

# **An Introduction to the practice of psychiatry in Africa**



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in Africa**

By  
**Dr.Philip Renison Opondo**

*An Introduction to the Practice of Psychiatry in Africa*

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Acrodile Publishing Limited  
P.O.Box 15298-00509,  
Lang'ata-Nairobi, Kenya  
Email: [info@acrodile.co.ke](mailto:info@acrodile.co.ke)  
Website: [www.acrodile.co.ke](http://www.acrodile.co.ke)

ISBN 978-9966-007-50-6

Printed in India by Nutech Print Services

## **Dedication**

This book is dedicated to my wife Christine and children: Brian, William and Susan; thank you for being such great company.



## Preface

This book arose out of my experiences practicing and teaching psychiatry in Kenya and Botswana. The bulk of first contact psychiatric care is given by general medical officers and nurses, yet there are very few locally relevant books and reference materials aimed at these frontline practitioners. Although this book is aimed at them, it is also useful for medical students, psychiatric nurses in training and other doctors who at one time or another have to deal with mental illness, meaning virtually every doctor.

The book makes no pretense at being an exhaustive textbook of psychiatry and mostly covers the minimum knowledge one needs to know about those conditions one is likely to come across in primary care. It leaves out most of the theory.

At the end of some chapters is a section titled "IN PRACTICE". This section contains observations or advice derived from my years of practicing psychiatry. Where mention is made of less-than-"best practice" practices one may encounter in the hospitals or clinics, the reference is made in good faith, to serve as a learning experience.

I would like to thank the staff of all the psychiatric units and departments I have worked in; both in Kenya and Botswana who made me realize the need for such a book.

I would also like to thank all my students at the University of Botswana; some of whom have kept asking why all the books they use in Psychiatry make no reference to relevant local examples.

While many people read portions of the manuscript as it was under preparation and made useful comments, I acknowledge that all mistakes of fact are solely mine. I therefore welcome suggestions and corrections for future improvement.

Special mention goes to my colleagues Dr. James Otieno Ayugi and Dr. Margo Pumar for their comments and encouragement, to Professor Michael Blank of the University of Pennsylvania for his comments on the chapter on psychological methods of treatment.

I would also like to thank Undimilile Pilato of Nyangabgwe Hospital, Botswana and Olga Naane of the University of Botswana for their secretarial input.

My thanks also go to others who made their input but who are not mentioned by name.



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## *Chapter 1*

# **Introduction to psychiatry**

### **What is psychiatry?**

Psychiatry is the study, diagnosis, treatment and prevention of mental disorders. The term psychiatry was coined by Johann Christian Reil in 1808 derived from the Greek words “Psyche” for soul or mind and “Iatros” for treatment or physician. So one may say psychiatrists are physicians of the mind. Mental disorders have been with mankind since antiquity and there are references to mental illness dating back to biblical times. Treatment in psychiatry has evolved greatly and now is usually a multidisciplinary effort involving other disciplines like nursing, psychology, social work and occupational therapy.

Confusion sometimes exists especially in lay persons about the difference between a psychiatrist and a psychologist. A psychiatrist is a medical doctor who specializes in the treatment of mental disorders. This means for one to become a psychiatrist they have to train as a medical doctor first. While a psychologist also treats people with emotional and mental disorders psychologists do not necessarily have to be medical doctors first. In most countries of the world psychologists do not prescribe medication.

### **Psychiatry in Africa**

The history of psychiatry across Africa has generally followed a similar pattern in almost all countries; moving from locking up of “lunatics” as the mentally ill were then called with a view to containing them rather than treatment, to setting up of psychiatric hospitals. More recently in line with international trends more emphasis is being placed on community based mental health care in some countries.

Despite the fact that mental and neuropsychiatric disorders contribute to 14% of the global burden of disease; in almost all African countries mental health is not given priority, with most countries allocating less than 1% of the health budget to mental health.

The bulk of psychiatric care in Africa is provided by psychiatric nurses. Africa has very few psychiatrists with less than 1 psychiatrist catering for 100,000 people. The countries

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with the highest concentration of psychiatrists are Egypt, South Africa, Nigeria and Kenya in that order. Where psychiatrists are available the majority are either in private practice or serving in the psychiatric hospitals in urban areas.

Efforts have been made to integrate mental health into primary health care but there are still few community based structures to support out of hospital psychiatric care.  Most of psychiatric services are hospital based.

### **Diagnostic and classification systems in psychiatry**

The two major classification systems in Psychiatry are: the International **Classification of diseases, Chapter 10 (ICD 10)** by the World Health Organization and the **Diagnostic and Statistical Manual (DSM)** by the American Psychiatric Association.

### **International classification of diseases (ICD 10)**

The ICD 10 is widely used worldwide by WHO member countries for statistical reporting on diseases. It is being revised and ICD -11 is due for release in 2017. In psychiatry the ICD 10 for Mental and Behavioral disorders Clinical descriptions and Diagnostic guidelines (the blue book) is used for classification of psychiatric disorders.

The diagnostic categories in ICD 10 are:

- F01-F09 Mental and behavioral disorders due to known physiological conditions
- F10-F19 Mental and behavioral disorders due to psychoactive substance use
- F20- F29 Schizophrenia , Schizotypal, delusional and other non-mood psychotic disorders
- F30-F39 Mood ( affective disorders)
- F40-F48 Anxiety, dissociative, stress related and other non – psychotic mental disorders
- F50-F59 Behavioral syndromes associated with physiological disturbances and physical factors
- F60-f69 Disorders of adult personality and behavior
- F70-F79 Intellectual disabilities
- F80-F89 Pervasive and specific developmental disorders
- F90-F98 Behavioral and emotional disorders with onset usually occurring in childhood and adolescence.
- F99 Unspecified mental disorder.

### **Diagnostic and statistical manual of mental disorders, 5th edition**

The DSM 5 is published by the American Psychiatric Association. Its fifth edition was released in May 2013.

The diagnostic categories are:

- Neurodevelopment disorders 
- Schizophrenia spectrum and other psychotic disorders
- Bipolar and related disorders
- Depressive disorders
- Anxiety disorders
- Obsessive- compulsive and related disorders
- Trauma and stressor related disorders
- Dissociative disorders
- Somatic symptom and related disorders
- Feeding and eating disorders
- Elimination disorders
- Sleep wake disorders
- Sexual dysfunctions
- Gender dysphoria
- Disruptive, impulse control and conduct disorders
- Substance-related and addictive disorders
- Neurocognitive disorders
- Personality disorders
- Paraphilic disorders.

In many countries the two diagnostic and classification systems are in use and so it is useful to be familiar with both.

**References and further reading:**

1. Diagnostic and Statistical Manual of Mental Disorders, fifth edition, Arlington, VA. American Psychiatric Association, 2013.
2. The ICD 10 classification of Mental and Behavioral Disorders. Clinical Descriptions and Diagnostic Guidelines. (1992).WHO. Bombay: Oxford University Press.

## *Chapter 2*

# **Signs and symptoms of mental illness**

### **What are mental health and mental illness?**

The World Health Organization has defined health as “a state of complete physical, mental and social well being and not merely the absence of disease.” It goes on to define mental health as “a state of well being in which the individual realizes his or her own abilities, can cope with the stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”.

Mental illness then is the opposite of mental health and includes a wide range of disorders in which there are disturbances involving behaviour, emotions or ways of thinking; and which may cause distress to the individual or others and affect their social and occupational functioning.

Although many signs and symptoms occur in mental illness, no single sign or symptom on its own is diagnostic or pathognomonic of a particular mental disorder. Usually, various signs and symptoms occur together to form a particular syndrome or disorder. Many of these symptoms can also occur in normal people, for example a symptom like an hallucination, which is commonly associated with mental illness, can occur in normal people, as in the experience of hearing your name being called when drifting off to sleep.

A good understanding of the many signs and symptoms that occur in mental illness is essential for the proper diagnosis of a mental disorder.

The following is a brief description of some of the signs and symptoms that can occur in mental illness, discussed under the functions and systems affected.

### **1. Abnormalities of appearance, movement and behaviour**

#### **(a) Physical appearance/manner of dressing**

An unkempt appearance and neglect of personal hygiene can occur in schizophrenia, dementia, alcohol abuse and depression. Flashy, over-adorned

dressing and excessive makeup, on the other hand may occur in manic patients and those with histrionic personality disorder.

**(b) Level of motor activity**

- Hyperactivity, restlessness and the inability to sit still can occur in manic disorder, attention deficit hyperactivity disorder and in acute intoxication states.
- Psychomotor retardation with markedly reduced movements and slowed speech may occur in depression.

**(c) Stereotypies**

Repetitive movements, which are purposeless—that is, not goal directed – for example head banging, self-biting or repeatedly hitting one’s body. They can occur in schizophrenia and mental retardation.

**(d) Mannerisms**

These are repetitive movements that appear to be purposeful, in other words goal directed. They may occur in schizophrenia, organic disorders and autism.

**(e) Catatonic posturing**

The patient maintains an abnormal position for a long time. It can occur in schizophrenia (catatonic subtype) and organic brain syndromes.

**(f) Echopraxia**

Is the inappropriate repetition by the patient of movements performed by the person communicating with him, for example if the examiner touches his nose the patient also touches his nose, if the examiner scratches his hand the patient scratches his hand.

**(g) Stupor**

The patient does not respond to commands and is immobile and mute but fully conscious. It can occur in catatonic states due to schizophrenia, depression, drug intoxication and disorders due to general medical conditions.

**(h) Tics**

2. These are sudden irregular repetitive movements involving a group of muscles. Occur for example in Tourett’s disorder.

Abnormalities of mood and affect

Mood is a subjectively experienced persistent state of feeling or emotions. Affect is the external expression of a subjectively experienced emotion and is what the observer infers from the patient’s facial expression, posture and way of speaking.

Some textbooks use the terms mood and affect interchangeably, or refer only to mood which they classify as objective (what is observed by the examiner) and subjective (what the patient reports).

Abnormalities of mood and affect include:

**(a) Inappropriate or incongruent affect**

The patient's affect does not match what he is saying or feeling. For example, a patient laughing while saying he is saddened by the death of his mother.

**(b) Labile affect**

The patient has rapid and abrupt changes of affect. For example, a patient may suddenly change from cheerful laughter to bitter crying and sadness and back to uproarious laughter within short spans of time.

**(c) Blunted affect**

The patient's emotional response is significantly reduced in intensity.  
It may occur in depression or schizophrenia.

**(d) Flat affect**

The patient shows very little or no emotional expression in response to external or internal emotionally charged events. This may occur in schizophrenia with negative symptoms.

**(e) Depressed mood**

The patient may report feeling low, sad, and worthless and feeling like crying.  
This can occur in depression.

**(f) Elated, euphoric mood**

The patient is excessively happy, self-confident and feels on top of the world.  
This can occur in manic states.

**3. Abnormalities of speech**

Speech disorders may involve the rate, flow, amount and content of speech.

**(a) Rate**

The patient's speech may be slow or retarded, as in depression, or it may be very fast and pressured, as in manic disorders.

**(b) Abnormalities of flow and continuity of speech**

Disorders which may occur in schizophrenia include:

- **Blocks** in the continuity of speech with sudden pauses.

- **Incoherence**, where there is no logical connection between one line of thought and another so that what the patient says does not make sense and is difficult to follow.
- **Flight of ideas**, where there are rapid shifts from one topic to another.
- **Echolalia**, where the patient repeats the examiner's words to a point of irrelevance.
- **Perseveration**, where there is the persistent and inappropriate repetition of speech.

**(c) Abnormalities of content of speech**

- **Neologisms**: these are words peculiar to the patient and not existing in any language known to the patient.
- **Word salad**: is a meaningless mixture of words. It may include neologisms or actual grammatical words, but conveys no meaning, for example a patient saying, "Many coprons you delight and nyangabgwe again slow weight it is book". This may be found in schizophrenia or dementia. The patient is usually unaware that he is not making sense.  
Speech content may also reflect underlying thought disorders like delusions. These will be dealt with under abnormalities of thought.

**(d) Abnormalities in the amount of speech**

The patient's speech may be copious or the patient may have poverty of speech, saying very little or be completely mute.

**4. Abnormalities of thought**

Thought abnormalities can affect the **form, process or flow, content or possession** of thoughts.

**(a) Abnormalities of thought form**

These include:-

- **Loosening of Associations**: there is no logical connection between the patient's thoughts and it is difficult for the interviewer to follow what the patient is saying. This usually occurs in schizophrenia.
- **Circumstantiality**: the patient veers off topic and introduces unnecessary details, although they eventually come to the point. Patients with circumstantiality can be taxing for a clinician pressed for time in a busy clinic as they go on and on once they start talking.

- **Flight of ideas:** the patient shifts rapidly from topic to topic. Unlike in loosening of associations, these rapid shifts are usually triggered by some cue, such as similar sounding words or some external distraction. Flight of ideas is usually characteristic of manic illness.
- **Perseveration:** this is the persistent repetition of the patient's own words to a point of irrelevance. For example, when asked what his name is, the patient answers "John" and keeps repeating "John" even when asked a completely different question.
- **Echolalia:** in echolalia the patient repeats the interviewer's words as if mimicking the interviewer. For example:  
Interviewer: "What is your name?"  
Patient: "What is your name?"  
Interviewer: "Please sit"  
Patient: "Please sit"

**(b) Abnormalities of flow or stream of thoughts**

These include:-

- **Thought blocking:** in thought blocking, the patient feels as if his mind has suddenly gone empty and he has lost what he was thinking about and has no other thoughts. If he was in the middle of a conversation, he stops abruptly and looks blank. This can occur in schizophrenia.
- **Poverty of thoughts:** in poverty of thoughts the patient's thoughts are impoverished and contain little information or elaboration and the patient conveys the impression of thinking very slowly or having difficulty in thinking. This can occur in depression and dementia and in some schizophrenics with negative symptoms.
- **Pressure of thoughts:** the patient's thoughts are increased in rate and amount and the thoughts appear as if they are tumbling over each other to get expressed. This may occur in manic states.

**(c) Abnormalities of thought content**

These include:-

*Psychotic phenomena like delusions*

*Non-psychotic abnormalities like preoccupations, obsessions and ruminations*

*i    **Preoccupations***

In preoccupations the patient's thoughts keep going back to a particular subject or matter, almost to the exclusion of anything else, and may interfere with the execution of other tasks.

*ii    **Obsessions***

Obsessions are repetitive thoughts, images or impulses which keep intruding into the patient's mind. These thoughts, images or impulses keep coming into the patient's mind despite the patient's efforts to resist them. The patient, however, recognizes them as his own, even though they are unwelcome.

The subject matter of the thoughts, images or impulses is usually about things which the patient finds unwelcome or unpleasant, for example concerning sex, dirt and contamination. A mother may, for example, suddenly get an impulse to stab her child with a knife she is holding. These impulses are resisted with great emotional effort.

Obsessional doubts involve repeated uncertainties about previously carried out actions, for example repeatedly checking if one closed the door.

*iii    **Delusions***

Delusions are strongly held false beliefs that cannot be removed by evidence to the contrary and are out of keeping with the patient's social, cultural and educational background.

Delusions can be **bizarre** or **non-bizarre**. A bizarre delusion involves a belief in something which cannot happen in real life. For example; one patient went around mooing like a cow and believed he was born of a cow.

A non-bizarre delusion involves a belief in something that can occur in real life, for example a false belief that one has been poisoned or bewitched, or that neighbours are plotting against one.

What makes a non-bizarre delusion a delusion is not necessarily that what is believed is false, but rather the reasoning that led to the belief. For example, a patient who believes his wife is unfaithful and, when asked why he believes so, says it is because he saw a white cat in their yard, is delusional even if, on investigation, it is found that his wife is actually unfaithful.

**Primary delusions** arise suddenly and fully formed, out of the blue.

**Secondary delusions** arise out of an abnormal experience, for example a severely depressed patient developing a delusion that he has committed a great sin.

The contents of delusions are classified according to themes. Some types of delusions are:

- Grandiose delusions
  - Nihilistic delusions
  - Paranoid delusions
  - Delusions of guilt
  - Delusions of reference
  - Delusions of control
  - Hypochondriacal delusions.
- a) Grandiose delusions: the patient may believe they are some great person, for example the president, or that they have special powers or are very rich. I have seen a lot of patients who, for example, believe they are Robert Mugabe or Osama bin Laden or some other such prominent personality.
  - b) Nihilistic delusion: the patient believes that they or parts of their body, or even parts of the environment, do not exist. For example, a patient may believe that he doesn't have intestines therefore cannot eat, or may believe that he has lost everything in the world.
  - c) Paranoid delusions: Also called persecutory delusions, paranoid delusions involve a patient's beliefs about his relationship with other people or organizations. In the most common type, the patient is suspicious and believes that other people or organizations are out to get him or have poisoned him and so on.
  - d) Delusions of guilt: the patient falsely believes that he has committed a great offence or sin and needs punishment. This may occur in depression.
  - e) Delusions of reference: the patient believes that events or objects have special significance for him or her. For example, when he watches a program on television, he may believe that the program specifically refers to him.
  - f) Delusions of control: the patient believes that his thoughts, actions or feelings are not his, but recontrolled by an external agency.

- g) Hypochondriacal delusions: the patient believes he has a serious illness despite repeatedly negative investigations and assurances from doctors. The content of delusions usually reflects the patient's culture, environment and current events. For example, patients with grandiose delusions in Kenya may say they are President Uhuru while those in Uganda may say they are Museveni. Other patients with paranoid delusions may believe they have been bewitched by a jealous neighbour who has put objects in their stomachs.

**(d) Abnormalities of possession of thoughts**

These include:

- Thought insertion
- Thought withdrawal
- Thought broadcasting
- Thought echo.

*i      **Thought insertion***

The patient believes that his or her thoughts have been put in their mind by some external agency or force.

*ii     **Thought withdrawal***

The patient believes that his or her thoughts are being taken out of their mind by some external agency or force.

*iii    **Thought broadcasting***

The patient believes that his or her thoughts are transmitted and known to other people through the radio, telepathy or some other medium.

*iv     **Thought echo***

The patient believes that his or her thoughts are repeated outside once they have thought them.

**5. Abnormalities of perception**

In simple terms, perception is the awareness of and interpretation of stimuli by a sense organ.

**Illusions** are misinterpretations of external stimuli

A **hallucination** is a perception without an external stimulus. Some types of hallucinations are:

- Visual hallucinations
- Auditory hallucinations
- Gustatory hallucinations
- Olfactory hallucinations
- Tactile hallucinations.

Although the type of hallucination alone is not diagnostic of any particular mental disorder, visual hallucinations are more common in psychiatric conditions of physical origin, for example in delirium. Auditory hallucinations occur in psychiatric conditions of psychological origin or physical origin. Some types of auditory hallucinations, for example hearing voices making a running commentary on one's actions or behaviour, or voices discussing a patient amongst themselves, are more characteristic of schizophrenia.

## 6. Abnormalities of memory

Loss of memory is called amnesia.

**Retrograde amnesia** refers to memory loss of events that occurred before the onset of the memory loss while **anterograde amnesia** refers to memory loss of events that occurred after the onset of the memory loss.

**Confabulation** is when the patient fills in gaps in memory by “remembering” events which did not actually take place. This can occur for example in Korsakoff's psychosis.

## 7. Abnormalities of attention and concentration

**Attention** is the ability to focus on something while **concentration** is the ability to maintain that attention.

In manic conditions, both attention and concentration are impaired and the patient is easily distracted.

In depression the patient's concentration can also be impaired.

Attention and concentration can also be impaired in delirium and dementia and in anxiety states.

## 8. Abnormalities of consciousness

Consciousness is the state of awareness by the mind of itself and the external world. It ranges from being fully alert to being comatose.

Disturbances of consciousness include:

**(a) Clouding of consciousness**

The patient has reduced awareness and reacts to stimuli poorly. There is some disturbance in attention and thinking.

**(b) Stupor**

The patient appears conscious, with eyes open, but is mute and immobile and barely responsive to external stimulus, although they can follow objects with their eyes. They can respond to painful stimuli. It may occur in schizophrenia, catatonic type, and severe depression, mania and dissociative disorders.

**(c) Torpor**

The patient appears drowsy and inactive and easily falls asleep. It can occur in organic brain syndromes like delirium.

**In practice**

If you are not native to the country in which you are practicing, it is essential that you familiarize yourself with the local myths, idioms and cultural manifestations of illness. In most of Africa, belief in witchcraft is widespread and a patient who believes they have been bewitched or believes something has been put in their stomach by somebody with an evil eye is not necessarily delusional. She may be having differentials ranging from an anxiety disorder to adjustment disorder to malingering. . It is good practice to always probe how an “abnormal” belief came into being and to have a good understanding of the patient’s sociocultural background. How you elicit a symptom matters as much as what you elicit. Don’t ask for example” Do you hear voices?” and then when the patient answers in the affirmative, conclude that they have auditory hallucinations. Remember, everybody with intact hearing hears voices so you have to make yourself clear on what sort of hearing of voices you are asking about. More of that in the chapter on assessment.

**Further reading**

Sims, A.C.P: Symptoms in the mind: An introduction to descriptive psychopathology.

Saunders (2003). Philadelphia, USA.

WHO (2003): Mental Health: Strengthening our Response. Fact Sheet No: 220.

Available online <http://www.int/mental-health/resources/en/Advocacy.pdf>.

## *Chapter 3*

# **Assessment of the psychiatric patient**

### **Introduction**

One of the commonest complaints made by non-psychiatric clinicians is that taking a psychiatric history is a long and time-consuming process. However, a psychiatric history is not markedly different from any other medical history. The areas covered are almost similar; except for a few differences in areas of emphasis. The psychiatric assessment differs mainly in the sense that a mental status assessment is an essential component of the evaluation. Establishing rapport and a trusting relationship with the patient is important at the outset. Collateral history from other informants is crucial, as some patients may not be able to give a history on their own.

### **Preliminaries to history taking**

- Where possible, the interview should be carried out in a room with adequate privacy.
- The patient should be made as comfortable as possible.
- Introduce yourself to the patient by name and explain the purpose of the interview.
- If the patient is the one giving the history, allow them to give the history in their own words as far as possible.

### **The format of the psychiatric history**

Different books may give slightly different formats for the psychiatric history. Practise using one format which covers all the information you need to know. The following is a suggested format:

- Identifying/ demographic data
- Mode of referral
- Informant

- Chief complaints by patient, or allegation by informant if not the patient
- History of presenting the illness
- Psychiatric review of symptoms
- Past medical/ surgical history
- Past psychiatric history
- Forensic history
- Family history
- Personal/ social history
- Antenatal history
- Infancy, early childhood
- Schooling
- Employment history
- Sexual history
- Marital history: spouse, children
- Alcohol/ substance use history
- Abuse history
- Premorbid personality
- Reliability of the information.

**a) Identifying/ demographic data**

At a minimum this should include the name of the patient, age, sex, marital status, level of education and educational status. Other information can include nationality, religion, and place of residence.

**b) The source of referral**

It is important to state whether a patient has come to the clinic as a self-referral or been referred or brought by others, for example by police, relatives or, if a minor, by a parent or guardian.

**c) Informant**

State whether the patient is the one giving the history; in which case it is stated as the patient's complaints or, if informant is somebody other than the patient, state how they relate to the patient and write down the complaint as allegations.

**d) Chief complaint**

This should be recorded in the patient's or complainant's own words if possible.

If the patient is not the one giving the complaint, elicit the patient's response to the allegations and note it down.

**e) History of presenting illness**

The main features of the history of the presenting illness are:

- Mode of onset
- Duration of symptoms
- Progression of symptoms
- Any alleviating or exacerbating factors
- Any linkage with significant events in patient's life
- Any interventions made, like seeking treatment or treating oneself, and the effect of that treatment
- The effect of the illness on the patient's ability to carry out activities of daily living and his usual duties and impact on social life.
- What the patient thinks is the cause of his problem.

In a lot of cases the patient might not be able to give a full, proper or reliable history and additional history from another informant is necessary. Even when the patient gives a seemingly full history, it is important to obtain additional history from other sources.

If information is to be obtained from another informant, it is important to get the patient's consent where possible.

**f) Psychiatric review of symptoms**

The Psychiatric review of symptoms screens for symptoms of the main categories of psychiatric illnesses. If not already elaborated in the history of the presenting illness, ask about psychotic symptoms, mood symptoms, anxiety symptoms, substance use, somatoform and eating symptoms, cognitive symptoms and symptoms suggestive of personality disorder.

**g) Past medical /surgical history**

Obtain history of past medical and surgical illnesses, admissions, type of treatment received, response and duration of illness.

