria is difficulty in articulation. It may be due to lesions of the brain stem or muscular disorders of the mouth, larynx and thorax.

### Aphasia

Aphasia is difficulty in producing speech; it may have motor or sensory origin.

### Pressure of speech

This is the rapid production of speech that may be difficult for the listener to follow. Commonly seen in manic states.

### Poverty of speech

This is scanty speech; responses to questions may be reduced to monosyllables.

## Thought disorders

Thinking can be described as a flow of ideas. It can be undirected, as in fantasy thinking, imaginative or rational.

## Disorders of stream of thought

### Flight of ideas

This is acceleration of flow of thinking. Even though there is logical sequence in flow of ideas, constant changing of the goals of ideas impairs comprehensibility.

### Thought retardation

The flow of the sequence of ideas proceeds so slowly as to impair the achievement of the goal. Even though logical sequence is maintained, spontaneity of speech is lost and in its place is morbid hesitancy.

### Circumstantiality

The flow of ideas appears normal, but arrival at the goal is delayed by several unnecessary detours during which needless explanations are provided. Several digressions are followed before ultimately the awaited information is provided.

### Thought blocking

This is a sudden termination of the flow of thought that occurs unintentionally.

### Derailment

This is incoherent thinking in which logical flow of ideas is lost. There is a breakdown in association with interpolation of unconnected ideas. In extreme form, *word salad* may result in which several words with no connections are thrown together.

## Disorders of content of thought

### Preoccupations

Preoccupation is ruminative thought that occupies the mind and recurs over and over. In generalized anxiety disorder, for example, the patient ruminates over several little fears or over some indistinct fear.

### Obsession

These are repetitive and intrusive thoughts, known by the patient to originate from self. Even though the thought is considered disagreeable, the patient is unable to prevent its recurrence.

### Overvalued ideas

These are ideas that are essentially false and out of keeping with the person's social and cultural circumstances and can only be shaken off with some effort.

### Delusion

These are ideas that are essentially false and out of keeping with the person's social and cultural circumstances and remain unshakable even with contrary evidence.

## Disorders of control of thinking

### Thought withdrawal

Patients who suffer thought blocking may believe that their thoughts have been suddenly extracted from their minds by external forces.

### Thought insertion

This is a belief that thoughts are being placed in one's mind from outside.

### Thought broadcasting

A patient might believe that their thoughts are leaving them and becoming known to others without their control.

## Disorders of perception

### Illusion

This is misinterpretation of real external stimuli. In illusion, a perceived stimulus is given an unrelated meaning.

### Hallucination

Sensory perception occurs in the absence of a real external stimulus. Any of the sensory modalities may be involved, but the commonest are auditory and visual.

# Psychopathology in the African context

The assessment of mental disorders can be influenced by cultural differences between the patient and the clinician. When the cultural idioms of expression of a syndrome by a patient are alien to the clinician, significant error can occur in the evaluation of what the patient suffers from. For example, earlier psychiatrists, many from Western Europe, had claimed that not only was depression rare among Africans, but that, whenever present, its features were different from that experienced by patients elsewhere. It was suggested that guilt feelings, self-deprecation, psychomotor retardation and associated suicidal behaviours were far less prevalent in Africa than in the West. On the contrary, more recent studies, conducted by African psychiatrists, have found that not only is depression common in Africa, but that the core symptoms of the illness can be elicited with culturally sensitive assessments (Binitie, 1981; Rwegellera, 1981; Majodina and Johnson, 1983; Odejide *et al.*, 1989; Gureje, 2007).

# Somatization

**Widespread somatic complaints, for which no explanatory findings can be found on physical examination or laboratory investigations, are common among persons with some forms of mental disorders, especially anxiety and depressive disorders.**

This tendency to express psychological distress in the idiom of bodily language is termed *somatization*. Patients with somatization are often presumed to be lacking in adequate psychological language to describe their emotional distress. There has been a common claim that Africans are more likely than Caucasians to somatize (Bhugra and Mastrogianni, 2004). However, a WHO collaborative study conducted in general health care settings in 14 countries around the world, with the use of comparable ascertainment procedures (Ustun & Sartorius, 1995), has shown that somatization, however defined, is common everywhere. Although variations in rates were evident, Africans were no more or less likely to somatize than patients from other racial groups. An interesting observation was that the tendency to somatize was more likely in clinics where patients received less personalized care, suggesting that somatization may, at least in part, be related to the context in which care is delivered to patients (Simon *et al.*, 1999; Gureje, 2004).

# Patient assessment

Patient assessment is essential for accurate diagnosis and appropriate treatment planning. The assessment process relies primarily on the interviewing and observational skills of the practitioner, as few diagnostic procedures or laboratory tests exist to validate psychiatric diagnosis. The psychiatric interview therefore, remains the most essential aspect of the assessment of patients with mental disorders. The interview serves not just to elicit signs and symptoms of mental illness, but also helps to provide an insight into the patient's psychological makeup, including his/her strengths and weaknesses, to understand the influence of culture, religion and other social factors on the patient's life, to know the support systems and social networks available and the coping strategies frequently used by the patient. The interview also provides an understanding of the conscious and unconscious motivations for the patient's behaviour. The interview enables the doctor to develop a rapport with the patient and establish a therapeutic relationship.

At the start of the interview, make all efforts to put the patient at ease, ensure privacy and that there are no distractions or interruptions. Use open-ended questions to enable patients to express their problems or concerns in their own words, and follow this by more direct questioning, to obtain clarification on aspects of the history, and to elicit other symptoms and information essential in making a diagnosis and planning appropriate intervention. Try to appear relaxed, attentive, encouraging and non-judgemental. Pay careful attention to the patient's attitude, other non-verbal cues, and the dynamics of the relationship between the patient and any accompanying relatives.

A thorough psychiatric assessment consists of a psychiatric history, mental status examination, physical examination, laboratory investigation and, when indicated, neuropsychological tests. Keep a detailed record of the interview and other aspects of the evaluation, and progress notes to document every doctor–patient interaction, including follow-up visits and counselling/ psychotherapy sessions as well as results of investigations and prescribed medications.

# The psychiatric history

The psychiatric history is more detailed than that taken in medicine or surgery; it is essentially a record of the patient's life as told by the patient. The history obtained from the patient could be augmented by information provided by a close relative or other person who knows the patient well; this is particularly important where the patient was brought for care involuntarily and does not realize the extent of their symptoms, or when the patient is unwilling or unable to provide information (Box 62.1).

## Identifying data

Demographic information about the patient includes: name, age, sex, marital status, occupation, religion, tribe and the source of referral. If the history is obtained from an additional source, record who the informant is, their relationship to the patient, intimacy and the interviewer's impression of the informant's reliability.

## Presenting complaints

The reason for referral is why the patient has come or was brought to seek help; report this in the patient's own words. Report the other informant's complaints separately. Record each symptom and its duration.

## History of presenting complaints

Record the story of the current illness in chronological order, starting at the onset and describing the evolution of symptoms over time, to present a clear account of the illness up to the time of presentation. Enquire whether there were any precipitating events, why the patient has come for medical attention now and what form of treatment has been used.

## Past medical history

Record history of previous mental illness, paying particular attention to the age at first onset, the nature and duration of each episode, type of treatment used, effects of the treatment and patient's level of social and occupational functioning between episodes. A history of past medical (physical) illnesses should also be obtained. Report any major medical or surgical illness or trauma, and any on-going chronic medical condition for which the patient is receiving treatment.

## Family history

Record the type of family the patient is from (monogamous, polygamous), the quality of relationship between family members, and family history of mental illness or substance abuse. Identify who has the illness, their relationship to the patient, presentation of the illness, diagnosis and treatment received.

## Personal history

Details of the different aspects of the personal history as outlined in Box 62.1. This gives a brief account of the patient's life from birth to the present.

**Box 62.1. Outline of psychiatric history**

- Identifying data
- Presenting complaints
- History of presenting complaints (history of present illness)
  - Past medical history
  - Past psychiatric history
- Family history
- Personal history
  - Pregnancy, birth and neonatal history
  - Early childhood and developmental history
  - Educational history
  - Occupational history
  - Marital and relationship history
  - Sexual
- Alcohol and drug use
- Forensic history
- Premorbid personality (personality before the illness)
- Character
- Prevailing mood
  - Attitudes and standards
  - Social relationships
  - Leisure activities

## Premorbid personality

Record the individual's personality before the onset of illness.

# Mental status examination

The mental status examination is a report of the interviewer's observation and impression of the patient's appearance, thinking, speech and behaviour during the interview. The outline provided in Box 62.1 is a guide for reporting the mental status examination in the patient's records. Even when a patient is mute, unco-operative or incoherent, the mental state can be assessed by careful observation (Box 62.2).

**Box 62.2. Outline for mental status examination**

- Appearance and behaviour
- Mood and affect
- Speech
  - Flow
  - Coherence
  - Tone
- Thoughts
  - Form
  - Stream
  - Content
  - Possession
- Perceptions
- Cognition
  - Orientation
  - Attention and concentration
  - Memory
  - Calculation
  - Abstract reasoning
- General fund of knowledge
- Judgement
- Insight

## Behaviour and appearance

Describe the patient's appearance, mode of dressing, grooming, facial appearance and nutritional status; and his behaviour, disposition and posture during the interview.

## Mood and affect

The mood is the patient's internal feeling state as described by him, while the affect is his emotional responsiveness inferred by the interviewer from his facial expressions, behaviour and speech.

## Speech

Assess the organization, tone (loudness), volume (amount/quantity) and coherence of the patient's speech.