The past illnesses are recorded in chronological order. In a patient with multiple admissions it may be enough to ask about the first and last admissions.

**h) Past psychiatric history**

Obtain a history of past psychiatric illnesses, treatment and outcome. If there are multiple admissions it may be enough to record history of first and last admissions only.

**i) Forensic history**

Inquire about any brushes with the law and the outcome.

**j) Family history**

Ask about parents, if alive, their ages, occupation, illnesses, how they get on and whether divorced or not and the patient's relationship to each of them.

If dead, record the cause of death, when they died and how the patient reacted to the death.

Ask about siblings, their names, marital status, and level of education, occupation and relationship with the patient.

Ask about any illness amongst family members, especially illness like epilepsy, any psychiatric illness, or any suicides in the family.

Ask about any history of substance abuse amongst family members.

**k) Personal/ social history**

The depth of the history taken will depend on the presenting problem. Although it is useful to cover all aspects of personal history, it may not be very helpful to take the antenatal history in an eighty-year-old man who has hitherto been in good health with no previous psychiatric problem.

Areas covered in the personal history include:

- Antenatal history
- Birth and postnatal history
- Early childhood and development
- School history
- Occupational history
- Sexual history

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- Marital history
- Drug/ substance use history
- Use of leisure time and other social activities
- Abuse history: ask about any history of physical or sexual abuse
- Current living circumstances: housing, social support.

***i Antenatal history***

This can be of importance, especially in disorders usually first diagnosed in infancy and childhood, for example intellectual disability (mental retardation), some of which might be caused by antenatal insults.

Inquire about the mother's health during pregnancy, clinic attendance, and whether pregnancy was wanted.

***ii Birth and postnatal history***

- Whether delivery was at term
- Mode of delivery
- Any problems during labour and delivery
- Any problems after birth.

***iii Early childhood and development***

Enquire about:

- Childhood immunisation
- Illness in infancy and early childhood
- Developmental milestones – sitting, standing, walking, talking and so on.

***iv Schooling history***

- Level of education
- Age of beginning school
- Progression through school – primary, secondary, tertiary.
- Ask about academic performance, reason for repeating classes if repeated, any disciplinary problems in school, relationships with peers and involvement in extra-curricular activities.

**v Occupational (work) history**

- Jobs held from first to current or last
- Reasons for changing jobs
- Job satisfaction
- Relationship with co-workers.

**vi Sexual history**

Take the sexual history if there is concern about sexual life or the patient presents with a sexual problem.

Enquire about:

- Age at first sexual contact, whether it was satisfactory or not
- Source of information about sexual matters
- Number of sexual partners
- Attitudes towards sexual matters.

**vii Marital history**

- Age at marriage
- How long had they known each other?
- Quality of relationship, any difficulties and conflicts
- Reason for divorce or separation, if any.

**vii Drug/substance use history**

Does the patient smoke cigarettes? Does the patient use any illegal drugs? Does patient use alcohol?

If answer is yes, probe further

- How often do they use it?
- How much do they use per sitting/session?
- How do they obtain it?
- Why did they start using it?
- Do they think its use is a problem?
- Do they take it alone or in company?

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- Do they mix or use more than one substance at the same time?
- What is the route of use?

Use screening tools if suspicion of substance abuse, for example CAGE or AUDIT for alcohol.

**viii *Use of leisure time and other social activities***

Enquire about how the patient spends his leisure time. Hobbies? Any involvement in sports or religious activities?

**ix *Current living circumstances***

Where does patient live? Housing?

With whom does the patient stay?

**(l) *Premorbid personality***

The patient may not be able to adequately or reliably give an account of his premorbid personality and hence it is important to interview the patient and also get an account from a close relative or other person who knows the patient well.

- Ask patient to describe him/herself, what sort of person they are.
- Are they outgoing or reserved?
- Does he/she have a lot of friends?
- What sort of leisure activities does he/she engage in?
- What are his attitudes towards moral issues such as sex or religion?
- What is his predominant mood—is he/she usually a worrier, cheerful, carefree, and so on?

**(m) *Reliability of history***

Make a comment on the reliability of the information obtained.

Mental status assessment

The mental state examination assesses the patient's state of mental functioning at the time you are seeing the patient. Being able to do a proper mental status assessment is an essential skill for making a reliable psychiatric diagnosis, just like the ability to elicit the signs and symptoms of mental illness.

The mental status examination starts the moment you come into contact with the

patient. As you take the history, you will be getting some signs and symptoms of the mental state but this should still be recorded in a standard order as this helps you to be organized and to not forget to elicit some important symptoms.

A common mistake made by beginners is to place symptoms that a patient experienced in the end which he tells you while giving the history under mental state assessment findings. For example, if a patient tells you he was hearing voices the previous day, but is no longer hearing voices at the time you are assessing him, then those auditory hallucinations are described under the history of the presenting illness and not under the current mental state assessment.

As a beginner, it is necessary to practice carrying out the full mental status assessment including cognition, but with experience one can concentrate on the most relevant parts depending on the presenting complaints and still come to a proper diagnosis.

**(a) Appearance and behaviour**

Under appearance, describe the patient's physical appearance, mode of dressing, grooming and facial expression. Note any striking or peculiar features. His/her attitude to the examiner is noted, for example, if cooperative, hostile, unconcerned and indifferent, and so on. A note is made of the patient's behavior and movements.

**(b) Speech**

Assess:

- Rate of speech (fast, slow, pressured)
- Tone
- Volume
- Structure.

**(c) Mood/Affect**

The distinction between mood and affect has already been described in the section on signs and symptoms.

To assess the mood, ask the patient how he/she feels. Ask direct questions like:

- How do you feel in yourself?
- How is your mood?

Record the response in the patient's own words, for example, "I am fine".

The affect is observed by the examiner and inferred from the patient's external facial appearance, body posture and movement. Affect can be described as:

- Incongruent
- Labile
- Flat
- Blunt
- Shallow.

**(d) Thoughts**

- Assess the form of thoughts
- Content
- Any abnormalities of possession of thoughts.

***i Thought form***

Assess the rate.

- Does the patient have slowed thoughts? Thought retardation?
- Does the patient have rapid shifts from one idea to another– flight of ideas?
- Does he have sudden stops and describe his mind having gone blank as if emptied of thoughts–thought blocking?
- Are patient's thoughts shallow, with little content or elaboration of ideas – poverty of thoughts?
- Does he reply to questions in an oblique manner without seeming to come to the point –tangentiality?
- Does the patient reply to questions in around about manner with many digressions and delays in reaching the point, although he eventually comes to the point–circumstantiality?

***ii Thought content***

*Delusions:* Sometimes delusional thinking will have been clear from the history taking but sometimes it will be necessary to inquire about delusional thinking directly.

Questions which can help elicit delusions include:

- Do you feel there are people who are out to harm you in any way?

- Does the radio or TV talk specifically about you?
- How do you feel about yourself?
- How is your relationship with other people?
- Have you noticed any changes in your body?

*Suicidal / homicidal ideation:* inquire about suicidal and homicidal ideation.

**iii Disorders of possession of thoughts**

These may also come out during the interview. However if suspected, useful questions include:

- Have you ever felt that people are putting thoughts in your mind?
- Have you ever felt that people are removing thoughts from your mind?
- Have you ever felt that your thoughts are not yours only, but are broadcasted or known to other people?

*Obsessions:* Ask the patient if there are any thoughts that keep coming into his or her mind despite his or her effort to avoid them?

If yes, ask what those thoughts are about?

**(e) Perception**

The patient may give a history of hearing voices or hallucinatory experiences or sometimes this may have been inferred from the patient's behavior if the patient, during the interview, behaves as if engaging in a conversation with an unseen person. However, most of the time hallucinations will have to be directly asked about. Tact has to be exercised when asking about hallucinations because some patients may feel offended. Introduce the topic with a statement like: "sometimes when people are distressed or disturbed they might experience unusual happenings, like hearing voices which nobody else around them can hear. Has this ever happened to you?"

Though it seems like it is easy to ask about hallucinations, most beginners ask questions which are prone to ambiguous interpretation for example:

"Do you hear voices when you are alone?"

"Do you hear voices talking inside your head?"

This latter one is a wrong question because, by definition, a hallucination must have the quality of a real percept. The patient must be aware that the hallucinations represent external reality. Inquire about hallucinations in all the sensory modalities

that is visual, auditory, tactile, olfactory and gustatory.

Ask questions like:

“Do you hear voices when there is nobody else around, or which other people can’t hear?”

“Do you see unusual things or things which other people can’t see?”

**(f) Cognitive assessment**

Cognitive status assessment assesses

- Orientation
- Attention and concentration
- Memory
- Intelligence
- Judgement
- Abstract thinking
- Insight.

**i Orientation**

Orientation is usually assessed in three modalities

- Time
- Place
- Person.

Ask about orientation with tact. Some patients may feel belittled or offended if you abruptly start asking them if they know what time it is or where they are. Explain to them that you are going to ask them some questions which look simple but that are useful for the assessment, then ask them what time it is and if they know where they are. The patient does not need to know the exact time but will be oriented if, for example, they can give an approximation, for instance knowing it is in the morning or late afternoon.

From the introductory part of the interview one may have determined whether the patient is oriented in person. If so, there is no need to ask the patient’s name.

**ii    *Attention and concentration***

One is usually able to get a good idea of the patient's attention and concentration during the course of the history-taking interview. More formal testing is done using tests like the serial subtraction of seven from one hundred. If the serial sevens test is too difficult for the patient, he or she can be given a simpler test like counting the months of the year backwards or simpler serial subtractions, like subtracting two from twenty.

**iii    *Memory***

Memory can be conveniently divided for assessment into:

- Immediate memory
- Recent memory
- Remote memory.

*Immediate memory:* the patient is asked to repeat a name and address. The name and address is repeated until the patient is able to repeat them.

*Recent memory:* the patient is asked about recent events in their life, for example what they ate for breakfast (you must only ask this if you know the answer) or where they were yesterday or about recent events that have been in the news.

*Remote memory:* this can be assessed from the patient's ability to recall personal historical events in their life, for example where they went to school. Questions can also be asked about important historical events.

**iv.    *Intelligence***

A gross estimation of the patient's level of intellectual functioning may be obtained during the course of the interview by noting how the patient answers questions and discusses issues; including use of language and vocabulary.

Taking into account the patient's level of education, general questions aimed at gauging the patient's level of intelligence may be:

What is the name of the President?

What is the name of the capital city?

Name two political parties.

The questions should be adapted to suit the patient's level of education. A patient with graduate-level education may be offended by such simple questions.

v ***Abstract thinking***

Abstract thinking can be assessed by asking the patient to interpret some widely known proverbs or describe similarities between objects in the same class or with similar function. The proverbs must, of course, be widely known in the patient's cultural setting. Common proverbs in those exposed to western education and culture, which may lend themselves to literal interpretation, include: "People who live in glass houses should not throw stones." Try to use common local proverbs.

A patient can be asked to give similarities between objects. For example, "Tell me the similarity between an apple and an orange" or "What is the similarity between a car and a train?" Abstraction ability has been observed to be poor in patients with schizophrenia.

vi ***Judgement***

The patient's level of judgement may also be assessed during the course of the interview from the information gathered, for example what actions the patient took when he fell sick and how he or she has been reacting to situations and events in his or her life.

A commonly asked question when testing judgement is, "*If you saw a stamped, addressed envelope on the street, what would you do?*" However, it is doubtful if such a question is a good test of judgement. Many people whose judgement is otherwise fine may not be bothered and may just leave the envelope lying in the street. It is helpful when testing judgement to come up with scenarios where most people would take some sort of action, for example, "*If you saw a child entering a house and the house caught fire, what would you do?*". The patient's sense of judgement may then be deduced from what they say they would do.

vii ***Insight***

Insight refers to the patient's awareness of the nature of his illness or symptoms and how he deals with or intends to deal with them. Like in assessing judgement, the interviewer may have a pretty good idea of the patient's level of insight by the time they come to the end of history taking. To formally test for insight, useful questions include:

- "Why have you come to the clinic today?"
- "What do you think is causing your problems?"
- "Do you think you are sick?" If the answer is yes, ask

- “Do you think your illness is mental or physical?”
- “Do you think you need treatment?”

If cognitive impairment is suspected, the mini-mental state examination can be carried out. This is a quick test that can be useful in tracking the course of dementia. It can also be used in dementia. It is scored out of thirty and a score greater than twenty-five is normal.

### Management plan

Where possible, divide management into immediate, medium and long term objectives.

- Further investigations...for example collateral history, labs, review of records
- Safety and risk issues...risk of harm to self, others, self-care, inpatient or outpatient management
- Biological management... medications, dietary advice
- Psychological management... psycho-education, other psychological treatments
- Social, family management...sources of support, work, family issues

### In practice

One often-heard complaint is that psychiatric history-taking is a long process. In practice; public clinics do not lend themselves to the luxury of taking forty-five minutes to an hour with a patient. With experience, one gets to know what questions can be left out without missing out on important information. A useful tip is to have a blank piece of A4-sized paper when starting your history taking. Draw a vertical line in the middle and three horizontal lines, thus dividing it into eight squares. You then enter the major subheadings of the psychiatric assessment in the squares. In each square, enter:

- 1st square: presenting complaint/ history of presenting complaint (PC/HPI),
- 2<sup>nd</sup> square: review of symptoms (ROS),
- 3<sup>rd</sup> square: past medical/ past psychiatric history (PMH/PPSYCH),
- 4<sup>th</sup> square: family/personal/social history (F/P/SOCHX)
- 5th square: mental status examination (MSE)
- 6th square: formulation (FORM)
- 7th square: differentials and diagnosis (DDX/DX)

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- 8<sup>th</sup> square: management plan (MNG) like this:

|               |        |
|---------------|--------|
| PC/HPI        | MSE    |
| ROS           | FORM   |
| PMH/PASTPSYCH | DDX/DX |
| FAM/PER/SOCHX | MNG    |

- Once you have done this, and start taking the history, you enter the information as you obtain it into the relevant boxes. For example, if the patient mentions at the beginning that his father is dead, you enter it into the family history box so that you won't have to ask again, "Where is your father?" In addition to helping you get organized and not miss out on important things, this box method shortens the time you take with a patient considerably.

There is usually pressure to come up with a diagnosis on the first contact with a patient. However, in psychiatry you may find you are unable to come to a definitive diagnosis in one interview. There is no shame in putting down differentials or a provisional diagnosis and letting the patient know you will need to get more information or make further investigations to get a better idea of what the problem might be.

Although it is not the practice (and is not necessary) to put a lot of information on the patient's outpatient card, it is not uncommon to find the card of a patient coming for review with the following last entry:

"Came for review. Doing well. Rx: tabs haloperidol 10mg nocte x1/12. Review 1/12".

This is not helpful if you are not the one who last saw the patient or are not familiar with their history.

At a minimum, the review notes should contain:

- a summary of presenting complaints
- diagnosis
- medication patient is on
- brief note on mental state findings
- Treatment plan, including medications and follow up instructions.

### **Further reading**

Carlat, Daniel J. (2012). The Psychiatric Interview. Lippincourt Williams & Wilkins.

## *Chapter 4*

# **Schizophrenia and other psychotic disorders**

### **Introduction**

Schizophrenia is a severe psychotic illness characterized by abnormalities in thinking, perception, behaviour and emotions which may grossly interfere with the patient's occupational and social functioning. Although the word schizophrenia literally means "split mind", it was coined by Eugene Bleuler to refer to the disconnect between the patient's mental functions of thinking, perception, memory and emotions.

Schizophrenia is not an homogenous condition and can present in a variety of ways. Hence it is easy to misdiagnose. Contrary to common misconception, schizophrenia is not necessarily a life long disorder and some patients recover completely after one episode.

There are no psychotic symptoms which are pathognomonic for schizophrenia and it can arise from a variety of factors acting on a vulnerable individual.

### **History**

Although symptoms of the illness we now know as schizophrenia date back from ancient times, the modern concept of schizophrenia as we know it today dates back to **Emil Kraepelin** who, in 1907, described "**Dementia praecox**" as a chronic illness with acute onset of psychotic symptoms and deterioration of intellectual functioning and characterized by a progressively deteriorating course. Kraepelin divided his dementia praecox into hebephrenic, catatonic and paranoid subtypes.

The term schizophrenia was coined by Eugene Bleuler in 1911. His emphasis was on what he considered the fundamental symptoms of the illness, the so called 4As – which were autistic thinking, ambivalence, affective blunting, and loosening of associations in the thought process. The other symptoms, like hallucinations and delusions, which are usually associated with schizophrenia, he considered secondary to those core symptoms. He added a fourth subtype; simple schizophrenia.

### **Classification**

ICD-10 divides schizophrenia into sub types:

1. Paranoid
2. Hebephrenic
3. Catatonic
4. Undifferentiated
5. Residual
6. Simple.

Diagnosis of a subtype depends on the most prominent symptoms during the time of evaluation of the most recent episode. Subtypes can change with time or with different presentations in one patient, therefore it doesn't mean that, if a patient has been diagnosed as having paranoid schizophrenia, he or she will always have that presentation.

DSM-V has eliminated the subtypes that were present in DSM IV TR because of concerns about their diagnostic validity and stability.

### **Catatonic schizophrenia**

Motor symptoms are prominent. They range from rigid immobility to gross excitement and over-activity. The patient may maintain one uncomfortable posture for a long time and have other symptoms like waxy flexibility, negativism, mutism and automatic obedience. Catatonic symptoms can lead to physical exhaustion if prolonged. Catatonic schizophrenia is now rare, especially in the developed world.

### **Paranoid schizophrenia**

The most prominent symptoms are paranoid symptoms like paranoid delusions which are persecutory or grandiose. Some patients may also have hallucinations, usually auditory. Functioning is usually well preserved and there is no gross disorganization of behavior and motor activity. Paranoid schizophrenia tends to occur later in life and has a good prognosis.

### **Disorganized type**

There is prominent disorganization of speech and behaviour and a flat or inappropriate affect. It tends to occur early and has a poor prognosis

### **Undifferentiated type**

Undifferentiated subtype refers to the type which, though meeting the diagnostic criteria

for schizophrenia, does not meet the criteria for paranoid, catatonic or disorganized type. The patient may exhibit a mixture of symptoms of the catatonic, disorganized or paranoid type.

### **Residual schizophrenia**

This refers to the type of schizophrenia in a patient who has had at least one psychotic schizophrenic episode of either catatonic, disorganized or paranoid, but now has no active or prominent psychotic symptoms or, if psychotic symptoms are present, they are in a reduced form.

### **Simple schizophrenia**

This was first described by Eugene Bleuler. It refers to the type of schizophrenia in which the patient slowly and progressively develops deterioration in behavior and social and occupational functioning. Psychotic symptoms like delusions and hallucinations are not prominent.

### **Epidemiology**

|                    |                                                        |
|--------------------|--------------------------------------------------------|
| Age of onset       | : occurs earlier in men than in women.                 |
|                    | Mean age of onset in men is 21.4years, women 26.8years |
| Male: Female ratio | : 1:1                                                  |
| Prevalence         | : 1% of the general population                         |
| Risk of suicide    | : 15%                                                  |

### **Aetiology**

There is no single cause for schizophrenia. Several contributory factors to the development of schizophrenia have been postulated. These are:

1. Genetic
2. Environmental
3. Neuropathological
4. Neurochemical.

### **Genetic**

Family, twin and adoption studies point to a genetic inheritance pattern.

The risks for developing schizophrenia are:

|                                           |       |
|-------------------------------------------|-------|
| — Sibling of a patient with schizophrenia | — 10% |
|-------------------------------------------|-------|

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- |   |                                                    |   |     |
|---|----------------------------------------------------|---|-----|
| – | When both parents have schizophrenia               | – | 46% |
| – | When one sibling and one parent have schizophrenia | – | 17% |
| – | When one parent has schizophrenia                  | – | 6%  |

The concordance rate for monozygotic twins is 46% while it is 14% for dizygotic twins.

### ***Environmental/social factors***

There is a higher prevalence of schizophrenia in low socio-economic areas of urban areas. One explanation for this has been the social drift hypothesis, where an individual with schizophrenia deteriorates in his/her social and occupational functioning and consequently drifts to the poorer, working class areas. But this finding of higher rates in low socio-economic classes could also be due to the adverse conditions and stress of living in such areas precipitating the illness among the vulnerable.

Earlier theories about the environmental causes of schizophrenia, which have since fallen out of favour, include the theory of a **schizophrenogenic mother** postulated by Frieda Fromm-Reichmann, in which it was claimed that a combination of overprotective and hostile mothering predisposed a person to schizophrenia.

The **double-bind hypothesis** involves a communication style in which the child frequently receives two messages which conflict with each other, for example a mother saying, “I love you,” while her body language and behaviour conveys the opposite.

It was also thought that families with high levels of “**expressed emotions**”, where there was over-involvement coupled with criticism, could precipitate schizophrenia in the vulnerable, but it is now known that such involvement is only likely to precipitate a relapse in those with schizophrenia rather than cause an index episode.

### ***Neuropathological factors***

Several structural abnormalities have been found in some schizophrenics, although none is diagnostic of schizophrenia.

Abnormalities include:

- Enlargement of lateral and third ventricles
- Decrease in size of the hippocampus
- Decrease in size of the thalamus
- Decreased volume of the prefrontal cortex.

### ***Neurochemical factors***

The oldest neurochemical hypothesis for the cause of schizophrenia is the **dopamine hypothesis**. It has been found that there is dopamine receptor hyperactivity in schizophrenics. This hypothesis has been lent support by the fact that most antipsychotics work by blocking dopamine receptors and drugs like amphetamine, which increase dopamine transmission, can cause schizophrenia-like psychotic symptoms.

Gamma-aminobutyric acid (GABA), which inhibits dopaminergic neurones, has been found in low levels in the early stages of some schizophrenics. Other neurotransmitters that have been suspected to play a role in schizophrenia include serotonin and glutamate.

Other findings of possible aetiological significance include:

- The risk of development of schizophrenia is higher in individuals born in late winter and early spring.
- Higher risk associated with obstetric complications like pre-eclampsia.
- Abnormal eye tracking movements; however these have also been documented in manic patients.

While there are many documented abnormal findings in schizophrenia, it should be noted that none of these findings are invariably present in all schizophrenics and some of the findings are not even unique to schizophrenia.

### ***Signs and symptoms of schizophrenia***

There are no pathognomonic signs and symptoms of schizophrenia. It is helpful to consider the signs and symptoms of the illness according to the behavioural or mental function affected.

#### ***Appearance and behaviour***

While some patients can be aggressive, restless and excited, some appear withdrawn and disinterested. Personal hygiene may be neglected, with the patient appearing dirty and unkempt.

The patient may exhibit strange behavior like silly giggling or maintaining funny postures.

#### ***Mood and affect***

Affect may be:

- Blunted
- Flat

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- Incongruent.

The mood may also be depressed or anxious or perplexed, especially in the early stages of the illness when insight is intact and the patient has some awareness of the changes taking place in him or her.

### ***Speech***

Underlying thought process is usually represented in the speech. Abnormalities of speech in schizophrenia may include:

- Incoherence
- Neologisms
- Perseveration
- Verbigeration (persistent repetition of words or phrases)
- Echolalia (repetition of words spoken by examiner).

### ***Thoughts***

*Formal thought disorder:* the patient's thoughts may be structured in such a way that there is no formal connection between one line of thought and another, so that the examiner finds it difficult to follow the patient's line of thinking (loosening of associations).

*Delusions:* are a common presentation in schizophrenia. The theme of the delusions can be persecutory, grandiose, delusions of control and influence. Bizarre delusions, which are beliefs about things that cannot happen in real life, are a significant pointer to schizophrenia. Persecutory delusions are also very common.

Other thought abnormalities include disorders of the stream of thought, like poverty of thoughts where the patient's thoughts contain little content, and thought blocking in which there are sudden breaks in the line of thought, as if somebody had suddenly taken away the patient's thoughts.

### ***Perception***

Hallucinations can occur in any modality, but the most common are auditory hallucinations. The type of auditory hallucinations most commonly associated with schizophrenia are voices commenting on a patient's actions and behaviour, and voices discussing the patient amongst themselves (third person auditory hallucinations).

Other perceptual disturbances that can occur in schizophrenia include illusions and derealisation and depersonalization phenomena.

## **Diagnosis**

The DSM-V and ICD-10 contain almost similar criteria for the diagnosis of schizophrenia. However, there are some differences.

### **DSM-V diagnosis**

DSM-V requires symptom duration of at least six months. Patients with symptoms of schizophrenia of duration of less than six months but longer than one month are diagnosed as having a schizophreniform disorder when using DSM-V criteria. If symptoms of schizophrenia last for at least a day, but less than one month, then a diagnosis of brief psychotic disorder is made. If symptoms are still present after six months, then the diagnosis changes from Schizophreniform disorder to schizophrenia.

### **ICD-10 diagnosis**

ICD-10 requires schizophrenic symptoms to have been “clearly present for most of the time during a period of one month or more”.

If symptoms have been present for less than a month then the diagnosis is acute schizophrenia-like psychotic disorder.

### **Exclusion criteria**

A diagnosis of schizophrenia is not made if the symptoms are:

1. Due to the physiological effects of a substance
2. A general medical condition
3. There is presence of marked mood symptoms, either depressive or manic, unless the schizophrenic symptoms preceded the mood symptoms.

### **Differential diagnosis**

Psychotic symptoms can occur in many conditions other than schizophrenia.

The differential diagnoses of schizophrenia include:

*Mood disorders with psychotic symptoms*, for example:

- Bipolar affective disorder
- Psychotic depression.

*Other psychotic disorders*, for example:

- Schizo-affective disorder

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- Delusional disorder.

*Drug and alcohol induced psychosis, for example:*

- Alcoholic hallucination
- Cocaine intoxication
- Amphetamine intoxication.

*General medical conditions, for example:*

- HIV, syphilis
- Complex partial seizures
- Personality disorders
- Tumours.

The key to differentiating these conditions from schizophrenia is to take a thorough history, do a proper physical examination and carry out laboratory investigations where indicated.

### **Management of schizophrenia**

Various studies have shown that a combination of pharmacological and social methods is best in the management of schizophrenia. Treatment planning is based on the bio-psychosocial model.

#### ***When is hospitalization indicated?***

Not all patients diagnosed with schizophrenia must be admitted.

Indications for admission include:

- An extremely excited or violent patient who is a danger to himself.
- Where there is a risk of suicide.
- Where a patient has command hallucinations or delusions on which he may act and which make him a danger to himself or others.
- Where there is a need to carry out further medical and other evaluation of the symptoms.
- Where there is co-morbid substance abuse that is acutely exacerbating or complicating the illness.

#### ***For how long should a patient be admitted?***

- Hospitalization should ideally be short term to avoid the problems of institutionalization. However, in reality many factors lead to patients staying in hospital longer than necessary, for example because of a lack of or inadequate community facilities to cater for discharged patients.

Management can be divided into three phases:

- Acute phase
- Stabilization phase
- Long term.

### **Inpatient management in the acute phase**

#### ***Biological***

Antipsychotic drugs play a major role in these phases. The patient is likely to be disturbed and to be having florid symptoms which need immediate control. The goals of treatment in this phase are to put the patient in a safe and secure environment, initiate medication to control the florid symptoms and, if possible, initiate psycho-education to the family and formulate a treatment plan.

Any of the antipsychotics is of equal therapeutic efficacy, be they first or second generation, and can be used in this phase. In public hospitals in many African countries at the time of writing, only first generation antipsychotics were widely available and so they are the ones we will mainly focus on.

For sedation of an acutely disturbed, agitated or violent patient who cannot be calmed by verbal means give:

#### **(1) *Haloperidol***

IM. Haloperidol 5 – 10 mg stat

Can be combined with abenzodiazepine, for example IM lorazepam 2-4mg or, where Lorazepam is not available, either IM midazolam 7.5-15mg or IV Diazepam 10–20mg slowly (NB: only give **parenteral** diazepam where resuscitation facilities are available due to the risk of respiratory failure).

This can be repeated after an hour if patient is not controlled. Monitor vital signs.

#### **(2) *Chlorpromazine***

Only use for parenteral sedation when parenteral haloperidol is not available, **AVOID PARENTERAL CHLORPROMAZINE IF**

**POSSIBLE.** Chlorpromazine can cause severe hypotension and caution has to be

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exercised, especially for elderly and debilitated patients.

*Dosage:* 25–50mg IM repeated as necessary up to four times in twenty-four hours. With experience and under close monitoring of the patient one can give up to 100mg IM.

Giving intramuscular doses of 200mg at once is dangerous and would be difficult to defend in the case of hypotensive collapse.

Monitor blood pressure thirty minutes after intramuscular administration.

During the admission process, if relatives are available, this is the time to educate them on the diagnosis and planned treatment and prognosis.

### ***Laboratory investigations***

There is no diagnostic laboratory abnormality in schizophrenia and the laboratory tests carried out will depend on the history and physical findings. However baseline tests include:

- Full blood count
- Liver function tests
- Urea and electrolytes
- Urinalysis
- Drug screen (where possible)
- Offer HIV testing.

### ***Oral medications***

Some readily available typical and atypical antipsychotics are shown in Tables I and II.

#### *Typical antipsychotics*

**Table I**

| <b>Drugs</b>                | <b>Dosage</b> |
|-----------------------------|---------------|
| Chlorpromazine (Largactil)  | 25–300 mg     |
| Trifluoperazine (Stelazine) | 5–30 mg       |
| Haloperidol (Serenace)      | 5–20 mg       |
| Thioridazine                | 200–600 mg.   |

*Atypical antipsychotics*

**Table II**

| <b>Drugs</b>            | <b>Dosage/day</b> |
|-------------------------|-------------------|
| Risperidone (Risperdal) | 2–8 mg            |
| Olanzapine (Zyprexa)    | 5–20 mg           |
| Quetiapine (Seroquel)   | 50–750 mg         |
| Ziprasidone (Geodon)    | 40–160 mg         |
| Aripiprazole (Abilify)  | 10–30 mg          |
| Clozapine (Clozaril)    | 12.5–900mg        |

NB: Names in brackets are common brand names.

***Stabilization phase***

After the patient starts settling in the ward, the optimum dosing levels of medication are titrated. During this phase the patient can be assessed by the occupational therapist to identify occupational therapy needs. Social work evaluation is also done and psycho-education about the patient's illness is reinforced. Adherence counselling is carried out to prepare the patient for discharge.

**Discharge and maintenance treatment**

The patient should be maintained on the lowest possible dosage that controls the symptoms. Dosing should be simplified to enhance adherence. If possible, give once-daily dosing.

Avoid polypharmacy. Except when clearly indicated, it doesn't make sense to put a patient on more than one antipsychotic.

Initial follow-up after discharge should be after one to two weeks. This is to enable the clinician to catch any new problems that may have arisen either due to drug side-effects or the change of environment from ward to home. At every visit, psycho-education about the patient's illness should be reinforced, and this should include teaching the patient about how to manage his or her illness. They should, for example, know how to identify symptoms of relapse early so as to take corrective action.

Patients who have adherence problems should be identified and considered for depot medication.

### **Predictions of outcome/prognosis**

Schizophrenia does not follow a uniform course. Possible courses are:

- Single episode with full recovery
- Repeat episodes with full recovery in-between
- Repeat episodes with progressive deterioration after every episode
- Progressive deterioration from onset with no recovery.

### **Prognostic predictors**

#### **Good prognostic factors    poor prognostic factors**

| <b>Acute onset</b>                       | <b>Gradual onset</b>                     |
|------------------------------------------|------------------------------------------|
| Presence of affective symptoms           | Absence of affective symptoms            |
| Late age of onset                        | Early age of onset                       |
| No previous psychiatric history          | Positive past psychiatric history        |
| Negative family history of schizophrenia | Positive family history of schizophrenia |
| Married                                  | Single                                   |
| Good premorbid functioning               | Poor premorbid functioning               |
| Short duration of illness                | Chronic duration of illness              |
| Presence of precipitating event          | No obvious precipitant                   |

### **Schizo affective disorder**

This is a disorder in which both the symptoms of schizophrenia and mood symptoms occur. However, the symptoms do not fully meet the criteria for either an affective disorder or schizophrenia. If the psychotic symptoms occur exclusively during the mood episode then the diagnosis is a mood disorder with psychotic symptoms. According to the changes in DSM-V, the diagnosis needs two episodes of psychosis, one of which must last for at least two weeks without prominent mood disorder symptoms, while the other has mood symptoms with prominent psychotic symptoms for most of the time. Schizo affective disorder cannot therefore be diagnosed on the basis of one episode of illness. The mood symptoms are depressive, manic or mixed, and form a major portion of the course of the illness. Substance-induced symptoms and symptoms due to a general medical condition have to be excluded.

DSM-V classifies schizoaffective disorder into bipolar type and depressive type.

Although commonly diagnosed, it is a diagnosis which is difficult to make with

certainty, since it depends on the accurate determination of the prominence and temporal relationship of the mood and schizophrenia symptoms. Mood symptoms commonly occur in schizophrenia, especially depressive symptoms, and psychotic symptoms can occur in mood disorders. Mood symptoms can occur in substance-induced psychosis and psychosis due to a general medical condition.

### **Management**

If the patient is acutely disturbed, hospitalization is indicated.

Acute stabilization with parenteral medication is the same as that for schizophrenia. The definitive pharmacological management involves a combination of a mood stabilizer and antipsychotic. Commonly used mood stabilizers are sodium valproate, carbamazepine and lithium carbonate. Lithium carbonate needs monitoring and is therefore not commonly used where such monitoring is not easy to carry out.

If the patient has severe depressive symptoms, an antidepressant can be given.

### **Delusional disorder**

This is a rare disorder. Prevalence is about 0.03% and the condition usually occurs in middle age. It is characterized by the presence of a delusion or related system of delusions. Previously, the delusions were required to be non-bizarre but in the DSM-V the delusions in delusional disorder can be bizarre (a non-bizarre delusion is a delusional belief about situations that are plausible and can occur in real life, like being poisoned, persecuted and the like). The patient's social and occupational functioning is usually not impaired. There are also no prominent mood or hallucinatory symptoms and, if hallucinations occur, they are usually short lived.

The patients usually have no insight and do not believe they are sick. Types of delusional disorder:

- Erotomanic type
- Grandiose type
- Persecutory type
- Jealous type
- Somatic type
- Mixed type
- Unspecified.

### **Induced delusional disorder**

This is a condition in which a person in a close emotional relationship with a psychotic person develops the delusional symptoms of the psychotic person. Usually, the initial psychotic person is the dominant partner in the relationship. When the two equally share the delusional symptoms, the condition is called *folie à deux*. The condition is now grouped together with delusional disorders, as discussed above in DSM-V.

Treatment involves the separation of the two people, and the delusions usually disappear in the partner in whom they have been induced. The delusional symptoms are managed as described for delusional disorder.

### **Management**

Because of the lack of insight, patients with delusional disorder are usually difficult to manage. Treatment includes individual psychotherapy and a low-dose antipsychotic. Some clinicians use a combination of low-dose antipsychotic and an antidepressant.

### **Acute psychotic disorders (ICD-10) brief psychotic disorders (DSM-V)**

Acute psychotic disorders are disorders in which a patient develops a psychotic state from a clearly non-psychotic state within a period of two weeks or less. The symptoms last from a period of one day to one month, and usually there is good recovery. The disturbance may arise suddenly and in some cases is associated with a stressor, for example bereavement, loss of job and so on. However, in many cases there is no identifiable stressor. The disturbance should not be due to a mood disorder, substance intoxication or an underlying general medical condition.

Using DSM-V criteria, if there is an underlying stress or then the disorder is called a brief reactive psychosis.

The patient may present with rapidly changing behavioural and emotional symptoms. The ICD-10 sub-classifies the acute and transient psychotic disorders into:

- (a) **Acute Polymorphic psychotic disorder without symptoms of schizophrenia** – the patient presents with rapidly-changing psychotic behavioural and emotional symptoms.
- (b) **Acute Polymorphic psychotic disorder with symptoms of schizophrenia** – the patient has rapidly-changing symptoms like in (a), but with persistent schizophrenic symptoms.
- (c) **Acute Schizophrenia-like psychotic disorder** – relatively stable schizophrenic symptoms are present for most of the time and the clinical posture is not rapidly changing like in (a) and (b).

- (d) **Acute Predominately delusional psychotic disorder**—delusions and hallucinations are predominant, but do not fulfil the criteria for schizophrenia or an acute polymorphic psychotic disorder.

### **Management**

Usually these patients are very disturbed and restless and will need admission and care in a secure environment.

Initial treatment to sedate the patient if non-pharmacological means fail is with an antipsychotic or a combination of an antipsychotic and abenzodiazepine, as for an acutely disturbed schizophrenic patient. If the symptoms persist beyond a month, the diagnosis is changed.

Using ICD-10 criteria, an acute schizophrenia-like psychotic disorder diagnosis is changed to schizophrenia if symptoms persist beyond one month, while using DSM-V criteria the diagnosis will change to a schizophreniform disorder.

### **In practice**

Psychotic disorders are very common in psychiatric clinics and an essential skill is knowing how to elicit psychotic symptoms and ruling out general medical conditions and substance use as a cause.

### **Further reading**

The ICD 10 classification of mental and behavioural disorders. Clinical descriptions and diagnostic guidelines (1992). WHO. Bombay: Oxford University Press.

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Arlington, V A, American Psychiatric Association, 2013.

Tsuang M.T, Faraone S.V, Glatt S.J. Schizophrenia: the facts (2011). Oxford University Press.

*Chapter 5*

## **Mood (affective disorders)**

Mood disorders have as their primary symptom a disturbance in the patient's mood, which causes distress to the individual or interferes with the person's social and occupational functioning. Although there can be symptoms other than mood symptoms, these are usually secondary to the mood change or the mood change is the most prominent disturbance.

The mood spectrum varies from severe depression to extreme elation (mania), with varying degrees of intermediate moods in between.

Severe depression  $\longleftrightarrow$  Mania

### **Broad classification**

The mood disorders in DSM-V are broadly divided into bipolar and related disorders and the depressive disorders. The bipolar and related disorders include bipolar I disorder, bipolar II disorder, cyclothymic disorder and others, including substance and medication-induced disorders and those due to another general medical condition.

The depressive disorders include disruptive mood dysregulation disorder, major depressive disorder, dysthymia, premenstrual dysphoric disorder and those due to substance, medication, general medical conditions and others.

### **Aetiology**

Mood disorders arise from multifactorial causes and in some cases there might be no identifiable cause.

### **Genetic causes:**

Evidence from family, twin and adoption studies points to possible genetic causes.

### **A) Biochemical causes**

#### **i Amino hypothesis**

It has been postulated that the neuro transmitter levels, either by being in

deficit or excess, play a role in the causation of mood disorders. The neurotransmitters mostly implicated are noradrenaline, serotonin and dopamine.

The evidence pointing to this includes:

- 5-Hydroxy-indoleacetic acid (5HIAA)—a serotonin metabolite— is decreased in depression.
- Tryptophan, a serotonin precursor has some antidepressant activity.
- Dopaminergic agents like methylphenidate have some antidepressant activity. The antidepressant bupropion acts by dopamine re-uptake inhibition.
- Reserpine, which can cause depression, depletes catecholamines.

## **ii Neuroendocrine causes**

Neuro-endocrine abnormalities have been associated with mood disorders in some patients. Hypothyroidism can cause depression, while hyperthyroidism can lead to mania.

Cushing's syndrome and hypo – and hyperthyroidism have been associated with depressive disorders.

## **B) Psychosocial factors**

Multiple psychosocial factors have been associated with the onset, relapse of, or increased vulnerability to mood disorders.

The loss of a parent before the age of eleven years has been associated with increased vulnerability to developing depression.

Stressful life events can also lead to a mood disorder.

In patients who are depressed, living with a critical and hostile relative can increase the risk of relapse just as has been demonstrated in schizophrenia. Depression has also been conceptualized as being a result of negative cognitions due to a patient's frequent expression or thinking of inaccurate negative things about themselves, for example "I am useless" or "People don't like me".

## **Specific mood disorders**

### **Manic episode (ICD-10 F30)**

Confusion sometimes arises in diagnosis, especially where both the ICD-10 and DSM-V are used when it comes to using the term manic episode and bipolar I disorder.

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Manic episode refers to a distinct episode of persistently elevated, expansive or irritable mood, with an attendant increase in the rate of physical and mental activity, which causes impairment in functioning or requires hospitalization and is not due to substance use or a medical condition.

Using DSM-V, a single manic episode is enough to diagnose bipolar I affective disorders.

### ***Symptoms of manic illness***

A manic patient is difficult to miss, as a manic episode is one of the most dramatic presentations of any psychiatric illness. The patient presents with a markedly elevated mood and increase in physical activity and restlessness. When asked how they feel, they may answer, "I'm very, very happy, very happy, on top of the world". They are talkative, with pressure of speech, and have flight of ideas. They may be inattentive when talked to and easily irritated when challenged or interrupted.

### **Thoughts**

Their thoughts as manifested in the speech are racing. They move from one topic to another—flight of ideas. In severe forms of mania, the patient may have delusions. The delusions are usually mood congruent, with grandiose themes.

### **Perception**

If a manic patient has hallucinations, they are usually auditory in nature and mood congruent. The patient may report the experience of voices praising them, for example telling them they are the cleverest person in the world.

### **Cognitive functioning**

Concentration and attention are markedly impaired and the patient is easily distracted. There is lack of judgement, and the patient engages in pleasurable activities that can have negative consequences, for example engaging in money-spending sprees and sexual indiscretions.

### ***Exclusion Criteria***

The symptoms should not be due to the direct physiological effects of a substance or a general medical condition.

### ***Management***

Most manic patients require hospitalization as they may pose a danger not only to themselves but also to others.

In the majority of cases, the patient will need to be admitted involuntarily, since they

usually lack insight and are unwilling to be admitted. Manic patients are usually very difficult to deal with during the acute stage of their illness, because they will be mostly argumentative, irritable and, if thwarted, can be physically aggressive. The clinician needs to be very calm and avoid getting drawn into an argument with the patient. The immediate goal on admission is to reduce the patient's restlessness and agitation.

### ***Acute drug management***

Parenteral antipsychotics available for acute sedation locally are:

- Haloperidol – IM. 5 – 20mg stat
- Chlorpromazine – IM. 50mg stat

If haloperidol is available, it is preferable to chlorpromazine (see chapter on dealing with a violent and aggressive patient). An antipsychotic alone may not be enough to quickly sedate the patient, and it can be combined with a benzodiazepine. Benzodiazepines available locally are diazepam, lorazepam and midazolam.

Caution: although widely used, diazepam should be used intravenously only if resuscitation facilities are available because of the risk of respiratory arrest.

Intramuscular administration of diazepam is unreliable, due to poor absorption.

- Diazepam 5 – 20mg slowly IV
- Lorazepam 2 – 4mg IM
- Midazolam 2.5 – 15mg IM

Initial management of a markedly disturbed patient in the acute stage involves a combination of a mood stabilizer and an antipsychotic.

Although lithium is an effective mood stabilizer it is not widely used because it needs monitoring of serum levels and in most of the health facilities it is not possible to get lithium levels done in time.

Any of the available antipsychotics can be used in combination with mood stabilizers in the management of mania. These are chlorpromazine, thioridazine, haloperidol, trifluoperazine and the newer antipsychotics, that is risperidone, olanzapine or quetiapine, where available.

Once the acute manic symptoms are controlled, and if there are no on-going psychotic symptoms, the patient can be maintained on a mood stabilizer only; and the antipsychotic discontinued. However, some newer antipsychotics like olanzapine are indicated for treatment of manic illness.

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After acute sedation in the initial stages with parenteral antipsychotic and benzodiazepine, an oral benzodiazepine like clonazepam for a short period may provide faster control of symptoms by improving sleep and agitation.

Thus a manic patient may be put on the following drug management regime during the various stages:

On admission (patient very agitated, aggressive or violent)

IM.haloperidol 5–10mg stat then p.r.n hourly if still markedly disturbed

+ IM.lorazepam 2–4mg or IM midazolam 7.5–15mg. If lorazepam or midazolam are not available, IV diazepam 10mg can be given slowly (where resuscitation is available) with monitoring of vital signs.

### ***Oral starting regime***

a) Tabs sodium valproate 200mg b.d

Tabs haloperidol 5 mg b.d

or

b) Tabs olanzapine 5–10mg o.d

Sodium valproate 200mg b.d

If continuing restlessness /agitation, the clinician may add:

Clonazepam 1mg tds (can go up to 2mg tds for a short period e.g.oneweek. (Titrate according to response).

### ***Maintenance (after patient stabilizes)***

Sodium valproate (simplify dosing interval to twice a day), depending on response up to maximum 2500mg/day.

It can be combined with the lowest dosage of antipsychotic necessary to control psychotic symptoms if present, for example haloperidol 1.5–5mg

or olanzapine 5–10mg nocte, or risperidone 2mg nocte. (Always simplify dosing interval, preferably nocte, for those drugs with long half-lives).

Antipsychotics alone are not usually recommended for maintenance treatment of mania; however the atypical antipsychotic olanzapine can be used on its own for maintenance treatment of bipolar disorder.

### **Depression**

Depression is common in clinical practice.Studies have shown that up to 20% of patients

attending a general outpatient clinic may suffer from depression. The most salient feature of a depressive illness is the presence of a depressed mood for most of the time, nearly everyday, and/or loss of interest or pleasure in activities previously enjoyed.

### **Typical signs and symptoms of depression**

#### ***Appearance and behaviour***

The patient may appear slowed down and unkempt. Eye contact is poor and facial appearance may be sad or tearful.

#### **Speech**

The speech is minimal and may convey little information. Questions may be answered in monosyllables and answers are unelaborated. In extreme cases the patient may be mute.

#### **Mood**

Obviously the most characteristic feature of the mood in depression is a feeling of sadness, low mood and loss of pleasure in all activities. However, some depressed patients may present with irritability and even agitation and restlessness.

Since many African languages do not have a word that directly translates as depression, when asked how they feel the depressed patients may answer “I feel down” or even “my heart does not feel well”. One has to be alert to the cultural expression of distress. Phrases involving the use of the heart may be a descriptor for anxiety or depression.

Some depressed patients do not express any mood symptoms and instead their complaints are mostly physical and they complain about backache, headache, loss of libido and so on. Thus diagnosis of their depressive illness will depend more on the clinician being on the alert for other symptoms of depression as given in the diagnostic criteria.

#### **Affect**

The patient appears sad, downcast with poor eye contact. Sometimes the affect is blunt or flat, or even irritable.

#### **Thoughts**

Thoughts are slowed and there may be “poverty of thoughts” with the thoughts conveying little information.

The thought content is usually gloomy, with expressions of feelings of worthlessness and guilt and a pessimistic view of the future. The patient may blow small mishaps out of proportion and have recurrent suicidal ideation or thoughts about death.

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In psychotic depression, the patient has delusions and/or hallucinations. The delusions are usually mood congruent, that is the content is consistent with the mood, for example a depressed patient believing he is the world's greatest sinner and is responsible for some natural disaster that has occurred, like floods. However, mood incongruent delusions may also occur in severe **unipolar** depression, though they occur more frequently in bipolar depression or schizo affective disorder, depressed type.

### **Perception**

As mentioned above, hallucinations can occur in severe depression. The hallucinations are usually auditory, but olfactory and other types of hallucinations can occur. Auditory hallucinations may occur in the form of a voice or voices talking to the patient, confirming his or her depressive feelings of guilt or worthlessness that he or she is experiencing, for example "You are a useless person" or "Your life is not worth living".

### **Cognitive functioning**

Depression may at times be difficult to distinguish from dementia when the depressive symptoms include marked cognitive symptoms. Depressed patients may have difficulty in concentrating and poor memory. The psychomotor retardation and apathy may make the patient perform poorly on tests of attention, concentration and orientation.

### ***Vegetative symptoms***

Depressed patients may show significant weight loss or, in some patients, weight gain.

Sleep is usually disturbed. Most depressed patients have insomnia, but some may sleep excessively. Severe depression is usually associated with terminal insomnia. The patient wakes up early, may be at around 2 or 3am, and can't get back to sleep.

Feelings of tiredness and a lack of energy to carry out tasks are also common. This lack of energy may, in severe cases, lead to the neglect of personal hygiene and the patient withdrawing more and more into themselves to the point that they may even become bed bound.

### ***Other symptoms***

The patient may feel worthless and wracked by excessive guilt. This may lead to suicidal ideation and suicidal attempts.

### **Epidemiology of depression**

- Depression is twice as common in women as in men
- Depression occurs in all ages, but the most severe forms of depression occur in

middle to old age.

- Depression occurs in all cultures, but its expression differs in different cultures. In western cultures the expression is more through emotions, while in most Asian and African cultures the expression may be mostly through physical symptoms.