## Thought

Thoughts are usually expressed in spoken or written language. Other than speech therefore, samples of the patient's writings and drawings could be obtained and studied. Assess the form (how are ideas being put together, does what the patient says make sense?), the stream (the flow – how fast or slow), the content (are there any recurrent themes or abnormal beliefs?) and the possession (does the patient believe his thoughts are being influenced by any external force?).

## Perception

Are there any illusions or hallucinations?

## Cognition

Assess the level of consciousness. Is s/he orientated to time, place and person? Is s/he able to focus attention and comprehend the discussion? Also assess the patient's memory, calculation, capacity for abstract thinking and knowledge of general information (e.g. the current and past presidents or rulers).

## Judgement and insight

Assessment of judgement helps the clinician to determine the patient's capacity to function independently. It is usually assessed based on information obtained in the history on the individual's decision-making in certain social situations, and by asking what s/he would do in some hypothetical situations. Insight is a person's level of awareness and understanding of their illness. It can range from a total denial of illness to a full awareness of being mentally ill.

# Physical examination and diagnostic testing

Physical and neurological examination will help to (1) rule out an underlying general medical condition that could be contributing to or causing the psychiatric symptom; (2) determine the patient's need for medical care; and (3) choose the appropriate psychiatric treatment that will not affect the patient's medical condition or interact with other medication.

## Laboratory tests

Appropriate laboratory tests may be required to establish or exclude other diagnosis, obtain baseline data for monitoring treatment effect and outcomes, aid the choice of treatment for the psychiatric disorder and monitor the blood levels of prescribed medication.

## Neuropsychological tests

Neuropsychological testing is indicated when cognitive deficits are suspected, or there is a need to grade the degree of cognitive deficit or monitor progression. Neuropsychological tests can also be useful in distinguishing between cognitive disorders and malingering. They are commonly used to assess the presence or extent of brain damage following head trauma.

# Diagnosis and classification of mental disorders

To ensure that psychiatric diagnoses are consistent over time and across diverse cultures, classification systems were developed. The two most important and widely accepted are the International Classification of Diseases and Related Health Problems (ICD) (World Health Organization, 1992), and the *Diagnostic and Statistical Manual (DSM)* (American Psychiatric Association, 2000). Both schemes classify disorders based on characteristic symptom patterns, course and outcomes and, in some categories, aetiological factors. The current versions of the two schemes use broadly similar nomenclature and diagnostic categories (Table 62.2). Both are currently undergoing major revisions and the new editions, DSM-V and ICD-11, will soon become available (Table 62.2).

**Table 62.2.** *Groups of disorders as classified in ICD-10 and DSM-IV*

| ICD-10 | DSM-IV* |
|---|---|
| F0: Organic, including symptomatic, mental disorders | Delirium, dementia, and amnestic and other cognitive disorders<br>Mental disorders due to a general medical condition not elsewhere classified |
| F1: Mental and behaviour disorders due to psychoactive substance use | Substance-related disorders |
| F2: Schizophrenia, schizotypal and delusional disorders | Schizophrenia and other psychotic disorders |
| F3: Mood (affective) disorders | Mood disorders |
| F4: Neurotic, stress-related, and somatoform disorder | Anxiety disorders<br>Somatoform disorders<br>Adjustment disorders<br>Dissociative disorders |
| F5: Behavioural syndromes associated with physiologic disturbances and physical factors | Eating disorders<br>Sleep disorders<br>Sexual and Gender identity disorders+<br>Other conditions that may be a focus of clinical attention |
| F6: Disorders of adult personality and behaviour | Personality disorders<br>Factitious disorders<br>Impulse-control disorders not elsewhere classified |
| F7: Mental retardation<br>F8: Disorders of psychological development<br>F9: Behavioural and emotional disorders with onset usually occurring in childhood or adolescence | Disorders usually first diagnosed in infancy, childhood or adolescence |

* Rearranged to highlight the similarities between ICD-10 and DSM-IV.
+ Gender identity disorders and disorders of sexual preference classified under disorders of adult personality and behaviour in ICD-10.

# Treatment of mental disorders

Effective treatment of mental disorders usually requires a balanced application of three modalities of care: physical treatments which include pharmacotherapy and electroconvulsive therapy (ECT), psychotherapy and psychosocial rehabilitation. The combination and amount of each needed is determined by the type of disorder and individual patient characteristics. Factors that need to be considered include age, presence of other comorbid physical or mental disorders, the stage of the disease, the social support mechanisms available to the patient and current social circumstances. Many mental disorders are chronic and require long-term care, and treatment compliance may be a problem. Compliance is enhanced by the quality of the doctor–patient relationship, patient education and participation in treatment planning, simple treatment regime, minimal side effects, availability/affordability of the treatment modality and involving the patient's social support network (World Health Organization, 2001).

# Pharmacotherapy

Following the introduction of chlorpromazine in the 1950s, rapid advances have been made in the field of psychopharmacology, with

the introduction of more effective and safer medications. The rational application of psychotropic drugs requires good diagnostic skills, knowledge of the dosage, mechanism of action and side effects of available medications and interactions with other drugs the patient might be taking. The goal of drug treatment is to reduce or control the symptoms and to prevent relapse. Medications should be prescribed in adequate dosage and for a sufficient duration.

Traditionally, medications used in treating mental disorders can be put in four main groups:

- Antipsychotics
- Antidepressants
- Mood stabilizers
- Anxiolytics.

However, it should be noted that many drugs from one class are often used in treating disorders in another class (for example, antidepressants are used in treating anxiety disorders), and there are some other drugs used in treating mental illness that do not fit into any of the above categories (for example, β-blockers such as propranolol used in treating social phobia, and cholinesterase inhibitors such as donepezil used in the treatment of dementia) (Table 62.3).

## Antipsychotics

These drugs can be broadly classified into two main groups: the typical (dopamine receptor antagonists) and the atypical antipsychotics (serotonin-dopamine antagonists). The specific examples, dosage ranges and side effects are presented in the table. Except for clozapine, that has demonstrated superior activity in the treatment of negative symptoms and drug-resistant patients, there is no significant difference in the clinical efficacy of the currently available drugs. Choice of antipsychotic medication depends on the cost, availability of medication and side effects. Specific examples, mechanisms of action, dosages and side effects are shown in Table 62.3.

Indications:

- Schizophrenia
- Affective disorders
- Other psychotic conditions: acute psychosis, organic psychotic conditions
- Agitation or violent behaviour: severe mental retardation, autistic disorder
- Tourette's disorder
- Other indications: emesis, intractable hiccups, ballismus and hemiballismus.

## Antidepressants

Currently available antidepressants fall into four main groups: the tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), monoamine oxidase inhibitors, and the newer antidepressant drugs. The monoamine oxidase inhibitors are not widely used because of their troublesome interactions with tyramine containing foods. Examples, mechanisms of action, dosage ranges and side effects are shown in Table 62.3.

Indications:

- Depressive disorders
- Bipolar depression
- Anxiety disorders: generalized anxiety disorder, panic disorder, post-traumatic stress disorder
- Obsessive–compulsive disorder
- Chronic pain
- Childhood disorders: enuresis, attention deficit hyperactivity disorder, school phobia
- Eating disorders
- Organic mood disorders
- Others: narcolepsy, nightmare disorder, sleep-walking.

## Mood stabilizers

Commonly used mood stabilizers include lithium, carbamazepine and sodium valproate. Lithium is very effective in the treatment of mania and also has antidepressant effects, but its use is limited by its narrow margin of safety and it can only be used where blood levels can be monitored.

Indications:

- Acute treatment of mania
- Lithium is useful in bipolar depression
- Prophylaxis in bipolar affective disorder, schizoaffective disorder
- Aggressive outbursts or impulsivity, e.g. borderline personality disorder
- Augmentation of antipsychotics or antidepressants in treatment-resistant patients.

## Anxiolytics

These drugs reduce anxiety, tension and agitation. In low doses, they have a calming effect and are often referred to as minor tranquillizers. At higher doses, they act as hypnotics- producing drowsiness and facilitating the onset and maintenance of sleep. The main classes of anxiolytic drugs in common use are the benzodiazepines and the azapirones. The benzodiazepines have a tendency to cause tolerance and physical dependence, and should only be prescribed for short durations (1–4 weeks). Buspirone is a serotonin agonist with less potential for abuse.

Indications:

- Anxiety disorders
- Insomnia
- Alcohol withdrawal
- Adjustment disorder
- Social phobia
- Akathisia
- In emergencies as a sedative
- Status epilepticus
- Abreaction.

# Electroconvulsive therapy (ECT)

Electroconvulsive therapy is a form of treatment in which a seizure is artificially induced by the passage of a small amount of electricity into the brain using electrodes placed on the scalp. Current practice is to modify the seizure produced with the use of brief anaesthesia and muscle relaxants. ECT is an effective and safe procedure. Its mechanism of action is still unknown, but it has widespread effects on brain neurotransmitter systems.