### **Treatment of depression**

Treatment of depression, like that of other conditions, follows the biopsychosocial model. Deciding on whether a patient should be treated as an inpatient or an outpatient depends, amongst other factors, on:

- Evaluation of suicide/homicide risk
- Severity of depression, for example the patient being unable to eat
- Whether there are precipitating or perpetuating factors from which the patient needs temporarily to be removed.

If the depression is severe and the suicide/or homicide risk is high then the patient will have to be admitted, even involuntarily. It is worth emphasizing that the risk of suicide must always be assessed in all patients presenting with depressive symptoms.

### ***Psychological treatment***

This can range from simple **supportive therapy to more complex psychological treatments**. Allow patients to discuss their feelings and emotions. Offer advice and assistance where possible and indicated.

**Cognitive therapy** is based on interventions designed to identify, challenge and correct the negative cognitions.

**Interpersonal therapy** is a short-term therapy (usually up to twenty weekly sessions of one hour each) designed to address problems related to the interpersonal functioning of depressed patients. It also, like cognitive behavior therapy (CBT), involves gathering information and clarifying and explaining the diagnosis to the patient. The interpersonal issues involved are explained and treatment through structured assignments follows a protocol. Role playing is used to enhance the patient's interpersonal skills.

Other psychological treatments include **brief psychodynamic psychotherapy** and **prolonged (classical) psychoanalysis**, which is rarely used nowadays.

### **Pharmacotherapy of depression**

Commonly available antidepressants in the public health system in many countries are the tricyclic antidepressants and selective serotonin re-uptake inhibitors. However, in

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private clinics other antidepressants like serotonin and noradrenaline re-uptake inhibitors (SNRI, for example venlafaxine) and others from other groups are widely prescribed.

For details on the various drugs see the chapter on drug treatments in psychiatry.

Since most antidepressants are similar in therapeutic efficacy, the choice of which drug to use depends on:

- The patient's symptom profile. For example, a restless, agitated depressed patient with insomnia will benefit from a sedating antidepressant.
- Previous treatment response if it is a patient with recurrent depression.
- The cost of the drug.
- The availability of the drug.
- Medical history and physical findings. For example, avoid **tricyclics**

In patients with severe cardiac conditions.

- Other medications that the patient may be on.

Because they are widely available, in most cases it is practical to start with the tricyclics, unless they are contra-indicated. The most widely prescribed tricyclics are amitriptyline and imipramine. Amitriptyline is more sedating than imipramine, and would therefore be preferred in a patient in whom a sedative effect is required.

| <b>Dosage ranges are</b> | <b>Start</b> | <b>Maximum dose</b> |
|--------------------------|--------------|---------------------|
| Amitriptyline            | 25mg         | 150mg               |
| Imipramine               | 25mg         | 150mg               |
| Trimipramine             | 25mg         | 150mg.              |

Start low and increase every three to four days till a therapeutic dose is reached. Dosing can be in divided doses, for example b.d., but a once-daily dosing, preferably at bed time, especially for the most sedating tricyclics like amitriptyline and trimipramine, is preferred.

In cases where tricyclics are not suitable, like where there is also severe cardiovascular disease, the SSRIs are preferred as a first line. They generally have fewer side-effects.

Fluoxetine is widely available in the public health system. Other SSRIs include paroxetine, citalopram, escitalopram, sertraline and fluvoxamine.

Dose ranges for some of the available SSRIs for depression are:

| <b>Usual Dose</b> | <b>Maximum</b>   | <b>Dose</b> |
|-------------------|------------------|-------------|
| Fluoxetine        | –20mg/day        | 60mg/day    |
| Sertraline        | – 50 to100mg/day | 200mg/day   |
| Paroxetine        | –20mg/day        | 50mg/day.   |

Treatment duration for first episodes, regardless of the group of antidepressants used, is six to twelve months after resolution of symptoms.

For more details on the use of antidepressant drugs refer to chapter on drug treatments in psychiatry.

### **Dysthymic disorder**

This is a chronic form of mild depression, lasting at least two years and characterized by at least two of the following symptoms: poor appetite or excessive appetite, insomnia or hypersomnia, low energy or fatigue, low self-esteem, poor concentration and feelings of helplessness.

The symptoms are less severe than in major depressive disorder, but the patients are chronically unhappy and may go on to develop major depressive disorder.

Symptoms of mania, hypomania or mixed episodes (mania-depression) exclude a diagnosis of dysthymia. The diagnosis requires that the patient has a depressed mood for most days over a period of two years. Symptoms are never absent for more than two consecutive months and should not be directly caused by substance use, medical illness or medications. In children and adolescents the duration of symptoms is one year.

#### ***Treatment***

Treatment involves a combination of psychotherapy and antidepressants. Tricyclics, selective serotonin inhibitors or monoamine oxidase inhibitors can be used. However the MAOIs are not widely used.

### **Cyclothymic disorder**

In **cyclothymia** there is chronic instability of mood, alternating between hypomanic and dysthymic episodes for at least two years. During the hypomanic phase, the patient is cheerful and feels on top of the world and then swings to the lows of depression and despair. The patient must not have met criteria for major depressive disorder, manic episode or mixed episode in the two years.

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### ***Treatment***

Treatment involves psychotherapy and medications. Mood stabilizers like sodium valproate, carbamazepine or lithium carbonate are the treatments of choice. Dosage levels are as prescribed in bipolar disorder, though lower doses may be effective. Antidepressants are not advised as they may precipitate manic episodes. If an antidepressant is prescribed, it is combined with a mood stabilizer.

### **Inpractice**

An easy mistake to make when assessing a patient with a mood disorder is to forget to take a longitudinal history. Thus, a patient presenting with obvious depressive symptoms may be diagnosed as having unipolar depression when in fact they may be in the depressed phase of a bipolar illness. Thus, if the patient is put on an antidepressant only they may easily tip over into mania. It is therefore always necessary when assessing a patient presenting with mood symptoms to ask about any previous manic, hypomanic or depressive symptoms.

### **Further reading**

Bloch S, Singh BS.(2007) Foundations of Clinical Psychiatry. 3rd ed. Melbourne University Press, Melbourne, Australia.

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Arlington, VA, American Psychiatric Association, 2013.

The ICD10 Classification of Mental and Behavioural Disorders. Clinical descriptions and diagnostic guidelines. (1992). WHO. Bombay: Oxford University Press.

## *Chapter 6*

# **Anxiety and neurotic, trauma and stress related disorders**

### **Anxiety disorders**

Anxiety is a state of apprehension or uneasiness in reaction to a perceived or potential stressor. Unlike fear, which is usually in response to an identifiable, imminent stressor, anxiety may “arise out of the blue”, without an identifiable stressor. Anxiety is a normal response that spurs a person to action but, if it is excessive or prolonged and interferes with the person’s functioning, then it becomes an anxiety disorder.

Anxiety disorders have physical, psychological, cognitive and behavioural components.

### **Generalised anxiety disorder**

Patients with generalised anxiety disorder have pervasive symptoms of anxiety and worry present most of the time and not confined to or precipitated by any particular situation. The anxiety and worry must have occurred for at least six months and symptoms include feelings of restlessness, being easily fatigued, difficulty in concentrating, irritability, muscle tension and sleep disturbance. The disorder is more common in women than men and its course is usually chronic.

### ***Treatment***

Generalised anxiety disorder is treated with a combination of drugs and psychotherapy.

### **Drugs**

Antidepressants are effective in the treatment of generalised anxiety disorder, regardless of whether there are co-existing depressive symptoms or not. Selective serotonin receptor inhibitors are drugs of first choice. Tricyclic antidepressants like amitriptyline and imipramine are also effective.

Other antidepressants that are used include buspirone.

Benzodiazepines like diazepam can be used for a short time (up to two weeks) in

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combination with antidepressants until the antidepressants take effect (usually after two weeks).

Various types of psychotherapy are used in the treatment of generalised anxiety disorders. The choice of the psychotherapy depends on clinician experience and patient preference.

### **Behavioural and psychotherapeutic treatments**

These include:

- Cognitive behavior therapy
- Interpersonal therapy
- Brief dynamic psychotherapy.

Other methods which are helpful include teaching the patient relaxation exercises, physical exercises and meditation.

### **Panic disorder**

Panic disorder is characterized by repeated sudden and unexpected panic attacks. Panic attacks are episodes of sudden attacks of acute anxiety characterized by psychological symptoms like extreme fear and physical symptoms like palpitations, shortness of breath and other signs of autonomic nervous system arousal. Panic attacks mostly arise suddenly out of the blue without any warning. Some panic attacks may be precipitated by exposure to certain situations especially situations in which panic attacks occurred previously.

The symptoms of a panic attack include:

- Palpitations
- Chest pain
- Choking sensations
- Dizziness
- Fear of losing control or going crazy
- Feelings of unreality
- Nausea or abdominal distress
- Sweating
- Numbness and tingling of fingers and lips.

Because the symptoms occur suddenly and unexpectedly, the patient soon develops a fear of having another attack (anticipatory anxiety) and may also develop a fear of going to

places where an attack occurred (phobic avoidance).

ICD-10 diagnostic criteria for panic disorder are:

- (a) Several attacks within a period of one month
- (b) In circumstances where there is no objective danger
- (c) Not confined to known or predictable situations
- (d) With relative freedom from anxiety symptoms (except for anticipatory anxiety) in-between attacks.

### **What causes panic disorder?**

The exact cause is unknown, but several theories about possible contributory factors include:

- There is a higher risk for the disorder amongst relatives of patients with the disorder.
- **Psychological** factors like stress.
- Abnormalities in brain neurochemistry especially involving noradrenalin and serotonin.
- Hypersensitivity to carbon dioxide.

### ***Epidemiology***

Panic disorder is more common in women than men.

### ***Treatment***

As for generalised anxiety disorder, a combination of medication and psychotherapy is usually used.

### ***Drugs***

**Antidepressants:** where readily available, selective-serotonin receptor inhibitors are first choice. Tricyclics are a good alternative where the SSRIs are not easily available. Imipramine shows good efficacy in panic disorder. Again, as for generalised anxiety disorder, it may be initially combined with abenzodiazepine. Monoamine oxidase inhibitors can also be used but they are not widely used due to their side effect profile. Other antidepressants used include the SNRI venlafaxine.

**Benzodiazepines:** The high-potency benzodiazepines clonazepam and alprazolam can be used alone or in combination with antidepressant as indicated above. Other benzodiazepines like diazepam and lorazepam are also used.

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Other drugs which have been used in panic disorder include the mood stabilizer sodium valproate.

### ***Psychotherapy***

Psycho-education: educate the patient about the illness.

### ***Psychodynamic psychotherapy***

In some patients in whom unconscious conflicts arising from childhood play a role in the causation, exploration of those conflicts through brief psychodynamic psychotherapy is useful.

### ***Cognitive-behaviour therapy:***

This is indicated especially in those patients whose panic disorder is complicated by phobic avoidance.

Exposure therapy can also help in those with agoraphobia.

Behavioural methods of treatment include breath-retraining exercises and meditation.

### **Phobic anxiety disorders**

Phobias are excessive and unreasonable fears of situations or objects. The feared situations or objects evoke anxiety even when at that time they are not dangerous and pose no realistic danger to the sufferer.

### **Agoraphobia**

Literally “fear of the market place”, agoraphobia is a phobic disorder characterized by wide-ranging fear, but mostly involves a fear of being in open places or in places where the patients think they may be trapped and find it difficult to escape from, for example in shops, crowds and public transport. Because of this fear, the patient may develop a fear of travelling away from home and thus become house bound. They also may fear being alone.

Agoraphobia can occur with panic disorder or without panic disorder. Most attacks are accompanied by panic attacks and those without panic disorder are rare.

The aetiological factors are similar to those for panic disorder. Genetic, neurobiological and psychological factors play a role, as discussed earlier.

Agoraphobia is more common in women and age of onset is usually in the late twenties.

Differential diagnosis includes depression, psychotic illnesses like schizophrenia and other anxiety disorders like social phobia.

### ***Treatment***

Optimal treatment involves a combination of drugs and psychological methods of treatment.

### ***Drugs***

The drugs of choice are those drugs with anti-panic effects, which include antidepressants and benzodiazepines.

The antidepressants usually used are the selective serotonin receptor inhibitors like paroxetine, fluvoxamine and clomipramine. High potency benzodiazepines like clonazepam and alprazolam are also used.

### ***Psychological methods of treatment***

These include:

***Behaviour therapy:*** exposure therapy has been successfully used. Exposure can be graded or it can involve flooding.

***Cognitive therapy:*** This involves challenging the misinterpretations and exaggerations which often follow a panic attack, for example, “I am having a heart attack” or “I am dying”.

***Supportive therapy:*** The therapist takes an active interpretive and directive role in the treatment. The treatment involves psycho-education and problem solving and aims at helping the patient regain their functional capability.

### ***Social phobia***

In social phobia, the patient fears acting in an embarrassing or humiliating manner during a public performance or under scrutiny by other people.

Most people, including experienced public performers and speakers, experience a sense of anxiety before a public appearance. This is normal and can help spur one to a great performance. However, for the person suffering from social phobia the anxiety is extreme and incapacitating.

Social phobia is a very common disorder. In fact; some epidemiological studies have ranked it the third most common mental health disorder after depression and alcohol dependence.

Symptoms of social phobia include psychological symptoms like nervousness, negative thoughts and physical autonomic nervous system symptoms like sweating, palpitations, trembling and others. Social phobia can be generalised or specific.

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Treatment involves medication and psychological methods.

Some studies have shown a combination of cognitive behavior therapy and monoamine oxidase inhibitors has proven to be the most beneficial. However, as earlier pointed out, MAOIs are not widely available. Consequently SSRIs are used as first-line drugs.

Cognitive therapy involves the patient challenging beliefs that people are scrutinizing them and judging them.

Behaviour therapy includes graded exposure, and breathing and relaxation exercises.

Social skills' training has also proven helpful in some patients.

### **Specific phobias**

These are overwhelming anxiety attacks triggered by and restricted to a specific object or situation. The patient tries to avoid the object or situation as much as possible, although they recognize that the fear is unreasonable.

Objects and situations commonly feared are animals, insects, heights, driving, flying and others.

DSM-V lists five types of specific phobias—**animal type, natural environment type, blood-injection-injury type, situational type, and other types.**

#### ***Symptoms of specific phobia***

Apart from the excessive anxiety and avoidance of the feared situation, physical symptoms caused, trembling, numbness or tingling, shortness of breath, a feeling of choking and others.

#### ***Treatment of specific phobia***

Unlike in the other phobias discussed, psychological and behavioural treatments have better outcomes in specific phobia than drug treatments.

Behavioural treatments used include:

- **Exposure:** the patient is exposed to the feared object or situation repeatedly until the situation no longer triggers fear. Real-life exposure is usually more effective than **imagined** exposure.
- **Systematic desensitization:** systematic desensitization involves progressive relaxation of muscle groups combined with graded imaginal exposure to the feared stimulus.
- **Cognitive restructuring combined with exposure.**

- **Applied muscle tension**—used to treat patients with blood-injection-injury type phobias. The patient tenses all muscles in the body while being exposed to blood and needles.

### **Obsessive-compulsive disorder**

Patients with obsessive-compulsive disorder suffer from obsessions and compulsions. **Obsessions** are persistent, intensive thoughts or images that increase anxiety while **compulsions** are physical or mental **rituals** carried out in response to the obsessions and aimed at reducing the anxiety.

Most patients with obsessive-compulsive disorder (over 75%) suffer from both obsessions and compulsions, but a few only suffer from either obsessions or compulsions only.

The patient recognizes the obsessions and compulsions as their own thoughts and as being unreasonable and attempts to suppress them. The symptoms cause a lot of anxiety and distress to the patient. Symptoms include worries about contamination, which can lead to repeated hand washing, doubts and worries about danger leading to repeated checking, and intrusive thoughts about taboo subjects like sexual matters.

### **Epidemiology**

Studies in United States of America show that OCD is very common and affects 2 to 3% of the population. There are very few studies of prevalence rates in Africa. This does not mean OCD doesn't exist; it may be that it is under-diagnosed or misdiagnosed. A study by Ndeti et al (2008) at Mathare hospital in Kenya showed obsessive compulsive symptoms were common but were not recognized, hence not treated.

The disorder begins in the teenage years and affects males and females equally, although in the early years more boys than girls are affected.

### **Aetiology**

**Anatomical:** OCD has been associated in some cases with injury to the basal ganglia.

**Biochemical:** abnormalities of serotonergic and dopaminergic systems have been implicated.

**Genetic:** there is a higher rate in monozygotic than dizygotic twins and the rate is higher in first degree relatives of those with OCD.

**Psychological:** Freudian psychoanalytic theory attributed OCD to a breakdown in defence mechanisms against anxiety—like isolation and undoing.

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## **Treatment**

Like for so many other anxiety disorders, the best treatment for obsessive-compulsive disorder is a combination of drugs and cognitive behavior therapy.

### ***Drugs***

Serotonergic agents are the gold standard treatment for OCD.

Clomipramine was for a long time the most effective treatment for OCD until the advent of SSRIs. Clomipramine is used in doses of 200 – 300mg per day.

All the selective serotonin receptor inhibitors are effective in the treatment of OCD. Higher doses than those usually used for depression are used, for example fluoxetine 60mg/day.

There is a delayed response of anti-OCD activity and it takes up to twelve weeks for therapeutic effect to set in.

Treatment should be continued for about one year.

### ***Behavioural/ psychological methods of treatment***

The most effective is CBT, exposure therapy for obsessions and response prevention for compulsions. Other psychological methods used include desensitization, thought stopping, flooding and aversive therapy.

## **Reactions to severe stress and adjustment disorders**

### **Acute stress reaction**

An acute stress reaction is a disturbance that develops in an individual exposed to a severe physical or mental stressor. The onset is usually within a few minutes or immediately after the stress or/and must occur within four weeks of the stressful event and last a maximum of four weeks. Stressors include any event which threatens or causes serious injury and/ or threatens death. These include events like natural disasters such as floods, earthquakes, rape, accidents, criminal assaults and being involved in a war. After being exposed to the stressor, the individual develops symptoms which start with a dazed state during which the individual is disoriented, with a numbing of consciousness and inability to process stimuli normally. The symptoms then change to include any or all of depression, anger, despair, over-activity and withdrawal.

### ***Treatment***

Psychological treatments are the treatments of choice. However; drug therapy can be helpful in particular situations.

### **Critical incident stress debriefing**

This is where a patient undergoes debriefing within a short time, preferably before three days after the incident, is widely practised, but some studies have shown doubt about its efficacy. In critical incident stress debriefing, victims of acute stress reaction are educated about the symptoms of acute stress reaction and they relive their experiences of the incident, including the emotions they felt. However, usually patients are more interested in getting practical help like, for example, if they lost their homes in a natural calamity how they will go about getting shelter.

Referral to social agencies that can help patients regain their footing can be done.

### **Cognitive behaviour therapy**

This helps the patient deal with the attendant negative cognitions that arise as a consequence of the traumatic experience.

### **Drugs**

Drugs are indicated for symptomatic treatment. If the patient is very anxious, a short-term anxiolytic can be given. A short-term hypnotic can also be given if the patient has trouble sleeping. There is a common practice of prescribing antidepressants to patients presenting with acute stress reaction. However, antidepressants are not indicated unless the patient's symptoms persist and develop into depressive illness.

### **Post-traumatic stress disorder**

Post-traumatic stress disorder is a trauma and stress related disorder that arises when a person is subjected to an extremely threatening event, either by experiencing it directly or witnessing it. The person's response involves intense fear, helplessness or horror.

The symptoms include re-experiencing the event, avoidance of stimuli or other reminders of the event, emotional numbing and symptoms of increased arousal.

Any of the events listed as causing an acute stress reaction can also lead to a post-traumatic stress disorder, for example rape, natural calamities, accidents, assault, witnessing a horrific death or injury or being held hostage. However, events differ in ability to cause PTSD.

Women have a higher rate of post-traumatic stress disorder than men— twice as much.

### ***Treatment of post-traumatic stress disorder***

Treatment consists of drug treatment and psychological methods of treatment.

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## **Drugs**

Selective serotonin receptor inhibitors are first-line drugs. Where they are not readily available, tricyclics can be prescribed.

SSRIs used include sertraline (zoloft) in doses from 50–200mg/day, fluvoxamine (luvox) 100–300mg/day and fluoxetine, 20–60mg/day.

The tricyclics used include imipramine from 50–200mg/day and amitriptyline up to 200mg/day.

Other drugs used include monoamine oxidase inhibitors. When there is poor response to the antidepressants, augmentation can be done with mood stabilizers like carbamazepine, which has been shown to have an effect on symptoms like anger and impulsivity and sodium valproate which can decrease hyper-arousal symptoms.

Other medications which have been used include propranolol in fairly high doses (up to 160mg/day) and clonidine.

## **Psychological methods of treatment**

As discussed in the treatment of an acute stress reaction, immediate critical incident stress debriefing after a traumatic exposure can be useful. Brief dynamic psychotherapy and group therapy have also been used.

Cognitive behavior therapy, with the behavioural component involving graded exposure, systematic desensitization and relaxation exercises, has been successfully used. These methods of treatment are discussed in detail elsewhere in this book.

## **Adjustment disorder**

An Adjustment disorder is characterized by the development of emotional and behavioural symptoms in response to a psychosocial stressor which is not of an unusual or catastrophic nature, for example the loss of a job, the diagnosis of a major illness and the like.

The symptoms usually develop within one month of the onset of the stressor and are significant enough to interfere with social and occupational functioning, but are not severe enough to meet the criteria for other psychiatric disorders, for example depression, generalized anxiety disorder and so on.

## **Causes**

Adjustment disorder is caused by stressful life events or major life changes. The change can even be a normally positive event, like a promotion at work.

### ***Treatment***

The treatment of choice is psychological. psychotherapeutic counselling, including teaching of problem solving and coping skills, is helpful. Group therapy can help, for example in a patient who develops an adjustment disorder following the diagnosis of cancer.

Drugs have a limited role. They can be helpful for symptomatic treatment. For example, if a patient has poor sleep, a short-term hypnotic can be given. If they are very anxious, they can benefit from a short-term anxiolytic or antidepressant.

### **Dissociative (conversion) disorders**

These are disorders not caused by a physical disorder in which there is a disturbance in the psychological functions of consciousness, memory, identity and awareness and perception of the environment. The onset of the disorder is usually related to some stressful or traumatic experience.

ICD-10 classifies the dissociative (conversion) disorders into:

- Dissociative amnesia
- Dissociative fugue
- Dissociative stupor
- Dissociative convulsions
- Dissociative motor disorders
- Trance and possession disorders.

### **Dissociative amnesia**

Dissociative amnesia is loss of memory leading to the inability to recall important personal information following a traumatic or stressful experience. The memory loss can last from a few minutes to hours or days. The loss of memory can be global, in which there is extensive memory loss including memory about personal information, for example where one lives, where one was born, who one is, or situation specific where the loss of memory is related only to the stressful event that triggered it.

Dissociative amnesia is more common in women.

Diagnosis is made when, following a traumatic or stressful event, a person presents with extensive memory loss that cannot be explained by ordinary forgetfulness.

Work-up includes taking a detailed medical history and doing a physical examination to

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rule out other causes of amnesic symptoms like drug use, head injury and similar things. Laboratory work-up will depend on the suspected causes.

Stressful events that can precipitate dissociative amnesia include accidents, physical assaults, sexual assaults (rape), and natural disasters like floods and earthquakes.

Treatment is mostly by psychological methods, though drugs may play a role for some indications.

Memory retrieval, using techniques like drug-assisted interviews or hypnosis, can be helpful in recovering lost memory. In drug-assisted interviewing, a patient is given a drug like midazolam and interviewed while under the effect of the drug. Hypnosis can also be used. For both methods the patient's consent has to be obtained and the patient must be informed that the "retrieved" memories may be false.

Other psychological methods include cognitive behaviour therapy to correct patient's faulty beliefs.

If there is secondary depression or anxiety then the patient can be given an antidepressant or anxiolytic as indicated. A short-term hypnotic can be helpful in the case of sleep problems.

### **Dissociative fugue**

Dissociative fugue arises when, following a severe stress, an individual travels away from his usual place of stay or work to a new place and assumes a new identity and has no or patchy memory of his past identity. During the fugue state, the individual is unable to recall the past but is able to carry on with normal activities.

#### ***Cause***

Severe psychological stress caused by traumatic events like accidents, wars, physical assaults, rape and natural disasters.

#### ***Course***

The disorder can last from few minutes to several months. During the fugue state, the patient usually does not exhibit any abnormal behavior but after the end of the fugue state he or she may be confused and disoriented. Most patients recover, but some have recurrent fugues.

#### ***Diagnosis***

A thorough history is obtained and physical and laboratory assessments to rule out conditions that may present with fugue states, like drug intoxication, alcoholic blackouts,

complex partial seizures or other general medical conditions, are done.

### ***Treatment***

As for dissociative amnesia, memory retrieval techniques using drug-assisted interviewing or hypnosis can be therapeutic. Supportive psychotherapy and family interventions are also used. Any secondary complications, like suicidal ideation, depression or anxiety are dealt with accordingly.

### **Dissociative stupor**

Dissociative stupor is a state of diminished awareness and reactivity to external stimuli and a marked decrease or absence of voluntary movement following a psychological stressor, which is not due to another psychiatric illness, for example, schizophrenia or a physical cause. The stupor arises out of psychological stress caused by stressful and traumatic experiences like those causing dissociative amnesia and fugue states. Dissociative stupor has been described following general anaesthesia.

The principles of management are similar to those described before for other dissociative disorders.

### **Dissociative convulsions (pseudo seizures)**

(ICD-10 –F44.5)

Although dissociative convulsions can resemble epileptic seizures, there is no actual abnormal electrical neuronal discharge and the seizures are due to psychological factors. They are classed as dissociative (conversion) disorders in the ICD-10.

Dissociative convulsions may be distinguished from epileptic seizures.

| <b>Symptom/Sign</b>           | <b>Dissociative Seizures</b> | <b>Epilepsy</b> |
|-------------------------------|------------------------------|-----------------|
| Incontinence of urine         | Rare                         | May occur       |
| Severe biting of tongue       | Rare                         | May occur       |
| Loss of consciousness         | Absent                       | May occur       |
| Automatism                    | Uncommon                     | May occur       |
| Serious injury due to falling | Rare                         | May occur       |
| Eye opening                   | Patient may resist           | No resistance   |

The first step is to educate the patient about the diagnosis in a sensitive manner, without insinuating that they may be faking the symptoms or that the symptoms are not real.

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Psychological methods of treatment include cognitive behavior therapy.

Drugs are indicated if there are secondary complications, like depression or anxiety.

### **Dissociative motor disorders**

Dissociative motor disorders involve the complete or partial inability to move part or the whole of a limb and for which no physical cause is found. There may be complete loss of movement or only some weak movement. Other symptoms may include trembling of parts of the body, or even the whole body.

#### ***Treatment***

Psychological methods of treatment like cognitive behaviour therapy can be helpful. Psychotherapy to explore the stressors which may have led to the condition and drug-assisted interviewing using either amytal or abenzodiazepine, can also be used.

Antidepressant therapy is indicated if there is secondary depression.

### **Trance and possession disorder**

There is temporary loss of a sense of personal identity and awareness of the surroundings and some patients act as if they have been taken over by another force.

### **Derealisation-depersonalisation syndrome**

Derealisation is a state in which the patient feels that the environment has changed in some strange or unreal way which is difficult to describe.

Depersonalisation is a state in which a patient feels they have changed in some unreal way so that, for instance, they feel strange and unlike themselves or unable to control their actions or thoughts.

The phenomenon can occur in normal people in response to stress, but can also occur in a host of different psychiatric and physical conditions, for example in anxiety disorders, depression, bipolar disorders and schizophrenia. Physical causes include neurologic conditions like epilepsy and other seizure disorders, trauma, migraines and drug intoxication states.

Management involves taking a proper history to identify the cause.

Physical examination and laboratory work up as indicated should be done.

If a cause is identified, it is treated.

Symptomatic management for any accompanying severe anxiety is by prescribing a short term anxiolytic, for example diazepam.

### **In practice**

Apparently obsessive – compulsive disorder is rarely diagnosed in most of Africa. This may not be because the condition is rare, but instead because, apart from the possible fact that the patients may be too embarrassed to seek help for their obsessions and compulsions, screening questions for OCD symptoms are rarely asked. It is thus helpful to include them in the review of symptoms.

### **Further reading**

Hales R.E, Yudofsky S.C, Gabbard G.O.(2011).Essentials of Psychiatry.3<sup>rd</sup> Ed.  
American Psychiatric Publishing, Washington D.C.

## *Chapter 7*

### **Somatoform disorders**

Somatoform disorders are a group of disorders presenting with physical symptoms, but in which no obvious physical abnormality is found and in which there is either evidence of, or a strong assumption of, psychological factors playing a role in causing the symptoms. There has been a re-organization in the DSM-V of the classification of somatoform disorders. Most of the disorders classified under somatoform disorders in DSM-IV TR are now classified under somatic symptom and related disorders. Somatization disorders, hypochondriasis, pain disorder, and undifferentiated somatoform disorder have been removed. However, they are still discussed in this book using ICD 10 nomenclature.

The Somatoform disorders discussed in this book are:

- Somatization disorder
- Hypochondriacal disorder
- Persistent somatoform pain disorder
- Somatoform autonomic dysfunction.

#### **Somatization disorder**

Somatization disorder is a somatoform disorder characterized by recurrent and multiple physical complaints affecting various organ systems.

According to the DSM-IV criteria, the disorder is characterized by pain in at least four different sites of the body, two gastrointestinal problems other than pain, like nausea or bloating, one sexual symptom like erectile dysfunction, one pseudoneurological symptom like blindness, and the symptoms occur before the age of thirty.

The disorder is more common in women than men, and usually has a chronic recurrent course.

#### ***What causes somatization disorder?***

The aetiology is multifactorial. Several psychological explanations have been proffered to explain the origin of the symptoms. Amongst these are that the symptoms are a form of defence against psychological distress, or a form of communication of psychological distress, while others postulate it as arising from a distorted thinking process, leading to exaggeration of minor physical symptoms.

### ***Treatment***

The disorder is difficult to treat. An obvious challenge in a patient with somatisation disorder is to get the patient to accept that the symptoms have psychological basis. The clinician needs patience and needs to explain in clear and unambiguous terms the nature of the symptoms. Give the patient time and accept their symptoms. Do the necessary investigations to rule out possible causes, but avoid excessive investigations.

General treatment methods include; teaching the patient lifestyle changes like exercise, stress reduction, relaxation training and sleep hygiene. Psychological methods of treatment include cognitive behavior therapy, where the patient is helped to identify distorted thinking about their symptoms.

### ***Drug treatment***

Antidepressants have been found useful in some cases.

### **Hypochondriacal disorder**

Patients with hypochondriacal disorder fear that they have one or more serious physical illnesses, despite repeated medical examinations showing no evidence of such illness and reassurance from medical personnel that there is no evidence to show they have the illness they believe they have. Some patients may believe that apart of their body is deformed or disfigured.

This false belief interferes with the social or occupational functioning.

One explanation for hypochondriasis is that, it arises from a misinterpretation or exaggeration of bodily symptoms. Another explanation is that patients with hypochondriasis want (unconsciously) to assume the sick role so that they are relieved from normal duties or get respite from stressful situations. Hypochondriasis has also been conceptualized as a psychological defence against guilt.

### ***Treatment***

The treatment is mainly psychological. It involves educating the patient about the condition after a thorough assessment. The clinician avoids confrontation with the patient and reassures them about the findings. Extensive invasive investigations are avoided. Co-morbid psychiatric disorders like depression are treated accordingly. Antidepressants have also been used, even when there is no clinical depression. Brief, regularly-scheduled

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visits, initially weekly, then monthly up to six months, are helpful. The patient is taught skills like: stress reduction skills, relaxation training and exercise.

Cognitive behavioural therapy can be helpful. Some clinicians have reported success with group therapy.

### **Persistent pain disorder**

Patients with persistent pain disorder complain of pain in one or more anatomical sites of the body for which no obvious organic cause can be found. Even if the patient has an underlying medical condition the severity of the pain is disproportionate to the underlying cause. Psychological factors are thought to play a role in causing the pain and the pain is severe enough to interfere with the patient's social and occupational functioning. The disorder is more common in women.

The diagnosis is made when a thorough physical evaluation fails to find a physical cause for the pain.

### ***Management***

Chronic pain can be difficult to manage and the management is best carried out by a multidisciplinary team. Psychological methods of treatment include:

- Cognitive behavior therapy
- Stress reduction and relaxation exercises
- Meditation.

### **Drug therapy**

Antidepressants have been used with some success. SSRI and tricyclic antidepressants can be used.

Chronic pain can lead to depression and substance abuse and addiction to pain killers. Although psychological factors are thought to play a role in its causation, the condition is not voluntarily produced as in malingering.

### **In practice**

Perhaps more so than in any other group of disorders, the somatoform disorders usually benefit from psychological interventions and need an on-going physician-patient relationship.

### **Further reading**

Hales R.E, Yudofsky S.C, and Gabbard G.O. (2011) .Essentials of Psychiatry. 3<sup>rd</sup> Ed.  
American Psychiatric Publishing, Washington D.C.

## *Chapter 8*

### **Alcohol and substance use disorders**

Increasing alcohol and other substance use has led to an increase in alcohol and substance use disorders, not only in Botswana but worldwide.

Alcohol and substance use disorders are mental disorders which arise from the use of alcohol and other substances and lead to problems in social and occupational functioning.

The ICD-10 gives some of the disorders which arise from alcohol and substance use as:

- Acute intoxication
- Harmful use
- Dependence syndrome
- Withdrawal states
- Withdrawal state with delirium
- Psychotic disorders
- Amnesic disorders
- Residual and late-onset psychotic disorders.

Definitions of some terms associated with alcohol and substance use are:

#### **Intoxication**

Intoxication is a reversible condition which develops shortly after use of a substance and is characterized by behavioural, physiological and psychological disturbances. The disturbances disappear when the substance is eliminated from the body.

#### **Harmful use**

This is a pattern of use which has led to actual mental or physical damage to the user.

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### **Hazardous use**

This is a pattern of use that increases the possibility of harmful consequences to the user.

### **Dependence**

Substance dependence is a syndrome characterized by behavioural and physiological symptoms like:

- A strong feeling of compulsion or desire to take the substance
- Loss of control over the substance-taking behaviour:
- Withdrawal symptoms when levels of the substance in the body starts falling. This can lead to relief use of the substance when the dependent person uses the substance to stave off the withdrawal symptoms.
- Tolerance develops when a substance user needs to take more and more of the substance to feel the same effect he felt at lower levels, or can tolerate doses that would previously have incapacitated him.
- Primacy of substance use over other activities: the dependent user spends most of his/her time looking for or engaging in substance use and neglects other activities.
- Continued use of the substance, despite the substance having caused harm to the user, for example liver damage, and the user being aware that harm was caused by the substance.

### **Abuse**

Substance abuse is a maladaptive pattern of use leading to physical, psychological and social complications.

### **Specific substances**

#### ***Alcohol***

Alcohol is the most widely used “substance” in most countries.

Ethanol is a central nervous system depressant that is highly water soluble and, after ingestion, is mostly absorbed into the body through the proximal part of the small intestine; although it is also absorbed through the mucous membranes lining the mouth, oesophagus and stomach.

Absorption is faster on an empty stomach. Most of the absorbed alcohol is broken down in the liver, mostly by the enzyme alcohol dehydrogenase.

Alcohol .....Acetaldehyde .....Acetate  
Alcohol                      Aldehyde  
dehydrogenase              dehydrogenase

### **Are there safe levels of drinking?**

To estimate the amount of alcohol taken, it is useful to consider alcohol in units, where a unit of alcohol is equivalent to:

- About 340 ml of light beer, for example st. louis
- A wine glass of wine
- A sherry glass of sherry or other fortified wine
- A standard measure of spirits (whisky, vodka).

Since different brands of even the same type of alcohol differ in strength these units can only be approximations.

The safe level of drinking for men is up to twenty-one units per week while for women it is up to fourteen units. For safe drinking, these units should not be consumed at one sitting and there should be at least two alcohol-free days in the week.

### **Alcohol use disorders**

Broadly speaking, alcoholism refers to alcohol abuse and dependence. Both terms have already been briefly defined. Alcoholism can lead to biological, physical, psychological/psychiatric and social complications, some of which are summarized below.

### **Complications of alcohol abuse**

#### *Biological (physical)*

Alcohol affects all body systems

- Gastritis
- Peptic ulcers
- Oesophageal carcinoma
- Oesophageal varices
- Malabsorption syndrome
- Liver problems and hepatitis
- Pancreatitis

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- Peripheral neuropathy
- Cortical atrophy
- Alcoholic cardiomyopathy
- Obesity
- Cancers of the gastric intestinal tract
- Hypertension
- Testicular atrophy

Foetal alcohol syndrome.

*Psychological/Psychiatric*

- Anxiety
- Depression
- Acute intoxication
- Black outs
- Alcoholic psychotic states
- Suicide
- Pathological jealousy
- Dementia
- Korsakoff's psychosis
- Wernicke's encephalopathy.

*Social*

- Marital problems
- Legal problems, for example arrests for drunk driving
- Problems at work, for example repeated absences and late coming.
- Financial problems.

**Alcohol intoxication**

The alcohol-intoxicated patient may present to the outpatient department or accident and emergency with disturbed and aggressive behaviour, talking in a loud manner, with slurred speech and having an unsteady gait.

The severity of the intoxication may range from mild to life threatening, as it can progress to coma and death.

### *Management*

1. Maintain vital functions—airways, breathing and circulation.
2. Do a full physical to rule out other medical complications
3. Give some 50% dextrose.
4. Ensure adequate hydration.
5. If there are no medical contraindications, the patient can be allowed home to “sleep off” the alcohol.

### **Alcohol dependence**

The alcohol-dependent person will have developed social and occupational impairment arising from the use of alcohol and may also have developed symptoms of dependence and withdrawal as defined earlier. Alcohol plays an increasingly important role in the dependent person's life, to the detriment of other activities.

### *Management of alcohol dependence*

- (1) The first step is to establish with the patient the extent of the problem and motivate the patient to take steps to address the problem. This can be done through motivational interviewing. Explore with the patient:
  - The extent of his drinking;
  - How the alcohol is affecting his life and activities;
  - the known harmful biological, social and psychological effects of alcohol. If the patient is in denial, one may need to confront them with the harm the alcohol has caused to them. Link their symptoms, for instance insomnia to alcohol.
  - The patient's readiness to change.
- (2) Do thorough physical examination.
- (3) Treat any co-morbid physical conditions.
- (4) If the patient has co-morbid psychiatric disorders, treat the disorder.

### *In-patient detoxification*

- (1) Do a thorough physical work-up
- (2) Do liver and renal function tests and blood counts

A possible detoxification regime can be: chlordiazeproxide(Librium) 25mg TDS x3/7

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25mg b.d x<sup>3</sup>/<sub>7</sub>

25mg nocte x<sup>2</sup>/<sub>7</sub>

One can also use diazepam as chlordiazepoxide may not be available in all centres.

Diazepam 10mg QID x <sup>3</sup>/<sub>7</sub> then

10mg tds x<sup>3</sup>/<sub>7</sub>

10mg b.d x<sup>2</sup>/<sub>7</sub>

10mg nocte x<sup>2</sup>/<sub>7</sub>

Oral or IM thiamine 100mg o.d for one week

(3) Multivitamin tabs 2 x 3 daily for two weeks

(4) Monitor fluid input/output and correct any dehydration.

After the patient goes through the acute detoxification stage, the next step is to continue to motivate them to maintain recovery and prevent relapse.

*This rehabilitation phase involves:*

- Continuing psycho-education to patient and family about alcohol.
- Helping the patient to regain skills he may have lost as a result of his dependence, for instance social skills training and referral to occupational therapists as appropriate.
- Teaching the patient alternative ways of dealing with stress, for example teaching relaxation exercises.
- Referral to self-help groups like alcoholics anonymous.

### **Alcoholic hallucinosis**

Some patients develop hallucinations, usually auditory, which occur in clear consciousness and develop within forty-eight hours after stopping alcohol. The onset is acute and the condition usually self-limiting. The condition can be confused with schizophrenia and therefore a proper history is essential.

In the acute phase, treatment is usually symptomatic, for example with a benzodiazepine like diazepam and low-dose haloperidol.

### **Wernicke-Korsakoff's encephalopathy**

These are actually two conditions which may, however, occur together.

*Wernicke's encephalopathy* is a disorder caused by a thiamine deficiency which can arise from, among other causes, alcohol abuse. It has a triad of symptoms: confusion, ataxia and ophthalmoplegia. If it continues, it may develop into *Korsakoff's psychosis* in a small percentage of patients, leading to *Wernicke-Korsakoff's encephalopathy*. Korsakoff's syndrome can, however, develop on its own. Korsakoff's is characterized by memory impairment, especially problems in learning new information and gaps in long term memory. Patients compensate for this by confabulating; making up new information for what they can't remember. Other symptoms may include hallucinations.

Treatment involves administration of thiamine, initially parenterally and then orally. Supportive and symptomatic treatment is also carried out, for example for psychotic symptoms.

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### ***Cannabis***

Dagga, also known in other places as marijuana or bhang, is derived from the *cannabis sativa* plant. The active ingredient in the plant is delta-9-tetrahydrocannabinol (delta-9-THC).

Cannabis is widely used and accounts for a significant proportion of psychiatric admissions, especially amongst the youth.

### **Cannabis Intoxication**

Cannabis intoxication presents with both physical and behavioural problems. The psychological and behavioural problems include a sense of euphoria, anxiety, a feeling of slowed time, impaired judgement and socially maladaptive behaviour.

Physical signs of intoxication include conjunctival injection, dry mouth, tachycardia, increased appetite and postural hypotension.

Cannabis intoxication may present as an acute behavioural disturbance and the patient may require sedation with benzodiazepine or antipsychotic if they present with an acute psychosis.

### **Does cannabis cause psychosis?**

There is no conclusive evidence that cannabis causes a specific cannabis psychosis. Cannabis can cause short-lived psychotic episodes in users and those users who go on to develop psychosis develop identifiable psychotic disorders like schizophrenia that have no distinguishing features from the schizophrenia of non-users. However, it has been shown that people who start using cannabis at a younger age, less than fifteen years old, have an increased risk of developing schizophrenia. Using cannabis also increases the risk of developing schizophrenia if one has a family history of schizophrenia.

### **Amotivational syndrome**

Some chronic users of cannabis develop a syndrome characterized by apathy, mental slowing, poor memory, lack of drive and initiative and neglect of self and deterioration in goal-directed functioning. This is the so-called “amotivational syndrome” and may be difficult to differentiate from schizophrenia with negative symptoms.

### **Cannabis withdrawal**

Cannabis withdrawal may be characterized by anxiety, restlessness, depression and sleep disturbances.

Withdrawal symptoms can be managed if necessary with a regime of benzodiazepine, for example giving diazepam in reducing amounts, like

Diazepam 5mg tds x2/7, 5mg b.d.x2/7, 5mg o.d. x1/7

### ***Opioids***

Opioids are classified into three groups:

- Natural opioids, like opium and morphine
- Semi-synthetic opioids, like heroin and oxycodone
- Synthetic opioids, like pethidine and methadone.

Opioids are powerful analgesics and this is their primary legitimate use. Unfortunately, apart from other secondary effects like causing sedation, depression and respiratory depression, opioids also induce a powerful sense of euphoria and this has led to their abuse.

The most widely abused opioid is heroin. Amongst those in the medical profession, opioids like pethidine are abused because of the relative ease of availability.

Heroin is usually either inhaled or injected. Intravenous use quickly leads to tolerance and dependence and, once the addict is hooked, they will do anything to get the drug in order to avoid the withdrawal effects, which are very unpleasant.

### ***Opioid intoxication***

Presents with both physical and psychological behavioural symptoms.

Psychological symptoms may include:

- Initially a sense of euphoria
- Sedation

- Lethargy or agitation
- Impaired memory and judgement.

*Physical symptoms include:*

- Pupillary constriction
- Low blood pressure
- Slurred speech
- Breathing difficulties
- Hypothermia.

### ***Management of opioid intoxication***

#### **Opioid dependence**

According to WHO criteria, opioid dependence is characterized by:

- A strong desire or compulsion to take opioids
- Difficulties in controlling opioid-taking behaviour
- Withdrawal symptoms when there is a reduction or cessation of opioid use
- Development of tolerance
- Neglecting other activities in order to engage in opioid-seeking behaviour
- Persisting use, despite harmful consequences.

Opioid dependence is characterized by physical and psychological and behavioural symptoms.

Some of the symptoms are:

*Physical symptoms*

- Flu like symptoms
- Diarrhoea
- Vomiting
- Tremors
- Cramps
- Yawning.

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### *Psychological and behavioural symptoms*

- Feelings of tiredness and lethargy
- Anxiety
- Insomnia
- Restlessness
- Depression.

All opioids cause dependence.

### **Management of opioid dependence**

This involves both drug and psychosocial treatment. Treatment has to be individually tailored, taking into account the user's social and occupational circumstances and the complications that have arisen, such as legal, social or occupational complications.

### **Drug treatment of opioid dependence**

Drug treatment commonly involves opioid substitution treatment where the opioid on which the user is dependent is substituted with another long-acting opioid that causes less harm. The most commonly used substitute opioids are methadone and the semi-synthetic opioid buprenorphine. These opioids prevent the unpleasant withdrawal symptoms, but these treatments are not widely available.

Drugs used for treatment of opioid dependence include clonidine and naltrexone. Detoxification from opioid dependence can be done on an outpatient or inpatient basis. Opioid overdose is treated with naloxone, an opiate antagonist.

Detoxification includes appropriate symptomatic management of complications like nausea, vomiting, diarrhoea and pain.

### **Psychological methods of treatment**

In addition to drug treatment, psychological and behavioural methods of treatment used in treatment of opioid dependence include:

- Cognitive behavior therapy
- Group therapy
- Contingency management methods.

### ***Cocaine***

Cocaine has central nervous system stimulant as well as anaesthetic properties. It is

obtained from the leaves of the coca plant, found mainly in South America and also Indonesia. It is an increasingly popular drug of abuse. The drug is used through several routes:

- Snorted through the nose.
- Injected intravenously
- Smoked.

Crack cocaine, which is made by mixing cocaine hydrochloride with sodium bicarbonate, is usually smoked. Cocaine induces a sense of increased mental alertness, euphoria, hyperactivity, talkativeness, a sense of improved task performance and increased energy levels. These effects can last up to half an hour.

Physical effects include pupillary dilation, tachycardia, and an increase in blood pressure, constriction of blood vessels and a decrease in appetite amongst others.

High doses can lead to sudden death due to myocardial infarction or stroke. Seizures can also occur. An acute psychotic state resembling paranoid schizophrenia with auditory hallucinations can occur. Some users also complain of a feeling of insects crawling under the skin—formication.

### **Cocaine intoxication**

Cocaine intoxication can present dramatically with some of the acute symptoms referred to above; that is over excitement, hyperactivity, pupillary dilatation, tachycardia and elevated blood pressure. Intoxication with high doses can present like a delirium with confusion, tremors and sweating, and can lead to death.

### **Management**

Symptomatic management includes stabilizing the vital signs.

Benzodiazepines, like diazepam 10mg tds titrated against symptoms, and an antipsychotic like haloperidol can be used if there are psychotic symptoms.

### **Cocaine withdrawal**

Cocaine does not cause severe physical dependence.

Withdrawal symptoms include:

- An intense craving for the drug
- Dysphoric mood

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- Lethargy
- Increased appetite
- Sleeplessness
- Headache
- Muscle cramps
- Low sex drive.

### **Management**

Benzodiazepines, such as diazepam 5mg tds in the acute phase, may be combined with an antipsychotic and, if depressive symptoms are severe, an antidepressant can be given.

### ***Amphetamines***

The amphetamines, like cocaine, are central nervous system stimulants and most of their effects and complications are similar to those described for cocaine.

The amphetamines include amphetamine, methylene dioxymeth-amphetamine (MDMA), and crystal methamphetamine (known as “TIK” in South Africa).

Amphetamines like methylphenidate are used for treatment of conditions like narcolepsy, attention deficit hyperactivity disorder and obesity. However, because of their CNS stimulating activities, they are widely used, abused and used illegally. Like cocaine, they cause mental alertness and a sense of euphoria and increased energy, which makes them popular party drugs. Undesired effects include an increase in blood pressure, tachycardia, nausea, vomiting and sweating, amongst others.

Intoxication and withdrawal symptoms are similar to those described for cocaine. Prolonged use can also cause a psychotic syndrome resembling paranoid schizophrenia.

### ***Hallucinogens***

The hallucinogens include naturally-occurring drugs like mescaline (peyote) and psilocybin (magic mushroom) and synthetic drugs like lysergic acid diethylamide (LSD) and 3, 4 methylenedioxymethamphetamine (MDMA).