**Table 62.3.** *Commonly used medications*

| | Dose range (mg/day) | Mechanism of action | Side effects |
|---|---|---|---|
| **Typical Antipsychotics** | | | |
| Phenothiazines | | | |
| • Aliphatic Chlorpromazine | 100–1000 | Block post-synaptic D2 receptors in the CNS. | Extrapyramidal side effects-acute dystonia, parkinsonism, tardive dyskinesia. Weight gain, sedation. Low potency drugs, e.g. chlorpromazine – anticholinergic side effects, lower seizure threshold, postural hypotension, cardiotoxicity |
| • Piperazine- Fluphenazine (Depot) | 12.5–100 mg monthly | | |
| • Trifluoperazine | 5–40 | | |
| • Piperidine Thioridazine | 100–700 | | |
| Butyrophenones | | | |
| • Haloperidol | 2–20 | | |
| • Droperidol | | | |
| Thioxanthenes | | | |
| • Flupenthixol (depot) | | | |
| Dihydroindole | 50–100 | | |
| • Molindone | | | |
| **Atypical Antipsychotics** | | | |
| • Clozapine | 100–800 | Block dopamine and noradrenergic α receptors | Drowsiness, weight gain Clozapine-seizure, agranulocytosis and hypersalivation |
| • Olanzapine | 5–20 | | |
| • Risperidone | 2–6 | | |
| • Quetiapine | 100–700 | | |
| • Ziprasidone | 40–160 | | |
| **Antidepressants** | | | |
| Tricyclic and tetracyclics | | | |
| • Amitryptiline | 100–300 | Inhibits the reuptake of noradrenaline and serotonin, Blocks adrenergic and muscarinic acetylcholine receptors. | Anticholinergic effects, drowsiness, weight gain, postural hypotension, cardiac conduction defects |
| • Imipramine | 100–300 | | |
| • Clomipramine | 100–250 | | |
| • Doxepine | 100–300 | | |
| • Nortryptiline | 75–300 | | |
| • Desipramine | 100–300 | | |
| Selective serotonine reuptake inhibitors (SSRIs) | | | |
| • Sertraline | 50–200 | Selectively blocks the reuptake of serotonin with no effects on dopamine and noradrenaline reuptake | Nausea, loss of apetite, constipation, diarrhea, headache, insomnia or drowsiness, fatigue, sexual dysfunction |
| • Fluoxetine | 20–80 | | |
| • Paroxetine | 20–60 | | |
| • Citalopram | 20–60 | | |
| Venlafaxine | 75–300 | Blocks the reuptake of serotonin, dopamine and norepinephrine | Nausea, drowsiness, dry mouth, dizziness |
| Bupropion | 100–400 | Enhances noradrenergic neurotransmission | Headache, insomnia, nausea |
| | Dose range (mg/day) | Mechanism of action | Side effects |
| **Mood Stabilizers** | | | |
| • *Lithium | 900–1800 | Unknown | Tremor, thyroid side effects, cardiac, toxicity |
| • Carbamazepine | 400–1600 | Blocks neuronal sodium channels | Nausea, agranulcytosis, rashes, weakness |
| • Sodium valproate | 500–1500 | Blocks neuronal sodium channels | Nausea, tremor, sedation, weight gain |
| **Anxiolytics** | | | |
| Benzodiazepines | | | |
| • Lorazepam | 2–6 | Enhance GABA neurotransmission | Drowsiness, tolerance and dependence, incoordination |
| • Diazepam | 5–40 | | |
| • Chlordiazepoxide | 15–60 | | |
| Azapirones | 15–60 | Serotonin agonist | Light-headedness, headache, nervousness |
| • Buspirone | | | |

* Plasma levels need to be monitored.
- Acute mania: 0.8–1.2 mmol/l.
- Maintenance: 0.5–0.8 mmol/l.
- Serious toxicity: ≥2.0 mmol/l.

Indications:

- Severe depression when rapid improvement in symptoms is essential, for example, when the patient is at high risk of suicide or when there is a danger of electrolyte derangement from not eating and drinking.
- Mania, especially when the patient is agitated and not responding to medication.
- Catatonic states either due to schizophrenia or any other condition.

There are no absolute contraindications to ECT. It should be used with caution in patients with raised intracranial pressure, serious cardiovascular conditions or respiratory infections.

Always obtain informed consent before administering ECT, and perform a medical work-up including physical examination, full blood count, blood chemistry, electrocardiogram (especially for patients above 40 years) and a chest X-ray.

Complications associated with ECT include headache, muscle aches, confusion, memory loss and complications of anaesthesia.

## Psychological treatment

This encompasses a wide range of interventions aimed at influencing behaviour, mood and emotional patterns of reaction through verbal and non-verbal psychological means. It includes various forms of counselling, psychotherapy, behavioural and cognitive therapies derived from different theoretical schools of thought. Psychotherapy can be carried out one-on-one (individual therapy) or in groups of different compositions with four or more members (group therapy). The effectiveness of any psychotherapeutic intervention depends on the quality of the patient–therapist relationship.

### Behaviour therapy

Behaviour therapy is based on the principles of learning. It focuses on changing maladaptive behaviour without theorizing about underlying unconscious conflicts. It is applied in the treatment of phobias, sexual dysfunction and compulsions in people with obsessive–compulsive disorders.

### Cognitive therapy

Cognitive therapy seeks to identify and change maladaptive patterns of thinking. It is based on the theory that a person's mood and behaviour are influenced by distorted and dysfunctional thinking.

### Cognitive behaviour therapy (CBT)

CBT is a short-term structured therapy that combines elements of both cognitive and behavioural therapy. It has been successfully applied in the treatment of mild–moderate depression, obsessive–compulsive disorder, panic disorder and to improve compliance with drug treatment.

### Supportive psychotherapy

This is a simple technique based on the doctor–patient relationship. It is aimed at relieving distress and helping the patient to persist despite difficulties. Symptoms and problems are addressed without working on underlying unconscious processes or attempting a major personality change. The therapist is active, interested, empathic and warm; ready to listen and understand the patient's concern and help the patient gain understanding and find direction. Supportive psychotherapy is useful for patients with chronic mental or physical illnesses.

### Psychodynamic psychotherapy

Also called insight-orientated psychotherapy or psychoanalysis, it is based on Freudian theories. The goal of psychoanalysis is to help individuals have an understanding of self, and make major personality change by identifying and working through unconscious conflicts by means of free association, analysis of transference and resistance and dream interpretation.

### Group therapy

There are many forms of group therapy based on different psychological theories. Group therapy has been applied in modifying symptoms, bringing about changes in interpersonal relationships and to provide support, for example as in self-help groups. The desired change in behaviour is produced through the interactions of the group members, while the therapist provides support and regulates group behaviour.

## Psychosocial rehabilitation

Many mental illnesses are chronic, persistent and associated with disabilities and handicaps. Psychosocial rehabilitation helps individuals with psychiatric disabilities reach their optimal level of independent functioning within the community. Rehabilitation aims to help individuals acquire or regain practical skills needed to socialize, work and live within the community. The procedures involved vary depending on the individual patient's needs, the setting where the services are being provided, the culture and resources available.

Rehabilitation involves a multidisciplinary team approach with inputs from different professionals, allowing patients to be actively involved in the planning of their care. It includes the provision of housing, social skills training, vocational training, employment, enhancement of social networks and assistance in developing interests and leisure activities. Measures to reduce stigma and discrimination are also important in ensuring the integration of people with mental illness into the community.

## Common mental disorders

### Mood disorders

Mood disorders, especially depression, occur commonly world-wide and account for a high disease burden.

### Types of mood disorders

- Depression
- Mania
- Bipolar affective disorder
- Persistent mood disorders.

### Epidemiology of mood disorders

Life-time prevalence estimates for depression in Africa range from 2.7 per cent to 9.2 per cent (Kebede and Alem, 1999; Gureje *et al.*,

2006; Stein *et al.*, 2008; Ghanem *et al.*, 2009). In primary health care settings, the prevalence of major depression ranges from 3.7 per cent in Nigeria to 9.2 per cent in Kenya (Gureje *et al.*, 1992; Dhadphale *et al.*, 1989). The age of onset is usually between 29 and 43 years (Stein *et al.*, 2008; Gureje *et al.*, 2008), and it is commoner amongst females. Depression is associated with significant co-morbidity and elevated risk of suicidal behaviour (Gureje *et al.*, 2010). Bipolar affective disorders, on the other hand, are less common, with a prevalence of 0.3 per cent to 1.83 per cent in the community (Negash *et al.*, 2005). Persistent mood disorders occur in 0.2–1.6 per cent of the general population.

## Aetiology

The cause of mood disorders is unknown. Family studies have implicated genetic factors. The role of life events, especially childhood adverse experiences, as risk factors for depression has been well documented (Seedat *et al.*, 2009b). Biological factors have also been implicated. Mood disorders are thought to result from dysregulation of the biogenic amine neurotransmitters, especially norepinephrine and serotonin.

# Depression

## Clinical features

The main symptoms of depression are low mood (feeling sad), loss of interest and of enjoyment, and reduced energy, usually manifesting as reduced activity or getting easily tired. Other symptoms include change in appetite (reduced appetite is more characteristic), weight loss, disturbed sleep, reduced libido, impaired attention and concentration, feelings of guilt and worthlessness, recurrent thoughts or acts of suicide or self-harm, and pessimistic views about the future.

**In many African cultures, patients present with bodily symptoms related to the head and heart but, on careful questioning, the core symptoms of depression are easily identified (Patel *et al.*, 2001; Tomlinson *et al.*, 2007).**

The symptoms are usually worse in the morning. In some cases, patients may present with psychotic symptoms, characterized by hallucinations or delusions, the features of which usually reflect the patient's low mood.

### Diagnosis

Diagnosis of depression requires a minimum of four symptoms with a duration of at least two weeks. Classification of severity is based on the number of symptoms present.

### Treatment

The appropriate treatment and the duration of treatment depend on the severity of the symptoms, history of previous episodes of depression, age and the presence of other comorbid psychiatric or physical disorders.

Take an early decision on the need for referral or hospitalization. Referral to a specialist or hospitalization is indicated by suicidal risk, incapacitation either from severe psychomotor retardation or patient not eating, lack of social support and the presence of a co-morbid medical illness that requires treatment. Patients with symptoms of mild to moderate severity can be managed as out-patients in primary health care. Mild depression responds effectively to either medication or psychotherapy; for moderate to severe depression, a combination of medication and psychotherapy is usually more effective.

See Table 62.3 for drugs used in the treatment of depression. All the currently available drugs are equally effective; the choice of antidepressant medication is determined by what is readily available, affordability and side effects. CBT, supportive psychotherapy and family therapy are also commonly used. ECT may be used when patient is a danger to himself or others, is unresponsive or is unable to tolerate medication.

**Education is very important and critical for treatment success. The patient needs to understand the nature of the illness, the course and treatment. Discuss the duration of treatment, and the fact that it may take up to three weeks before the effect of the antidepressant is felt.**

After a first episode of depression, medication should be maintained for at least 6 months. Prophylactic treatment for longer periods should be considered in patients with significant suicidal ideation and with recurrent episodes.

# Mania

## Clinical features

These include elevation of mood, which can range from an expansive mood to euphoria, or alternatively an irritable mood. There is increased energy, hyperactivity and patients are usually quite talkative. There is a marked feeling of well-being, elevated self-esteem and grandiosity. Manic patients have a reduced need for sleep and the usual social inhibitions are lost, resulting in over-familiarity with strangers, flamboyant dressing and inappropriate behaviour such as undressing in public, aggressiveness or making sexual advances. Attention cannot be sustained. Patients make impractical and extravagant plans and spend money or drive recklessly. They may also develop psychotic symptoms, characterized by grossly disturbed behaviour or hallucinations or delusions with themes, such as inflated worth, possessing special powers or knowledge, relationship with a famous person or having great wealth.

### Diagnosis

A diagnosis of mania or manic episode is only made in people who have never had a previous episode of a mood disorder. Depending on the severity of symptoms and degree of interference with social and work functioning, the diagnosis could be hypomania, mania without psychosis or mania with psychosis.

## Bipolar affective disorder

### Diagnosis

This disorder is characterized by repeated episodes of mood disorders with complete recovery between episodes. It is diagnosed in those who have repeated manic or hypomanic episodes, as well as for patients who have both manic and depressive episodes. The nature of the current episode should be specified when recording the diagnosis: for example, bipolar affective disorder, current episode mania without psychosis.

### Treatment

Hospitalization is usually required in patients with mania due to the disruptive nature of their symptoms. Drugs used in the treatment of mania and bipolar disorder include the mood stabilizers: lithium, sodium valproate and carbamazepine; antipsychotic drugs may be indicated by the presence of psychotic symptoms or when the patient is very disruptive; and hypnosedative drugs may be needed in emergency situations to sedate the patient, or as adjuvant medication to the mood stabilizers in acute mania. Lithium therapy requires monitoring of serum levels due to its narrow margin of safety. Electroconvulsive therapy may be useful in severe cases.

Bipolar patients are maintained between episodes on prophylactic mood stabilizing medication.

## Persistent mood disorders

These are chronic mood disorders that last for years at a time. The symptoms are rarely severe enough to qualify for a diagnosis of hypomania or mild depression.

### Cyclothymia

Cyclothymia is a persistent instability of mood with many episodes of mild depression and mild elation.

### Dysthymia

Dysthymia is a chronic depressed mood that is present almost continuously for at least 2 years.

## Anxiety, obsessive–compulsive and somatoform disorders

### Anxiety disorders

These are the most prevalent psychiatric disorders world-wide (Kessler *et al.*, 2007).

### Types of anxiety disorders

- Phobic anxiety disorders
- Generalized anxiety disorder
- Panic disorder

### Epidemiology

In the two African countries that participated in the World Mental Health Surveys – Nigeria and South Africa, the prevalence of anxiety disorders were 6.5 per cent and 15.8 per cent, respectively (Kessler *et al.*, 2007). Studies in clinic populations report a prevalence of up to 36 per cent (Abiodun, 1993).

Anxiety disorders are more common in females (Seedat *et al.*, 2009a), usually have their onset in adolescence and in young adulthood, and tend to be chronic (Gureje *et al.*, 2008; Kessler *et al.*, 2007). They often co-exist with other psychiatric or physical disorders (Gureje *et al.*, 2010; Grimsrud *et al.*, 2009).

#### Aetiology

Genetic factors, life stresses, childhood environmental influences and personality factors all play a role in the aetiology of anxiety disorders.

#### Clinical features

Anxiety (a vague, unpleasant feeling of apprehension accompanied by autonomic symptoms) is a normal human experience, especially in response to real or perceived threat. Anxiety disorders are diagnosed when an individual has symptoms of anxiety, which are not caused by physical disease or other psychiatric disorder, and are affecting the person's ability to function. It is important to note that a number of medical conditions can cause symptoms of anxiety and need to be excluded in making a diagnosis. Such medical disorders include hypoglycaemia, hyperthyroidism, Vitamin $B_{12}$ deficiency, cardiovascular diseases, infections and toxic states.

Physical symptoms of anxiety include dry mouth, difficulty with swallowing, feeling bloated, nausea or abdominal distress, frequent loose stools, palpitations, chest pain or discomfort, difficulty breathing, sweating, trembling, muscle tension and headaches. Psychological symptoms include feeling dizzy, light headed or faint, poor sleep, feeling that objects are unreal (derealization), or that the self is distant or 'not really there' (depersonalization), fear of losing control or going crazy and fear of dying. Other symptoms of anxiety include hot flushes, numbness or tingling sensations and nightmares.

## Phobic anxiety disorders

In this group of disorders, symptoms of anxiety occur predominantly on exposure to well-defined situations or objects that are not dangerous. The individual characteristically avoids this object or situation, or endures it with dread; any thought of encountering the feared object precipitates anticipatory anxiety. Phobic anxiety disorders include agoraphobia, social phobia and specific or isolated phobias. They are common. The prevalence of specific phobia in Nigeria is 5.4 per cent, while that of agoraphobia in South Africa is 9.8 per cent (Gureje *et al.*, 2006; Stein *et al.*, 2008).

#### Agoraphobia

This literally means a fear of open places, but is now taken to include a fear of leaving home, fear of entering public places, fear of crowds, travelling alone on buses, trains or planes, or any situation where the person cannot easily escape to a safe place (usually home). It is the most incapacitating of the phobias and sufferers can become house-bound. Severe cases can be associated with panic disorder (described later).

#### Social phobia

Fears include being scrutinized by others, fear of eating or speaking in public, interacting with the opposite sex, or any social interaction outside the person's family. Social phobia is commonly associated with low self-esteem and alcohol abuse.

#### Specific phobias

In these disorders the fear is of a particular object or situation, for example, animal phobia, examination phobia, blood-injury phobia and claustrophobia.

### Treatment of phobias

Most phobic anxiety disorders respond to some form of behavioural therapy. Simple phobias are commonly treated with exposure therapy. The therapist works with the patient to desensitize him by working through a series of graded exposures to the phobic stimuli. Techniques may involve anxiety-reducing techniques such as relaxation,

breathing control, use of adjunct anti-anxiety medication or cognitive therapy. Social phobia can be treated with both pharmacotherapy and psychotherapy (usually CBT); a combination of both appears to be more effective. Social phobia can be treated with selective SSRIs, benzodiazepines or β-adrenergic receptor blockers (see Table 62.3).

## Generalized anxiety disorders

These usually present with symptoms of anxiety, which are described as 'free-floating'; the anxiety is not related to any particular situation, and is usually persistent. There is persistent worry and apprehension not focused on any specific issue, often accompanied by psychic tension. Patients complain of inability to relax, tremulousness or restlessness and headache, in addition to symptoms of autonomic hyperactivity.

### Treatment

Treatment usually involves a combination of psychotherapy and pharmacotherapy. Simple counselling, where patients are able to discuss their difficulties with an attentive and sympathetic physician, can markedly relieve their symptoms. Medications used in treatment of generalized anxiety disorder include tricyclic antidepressants, SSRIs and benzodiazepines. Benzodiazepines should be prescribed only for short periods.

## Panic disorder

### Clinical features

Panic disorder is characterized by recurrent, spontaneous, episodic attacks of severe anxiety. These panic attacks are not restricted to any particular situation. They have an abrupt onset, often with a fear of dying, losing control or going mad. The symptoms reach a peak and usually subside within 10–15 minutes. The attack is usually followed by a persistent fear of having another attack. Patients may present to the emergency room complaining of having a heart attack and being about to die. Physical investigations are usually normal.

### Treatment

Treat panic disorder with TCAs or SSRIs combined with psychotherapy. CBT may be used where trained therapists are available. Family therapy directed at educating the family and providing support for the patient is also useful.

## Obsessive–compulsive disorder

The prevalence of OCD in Africa is currently unknown. It is associated with poor quality of life and disability (Stein *et al.*, 1996).

The essential feature of obsessive–compulsive disorder is recurrent intrusive thoughts or compulsive acts or rituals (stereotyped behaviours that are repeated over and over). Obsessional thoughts, even though unwanted and resisted, are recognized as originating from the self, and most patients develop rituals to ward off the anxiety associated with the obsessions. For example, a patient with thoughts of contamination or dirt develops a handwashing ritual or one with thoughts of injuring a family member may deal with it by reciting a particular prayer a certain number of times. Obsessive–compulsive symptoms commonly occur in other psychiatric disorders such as depression, schizophrenia (Seedat *et al.*, 2007; Ndeitei *et al.*, 2008) and in impulse control disorders (e.g. trichotillomania, which is a disorder characterized by repetitive pulling out of one's hair that results in noticeable hair loss (see Fig. 62.1)).

**Fig. 62.1.** Trichotillomania.

### Treatment

Pharmacotherapy is usually effective, with an SSRI or clomipramine being first choice. Where these are not available, try imipramine or amitryptiline. Behaviour therapy such as thought stopping, exposure and response prevention have also been shown to be effective either alone or in combination with medication.