The hallucinogens distort sensory perceptions and also have central nervous stimulating properties. Due to their sympathomimetic properties they can cause an increase in blood pressure, pupillary dilatation, tachycardia, hyperthermia and other signs of autonomic hyper-arousal. They are abused mostly for their ability to cause sensory distortions; they can, for example, lead to colours and sounds seeming more vivid.

Hallucinogens can cause a bad trip – an experience in which the user experiences a panic-like attack with marked anxiety and paranoia. Flashbacks, in which the user experiences hallucinatory experiences even long after taking the drug, can occur. Flashbacks have been known to occur even up to ten years after the drug was taken.

Hallucinogen intoxication is treated by taking measures to calm down the patient. This can be done by either simple reassurance or using an anxiolytic drug like diazepam.

Psychotic symptoms are treated by using antipsychotics.

### ***Inhalants and solvents***

Inhalants and solvents include glue, paint thinners, petrol, nail polish removers, cleaning fluids and other substances which produce vapours.

The mode of use is usually by direct inhalation from the container, inhalation by soaking onto a rag and placing over the nose and mouth and inhaling, or by use of a plastic bag. They are usually abused in groups, especially by street boys, because they are cheap and easily available.

### **Action**

They depress the central nervous system and act quickly to cause an acute intoxication similar to that produced by alcohol. Symptoms of intoxication include both physical and psychological effects like:

- Slurred speech
- Incoordination of movement
- Dizziness
- Euphoria
- Light headedness.

They may also induce a sense of panic and hallucinations. Sudden death may occur from cardiac arrhythmia or acute asphyxiation. Severe intoxication can lead to respiratory depression, cardiac arrhythmias, convulsions and death. Prolonged use can lead to neurological damage leading to brain damage and mental retardation. They can also lead to liver, kidney, lung and heart damage.

Suspicion of inhalant use should arise if the person with the above symptoms presents with the smell of the inhalants on the breath or clothes or has a rash around the nose or mouth, with a running nose.

## **Management**

In the acute excitatory stage, a benzodiazepine can be given, for example diazepam 10mg tds, and an antipsychotic like haloperidol 1.5–5mg, if indicated. However, care should be taken with the use of benzodiazepines due to the added risk of respiratory depression.

Chronic users usually have neurological and cognitive impairment and a long-term treatment and rehabilitation plan tailored to suit the individual's needs to be formulated. This includes:

- Initial detoxification followed by
- Multidisciplinary evaluation of individual and family needs, including: educational needs by psychologist, occupational therapist, psychiatrist, physicians as indicated, physiotherapist if indicated.

## ***Sedatives, hypnotics and anxiolytics***

The sedatives, hypnotics and anxiolytics include barbiturates, the benzodiazepines, chloral hydrate, glutethimide and meprobamate.

Sedative/hypnotic onset of use may be iatrogenic in origin, arising when the drugs are prescribed for anxiety and in sleep problems.

## **Intoxication**

Symptoms and signs of intoxication include:

- Drowsiness
- Slowed thinking
- Memory impairment
- Incoherence
- Nystagmus
- Ataxia.

They resemble the signs and symptoms of alcohol intoxication.

The drugs cause dependence, with the barbiturates causing more severe withdrawal symptoms than the benzodiazepines. Amongst the benzodiazepines, the short-acting ones cause more dependence than the long- acting ones.

Withdrawal symptoms can be unpleasant and severe and include:

- Anxiety

- Restlessness
- Tremors
- Insomnia
- Anorexia
- Nausea
- Vomiting.

Severe withdrawal can lead to seizures and may even be fatal.

### **Treatment of withdrawal**

- Best done on an inpatient basis
- Symptomatic treatment
- Correct dehydration.

If dependent on a short- or intermediate-acting benzodiazepine, change to an equivalent dose of a long-acting benzodiazepine like diazepam. A patient who is dependent on benzodiazepines should not have the drugs discontinued abruptly. Tremors can be managed with propranolol.

If the patient has withdrawal delirium with hallucinations, haloperidol can be given.

### **Further reading**

Gossip M, Grant M (1990). Preventing and controlling drug abuse. WHO Geneva.

## *Chapter 9*

# **Suicide and deliberate self-harm**

### **Definitions**

**Suicide:** intentional killing of oneself

**Deliberate self-harm:** intentional infliction of self-harm, whether with intention to die or not, which does not result in death. Other terms used interchangeably to refer to episodes of deliberate self-harm include parasuicide and attempted suicide. However, a term like attempted suicide implies that there was clear intent to kill oneself and so should only be used if there is evidence that the intention was to die.

### **Suicide**

#### **What are the causes of suicide?**

Suicide has many causes. Factors which have been associated with suicide are:

#### Social factors

- Unemployment
- Living alone
- Being divorced
- Being widowed
- Family history of suicide.

#### *Illnesses*

- Chronic medical illness, for example cancer, HIV/AIDS
- Psychiatric disorders
- Depression (15% life time risk)

- Schizophrenia (10% life time risk)
- Alcohol dependence (3-4% life time risk)
- Personality disorder
- Drug dependence.

*Stressful events*

- Loss of job

Financial problems

- Legal problems
- Inter personal problems with family, friends
- Easy availability of means of committing suicide, for example easy access to guns.

In addition to identifying the factors associated with suicide given above, tell-tale signs of possible suicide include:

- Withdrawal from family and friends
- Repeated mention of desire to die or commit suicide
- Making last acts, writing wills, tidying up personal affairs, paying off debts, apologising for past misdeeds
- Writing suicide notes.

**Can suicide be prevented?**

This is a difficult question to answer, but preventative measures which can be taken include:

- Early identification and treatment of depression and other mental illnesses
- Education about and prevention of alcohol and substance abuse
- Making social services and other counseling services for those in need easily available.

**Deliberate self-harm / parasuicide**

There are some differences in the epidemiological characteristics of those who commit suicide and those who deliberately harm themselves.

|                      | <b>Suicide</b>       | <b>Deliberate self-harm</b> |
|----------------------|----------------------|-----------------------------|
| <b>Sex:</b>          | <b>More in males</b> | <b>More in females</b>      |
| Age:                 | Generally older      | Mostly younger              |
| Planning:            | Often planned        | Often impulsive             |
| Incidence:           | Lower                | Higher                      |
| Method:              | Usually lethal       | Less dangerous methods      |
| Psychiatric illness: | More common          | Less common                 |

### **Assessing suicide risk**

All clinicians should be able to assess the risk for suicide. The best way to identify whether a patient has suicidal thoughts is to ask them about it. This can be done in a tactful way, after establishing rapport with the patient.

Useful questions include:

- Do you feel life is no longer worth living?
- How do you feel about the future?
- Do you feel like killing yourself?

After finding out that the patient is suicidal:

- Establish whether he or she has made any definite plans.
- Ask whether they have obtained or prepared the means of killing themselves.
- Establish when they intend to kill themselves.

A positive answer can be a source of hope that the clinician can then build on. Also ask the patient if there is anything one can do for the patient.

### **Assessing the seriousness of a suicidal act**

If the answer to any of the following indicators is yes, then it indicates high suicidal intent:

- Was the act planned in advance?
- Were precautions taken to avoid discovery? For example, did the patient wait till he or she was alone before carrying out the act or go to an isolated place where he or she would not be easily found.
- Were there any final acts, like writing a will or giving away property?

- Was the method used by the patient likely to result in death, and if so did the patient know it was likely to result in death?
- Does the patient regret surviving and wish they had died?
- Were there stressors that precipitated the act and are they on-going?

After assessing the seriousness of a suicidal act:

Determine whether any of the high risk factors for suicide as enumerated before exist. Then do a thorough mental state assessment to look for:

- Evidence of psychiatric illness
- Assess if patient has psychotic symptoms like
- Command hallucinations, telling the patient to kill him/herself
- Delusions of guilt or worthlessness.

For a patient who has made a suicidal attempt, one useful question is to ask the patient if there is anything that he or she thinks and hopes is worth living for.

Factors indicating high suicide risk include:

- A continuing wish to die
- The presence of psychiatric illness like depression, schizophrenia or personality disorders
- Alcoholism and substance abuse
- Previous episodes of deliberate self-harm
- On-going social problems, like unemployment or isolation.

### **Management of deliberate self-harm**

An acutely suicidal patient should be admitted.

Usually, a patient who has deliberately harmed themselves presents to the accident and emergency department or outpatient department of the hospital. The tendency is to admit the patient or refer the patient to Psychiatry. The priority should be to do a thorough physical evaluation and determine suicide risk before deciding on the disposal of the patient. Not all patients who deliberately harm themselves or attempt suicide will need admission.

Those who need admission are:

- Those assessed to be at high suicide risk

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- Those with medical/surgical/psychiatric or other physical complications, who need further care.

Generally, if a patient has ingested substances, admit him to the medical ward for evaluation and treatment. Bearing in mind that some serious complications of overdose, for example with paracetamol, may not be immediate.

The main objective of admitting a suicidal patient is to protect the patient from further harm and to remove the patient from the stressful environment to enable crisis resolution. Any patient admitted after an episode of deliberate self-harm should be put under suicide watch. They should be monitored closely and their whereabouts should be known to staff at all times.

Once the immediate crisis is over, that is the patient is emotionally calmer and the physical condition is stabilized, a full evaluation can be undertaken:

- Establish what led to the act–precipitants and why now.
- Establish what problems and difficulties the patient is facing or has been facing recently.
- Establish what resources are available to the patient.

### **Outpatient care**

If the risk of suicide is assessed as low, then the patient can be allowed home and followed up as an outpatient. After the initial crisis intervention, the patient can be referred appropriately, depending on the findings, to, for example, social workers or psychologists.

### **The role of medications**

There are no medications specifically indicated for suicide attempts. One common faulty practice is to prescribe antidepressants to any patient who has attempted suicide, but not all patients who have attempted suicide are depressed.

Medications should only be given for an underlying indication. For example, if a patient is anxious and distressed, an anxiolytic like diazepam can be given in the short term to help calm them down. Antidepressants are indicated only if there is underlying depression and antipsychotics if there is an underlying psychotic illness.

When prescribing antidepressants to a patient who has attempted suicide, or is suicidal, avoid the tricyclics as they are dangerous in overdose. If they are the only agents available, as may happen in the local situation, prescription can be given in one-week doses or a

responsible care giver identified to give the medications to the patient.

### **Who to refer to?**

For the busy clinician in the accident and emergency or outpatient departments, one of the questions they have to decide after evaluating a suicidal patient is how to dispose of the patient. This determination is made on the basis of the physical findings, mental state assessment, evaluation of precipitating factors, and the assessment of suicide risk, current problems and resources available to the patient.

General guidelines are:

- 1) If there are social problems which led to the attempt, involve the socialworkers.
- 2) For patients with poor coping skills and on-going stressors, involve psychologists.
- 3) If there is evidence of mental illness, refer to a psychiatrist.

Generally, patients with the following characteristics will need referral:

- 1) Those with psychiatric illness
- 2) Those with a history of previous suicide attempts
- 3) Those with alcohol and/ or drug dependence
- 4) Those with on-going current problems and no social support
- 5) Those with a pattern of poor or maladaptive coping skills.

Referral can also be made to other non-medical agencies, depending on the situation, for example to a spiritual leader like a church minister or NGOs dealing with the specific problems the patient may be having, like alcoholics to alcoholics anonymous.

### **Factors which predict the risk of further deliberate self-harm**

Many patients who deliberately harm themselves repeat the act. It is therefore important to know factors which may predict the risk of further acts of deliberate self-harm.

These include:

- Previous episodes of deliberate self-harm
- Previous history of psychiatric treatment
- Alcohol abuse
- Drug abuse
- Unemployment at the time of the act

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- Low social class
- Anti-social personality disorder.

### **Predictors of suicide after an episode of deliberate self-harm**

These are almost similar to those factors which predict further episodes of self-harm as outlined above:

- Previous history of self-harm
- Social isolation
- On-going severe stressors
- Continuing wish to die
- Evidence of serious intent
- Alcoholism
- Serious psychiatric illness like depression.

### **Remember:**

1. Suicidal persons often give hints about their intent. Take any hints or talk about suicide seriously. Be on the alert when a disturbed suicidal person suddenly becomes calm and cheerful. It may be a sign that they have finally made up their minds to kill themselves. The greatest risk of suicide in those who are depressed and suicidal is at the time they start showing signs of improvement.

### **In practice**

There is nothing as distressing to a clinician as being told, “That patient you have just discharged has committed suicide”. It is thus essential that the risk of suicide is assessed and documented for every patient having suicidal ideation and for every psychiatric patient. Documentation is everything. It reassures you that you did the best you could and can save you in the event of a malpractice suit.

Every A/E or OPD should have a protocol for dealing with cases of deliberate self-harm.

## *Chapter 10*

# **The Cognitive disorders**

Cognitive disorders are disorders in which there is acquired impairment in cognitive functioning after a period of normal cognitive functioning. Memory is one of the key cognitive functions impaired, and may be followed by aphasia, agnosia and apraxia. As the cognitive impairment progresses, there may be accompanying disturbances in behaviour, mood, thinking and perception.

The cognitive disorders dealt with in this book are:

1. Dementia
2. Delirium
3. Amnestic disorder.

### **Dementia**

In DSM-V, the dementias are classified under neurocognitive disorders as major neurocognitive disorders, which is the term preferred to dementia, as the latter is said to have negative connotations. The neurocognitive disorders are divided into major and mild neurocognitive disorders and then sub-classified according to the underlying aetiology.

DSM-V diagnostic criteria for major neurocognitive disorder (dementia) are:

- Significant decline in cognitive functioning from the previous level of functioning in one or more areas of cognitive functioning which include attention, executive function, learning and memory, language, perceptual-motor or social.
- Concern by the individual or other informant that there has been a significant decline in cognitive functioning
- Impairment in cognitive performance as elicited by neuropsychological testing or other quantified clinical assessment

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- Interference in ability to independently carry out activities of daily living.

### **Types of dementia**

Dementias are classified as due to:

- Alzheimer's disease
- Vascular disease
- Frontotemporal lobe degeneration
- Lewy body disease
- Traumatic brain injury
- HIV
- Huntington's disease
- Parkinson's disease
- Prion disease
- Dementias associated with other general medical conditions
- Another medical condition
- Multiple aetiologies
- Unspecified
- Substance/medication.

Mild neurocognitive disorders differ from major neurocognitive disorders in that the cognitive deficits do not interfere with ability to independently carry out activities of daily living, even though greater effort may be needed or compensatory strategies used to cover the deficits.

### **Signs and symptoms of dementia**

Dementia usually presents with forgetfulness and impairment of thinking which is severe enough to interfere with the patient's performance of activities of daily living. The onset is usually insidious and by the time most patients come to the attention of health workers, the symptoms will have progressed to the extent where those close to the patient have become concerned. In my experience, most patients will be brought by concerned relatives or their dementia is discovered when they are being seen for another health condition.

Symptoms of dementia may include, but are not limited to:

- Forgetfulness
- Slowness in thinking
- Apathy and disinterest
- Difficulties in use of language
- Anxiety
- Agitation and restlessness
- Difficulties in performing activities of daily living
- Deterioration in work performance
- Deterioration in social behaviour
- Sleep disturbances
- Hallucinations.

As the illness progresses, the patient may regress to childlike behavior and develop symptoms like bed-wetting and eventually the patient becomes mute and bedridden.

### **Specific types of dementia**

#### ***Dementia in Alzheimer's disease***

Alzheimer's disease is the most common type of dementia. Onset is usually in middle adult life (age sixty-five or over), but it can start earlier.

Because of its slow and insidious onset and progression it can remain unrecognized for many years. The early onset type usually progresses faster. The disease is characterized by changes in the brain like loss of **neurons** leading to atrophy in the affected areas. Most of the brain atrophy takes place in the temporal lobes. There is also the appearance of amyloid plaques, which are deposits of insoluble beta-amyloid peptides and other cellular material.

Other changes include neuro fibrillary tangles, which are accumulations of an abnormal form of **tau proteins**. Tau proteins are intracellular proteins that stabilize microtubules in neurons, mostly in the central nervous system.

Biochemical changes include a reduction in acetylcholine and other neuro transmitters like noradrenalin and serotonin.

### **Signs and symptoms**

Alzheimer's disease usually begins slowly, with simple forgetfulness and loss of memory for recent events and difficulty in learning new information. Sufferers forget names of

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family members and have difficulty finding words.

As the disease progresses, patients eventually lose the ability to carry out activities of daily living and to live independently. They gradually withdraw from normal activities and get lost in familiar places, having trouble remembering where the toilet is in the house and so on. The patients are usually aware of their memory difficulties and their frustration with this can lead to aggressive outbursts.

They may become incontinent of urine and eventually become bed-bound. Death usually occurs from physical complications like pneumonia.

### **Vascular dementia**

Vascular dementia arises as a result of cerebrovascular disease and is due to infarcts of areas of the brain. It is the second most common cause of dementia after dementia of the Alzheimer's type.

The commonest risk factor for cerebrovascular disease leading to dementia is hypertension.

Presentation can be acute or gradual. An acute onset of symptoms of dementia, accompanied by focal neurological deficits, is more likely suggestive of vascular dementia.

Vascular dementia follows a cerebrovascular event like an acute cerebrovascular attack, a transient ischaemic attack, or stroke.

Vascular dementia is sub classified into:

- Vascular dementia of acute onset
- Multi-infarct dementia
- Sub-cortical vascular dementia
- Mixed cortical and subcortical vascular dementia.

Multi-infarct dementia presents with abrupt onset and step-wise deterioration. Risk factors for multi-infarct dementia include hypertension, atherosclerosis, old age and hypercholesterolemia.

### ***Dementia due to other general medical conditions***

One characteristic of these dementias is that onset can be at any time in life, unlike the first two dementias which are more common in the latter years of life.

- In **Pick's** disease there is a predominance of frontal lobe symptoms.
- **Creutzfeldt-Jakob dementia** is characterized by marked neurological signs and

rapid progression.

- **Dementia in Huntington's disease** is characterized by slow progression and involuntary **choreiform** movements.
- **Dementia in Parkinson's disease** has no particular characteristic symptoms, but occurs in the context of Parkinson's disease.
- **Dementia in HIV disease** occurs in the context of HIV infection and is characterized by apathy, slowness, forgetfulness, and neurological signs like ataxia, tremors and hypertonia.

It can progress quickly to mutism and death.

### **Evaluation and management of dementia**

It is important to carry out a thorough diagnostic evaluation as this will not only help in proper treatment planning but it will also help rule out treatable causes of dementia.

Evaluation includes:

- History
- Mental status assessment, especially cognitive state assessment.
- Physical examination, with particular attention to neurological examination.

Although in severe cases it may be difficult to obtain a history from the patient, an effort should always be made to obtain history from them and then interview an informant.

It is important to know the baseline cognitive functioning in order to monitor the progress of the illness. The most commonly-used screening and rating scale is the mini-mental state examination (MMSE), which with practice can be filled in, in five to ten minutes in a busy clinic. Other useful bedside tests for cognitive functioning include the clock-drawing test, trail-making tests, digital span (forwards and backwards) and others.

Baseline laboratory work-up includes:

- FBC +ESR
- LFT
- U/E
- VDRL
- Urinalysis.

Additional investigations, if indicated, include an HIV test and CT brain scan. CT brain

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scan is especially indicated for those with **presenile** onset dementia (people of less than sixty-five years of age) and if there are localizing signs on neurological examination and a history of head injury.

### **Management**

Involvement of the family or caregiver is essential. Psycho-education of the family includes teaching them about the illness, treatment and identifying available sources of support as well as addressing their concerns and helping them deal with issues such as the financial and legal affairs of the patient.

### ***Pharmacological management***

Drugs specifically indicated for treatment in dementia include the anticholinesterases – donepezil, rivastigmine and galantamine – and other drugs like memantine, an N-methyl-D-aspartate (NMDA) receptor antagonist. Drugs can also be used for symptomatic control of behavioural problems, agitation, psychosis or sleep problems.

### ***Anticholinesterases***

Donepezil is indicated for mild to moderate dementia, although recent studies indicate it can also be useful in severe dementia.

**Dosage:** 5mg once daily at bedtime

Can be increased to 10mg nocte daily after four weeks if necessary

Other anticholinesterases are rivastigmine and galantamine.

For psychotic symptoms antipsychotics can be used in low doses

|             |            |
|-------------|------------|
| Haloperidol | 0.5 – 3mg  |
| Risperidone | 1 – 2mg    |
| Olanzapine  | 5-5mg      |
| Quetiapine  | 75 –125mg. |

*For in somnia* hypnotics can be used for short duration, up to two weeks:

|           |                        |
|-----------|------------------------|
| Zolpidem  | 5 – 10 mg nocte        |
| Zopiclone | 3.75 mg – 7.5 mg nocte |

For agitation or violence, in addition to benzodiazepines or low-dose antipsychotics for severe acute agitation and violence, anticonvulsants can be used for on-going control

|                  |           |
|------------------|-----------|
| Sodium valproate | 200mg b.d |
|------------------|-----------|

Carbamazepine                      100mg b.d

### **Delirium**

Delirium is a condition characterized by an acute impairment of consciousness, changes in cognitive functioning, psychomotor activity and sleep and emotional disturbances. It is also sometimes referred to as an acute confusional state. It arises suddenly, and is due to some underlying physical or mental cause.

There are three types of delirium:

1.    Hyperactive delirium
2.    Hypoactive delirium
3.    Mixed type.

### **Causes of delirium**

Delirium can arise from many causes. These include:

- Drugs
- Infections
- Metabolic disturbances arising from any cause
- Head injury
- Endocrine abnormalities
- Vitamin deficiencies
- Psychological.

### **Signs and symptoms of delirium**

- The core clinical symptom of delirium is an impairment of and fluctuating level of consciousness.
- There are marked behavioural changes with either increased or diminished motor activity. Patients can be hyperactive or be almost somnolent.
- Psychotic symptoms like hallucinations and other perceptual disturbances like illusions and misinterpretations.
- Disorientation, usually of time and place
- Memory disturbances with poor registration of information
- Poor attention and concentration

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- Disturbance of sleep, sometimes with disturbance in the sleep-wake cycle
- Changes in mood. Mood may be labile or patient may be withdrawn or excited.

### **Diagnosis**

Although the signs and symptoms of delirium are usually easy to recognize, sometimes it can be difficult to distinguish delirium from dementia.

Diagnosis depends on:

- Taking a proper history, including history from informants
- Doing a physical examination, including neurological examination
- Bedside cognitive tests, like the mini-mental state examination can identify cognitive impairment and be used to evaluate progress.

Laboratory tests may include:

- FBC
- U/E
- LFTS
- Urinalysis
- Blood cultures
- If available, drug screening

Further tests depend on suspected aetiology.

### **Management**

Management aims at treating the underlying cause, if identified, controlling disturbed and agitated behaviour, and maintaining nutrition and hydration needs. Management involves both non-pharmacological and pharmacological methods.

#### **General non-pharmacological measures**

- Nurse in a quiet, well lit room
- Avoid clutter and over stimulation
- Keep reassuring patient and re-orientating him. Keep a calendar and clock in the room
- Ensure adequate hydration and nutrition
- Physical restraints may be necessary for extreme agitation or restlessness.

### **Pharmacological treatment**

For psychotic symptoms

- Antipsychotics use in low doses

Medications to be used include haloperidol (0.5–5mg) and olanzapine.

### **Agitation /restlessness**

- Can use antipsychotics as above
- Mood stabilizers like sodium valproate and carbamazepine
- Benzodiazepines.

### **Amnestic disorders**

The primary disturbance in amnestic disorders is memory loss without any other significant cognitive impairment. The memory loss is severe enough to cause functional impairment and arises out of substance use or a general medical condition. Symptoms include an inability to learn new information or recall previously-learned information, although immediate memory is usually intact. Secondary symptoms may include confusion and emotional changes like labile mood or apathy.

The memory impairment should not occur exclusively during a delirium or dementia episode.

### **Causes**

Amongst others, causes include:

- Drugs like benzodiazepines, anticonvulsants and barbiturates
- Head injury
- Tumours
- Substances like alcohol, for example Wernicke-Korsakoff's syndrome
- Seizures
- General medical conditions causing hypoxia, for instance respiratory infections
- ECT
- Hypoglycaemic states
- Carbon monoxide poisoning.

### **Onset**

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Can be sudden or gradual.

### **Treatment**

Treat the underlying cause, which means taking a full history, doing a physical examination and carrying out investigations to identify the underlying cause.

General measures include:

- Re-orientation of the patient
- Reassurance
- Psycho-education and support for the family
- Correcting any underlying nutritional deficiencies.