## Somatoform and dissociative disorders

### Somatoform disorders

Somatoform disorders are characterized by repeated presentation of physical symptoms. Patients frequently request medical examinations and investigations despite prior negative findings and no obvious physical basis for the symptoms. Somatoform disorders are common in primary care settings. Undifferentiated somatoform disorder is the commonest, occurring in up to 10 per cent of primary care patients (Gureje *et al.*, 1992).

Somatoform disorders include:

- ***Somatization disorder*** In which there are multiple recurrent physical symptoms involving multiple organ systems, lasting more than 2 years. The patient is preoccupied with the symptoms and has associated impairment of social and family functioning. Despite consultation with numerous doctors and repeated negative results on investigations, these patients usually refuse to accept reassurance of the health workers.
- ***Undifferentiated somatoform disorder*** Also characterized by the presentation of multiple, varying and persistent physical symptoms, usually with fewer symptoms than somatization disorder and no associated functional impairment.
- ***Hypochondriasis*** This is a condition in which the patient is preoccupied with a fear of having a serious physical disorder. The absence objective evidence for such a disorder does not reassure the patient.

- ***Somatoform pain disorder*** Characterized by persistent, severe and distressing pain, which cannot be fully explained by an underlying physical disorder

### Treatment

These patients are usually difficult to treat and place a high demand on existing health care facilities. They are better treated by a single identified health worker. Supportive psychotherapy is useful. The goal of therapy is to help the patient identify underlying psychological problems and develop better coping strategies. Antidepressant medication is indicated for comorbid depression or anxiety disorders.

## Dissociative or conversion disorders

These disorders were formerly called hysteria. There is a partial or total loss of the normal integration between memories of the past, present experiences and awareness of self. The onset and termination of dissociative states are usually sudden. These disorders are often closely associated with a recent stressful event, for example, sexual abuse or disturbed relationships.

## Schizophrenia and other psychotic disorders

These disorders are characterized by a distorted sense of reality characterized by the presence of delusions, hallucinations and interference with thinking. **A frequent presentation of psychosis in many African countries is as an acute episode, sometimes resulting from cerebral involvement of infectious diseases like typhoid fever, malaria and HIV infection** (Odejide *et al.*, 1989; German, 1987).

## Schizophrenia

### Epidemiology

World-wide, the prevalence of schizophrenia is about 1 per cent. It occurs equally in men and women. The age of onset is usually in late adolescence or young adulthood; however, there is a strong gender effect, with men developing the illness earlier than women. Schizophrenia often follows a chronic or recurrent course, with residual symptoms and incomplete social recovery in many sufferers, causing significant disability and placing a huge burden on their families.

### Aetiology

Heredity is an important factor in the aetiology of schizophrenia, with the risk of developing the illness increasing with greater consanguinity with an index patient. The specific genetic abnormalities are yet to be identified. Biologic factors related to neurotransmitters are also thought to play a role. Inferences made from the profile of chemical effects of the drugs used in the treatment of schizophrenia provided the first indication that excessive central dopamine activity and elevated CNS serotonin levels are involved in the aetiology. Neuroimaging studies have consistently shown enlargement of cerebral ventricles (Ohaeri *et al.*, 1995) and reduction in hippocampal volumes.

Even though they have not been shown to precipitate the onset of the disorder, high expressed emotions in families (exemplified by emotional over-involvement, hostility and critical comments) are associated with higher rates of relapse and poorer outcomes.

**Box 62.3.** Schneider's first-rank symptoms of schizophrenia

Hallucinations
Voice commenting on patient's actions
Two or more voices arguing or discussing the patient in third person
Thought echo – patient hears his thoughts being echoed aloud
Passivity experiences
Somatic passivity
Thought insertion
Thought withdrawal
Thought broadcast
'Made' impulses
'Made' volition
'Made' affect
Delusional perception

### Clinical features

The clinical presentation of schizophrenia varies, and this diagnosis probably encompasses a heterogeneous group of disorders currently classified together based on the presence of certain clinical signs and symptoms. This heterogeneity is shown by variations in the manifestations, course and outcome of the disorder.

Though there are no pathognomonic symptoms of schizophrenia, certain signs and symptoms are characteristic. These form the basis of the current diagnostic criteria for schizophrenia. They were first described by Kurt Schneider and are referred to as first-rank symptoms (see Box 62.3). Schneider's first-rank symptoms have been demonstrated across diverse cultures and occur in 70–80 per cent of patients with schizophrenia.

The appearance and behaviour of patients with schizophrenia can range from being entirely normal to having some oddities in dressing and speech to being grossly agitated or disorganized. Social behaviour may deteriorate resulting in poor grooming, laughing and talking to self or social withdrawal. Patients' speech often reflects underlying disorders of thoughts; some express strange religious or philosophical ideas. Thought disorder may manifest as reduced stream or content of thought, or loosening of association. Other disorders of thought include thought echo, thought insertion, thought withdrawal, thought insertion and thought broadcast.

Patients often have persistent delusions that are culturally inappropriate and sometimes completely impossible, usually referred to as bizarre delusions, or delusions of control. More common are persecutory or grandiose delusions, even though the latter may not be congruent with the mood, so-called mood-incongruent delusions. Auditory hallucinations are common and may be single words or phrases spoken repeatedly, persistent voices giving a running commentary of the patients' actions, or two or more voices talking about the patient. Hallucinations in other modalities occur less frequently. Some patients may manifest abnormal motor signs including posturing, mannerisms or stereotypy, or may be mute. Most patients have poor insight into the nature, severity and consequences of their illness, and are therefore poorly compliant with treatment.

### Diagnosis

Diagnosis requires the presence of one or more of the characteristic symptoms or more than two of the less clear-cut symptoms, present for at least 1 month.

### Subtypes

**Paranoid schizophrenia**
Characterized by prominent paranoid (persecutory, grandiose or reference) delusions and hallucinations.

**Hebephrenic (disorganized) type**
Clinical picture dominated by mood symptoms and disorganized behaviour, thoughts and speech.

**Catatonic schizophrenia**
Presents with motor abnormalities such as excitement, posturing, negativism and waxy flexibility.

**Undifferentiated schizophrenia**
Meets criteria for schizophrenia, but cannot be fitted into any of the above subtypes.

## Management

The management of schizophrenia is determined by a need to alleviate symptoms in the acute phase, return the patient to a level of functioning compatible with level of recovery and prevent relapse. Management involves the use of medication, provision of psychological support and support from the social network. This principle of biopsychosocial support is utilized both in managing the acute phase of the illness and in long-term treatment. **An important consideration is the need to institute treatment early in the course of illness, as it is known that long periods of untreated psychosis compromise the recovery process and worsen prognosis.**

## Physical treatments

Antipsychotic medications are the mainstay of treatment of schizophrenia. Start treatment early with any available antipsychotic medication. Start with 50–100 mg of chlorpromazine daily or equivalent dosage of any other dopamine receptor antagonist (for example, 2–5 mg haloperidol or 5–10 mg trifluoperazine). This should be gradually increased to a maximum dose of 600 mg daily. For patients who do not improve on an adequate dose of an antipsychotic over a period of 6 weeks, consider switching to an antipsychotic from another class. Clozapine is an effective drug for patients who have not improved sufficiently on treatment with other classes of antipsychotics, but its use is complicated by the need to monitor the blood profile of the patient in order to prevent the risk of agranulocytosis. ECT is useful in patients with the catatonic form of schizophrenia.

Following recovery from an acute episode, maintenance treatment should be continued at lower dose. Long-acting depot medication such as fluphenazine decanoate (modecate), haloperidol decanote or flupenthixol, administered intramuscularly once every 2–4 weeks, should be considered in poorly compliant patients.

## Psychosocial treatments

Family interventions to educate the family about the illness and reduce high expressed emotions are useful in preventing relapse and ensuring the patient has adequate social support. Supportive therapy can be useful in encouraging drug compliance and helping the patient to cope with the illness in the long term. Depending on available resources, vocational rehabilitation, social skills training and behaviour modification are also helpful, especially for patients who have developed disabilities from their illness.

## Outcome

The outcome of schizophrenia is variable. With early and adequate treatment, about 25 per cent will recover fully and may not relapse. Between 50 and 60 per cent continue to have relapses, with some of these unable to achieve full functional status between episodes. However, even in this group, the majority will be able to hold down a job and live independently. As many as 10–15 per cent of patients with schizophrenia have difficulties in sustaining independent living and may require assistance in meeting daily needs. Some studies suggest that schizophrenia may have a better short-term outcome in developing countries (Gureje, 2007).

# Other psychotic disorders

## Acute psychotic disorders

These disorders are characterized by short-lasting psychotic episodes, commonly precipitated by a stressful event.

### Clinical features

Patients present with a dramatic onset of psychotic symptoms marked by emotional lability, abnormal behaviour, disorientation and fleeting hallucinations and delusions. The disorder is usually short lived with most patients recovering fully within 1–2 months. There is a risk of future episodes especially when the patient is exposed to stress.

### Treatment

**It is important to rule out an underlying medical condition or substance use in these patients.** Antipsychotics should only be used for a short period.

# Delusional disorder

The main feature of this disorder is the presence of a single delusion or in some cases a set of well-systematized delusions. The delusions are usually non-bizarre and more commonly have a persecutory theme, but could be hypochondriacal, grandiose or concerned with jealousy or love. Apart from actions and attitudes related to the delusional beliefs, the speech, behaviour and functioning of the patient may be normal. Some patients may present with other psychotic symptoms, e.g. auditory hallucinations, which may make it difficult to distinguish from schizophrenia (as in the case below, but note that the voices are in line with the patient's delusions):

> *Mrs K, a 35-year-old married nurse came to the psychiatric out-patient clinic complaining that, in the previous 5 years people around her had been talking about her and she had been hearing voices. She said this started about the time she was pregnant with her last baby and had a HIV test done. Even though the test result was negative and was not disclosed to other people, she was convinced that other members of staff at the hospital were pointing at her and discussing her as having HIV. Any time she sat in the midst of people, she heard voices laughing menacingly and discussing saying 'she will soon die', 'she has HIV', 'even her husband and children too have HIV'. The patient was strongly convinced that she had HIV and had undergone the HIV test over and over again in different hospitals with all the results being negative. She believed that the doctors and laboratories were conspiring to hand her fake results. She was quite distressed by the symptoms and had recently stopped going to work.*

### Treatment

Usually difficult to treat due to poor insight and poor compliance with medication. A combination of individual psychotherapy and antipsychotic medication may be beneficial.

## Schizoaffective disorder

This disorder presents with an admixture of schizophrenic and affective symptoms within the same episode of illness. The disorder is subclassified based on predominant abnormality of mood into the manic or depressive type.

### Treatment

The acute episode is treated with a combination of antipsychotic and a mood stabilizer. Patients with schizoaffective disorder of the depressive type usually require antidepressant medication. Patients benefit from supportive psychotherapy

## Substance-use disorders

The use of psychoactive substances is a major social and public health problem. Substance-use disorders world-wide account for 1.8 per cent of DALYs lost. They comprise disorders of varying severity attributable to the use of one or more psychoactive substances, which may or may not have been medically prescribed. Psychoactive substances include alcohol, tobacco, marijuana, opioids (morphine, heroin, pentazocine, and methadone), cocaine, stimulants (amphetamines, caffeine), hallucinogens (LSD, ecstasy), sedatives and hypnotic drugs (benzodiazepines, barbiturates) and volatile solvents (glue, petrol, polish, cleaning fluids).

### Aetiology

The aetiology of substance-use disorders is multifactorial with genetic, social and personality attributes playing different roles.

### Definitions of substance-use disorders

It is important to first identify the substance being abused, then to characterize the substance-use disorder as defined below:

**Acute intoxication**

This is a transient condition due to recent ingestion of a psychoactive substance that results in disturbances in the level of consciousness, perception, mood, behaviour and cognition. The characteristic signs and symptoms observed are usually compatible with the known action of the ingested substance. For example, alcohol intoxication is characterized by disinhibition, aggression, impaired attention, impaired judgement, unsteady gait and slurred speech.

**Harmful use or abuse**

This is a maladaptive pattern of psychoactive substance use that is causing damage to health or to social and occupational roles.

**Dependence**

This usually follows repeated ingestion of a psychoactive substance. The individual develops a strong desire to use the substance, is unable to control its use, begins to neglect alternative sources of pleasure, and requires increasing doses of the substance to produce desired effect.

**Withdrawal state**

These are the physiological or psychological symptoms experienced when an individual who has developed dependence on a psychoactive substance stops or reduces the dose being used.

**Other disorders**

These include substance-induced psychotic, mood, personality or amnestic disorders.

## Alcohol use disorders

Alcohol production and consumption has been a part of the culture in many parts of Africa before colonization and formed a part of social interactions, celebrations and religious rites (Bennet *et al.*, 1998). Alcoholic beverages in the form of different local brews, beer, wine and spirits are the most widely used and abused psychoactive substances. The pattern of drinking across Africa is quite diverse, with current use reported by 20–45 per cent of the general population in some parts of Africa, while its use is rare in other parts (van Heerden *et al.*, 2009; Clausen *et al.*, 2009). Alcohol use in recent times is starting at a younger age in many parts of Africa and the developing world; earlier age of onset is associated with alcohol-related problems in adult life, poor academic performance and delinquency. Both the use and abuse of alcohol are commoner among males.

## Epidemiology of alcohol use disorders

Life-time rates of alcohol abuse in community samples have been reported as 2.8 per cent in Nigeria and 11.4 per cent in South Africa, while alcohol dependence was reported in 0.2 per cent and 2.6 per cent, respectively (Gureje *et al.*, 2006; Stein *et al.*, 2008). Known risk factors for alcohol abuse are male sex, family history of alcohol abuse and availability.

## Drug use disorders

Other psychoactive substances that have been commonly reported to be abused in Africa include tobacco, cannabis, stimulant (khat, caffeine, amphetamines) and hypnotics. More recently, many African countries are used as transit points for the illicit drug trade and hence other drugs such as cocaine and heroin are gaining prominence, with injection drug use being reported in countries across Africa. In South Africa, rates of tobacco smoking in 30 per cent, cannabis use in 8 per cent and other drug use in 2 per cent of the general population have been reported (van Heerden *et al.*, 2009).

## Treatment of substance-use disorders

Treatment of drug abuse is usually difficult and relapse rates are high. Prevention strategies aimed at children and adolescents, and restricting the availability of drugs are important measures to reduce the rates of substance misuse. A thorough assessment is important to obtain a clear picture of what substance or substances are being used or abused and also to have an understanding of the patient's current medical, psychological and social problems.

Total abstinence is often the goal of treatment for persons with serious substance-use disorders, but its success depends on the motivation of the patient. Depending on the substance and the nature and severity of disorder, the patient might require admission to hospital for detoxification (controlled medically supervised withdrawal of the substance) and to initiate abstinence. Some patients might require replacement therapy, for example, methadone for opiate-dependent patients. Psychotherapy in the form of group therapy or CBT are important in helping patients develop alternative sources of satisfaction.

## Trauma and stress-related disorders

Ethnic and civil strife as well as other forms of traumatic events are still rampant in many parts of Africa. Exposure to trauma is

associated with a host of mental health problems, especially depression and post-traumatic stress disorder. Community surveys from different parts of the world reveal that up to 30 per cent of the general population may have experienced at least one traumatic event in their lifetime (Stein *et al.*, 2010). Commonly reported traumatic events include exposure to violence, accidents, death of a loved one, war and natural disasters.

Stressors can contribute to the onset of almost any category of mental illness, but there are some disorders that occur only in the aftermath of an acute severe stress (acute stress disorder and post-traumatic stress disorder) or in response to less severe psychosocial stressors (adjustment disorders).

## Post-traumatic stress disorder

### Epidemiology

The prevalence of PTSD in the general population ranges between 2 per cent and 5 per cent. Estimates are much higher following exposure to traumatic events. For example, in persons exposed to war, prevalence rates of PTSD are between 20 and 40 per cent (Pham *et al.*, 2004; de Jong *et al.*, 2001). Rates of PTSD increase with proximity to the event and with increasing number of traumatic events.

### Aetiology

Traumatic events associated with PTSD include war, natural or man-made disasters, serious accidents, witnessing the violent death of others, rape, kidnapping, being a victim of a crime, torture and receiving news of sudden death or serious traumatic event affecting a loved one.

### Clinical features

Characteristic features of PTSD are repeatedly reliving the traumatic events through dreams, intrusive memories (flashbacks), emotional numbing, autonomic hyperarousal, exaggerated startle response and avoidance of thoughts, actions or events related to the traumatic event. PTSD often is co-morbid with depression and other anxiety disorders.

### Treatment

A combination of medication and cognitive behaviour therapy is most effective. Medications used in the treatment of PTSD include tricyclic antidepressants, SSRIs and benzodiazepines.

## Adjustment disorders

Adjustment disorders are states of subjective distress and emotional disturbance, which interfere with social functioning and performance in the period of adapting to new circumstances. These disorders can be precipitated by life events such as divorce or separation, physical illness, bereavement, migration or transition from home to school.

### Clinical features

Its onset is usually within 1 month of the event and the reactions are understandably related to and proportional to the stressor. The clinical picture is variable and includes anxiety, worry, poor concentration, outbursts of dramatic aggressive behaviour, deliberate self-harm and abuse of alcohol or drugs.

### Treatment

Involves counselling and support to aid the natural process of adjustment.

## Dementia, delirium and other cognitive disorders

### Dementia

Dementia is a clinical syndrome characterized by a generalized impairment of intellectual abilities, memory and personality without any disturbance of consciousness. It usually results from diffuse cerebral pathology affecting the cerebral cortex (cortical dementia) or subcortical structures (subcortical dementia). Some dementias are progressive and irreversible, some are non-progressive, while others are reversible, depending on the underlying cause.

### Causes of dementia

Dementia can result from numerous causes. Common causes include degenerative disorders (such as Alzheimer's and Parkinson's diseases), vascular disorders, trauma, metabolic disorders (liver failure, uraemia), infectious disease (HIV/AIDS, encephalitis), drugs and toxins and nutritional disorders.

### Epidemiology

Dementia usually has its onset in old age (above 65 years of age) and its prevalence increases with increasing age. Studies reporting prevalence estimates of dementia in Africa and some other developing countries suggest that rates may be lower than in developed countries. However, these studies are still relatively few and often limited to small geographic areas. Approximately 2.3 per cent of persons aged 65 years and over in a community in Nigeria and 5.9 per cent in Egypt were found to have dementia (Kalaria *et al.*, 2008). Dementia of the Alzheimer's type is the commonest (accounts for 50–60 per cent dementia cases), followed by vascular dementia (Hendrie *et al.*, 1995). Risk factors for dementia include old age, female sex and low level of education.

### Clinical features

Most cases of dementia have an insidious onset. In the early stages, the patient presents with subtle memory changes, fatigue, slowed thinking and labile mood. Memory impairment is an early and prominent feature of dementia. In the early stages, memory impairment affects recently learnt material such as events of the day, but gradually involves more remote memory. Orientation is also progressively affected, starting with disorientation to time, place and in severe cases to person. Intellectual deterioration occurs, leading to difficulty with problem-solving and loss of previously acquired skills. Thinking is slowed and poor in content. Language difficulties manifest initially as vague, imprecise stereotypical speech, perseveration and difficulty with naming objects; later patients may become incoherent or aphasic. Judgement, decision-making and comprehension are impaired. As the illness progresses, behaviour becomes disorganized and inappropriate, the patient may be restless, agitated or wander around aimlessly. Emotional disturbances may manifest as anxiety, depression,

suspiciousness, irritability or hostility. Some patients develop psychotic symptoms characterized by hallucinations and delusions. As disease worsens, patients are unable to care for themselves, neglecting their personal hygiene and appearance.