### **In practice**

A common omission is to leave out a physical evaluation of an acutely disturbed patient because of assuming the disturbance is due to purely psychological causes. Some psychiatric referrals don't even have vital signs taken. Many treatable physical causes of acute behavioural disturbance are missed this way. Physical causes and substance use are the commonest causes of acute behavioural disturbance.

Caring for a patient with dementia can be very stressful and may lead to psychological complications like depression in the caregivers and thus one of the tasks when evaluating a patient with dementia is to inquire about how the caregivers are coping and to give them support in the form of psycho-education, referral to helping agencies or advice on how to deal with behavioural disturbances. It is not uncommon to find relatives demanding medication or admission, even when such a course of action may not be helpful. It is upon the clinician to patiently educate the caregivers.

### **Further reading**

Diagnostic and Statistical Manual of Mental Disorders, Fifth edition, Arlington, VA, American Psychiatric Association, 2013.

The ICD 10 Classification of Mental and Behavioural disorders. Clinical descriptions and diagnostic guidelines. (1992). WHO. Bombay: Oxford University Press.

## *Chapter 11*

# **Psychiatric aspects of HIV and AIDS**

### **Introduction**

Sub-Saharan Africa has been hardest hit by the HIV epidemic. By 1999, over two thirds of people living with HIV/ AIDS were in Sub-Saharan Africa.

By 2003 South Africa had the highest proportion of people living with HIV/AIDS, while Botswana and Swaziland had the highest prevalence. (UNAIDS)

In 2002 Botswana became the first African country to roll out a national anti-retroviral treatment programme. Several countries have since followed suit.

HIV and AIDS has a significant impact on mental health and thus it is necessary for any clinician seeing psychiatric patients to have a thorough understanding of the illness.

### **The relationship between HIV and AIDS and mental illness**

- Both illnesses are associated with a considerable amount of stigma, leading to isolation, discrimination, fear and marginalization of people affected by them. This stigmatization is not only from the general public but also amongst health care workers. Some patients may also suffer from feelings of guilt and self-blame, leading to psychological problems.
- Mental illness and HIV and AIDS can affect mental functioning negatively, leading to poor treatment adherence. A combination of the two in an individual may thus increase the risk of poor adherence to treatment for either condition.
- Medications used for treatment in some forms of mental illness and some antiretrovirals have unpleasant neuropsychiatric side-effects. This can also be a contributory factor to poor adherence.
- Partly due to the immense psychological stress associated with mental illness and

HIV and AIDS, both illnesses can increase the risk of substance abuse, which further complicates their management.

- Mental illness is a risk factor for contracting HIV and AIDS due to the increased chance of engaging in risky behavior and drug use.
- HIV and AIDS infection can lead to mental symptoms as demonstrated below.

How does infection cause psychiatric symptoms?

- The virus crosses the blood-brain barrier and enters the central nervous system early and can cause neuropsychiatric symptoms by direct CNS infection leading to neuronal dysfunction, for example by release of inflammatory neurotoxins.
- The stress of discovering that one has the virus can lead to psychiatric disorders like anxiety, depression, adjustment disorder, reactive psychosis, suicidal attempts and the like.
- CNS opportunistic infections and other complications can cause neuropsychiatric symptoms.
- Advanced HIV infection can lead to neurocognitive disorders.

### **Psychiatric presentations of HIV and AIDS**

HIV infection can present with almost any of the psychiatric symptoms and syndromes, ranging from mood disorders, psychotic symptoms and neurocognitive conditions. It may be difficult to distinguish the symptoms from a primary psychiatric illness.

### **Some HIV-associated psychiatric symptoms**

#### **HIV-associated dementia complex**

HIV-associated dementia is diagnosed when a patient develops dementia in the absence of any condition other than HIV that could account for the symptoms. This is usually a subcortical dementia and usually occurs in the late stages of HIV infection.

Initial symptoms include slowness in movement and thought processes, poor memory, difficulties in carrying out activities of daily living, with marked apathy. Patients may also develop seizures. As the illness progresses, physical symptoms like ataxia, increased muscle tone and spasticity develop. The patient may eventually become bedridden, mute and incontinent.

HIV-associated dementia is an AIDS-defining condition. Treatment is by starting HAART and symptomatic treatment. Psycho-stimulants like methylphenidate have been used to treat symptoms like apathy and psychomotor slowing.

### ***HIV-associated minor cognitive and motor disorder***

The symptoms of cognitive impairment are usually mild but can cause significant worry to the patient who realizes he is not as mentally sharp as before. Disturbances occur in language, memory, attention and concentration. There is also some motor slowing.

### ***Affective disorder in HIV and AIDS***

#### **Depression**

Depression is one of the commonest mood disorders in HIV and AIDS.

HIV and AIDS may complicate an already existing depressive illness or the depression may arise in reaction to the illness. Some medications used in the treatment of HIV and AIDS may also lead to depressive symptoms, for example efavirenz and zidovudine. Some opportunistic infections, like the *Herpes varicella-zoster* virus, have also been associated with depressive symptoms. The symptoms are similar to those described under depression in the chapter on affective disorder. It can be difficult to distinguish the symptoms of HIV-associated neurocognitive impairment from depression. The patient with HIV-associated neurocognitive impairment may not have that subjective feeling of sadness and depression, despite other symptoms of depression.

Patients with HIV and AIDS are more sensitive to side-effects of medication. However, both SSRIs and tricyclics can be used to treat depression. Psycho-stimulants like methylphenidate have also been found to be useful, especially in depression associated with psychomotor retardation.

#### **Anxiety**

Anxiety disorders are common in patients with HIV and AIDS. Any of the anxiety disorders can occur, like generalized anxiety disorder, phobias, obsessive compulsive disorders, panic disorder, acute stress reactions and adjustment disorders.

Apart from presenting with obvious anxiety symptoms like nervousness, fear or tremors, patients may present with primarily physical symptoms like headaches, palpitations, chest pain, and gastrointestinal symptoms. Management involves ruling out other causes of anxiety like physical illness, substance use and medications.

Treatment includes supportive psychotherapy and behavioural interventions. Drug treatment depends on the particular anxiety syndrome (see chapter on anxiety disorders). For example, for panic disorders SSRI, tricyclic antidepressants or benzodiazepines may be used. The principle in drug management is to start low and increase slowly due to increased sensitivity to medications in AIDS patients.

## **Mania**

Manic illness can occur at any stage in HIV infection. Despite the typical mood elevation and fast-paced thoughts associated with mania, manic patients with HIV may show cognitive slowing.

Management is as for primary mania that is, with mood stabilizers, benzodiazepines and neuroleptics, if indicated. However, due to increased sensitivity to medication, lower dosages are indicated, especially in late-stage HIV disease.

## **The worried well**

These are patients who, although repeatedly testing negative, still believe they are positive or will test positive, despite reassurances from clinicians about their negative status. The worry may assume delusional proportions and management includes psychological measures as well as symptomatic management of secondary complications like anxiety or depression.

## **Suicide**

Suicide rates are higher in those with HIV and AIDS than in the general population.

## **Special considerations in treatment of psychiatric disorders in HIV and AIDS**

- (a) Infection with HIV and AIDS can increase sensitivity to psychotropic medications. Generally, lower doses are used. Start low and increase slowly. The atypical antipsychotics may be better tolerated than the typicals. For patients with depression, SSRIs may be preferable to the tricyclics.
- (b) Antiretroviral medications can precipitate neuropsychiatric symptoms. Efavirenz has neuropsychiatric side-effects which include confusion, vivid dreams, agitation, hallucinations and insomnia. In a patient with pre-existing psychiatric illness, this may be confused with a worsening of the psychotic illness and psychotropic medication inappropriately increased.  
AZT can precipitate manic symptoms. It can also cause insomnia, confusion and seizures.  
\*Abacavir can cause sleep disorders
- (c) Some psychotropic medications, for example carbamazepine, induce liver enzymes used in the metabolism of some antiretrovirals, like the protease inhibitors and non-nucleoside reverse transcriptase inhibitors, and consequently can lead to decreased plasma levels of the antiretroviral. Avoid carbamazepine in patients on antiretrovirals.

### **General principles in management of psychiatric disorders in HIV and AIDS**

Carry out a full physical evaluation, especially a neurological assessment and laboratory examination, to rule out other possible medical causes of the psychiatric symptoms. Laboratory tests include full blood count, liver function tests, urea and electrolytes, screening for syphilis RPR or VDRL. Further tests, including imaging studies like CT brain scan, will depend on physical findings.

- Address social and psychological issues
- Definitive management of HIV and AIDS dementia, which is an AIDS-defining condition, is:
- Starting on HAART
- Treating any co-morbid medical conditions.
- Symptomatic treatment.
- Some clinicians give a stimulant like methylphenidate for patients with marked apathy, fatigue, poor concentration and attention.
- Treat any psychotic symptoms with low-dose antipsychotics.

### **In practice**

A psychiatric patient having HIV or AIDS has to contend with two stigmatized diagnoses. Attendant risks which have to be looked for include the risk of suicide. The possibility of defaulting from medication for either diagnosis if insight is affected is high, and therefore one has to weigh the need to actively involve a responsible care giver in the management of the patient at least until either condition is stabilized.

What do you do when you have a chronic psychotic patient with a history of regularly defaulting from psychiatric treatment once discharged from psychiatric inpatient care, who has no responsible caregiver to supervise treatment, abuses substances, and who tests positive and meets criteria for starting on HAART? Do you start them on HAART when you know they will default from treatment once discharged? You will be confronted with such difficult decisions in psychiatric practice. Perhaps now that there are simplified regimes for HAART, consideration should be given to starting a daily observed treatment (DOT) program, similar to the one used for TB patients.

### **Further reading**

Citron, K., Brouillette, M., Beckett, A., (Ed) (2005). HIV and Psychiatry. A training and resource manual. Cambridge University Press. Cambridge, UK

WHO (2008). HIV/AIDS and Mental Health. Report by the secretariat.

## *Chapter 12*

# **Epilepsy and psychiatry**

Epilepsy is primarily a neurological disorder and complicated cases which need specialized opinion should be referred to the neurologist for evaluation. Uncomplicated cases can be handled by a medical officer or seen in the general medical clinics.

However, epileptic patients are known to have a higher rate of psychiatric and psychological complications than the general population and if one deals with psychiatric patients one needs a good understanding of epilepsy. Furthermore, with or without psychiatric complications, many epileptic patients are routinely referred to psychiatric clinics for management.

This book will only cover those aspects of epilepsy which may lead to a psychiatric referral.

Seizures are generally grouped into generalised, partial and unclassified. Generalised seizures include tonic-clonic (grand mal), tonic, clonic, atonic, absence and myoclonic seizures. Partial seizures include complex partial, simple partial and partial seizures with secondary generalisation. It is important to know the seizure type one is dealing with as this helps guide drug choice.

Epilepsy is a chronic condition which can be disabling and is greatly stigmatized. Epileptic patients therefore have to learn to live with the stigma attached to the condition and the psychological complications that arise from the condition itself or the effects of medication.

Epilepsy can present with behavioural and psychological symptoms resembling a psychiatric disorder and thus it is easy to misdiagnose epileptic symptoms as a psychiatric disorder.

Complications of psychological significance can be:

- those related to the seizures

- those related to the anticonvulsant medication
- social consequences of having the diagnosis.

### **Complications related to the seizures**

Frequent seizures can lead to brain damage, which may lead to intellectual and cognitive impairment greatly compromising the quality of life.

In some seizure types, the prodromal period is characterized by mood changes, a feeling of dysphoria, restlessness and anxiety, which may be mistaken for a primary psychiatric disorder. Some prodromal periods last for hours or days.

The ictal period may be accompanied by disorganized and aggressive behaviour. In complex partial seizures the ictus may be accompanied by a wide range of symptoms, including hallucinations in any modality, mood changes like anxiety and fear, involuntary automatic acts like lip smacking, and cognitive changes.

During the postictal period, the patient may have marked confusion and engage in actions of which they are not aware (automatisms).

### **Stigma and discrimination**

Epileptic patients have to contend with living with a stigmatized chronic condition. They may be discriminated against at school and at their work place due to the stigma attached to the illness. There might be overprotection from caregivers, leading to a development of dependent attitudes and poor development of social skills. Some epileptics may adopt maladaptive coping strategies and defence mechanisms like acting out aggressively, being in denial and assuming a prolonged sick role. This can lead to difficulties in interpersonal relationships leading to social isolation.

Depression and anxiety commonly occur in epilepsy and the risk of suicide is higher than in the general population. Suicide is about five times more common in epileptics than in the general population.

### **Sexual dysfunction**

Complaints of poor libido and erectile dysfunction are common. This may be due to the effect of anticonvulsant drugs, some of which lead to low levels of testosterone.

### **Psychosis**

Psychotic symptoms in epilepsy can be pre-ictal, intra-ictal or post-ictal or inter-ictal. Complex partial seizures particularly are associated with psychotic symptoms like hallucinations in any modality.

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Post-ictal confusional states are one of the commonest causes leading to the admission of epileptic patients in psychiatric units, as the patient may present with confusion and disorganized behavior and have prominent hallucinations. During this period there is usually cognitive impairment, especially in attention and concentration. Post-ictal confusional states may last from a few hours to weeks. These usually end in complete recovery.

Some psychotic symptoms may occur in epileptic patients during the inter-ictal period and in clear consciousness. A chronic schizophrenia-like psychosis with paranoid symptoms and visual hallucinations has been described in patients with complex partial seizures. These patients are said to have a warmer affect and less personality and social impairment. The patients may be preoccupied with religious and philosophical themes. However, whether this is a distinct condition is controversial.

### **Cognitive impairment**

Cognitive impairment in epileptics may arise due to repeated seizures and consequent brain damage. The patient may show dementia-like symptoms and psychomotor retardation. These changes should be differentiated from the effect of anticonvulsants.

### **Personality changes**

There is no epileptic personality. Epileptics may, however, develop a whole range of behavioural characteristics, for example dependent attitudes, low self-esteem, limited social skills, aggressive acting out, impulsivity and dysphoria as complications of their illness.

### **Violence**

There is no evidence that violent behaviour is more common in epileptics than in the general population. Violent behaviour may occur in epileptics due to brain damage leading to disinhibition and poor impulse control, or as a reaction to the frustration of having the condition and the stigmatization experienced.

### **Pseudoseizures**

Patients are frequently referred to the psychiatric clinic with a diagnosis of pseudoseizures. It can be difficult to distinguish between an epileptic seizure and an on-epileptic seizure. However, there are certain characteristics which may help differentiate between the two.

**Onset:** usually abrupt in epileptic seizures.

**Motor movements:** usually follows name pattern in epileptic seizures. May vary considerably in pseudo- seizures.

**Duration:** epileptic seizures are usually of short duration. Pseudo-seizures can last for hours or days.

**Presence of other people:** Pseudo-seizures usually occur in the presence of other people. Epileptic seizures can occur in the presence or absence of other people.

**Sleep:** Pseudo-seizures rarely occur during sleep. Epileptic seizures can occur any time.

**Incontinence:** Urinary and stool incontinence can occur in epileptic seizures while they are rare in pseudo-seizures.

**Eye opening:** Attempts to open eyes are usually resisted in pseudo-seizures.

**Post-ictal confusion:** more common in epileptic seizures. Rare in pseudo-seizures.

**Recall of events during seizure:** usually impaired or absent in epileptic seizures. May be intact in pseudo-seizures.

Discriminating investigations between the two include prolactin levels, which are usually raised after epileptic seizure but not in pseudo-seizures. The EEG may be abnormal during an epileptic seizure, while both inter-ictal and seizure EEGs are normal in pseudo-seizures.

If it is confirmed that the seizures are pseudoseizures, then the general principles of managing a conversion disorder apply.

Although this book is not a neurological textbook, since epileptic patients are frequently referred to the psychiatric clinics, an overview of the general principles of management of epilepsy will be discussed.

### **General principles in management of epileptic patients**

- Aim at the best possible seizure control without compromising the patient's quality of life. For example, seizures may be controlled but the side-effects of the medication achieving such control can be incapacitating. A balance has to be struck between the two. Do not increase or change drugs just because the patient has the occasional seizure.
- Try to determine the type of epilepsy you are dealing with before prescribing an anticonvulsant. For example, if a patient has absence seizures, carbamazepine is a poor choice of drug. Also note that psychiatric symptoms may be part of the presentation of the seizure type, for example complex partial seizures, and the patient may easily be misdiagnosed as having a primary psychiatric disorder.
- Avoid polypharmacy unless absolutely indicated. Some seizures may need one or

more drugs for effective seizure control. Where possible, ask for specialist opinion from physician/neurologist/ epileptologist if seizure control is poor at maximum tolerable doses of the indicated anticonvulsant.

- Always ask about which other drugs the patient is taking, as many anticonvulsants have effects on liver enzymes which may lead to increased or reduced levels of other drugs. For example, carbamazepine is a powerful hepatic enzyme inducer, leading to increased rate of metabolism of many drugs and can therefore lead to reduced effectiveness of drugs like oral contraceptives, tricyclic antidepressants, phenothiazines, benzodiazepines and so on. It is good practice to always check drug-to-drug interactions in a good formulary.
- When combining psychotropic drugs with anticonvulsants, for example carbamazepine and chlorpromazine, larger doses of the anticonvulsant may be needed to effectively control the seizures, since chlorpromazine, like some other neuroleptics and tricyclic drugs, lowers the seizure threshold. Alternatively, the minimum possible dose of the antipsychotic or tricyclic should be used to strike a balance between seizure control and psychotic symptoms.

#### **Some drugs of choice for various types of seizures**

- **Tonic-clonic seizures:** carbamazepine, sodium valproate and phenytoin.
- **Complex partial seizures :** carbamazepine
- **Absence seizures:** sodium valproate, ethosuximide
- **Myoclonic, secondary generalized seizures:** sodium valproate. Second line drugs clonazepam, ethosuximide
- **Atonic, tonic and atypical absence seizures:** sodium valproate, phenytoin, clonazepam, ethosuximide and phenobarbitone.

## *Chapter 13*

### **Childhood and adolescent disorders**

When dealing with children and adolescents, certain considerations have to be borne in mind:

- Any presenting abnormality has to be considered, taking the child's physical and psychological developmental stage in mind.
- Most children and adolescents are still under the care and control of others and dependent on them and their presenting problem may be a reflection of a problem in the family or in the relationship with the caregiver/s and so effective intervention may include involving the whole family.
- Very young children may have few or poorly-developed language skills and so assessment may include observing them at play, asking them to draw situations or people, and story telling.
- Many children and adolescents may be brought for assessment unwillingly, and so establishing rapport is essential if one hopes to make headway in obtaining information.
- In some cases, more information may be gained from obtaining collateral history and consulting other secondary sources than from an interview with the patient.

#### **Common childhood disorders**

This book will cover only a few childhood and adolescent disorders.

Some of the common disorders one is likely to come across are (in no particular order of prevalence):

- Attention deficit hyper activity disorder(ADHD)
- Conduct disorder
- Enuresis

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- Autism spectrum disorders
- Emotional disorders with onset specific to childhood, like phobic anxiety disorders and separation anxiety disorders
- Depressive conduct disorders.

### **Autism spectrum disorder**

Autism was first described by Kanner in 1943. Autistic disorder, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified which were classified as separate disorders in DSM-IV-TR are now classified together in DSM-V as autism spectrum disorders.

Autism Spectrum disorders are more common in boys than girls and usually manifest before the age of three years. Autism is characterized by abnormalities in the areas of social interaction, communication, and a pattern of repetitive stereotyped behaviour.

Clinical features include:

- Inability to form warm relationships with others. The child does not respond to expressions of emotion like cuddling and is emotionally cold to both care givers and strangers. The child does not show eye contact and has gaze avoidance.
- Speech and language disorder. The child's speech may develop normally and then decline or the child may never develop speech at all.
- Desire for sameness. The child is very resistant to change and may prefer wearing the same clothes, playing with the same toys in the same repetitive manner. Any attempt to change this pattern makes the child very distressed.

Accompanying symptoms may include hyperactivity, temper tantrums, self-injury and seizures. The majority of those with autism have intellectual disability.

### ***Treatment***

Treatment involves a multidisciplinary approach and includes behavioural, psychological, educational and occasionally symptomatic pharmacological interventions. Some studies suggest dietary measures; restricting foods rich in gluten and casein may help. Vitamin and mineral supplementation with vitamin B6 and magnesium has also been reported to help in some cases. A dietician's advice can be helpful, as well as:

- Behaviour therapy targeted at specific symptoms.
- Family counseling to deal with the stress of bringing up an autistic child. Respite admissions may help relieve the caregiver.

- Involvement of social services and educational services to organize for special schooling.
- Medication is targeted at specific symptoms or complications. Methylphenidate can be used for hyperactivity and the SSRIs have been reported to improve behavioural symptoms.

### **Attention deficit hyperactivity disorders**

This is a common disorder whose cardinal features are inattention, hyperactivity and impulsivity. These symptoms are present in more than one situation that is; they are not only confined to either school or home. The onset is usually in early childhood, before the age of seven. The disorder usually remits with age, but may persist into adulthood, especially when the symptoms are severe.

**Differential diagnosis:** includes conduct disorder, pervasive developmental disorders and severe anxiety.

### ***Management***

#### *Psychosocial measures*

- Support for parents and teachers
- Remedial measures like special classes

#### Drugs

- Central nervous system stimulants, for example methylphenidate dose: 5mg-60mg daily. This is not recommended for children under six. Discontinue if there is no response after one month.
- Other drugs used include imipramine, dexamphetamine and atomoxetine.

Treat co-morbid psychiatric conditions as indicated.

### **Conduct disorder**

Conduct disorder is characterized by a repetitive and persistent pattern of behaviour which is aggressive, defiant and antisocial and violates age-appropriate social norms.

Some behaviour associated with conduct disorder include:

- Repeated lying
- destructiveness to property
- truancy from school

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- running away from home
- stealing
- cruelty to animals or other people
- persistent severe disobedience
- fire setting
- alcohol or drug abuse
- sexual misconduct.

These behaviours have to be more severe than ordinary childhood misbehaviour.

### ***Aetiology***

Conduct disorder may be associated with a dysfunctional family background. It has also been associated with adverse socio-economic circumstances, like over crowded poor neighbourhoods with high crime rates.

Sub types of conduct disorder:

- Conduct disorder confined to the home
- Unsocialized conduct disorder in which relationships with peer groups and other children are lacking.
- Socialized conduct disorder.

### ***Management***

- Identify contributory family social factors and intervene appropriately, for example through social work referral.
- Remedial teaching if school difficulties are contributory.
- Behavioural treatment methods like rewarding positive behavior.

Mild conduct disorder usually improves as the child grows up, but sometimes the problem persists and worsens and may progress into antisocial personality disorder.

Drugs are usually not indicated, except for treatment of complications like depression or associated hyperactivity.

### **Separation anxiety disorder**

The child exhibits excessive anxiety when separated from parents or a caregiver to whom they are attached. Separation anxiety disorder may be triggered by stressors in the

family like impending divorce, or by events like admission to hospital. The child worries about danger befalling the person to whom he is attached, may have nightmares about separation, and also exhibits physical symptoms like vomiting, headache, abdominal pain and so on whenever they are separated or are about to be separated from the attachment figure.

Treatment includes dealing with underlying precipitating factors, reassuring the child and letting him express his fears and worries.

Anxiolytic drugs may be indicated if the anxiety is severe.

### **School refusal**

School refusal is equally common in boys and girls, unlike truancy which is more common in boys.

School refusal may be due to a number of causes, including separation anxiety, depression, generalized anxiety or some stressor in their environment, like bullying at school or difficulties at home. The problem may start slowly, with the child showing a marked reluctance to go to school. The patient may present with physical symptoms like headache, abdominal pain, and diarrhoea and so on when it is time to go to school.

Treatment involves identifying any contributory factors at home or school and dealing with them. Any underlying anxiety or depressive disorder is treated. The child is encouraged to return to school as soon as possible. A change of school may be considered in severe cases.

### **Elective mutism**

This is a condition in which the child becomes mute or near mute in some situations but not in others. For a diagnosis of elective mutism to be made, the child must have developed a normal or near-normal level of language comprehension and expression and must also be known to speak normally in some situations.

Treatment mostly involves behavior therapy and, if indicated, medication.

### **Enuresis**

Enuresis is the involuntary passing of urine which is inappropriate in relation to the individual's age. It is more common in boys. It can occur during the day (diurnal) or at night (nocturnal).

Primary enuresis is when there has never been a period of dryness from infancy, while secondary enuresis follows a period of acquired bladder control.