## Alzheimer's dementia

Alzheimer's disease is a primary neuro-degenerative disease. The brain shows diffuse cerebral atrophy, with neuronal loss, senile plaques and neurofibrillary tangles on microscopy. Genetic studies have linked late onset AD with the presence of the apolipoprotein E type 4 allele (Apo $E_4$) but there is a doubt about whether this is true in African populations (Kalaria *et al.*, 2008).

## Vascular dementia

Previously known as multi-infarct dementia, vascular dementia is the second most prevalent form of dementia. It is caused by multiple thrombo-embolic episodes, and patients usually have a history of cerebrovascular risk factors such as hypertension, diabetes mellitus, hyperlipidaemia, alcohol abuse or heart disease. It is characterized by an abrupt onset, stepwise deterioration and focal neurologic deficits.

### Treatment of dementias

A complete medical work-up is always indicated to detect treatable causes of dementia. Physical examination should pay attention to signs of underlying medical conditions that could give rise to dementia. Laboratory investigations should be determined by suspected aetiology and available facilities.

Treatment of dementia involves providing support to patients and their families, symptomatic treatment of specific symptoms and treatment of the underlying cause. Currently available specific medications for dementia may slow its progression, but not stop it.

## Delirium and other organic mental disorders

### Delirium

Delirium is a common disorder. It can occur at any age, although it is commoner in the elderly. The precise prevalence of delirium is difficult to determine due to its varied manifestations, poor recognition by clinicians and its variable course. It can be caused by many underlying diseases.

### Aetiology

Delirium may be associated with any physical condition. Common causes include:

- *Central nervous system diseases* Epilepsy and post-ictal states, head injury, intracranial infections: meningitis, encephalitis and cerebral malaria, space-occupying lesions, vascular disorders
- *Systemic infections* Septicaemia, pneumonia, HIV
- *Metabolic disorders* Uraemia, liver failure, respiratory failure, cardiac failure, electrolyte derangement
- *Nutritional and vitamin deficiencies* Anaemia, deficiency of thiamine, B12, folate or nicotic acid
- *Toxic causes* Intoxication or withdrawal of drugs such as anticholinergics, anticonvulsants, sedatives, opiates, barbiturates, and steroids, poisons, alcohol
- *Endocrine disorders* Thyroid disease, hypoglycaemia, Cushing's disease
- Post-operative states

### Epidemiology

Occurs commonly in the elderly.

### Clinical features

Delirium classically has a sudden onset, a fluctuating course and is transient, with most cases recovering fully within four weeks. The hallmark symptom of delirium is impaired consciousness. This can vary on a continuum from clouding of consciousness to coma. Patient's thinking is confused and slow and there is a global disturbance of cognitive functions. The patient is very distractible and unable to focus attention. Orientation is poor, most often to time but also to place. Memory is impaired, especially recent memory; long-term memory is usually intact. Perceptual disturbances occur commonly. This could include misinterpretations of environmental events, illusions and hallucinations, mostly visual.

The sleep–wake cycle is disrupted; there is insomnia and marked day time drowsiness. Patients may be hyper- or hypoactive. Mood is usually labile, and depression, anxiety, fear, irritability, hostility, nightmares and suspiciousness can occur. Characteristically, the symptoms of delirium vary in the individual patient over the course of the day, but symptoms are usually worse at night.

### Treatment

The most important aspect of treating delirium is the identification and treatment of the underlying physical condition. Supportive measures are aimed at reducing distress and ensuring the patient's safety. Important measures include keeping the patient in a well lit room, avoiding over- or understimulation, having familiar objects or people around, frequent re-orientation and repeated explanations of patient's condition and care. Patients who are very agitated or have psychotic symptoms may require antipsychotic medication, the drug of choice being very low doses of haloperidol.

## Amnestic disorders

Patients with amnestic disorders present with severe memory deficits that appear suddenly after a CNS insult. The memory deficits could be retrograde (memory for past events) or anterograde (inability to learn new information). There is no impairment of consciousness and other cognitive abilities. Causes include trauma, hypoxia, encephalitis, hypoglycaemia and herpes simplex encephalopathy. Amnestic disorders are associated with damage to the medial temporal (hippocampi) and diencephalic regions of the brain.

## Suicide and other psychiatric emergencies

### Suicide and suicidal behaviour

Suicide and suicidal behaviour are a major public health problem. They are reportedly on the increase world-wide, especially among young people. In the year 2002, suicide was ranked as the 14th leading

cause of death globally, accounting for 1.5 per cent of all deaths (World Health Organization *et al.*, 2007). This is projected to increase by as much as 50 per cent from 2002 to 2030 and become the 12th leading cause of death by 2030 (Mathers and Loncar, 2006). Data from developing countries, especially in Africa, are sparse, even though 73 per cent of suicide in the world is thought to occur in developing countries (Vijayakumar, 2004). Most cases in Africa go unreported, due to the associated stigma.

One of the strongest predictors of completed suicide is attempted suicide. Attempted suicide is also an indicator of extreme emotional distress (Kessler *et al.*, 2005). The presence of any mental disorder is often a significant risk factor for a suicidal attempt, but risk associated with mood disorders is higher than for any other disorder. There is a significant link between suicidal attempts and co-morbidity, with increased frequency of attempts with increasing number of psychiatric diagnoses. Therefore, **any clinician seeing a patient after a suicidal attempt must do a comprehensive psychiatric evaluation to properly diagnose and treat any psychiatric disorder.**

## Psychiatric emergencies

Almost any mental disorder can present as an emergency. The commonest presentations are violent or agitated behaviour, deliberate self-harm, states of intoxication, panic attacks and adverse effects of antipsychotic medication such as acute dystonic reaction or akathisia.

### Management

Entails a quick psychiatric evaluation to ascertain the presenting symptoms and why the patient is presenting in the emergency department. Many acutely psychotic and violent patients are brought in already physically restrained. Ascertain the events leading up to this, and take a decision to loosen restraints after evaluating the patient's potential and risk for further violence.

Treatment is directed at the cause of the problem. If the patient is severely agitated or if there is a risk of violence, sedation may be required. Sedation is usually effected using parenteral hypnosedative or antipsychotic medications. Patients presenting with extrapyramidal side effects usually benefit from the use of parenteral anticholinergic medication (such as biperiden lactate 2–5 mg IM) or, where this is not available, intravenous diazepam 2–10 mg.

## Psychiatric disorders of children and adolescents

Africa currently has the youngest population in the world; up to 50 per cent of the total population in Africa are children and adolescents. Even though there are no large-scale data on the prevalence of mental disorders in African children, available evidence suggests that the rates and patterns of mental disorders in children and adolescents are similar to those in other parts of the world (Omigbodun, 2008). World-wide, 10–20 per cent of children and adolescents suffer from a serious mental illness (World Health Organization, 2001). Approximately 50 per cent of adult psychiatric disorders begin in childhood; childhood onset often predicts chronicity and poor outcome of adult disorders as well as lower educational attainment. Despite this huge burden, child and adolescent mental health receives little attention globally. The problem in Africa is further compounded by wars, civil conflicts, malnutrition and the AIDS pandemic, which leave many children displaced or orphaned and at risk of abuse and mental health problems.

## Assessment of children and adolescents

To conduct a meaningful assessment of a child, you must be familiar with normal development and behaviours that are appropriate at different ages, as this is needed to put the child's responses and symptoms in proper perspective. For example, temper tantrums might be a normal reaction in a 2-year-old, but not in a 15-year-old. The child or adolescent should be evaluated in the context of the family, school, community and culture. Behavioural problems in children are often a reflection of problems in the home or other social environment. Even though psychiatric consultations for children are usually initiated by adults in the child's life, it is important to gather information from diverse sources, including the family, school and other agencies involved with the child, as well as the child himself or herself, in order to understand the child's social context and reason for referral. At the end of the evaluation, you should be able to determine whether psychopathology is present, establish a diagnosis, decide if treatment is indicated and, with the agreement of the child and caregivers, develop a treatment plan.

## Classification of childhood disorders

Childhood psychiatric disorders include disorders that more typically affect children and adolescents, and disorders that are common in adult life, but with onset in childhood.

Disorders of childhood and adolescence:

- Disorders of psychological development
- Specific developmental disorders
- Pervasive developmental disorders
- Behavioural and emotional disorders
- Attention deficit hyperactivity disorder
- Conduct disorders
- Emotional disorders of childhood
- Tic disorders
- Elimination disorders – enuresis and encopresis.

Adult disorders with onset in childhood include mental retardation, depression, anxiety disorders and schizophrenia.

## Mental retardation (intellectual disability)

Mental retardation is a global defect of intellectual functioning and adaptive skills. It is defined as a score of 70 and below on standardized tests of intelligence, and further subclassified into mild (IQ 50–70), moderate (IQ 35–49), severe (20–34) and profound (IQ below 20). In settings where the validity of available standardized tests of intelligence has not been established, you may have to base the diagnosis solely on the level of intellectual functioning and adaptive skills, considered in the context of the living environment of the child.

### Aetiology

Causes of mental retardation include ante-natal factors (e.g. maternal alcohol abuse, infections and nutritional deficiency), perinatal causes (e.g. birth asphyxia or trauma), genetic and chromosomal disorders (e.g. Down's syndrome), brain malformations, severe malnutrition and iodine deficiency.

## Specific developmental disorders

Specific developmental disorders are characterized by circumscribed developmental delays that are not attributable to any other disorder or to lack of opportunity to learn. Children with these disorders usually have no other psychopathology. However, because of the difficulties they are experiencing with learning, they may develop low self-esteem and develop conduct problems. Specific developmental disorders are further divided into specific disorder of reading, spelling (dyslexia), writing and motor skills based on the specific area of scholastic ability that is most affected. Most of these disorders go unrecognized, and most of these children tend to be labelled as 'dullards', despite their normal intelligence and are more likely to become truants or drop out of school.

### Treatment

Early detection through school-based mental health programmes offers the best opportunity for identification. Once detected, specific interventions are often needed by trained professionals to help the child overcome their limitations. With appropriate interventions, the majority of children with developmental disorders can be helped with remediation in the areas in which they affected.

## Pervasive developmental disorders

These are characterized by a pervasive impairment in the development of social interactions and communications. They include autistic disorder and Asperger's syndrome.

### Autistic disorder

It is more common in boys, and usually has its onset within the first 3–4 years of life. It is characterized by abnormal social development, impaired speech and language development, obsessive desire for sameness and abnormal stereotyped behaviours and mannerisms.

### Treatment

Treatment involves management of abnormal behaviour, remedial training in social skills and education and support for the family. Abnormal behaviour may be treated with antipsychotic medications – haloperidol, risperidone or olanzapine.

## Attention deficit hyperacitivity disorder (ADHD)

The main features of this condition are a pervasive, sustained extreme restlessness and difficulty in maintaining attention. Children with this disorder are impulsive, have difficulty with task completion and are easily distracted. The hyperactivity is usually noticed early by the time the child begins to walk.

### Treatment

A combination of behavioural therapy, parental counselling and medication is usually needed. Medications used in the treatment of ADHD include stimulants (methylphenidate) and antidepressants (imipramine).

## Conduct disorders

Conduct disorder is characterized by persistent antisocial or defiant behaviour. Its main features include aggressiveness, which manifests as bullying, verbal or physical aggression and cruelty to animals and other people; antisocial behaviour such as violation of the rights of others, lying, stealing, truancy and destructiveness.

### Treatment

Treatment is often a combination of individual psychotherapy, including targeted use of rewards to encourage good conduct, and family therapy.

## Enuresis (bedwetting)

Repeated involuntary voiding of urine, either during the day or at night time after the age of 5 years. Enuresis is often a cause of distress for both the child and the parents.

### Treatment

Assessment should rule out physical disorders, such as urinary tract infections, diabetes or epilepsy, which could be causing the enuresis. Behavioural modifications including fluid restriction at night, waking the child to void and use of rewards are often effective.

## Adult disorders with onset in childhood

Anxiety and impulse control disorders often start in early teens. The prevalence of major depressive disorder in pre-adolescent children may be up to 2 per cent, with over a doubling of the rate occurring at the onset of puberty in adolescence. Major depressive disorder in adolescence is associated with a four-fold increased risk of depression in adulthood.

### Treatment

Most cases of childhood or adolescent depression will respond to various combinations of individual psychotherapy, including the use of age-appropriate cognitive therapy, and family therapy. Antidepressants may be used, but their use is reserved for specialists because of the special care required.

## Psychiatric disorders of the elderly

Africa, like most of the developing world, is currently witnessing a demographic transition with rapid growth in elderly populations. Old age is associated with a greater likelihood of physical ill-health and frailty, which increase the risk of mental health problems. Facilities and resources to cater for the health needs of the elderly are not widely available, and the burden of care rests on family members. A large proportion of the elderly in Africa live and work in rural areas. With rapid urbanization and migration resulting from the social and economic changes being witnessed in many African societies, it is becoming increasingly difficult for elderly people requiring assistance in daily activities to find family members who are able or willing to provide such care. These factors are likely to increase the public health importance of mental health problems in the elderly.

In general, psychiatric disorders of the elderly do not differ substantially from those of young adults. However, the prevalence of psychiatric disorders, especially dementias, increases with age. In addition, the rates of co-morbid physical and mental disorders are higher. Recent large surveys in Africa show that the rate of depressive disorders in the elderly is much higher than that reported in the general adult population (Gureje, 2007).

## African models of mental illness

There are African models of mental illness that bear considerable resemblance to those of other cultures, especially the Western biomedical model. For example, a study in Guinea showed that respondents were able to distinguish between major mental disorders and somatic illness, while another in Senegal found that Serer people could differentiate 'illness of the spirit', which is analogous to mental disorders, from purely somatic illness. Further evidence that traditional views of ill-health in Africa made a distinction between mental and somatic illness is provided by the existence of traditional healers in Nigeria, Zimbabwe, Kenya and Botswana who specialize in the treatment of mental disorders alone (Good, 1987; Staugard, 1985).

African traditional mental health experts had a system of categorization or classification of mental disorders, which probably facilitated discussion amongst them and between them and their clients. In sub-Saharan Africa, mental illness is often classified on both an aetiological and a phenomenological basis. Studies conducted in Nigeria among traditional healers revealed that they commonly classify mental disorders into three major phenomenological groups (Makanjuola, 1987b): a group broadly encompassing psychotic disorders, a less severe group of disorders often characterized by the presence of somatic symptoms, and, thirdly, mental retardation. Possible aetiological factors included supernatural affliction from enemies, substance abuse (including misuse of cannabis and alcohol), hereditary influences, epilepsy, breaking of social taboos, being breastfed by a mentally ill woman, severe fever, head injuries and infections. Somewhat similar categories and indigenous classification systems have been described in Ethiopia (Kortmann, 1990), amongst the people of Berekuso in Ghana (Fosu, 1981), in Kenya (Good, 1987), among Amaxhosa people of Southern Africa and among the Shona people of Zimbabwe (Patel and Winston, 1994).

## Psychiatric services and resources

### Treatment facilities

Much of modern psychiatric service is still offered in mental hospitals, many of which were established during the colonial administrations. For example, the first asylum established in Calabar, Nigeria in 1904 is still in use today. In many countries in Africa the great majority of available psychiatric beds are located in such hospitals. For example, more than 90 per cent of the total psychiatric beds in Nigeria are in the eight mental hospitals. Mental health services in Egypt are provided by four public psychiatric hospitals in Cairo, with a total of 5800 beds, while 1200 psychiatric beds are distributed over the rest of the country. Psychiatric services in South Africa are provided by 24 registered public psychiatric hospitals accommodating some 14 000 acute and long-term care patients (Emsley, 2001). To varying degrees, service provided by mental hospitals is complemented by psychiatry units of teaching hospitals and, in countries such as Kenya, by provincial or general hospitals. Most African countries are yet to have a fully mainstreamed mental health service, in which patients with mental disorders are treated in the same facility as those with physical illness. In particular, effective community service is yet to be fully developed in Africa. Even in Nigeria where Adeoye Lambo, the country's first indigenous psychiatrist, pioneered the village community treatment programme some decades ago (Lambo, 1970), there is no effective community mental health programme on the ground. There are, however, some small-scale programmes that could provide models for effective integration of mental health service into primary care, as has been shown in Guinea-Bissau (De Jong, 1996), and for comprehensive culturally applicable rehabilitation for persons with severe mental illness, as demonstrated in Tanzania (Kilonzo, 1992).

### Help-seeking and access to care

Even in the presence of disability, only about half of persons with mental illness in Africa have consulted any health provider. Persons who do not consult for medical intervention may feel that they do not need treatment. However, failure to seek help may also be due to perceived stigma, lack of knowledge of the availability of appropriate treatment, or poor access to services. The delivery of mental health services in Africa is hampered by low resources. Overall, Africa has a median of 0.34 psychiatric beds per 10 000 population (World Health Organization, 2005), compared with 7.9 in Europe. Human resources for mental health service are also in short supply. The median number of psychiatrists per 100 000 populations in African countries is 0.04, which translates to roughly one psychiatrist to 2.5 million people (World Health Organization, 2005). The story is the same or worse for other professionals in the mental health field. There are 0.2 psychiatric nurses per 100 000 population in Africa, compared with 2 per 100 000 in the rest of the world. Within the continent, the distribution of human resources is uneven, with countries in sub-Saharan Africa having significantly fewer resources than those in North and South Africa. For instance, Ethiopia, the second most populated country in Africa, has only 11 psychiatrists, a ratio of 1 psychiatrist to about 6 million population (Alem, 2004) while in South Africa the ratio is 1 psychiatrist to 250 000 population. Chad, Eritrea and Liberia have one psychiatrist each to their populations of 9, 4.2 and 3.5 million, respectively, whereas Egypt has about 0.9 psychiatrists to a population of 100 000. Within countries, most mental health professionals are located in cities. Forty-four of Kenya's 53 psychiatrists practise in urban areas (Ndeitei, 2007), many of them in Nairobi.

A substantial proportion of persons who seek care in formal health sectors have already consulted traditional healers (Winston and Patel, 1995). However, the proportion of persons with need who actually seek care from traditional healers is not known. A community-based survey in Nigeria suggests that only a minority of persons with common mental disorders have consulted traditional healers, and that the majority of those who have received any care have done so from general health practitioners (Gureje and Lasebikan, 2006).

### Unsolved problems

The evidence is that, as in other parts of the world, most people with common mental disorders in Africa who receive any mental health care do so from general or primary health care providers. Such persons may not present with obvious signs and symptoms of mental disorders, but have physical complaints which may represent the

manifestations of the mental disorders or co-occur with them. **A major challenge in providing care for patients with mental illness is the adequacy of the training of primary care providers to recognize mental health problems and offer appropriate treatment. The provision of such training should be a major component of any attempt to scale up mental health services.** Supervision and support from secondary and tertiary health care providers would also be of great importance.

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