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Enuresis may be secondary to underlying psychological stress or be a result of physical factors such as diabetes, urinary tract infections, structural urinary tract abnormalities or epilepsy.

### ***Management of enuresis***

- Take a full history, physical examination and laboratory investigations to rule out physical causes.
- Treat underlying physical and psychiatric illness if detected.
- Offer psycho-education of patient and caregiver where applicable.
- Advice on simple measures like avoiding fluid intake from around 4pm, passing urine before going to bed even if the urge is not there, waking the child up at night to pass urine.
- Behaviour therapy techniques like a star chart to reward the patient on days they remain dry.

### **Bell and pad apparatus**

In this method, a water sensitive pad is put under the child when he goes to bed. When the child starts wetting the bed the urine completes the circuit in the apparatus and the bell rings. The child is then awakened to go and urinate and the pad changed for a dry one and the alarm reset. Eventually the child learns to wake up and go to pass urine.

### **Drug treatment**

The tricyclic antidepressants, imipramine and amitriptyline have been used. They are given in doses of 25-50mg at night, for up to six months. Relapse rates are high once the drugs are stopped.

### **Encopresis**

This is the inappropriate passing of faeces into places not appropriate for the purpose after the age when bowel control should have been attained. Bowel control is usually attained by the age of four years. It is divided into primary and secondary encopresis.

Management involves taking a full history, doing a physical exam and psychiatric assessment. Treatment depends on the cause. Psychological treatment involves counseling for the child and parent/ caregiver.

### **Temper tantrums**

Most people are familiar with the spectacle of a child screaming and howling in the supermarket while the embarrassed mother either tries to calm them down or walks away

in desperation, an act which only makes the child scream louder and throw themselves on the ground.

Temper tantrums are usually dealt with by advising the parent to set firm and consistent limits to the child's behaviour. Any emotional problems that may be contributing to the tantrums are also dealt with.

### **Feeding problems**

Refusal of food or eating very little is another common problem in children. Parents usually get very worried and try to force the child to eat, resulting in a battle between the mother and the child at meal times.

Treatment usually involves, after ruling out a physical problem, reassuring the mother and telling her to give the child food normally at meal times and if the child doesn't eat to ignore the child and not try to force them to eat. Some mothers will think of this as cruel and will need their fears addressed and reassured.

### **Pica**

Pica is the eating of non-dietary food items like soil, clothes, paper, hair and so on. Pica may be due to an underlying problem, like nutritional deficiencies of, for example, minerals like iron or zinc, mental retardation, emotional problems or may simply arise out of the child having observed the family pet eating a piece of paper. Although Pica is normally classified under childhood conditions, it can occur in any age group. In Botswana and other African countries one is likely to come across pregnant women eating soil. In fact, there are areas where some types of soil are sold to women with such cravings. The underlying cause should be determined by taking a thorough history and carrying out laboratory investigations, including full blood counts and screening for minerals. Treatment involves dealing with any underlying physical problems.

### **Some sleep disorders in childhood**

#### **Nightmares**

Nightmares are frightening dreams which occur during REM sleep. They usually awake the dreamer and may remain vivid in the dreamer's mind after they wake up.

Treatment measures include:

- Reassuring the child—talk about the nightmare with the child
- Identifying any stressors that may have contributed to the nightmare, for instance watching horror films on television before bed time

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- A mild anxiolytic can be helpful if there is severe anxiety.

### **Night terrors**

Unlike nightmares, night terrors occur during non-REM sleep and the child may appear awake, sitting up in bed with wide-open eyes. The child may be screaming and sweating and breathing heavily. The child does not remember the details of the dream the following day.

Treatment measures include: reassurance and an anxiolytic if anxiety is severe.

### **In practice**

Childhood conditions can be quite challenging to treat as often the parents may have different expectations about treatment from the clinician. It is thus important to involve the parents and family or caregivers from the beginning. They are more likely to be allies in treatment if they have been educated about the presenting condition and what role they should play.

## *Chapter 14*

# **Personality disorders**

### **Definition of personality disorder**

Personality disorders are inflexible and maladaptive, deeply ingrained ways of behaving and relating to others, usually arising in childhood or adolescence and persisting through adulthood.

Personality disorders either cause problems to the individual by impairing their social and occupational functioning, or cause distress to the individual with the disorder. The symptoms of a personality disorder should not be solely due to another psychiatric disorder, an underlying medical condition or substance abuse, although these can give rise to personality changes.

### **Classification of personality types**

#### **DSM-V classification**

The DSM classifies personality disorders into three clusters and ten categories:

Cluster A : **Odd or eccentric**

- Paranoid
- Schizoid
- schizotypal

Cluster B : **Dramatic or erratic**

- antisocial
- borderline
- narcissistic

Cluster C : **Anxious or inhibited**

- avoidant
- dependent

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- obsessive-compulsive
- passive-aggressive.

### **ICD-10 classification (F60–69)**

ICD-10 classifies personality disorders into nine categories:

- Paranoid personality disorder
- Schizoid personality disorder
- Dissocial personality disorder
- Emotionally unstable personality disorder
- Histrionic personality disorder
- Anankastic personality disorder
- Anxious (avoidant) personality disorder
- Dependent personality disorder
- Other specific personality disorder
- Personality disorder, unspecified.

### **What causes personality disorders?**

Personality disorders do not have one specific cause. Among the postulated causes are:

- Genetic
- Environmental factors
- Neurobiological factors
- Psychological factors, for example childhood abuse and neglect.

### **Brief notes on some specific types of personality disorders**

#### **Paranoid personality disorder**

Patients with paranoid personality disorder have a persistent pattern of being suspicious and distrustful of other people. They ascribe ill motives to the actions of others and are hostile and litigious. They are quick to take offence and do not forgive real or imagined slights easily.

#### **Schizoid personality disorder**

Patients with Schizoid Personality disorder are introverted loners who have few close friends, if any, and mostly prefer solitary activities. They are emotionally cold and are

mostly occupied with day dreaming and fantasy and show minimal emotional reactivity.

### **Schizotypal personality disorder**

Schizotypal Personality disorder is classified in DSM-V but not in ICD-10. Instead, in ICD-10 there is Schizotypal disorder. People with Schizotypal Personality disorder are loners and are socially detached, like those with schizoid personality disorder. However, unlike those with Schizoid Personality disorder they also display odd speech; thinking and behaviour. They may have ideas of reference and paranoid ideation.

### **Borderline personality disorder**

Patients with Borderline Personality disorder have a disturbed self-image, difficulties in interpersonal relationships and instability of mood and affect. They have difficulties in maintaining long-lasting interpersonal relationships as they may become intensely involved in a relationship only to break it down as quickly as it was started. They can be impulsive and dramatic, presenting with suicidal gestures and threats, and may also present with short-lived psychotic symptoms.

These patients can be very testing for the attending clinician as they vacillate between extremes of praising the clinician to rejection and outright hostility towards the clinician.

### **Antisocial personality disorder**

In ICD-10 the Antisocial Personality disorder is included under Dissocial Personality disorder.

Apart from Borderline Personality disorder, this is one of the personality disorders one is most likely to come across in clinical practice.

The most prominent feature of patients with Antisocial Personality disorder is a persistent pattern of behaviour that tramples on the rights of others and is socially irresponsible.

These patients engage in behavior which is frowned upon by the larger society, like lying, stealing, getting into frequent conflicts with the law, substance abuse, aggression towards others and so on.

Despite the pain these behaviours may inflict on others, the patient with antisocial personality disorder feels no compunction and repeatedly engages in the same behaviour. They feel no remorse for their acts. These patients can be superficially very charming and convincing in their talk and in their contact with health care givers can be very manipulative.

The diagnosis of antisocial personality disorder is made after the age of eighteen. However, many of these patients would have exhibited the same pattern of antisocial

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behavior before the age of eighteen, when they would be diagnosed with conduct disorder. However, not all patients with conduct disorder go on to exhibit antisocial personality disorder.

### **Histrionic personality disorder**

Histrionic patients love to be the centre of attraction and have a fleeting; superficial charm. They can dress seductively and behave in seductive ways towards the attending clinicians. They are continually looking for excitement and have quick mood changes, easily throwing tantrums when things don't go their way.

### **Narcissistic personality disorder**

Narcissistic patients have an overwhelming sense of self-importance and grandiosity and expect to be recognized as such. They are prone to exaggerating their achievements, often boasting of their achievements, and look for recognition, being easily hurt or flying into a rage when they perceive that their sense of importance is not recognized. Because they are self-absorbed they have little empathy for others and are often envious of others' achievements or think others are envious of them. They often come across as arrogant, and want to be associated only with those of their class.

### **Anankastic personality disorder**

**In DSM this is classified as obsessive-compulsive personality disorder.**

The Anankastic personality is characterized by rigidity, inflexibility and the need for order and control. They are preoccupied with details and perfectionism which may make it difficult for them to complete tasks. Because they are used to getting things done to perfection, they find it difficult to delegate tasks as they want things done their own way in a specific manner. They want to stick to rules and are over-conscientious about morality.

### **Anxious (avoidant) personality disorder**

These patients are quite unsure of themselves and have feelings of inferiority. They are tense and apprehensive and avoid social activities because of the fear of criticism and rejection by others. This can lead to a very restricted lifestyle and social and occupational immobility.

### **Dependent personality disorder**

Dependent personalities are unduly submissive, have an inordinate need for reassurance, and are dependent on others to make important decisions for them. They feel uncomfortable when they are alone and don't have somebody to lean on, and can be taken advantage of

as they meekly comply with the wishes of those on whom they are dependent. They find it difficult to make decisions and keep asking for advice and reassurance before making a decision.

## **Management of personality disorders**

### **General principles**

#### ***Diagnosis***

Management of personality disorders can be frustrating and therefore needs commitment from the therapist. Symptoms of personality change can arise secondary to an underlying medical or surgical condition or drug and substance use and it is therefore important to take a proper history. Corroborative history from an informant is very important; since a patient with some personality disorders may not even be aware they have a problem, for example in those with antisocial personality disorder.

Investigations, where appropriate, to rule out medical conditions or substance use should be done. Management depends on the specific personality disorder. Generally, patients with personality disorders can be quite challenging in their interaction with the clinician. Psychological methods of treatment, like long term individual psychotherapy, are first line, but drugs can be used if there are secondary symptoms like depression or anxiety arising due to the personality disorder.

### **Management of some specific personality disorders**

#### **Borderline personality disorder**

This is perhaps the most researched personality disorder. Psychotherapy includes CBT and psychodynamic psychotherapy.

Drug therapy is usually symptomatic and is not a cure for BPD, and includes:

- Mood stabilizers for impulsive behavior and mood instability like sodium valproate or lamotrigine.
- Low-dose antipsychotics for psychotic symptoms, like haloperidol and newer antipsychotics like olanzapine and aripiprazole. They may not only work on psychotic symptoms, but may improve other symptoms like impulsivity and anger.
- Antidepressants are indicated when depressive symptoms are present, for example amitriptyline.
- **Remember**, drugs are not indicated for treatment of borderline personality disorder but for symptomatic complications that may arise.

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### **Paranoid personality disorder**

The challenge here is whether the paranoid patient will accept that they have a problem in the first place. Because of their pervasive suspiciousness, these patients are likely to regard their clinicians with suspicion. Therefore, the first step in treatment is to create a good clinician-patient relationship and foster it. Psychological methods of treatment may include cognitive behavioural therapy. This involves identifying faulty cognitions and working on correcting them. Drug treatment includes low-dose antipsychotics. One should choose medication with a low incidence of side-effects.

### **Schizotypal personality disorder**

Psychotherapy involves supportive therapy aimed at helping the patients to change their coping styles and reality orientation.

Drug therapy targets symptoms—for psychotic symptoms give low-dose antipsychotics.

### **Antisocial personality disorder**

Antisocial personality disordered patients can be quite manipulative and controlling, and these traits may provoke a sense of anger in the clinician and lead to difficulties in management. The clinician needs to be aware of such feelings when they arise, and avoid falling into the trap of a test of wills with the patient and thus avoid basing their treatment on their emotional reaction to the patient rather than objective target symptoms. Limit-setting is necessary.

Group therapy is sometimes helpful. Medication may be used for target symptoms and behaviours, for instance mood stabilizers for aggression and impulsivity.

### **Obsessive-compulsive personality disorder**

The need for these patients to be in control can also be testing for the clinician and the clinician needs to recognize it for what it is – a coping style –and allow it as far as is reasonable. These patients may need to be heavily involved in their treatment planning and latitude can be given to this without losing sight of the fact that one is the clinician.

Cognitive behaviour therapy can be helpful in addressing distorted thinking. Other psychological methods of treatment, like psychodynamic psychotherapy, have been tried.

Drugs like clomipramine have been used for obsessional symptoms.

### **Narcissistic personality disorder**

Patients with narcissistic personality disorder rarely seek treatment. However, when they accept treatment, psychotherapeutic treatments like behavior therapy, cognitive behavior

therapy and group therapy can be useful.

Like in the other personality disorders, drug treatments are indicated for specific symptoms like impulsivity, anger and anxiety and depression.

### **In practice**

It can be difficult to diagnose some personality disorders with certainty in a single interview and therefore it is important to get collateral history from as many sources as possible.

### **Further reading**

The ICD10 Classification of Mental and Behavioural Disorders. Clinical descriptions and diagnostic guidelines. (1992).WHO.Bombay: Oxford University Press.

Diagnostic and Statistical Manual of Mental Disorders, fifth edition, Arlington, VA, American Psychiatric Association, 2013.

## *Chapter 15*

### **Sexual disorders**

Many patients with sexual difficulties find it embarrassing or difficult to talk about their problems and it is therefore essential that the clinician knows how to take a sexual history and probe for sexual problems with tact when indicated.

Many clinicians also find it awkward talking about sexual matters and therefore sexual problems may go unrecognized as the primary cause of a patient's complaints and only come to the fore later, after non-response to treatment for seemingly unrelated complaints like backache or insomnia.

Sexual disorders may be broadly divided into:

- Sexual desire disorders
- Sexual arousal disorders
- Sexual orgasm disorders
- Sexual pain disorders
- Paraphilias
- Gender identity disorders.

In the ICD-10, the sexual disorders not caused by organic pathology are coded under F52 and include lack or loss of sexual desire, sexual aversion and lack of sexual enjoyment, failure of genital response, orgasmic dysfunction, premature ejaculation, non organic vaginismus, non organic dyspareunia, excessive sexual drive and other and unspecified sexual dysfunctions not caused by organic disorder.

Sexual dysfunctions can be categorized into lifelong, acquired, generalized and situational dysfunctions.

### **Sexual desire disorders**

These include lack or loss of sexual desire (hypoactive sexual desire disorder) and sexual aversion and lack of sexual enjoyment.

The causes may be physical or psychological.

A physical cause can be suspected if there is absence of sexual drive, for example in men there may be absence of nocturnal or early morning erections and no sexual feelings at all, not confined to a particular partner. If a physical cause is suspected, then appropriate investigations or referrals to the relevant specialist are done. Investigations include hormonal assays and if there is a hormonal problem referral is made to an endocrinologist or gynaecologist as appropriate.

If, on the other hand, there is evidence that the loss of desire is not universal, for example the loss is only confined to a particular partner or situation, then the cause is most likely to be psychological and could be due to problems in the relationship, some unconscious fear of sexual activity or a response to some on-going stressor in the patient's life.

When a psychological cause is suspected, then the underlying problem is addressed. Couple therapy is aimed at psycho-education on sexual issues, including correcting any misconceptions about sex and improving communication. There are many myths and misconceptions about sex and sexual matters which can lead to unnecessary anxiety and sexual problems. I have had a young patient who was worried that having sex three times in a night was abnormally low. In some cases of sexual dysfunction, all that may be needed is simple education about sexual issues and correction of any myths and misconceptions.

### **Sexual arousal disorders**

#### **Erectile dysfunction**

One of the most common complaints one comes across in the psychiatric clinic is erectile dysfunction. Unfortunately, some psychotropic drugs cause erectile difficulties and it can be one of the causes for a patient not adhering to or defaulting from treatment.

#### ***Causes***

Causes of erectile dysfunction include:

- Medical conditions
- Drugs
- Psychological causes.

Drugs associated with erectile dysfunction are:

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- Antipsychotics
- Antidepressants, especially SSRIs and tricyclics
- Antihypertensives
- Mood stabilizers like carbamazepine
- Hormonal contraceptives.

This is not an exhaustive list and not all drugs in these groups cause erectile dysfunction. For example, one of the side-effects of the antidepressant trazodone is priapism. It is advisable to check in a formulary or manufacturer's leaflet when a patient on particular drugs presents with erectile difficulties.

Treatments for erectile dysfunction include:

- Physical methods like vacuum pumps and intracavernosal injection with drugs like alprostadil.
- Drugs like sildenafil citrate (viagra), tadalafil (cialis), vardenafil (levitra) and others, including herbal preparations like ginseng and ginkgo biloba.

### **Sexual arousal disorders in women**

Though they may be rarely complained of in day-to-day clinical practice, they are by no means rare. The patient may present with a complaint of vaginal dryness. The cause may be psychological or due to a medical condition. Management involves investigating for and treating the underlying cause.

### **Sexual orgasm disorders**

These include:

- Premature ejaculation
- Male orgasmic disorder
- Female orgasmic disorder.

#### ***Premature ejaculation***

Premature ejaculation refers to ejaculation occurring before penetration or shortly after penetration. It is usually associated with anxiety about the sexual act and is common in young people.

Treatment includes techniques like the stop-start technique, where the patient learns to identify the point of ejaculatory inevitability through masturbating and stops just before

he ejaculates. He practices this about two to three times in a week and continues until he learns to control his ejaculation.

Other methods of treating premature ejaculation include the squeeze technique or use of medication like the SSRI paroxetine.

### ***Sexual pain disorders***

The two most common are dyspareunia and vaginismus. Dyspareunia is persistent or recurrent genital pain associated with sexual intercourse. It can occur before, during or after intercourse and can occur in both men and women; although it is more common in women. In men it is mostly associated with medical conditions.

Vaginismus is recurrent involuntary muscle constriction of the outer third of the vagina that interferes with sexual intercourse. Vaginismus may arise from physical or psychological causes. Physical causes include previous episiotomy, pelvic inflammatory disease and others. Thus, a proper physical examination, including vaginal examination, must be done to rule out physical conditions. Psychological explanations include prior sexual trauma, classical conditioning as a result of having experienced pain on first sexual contact and guilt feelings about sex due to upbringing or religious beliefs.

Treatment for both dyspareunia and vaginismus includes identifying and treating any underlying physical causes and sex education and psychotherapy aimed at dealing with any identified issues like past sexual trauma. Vaginismus can be treated using gradual insertion of vaginal dilators by the patient until the vagina can comfortably accommodate the penis.

### ***Paraphilias***

Paraphilias are sexual disorders in which the individual gets sexual gratification from non-conventional means like non-human objects, the suffering and humiliation of self or others or non-consenting partners.

In every day clinical practice you are likely to come across paraphiliacs in the forensic context when they are brought by the police or as a court referral for assessment after being arrested for a paraphilic act. However, the paraphiliac may also present for help if the act causes them feelings of guilt, shame and embarrassment.

### ***Paraphilias include:***

- Fetishism
- Transvestite fetishism

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- Exhibitionism
- Frotteurism
- Voyeurism
- Paedophilia
- Sexual sadism
- Sexual masochism.

**Fetishism:** in fetishism the individual obtains sexual arousal and satisfaction by using inanimate objects like articles of clothing, for example shoes.

**Transvestite fetishism:** sexual gratification is obtained by wearing clothes of the opposite sex.

**Exhibitionism:** sexual gratification is obtained by the exposing of genitalia to the opposite sex.

**Frotteurism:** sexual gratification is obtained by touching and rubbing against a non-consenting person. This is usually done in a crowded place like a full bus with standing passengers.

**Voyeurism:** satisfaction is obtained by watching other people engaging in sexual activity.

**Paedophilia:** sexual attraction is mostly to pre-pubertal children.

**Sexual sadism:** sexual arousal is obtained by inflicting pain on another person.

**Sexual masochism:** sexual satisfaction is obtained by the individual having pain inflicted on them.

**Sexual sado-masochism:** sexual gratification is obtained by a combination of sadism and masochism.

### ***Treatment of paraphilias***

Treatment includes psychological methods of treatment and drug treatment.

Psychotherapy: supportive psychotherapy, group therapy and twelve-step programmes have all been used in the treatment of paraphilias. *Behavioural methods* are also used.

Drugs which have been used include SSRIs, especially in patients with depressive, obsessive-compulsive or impulse control problems. Antiandrogens like cyproterone acetate and medroxyprogesterone acetate have also been used. In extreme cases, surgical castration has been used, but this raises difficult ethical issues.

### **Gender identity disorders**

Gender identity disorders (gender dysphoria in DSM-V), also sometimes called transsexualism, are disorders in which the individual is uncomfortable with their biological gender and has a strong and persistent desire to be of the opposite sex.

The condition may manifest in repeated expression by the individual that they wish to be of the opposite sex, the engaging in behaviours or modes of dressing usually associated with the opposite sex, or a sense of disgust with their biological genitalia, amongst other symptoms. Secondary complications include depression and anxiety.

Treatment involves psychological and occasionally drug or surgical methods.

Psychological treatment includes individual psychotherapy and family counseling and couples therapy where indicated.

Drug treatment includes hormone replacement therapy while in severe cases gender reassignment surgery (a sex change operation) might be done.

### **In practice**

A lot of patients may not directly complain about sexual symptoms even though those symptoms may be what are worrying them. It may therefore be necessary to tactfully ask about sexual symptoms. You can start by asking about their relationship with their partners and then ask if the patient has any problems or concerns about their sexual life.

### **Further reading**

The ICD10 Classification of Mental and Behavioural Disorders. Clinical descriptions and diagnostic guidelines. (1992). WHO. Bombay: Oxford University Press.

Diagnostic and Statistical Manual of Mental Disorders, fifth edition, Arlington, VA, American Psychiatric Association, 2013.

## *Chapter 16*

### **Eating disorders**

The prevalence of eating disorders in Botswana seems to be low, although there are no reliable statistics or epidemiological studies carried out to determine the prevalence. You are unlikely to come across cases of eating disorders in public hospitals, but it is nevertheless important to have a good understanding of eating disorders so as not to miss or misdiagnose them and also because the incidence of eating disorders is reported to be on the rise, especially in the developed world.

#### **What are eating disorders?**

Eating disorders are characterized by disturbances in eating habits leading to significant psychological and physical effects. Although they are more common in females, eating disorders also occur in men.

ICD-10 classifies eating disorders under behavioural syndromes associated with physiological disturbances and physical factors. (F50-F59).

The eating disorders in ICD-10 are anorexia nervosa and its atypical form, bulimia nervosa and its atypical form, over eating associated with other psychological disturbances, vomiting associated with other psychological disturbances, other eating disorders and unspecified eating disorders.

DSM-V feeding and eating disorders include: pica, rumination disorder, avoidant/restrictive food intake disorder, anorexia nervosa, bulimia nervosa, binge eating disorder and other specified feeding or eating disorder. For purposes of this book we will only consider anorexia nervosa and bulimia nervosa.

#### **Anorexia nervosa**

Anorexia nervosa is characterized by a distortion in the way the patient views their body weight, with the patient in denial about their extremely low body weight. While other people may be alarmed by the patient's low body weight, the patient is not bothered and

may even insist that he or she is fat.

There is a fear of gaining weight and body weight is maintained below 15% of the expected weight for age and height. Weight loss is attained by the patient using methods like self-induced vomiting, avoiding fattening foods, exercising excessively, and using diuretics, laxatives and appetite suppressants. Associated abnormalities include a disturbance in the hypothalamic-pituitary-gonadal axis, leading to amenorrhoea in women and sexual dysfunction in men.

Anorexia nervosa affects both men and women, but is far more common in females with a male to female ratio of about 10:1. Peak onset is between fourteen and eighteen years of age.

DSM-V gives two subtypes of anorexia nervosa: **restricting type**, in which the patient has not regularly engaged in binge eating or purging behavior during the current episode, and the **binge-eating or purging type** in which the patient has engaged in binge eating or purging behavior during the current episode.

### **What causes anorexia nervosa?**

There is no single cause of the condition. Postulated causes include:

**Psychological causes:** some authorities postulate that the condition may be a phobic response to food or a learned response to parental attitude towards food or a reaction to family and other stressors.

**Biological causes** include genetic causes. There is an increased risk in first degree female relatives of those with the disorder. There is also thought to be some abnormalities in central neuro transmitters such as serotonin, dopamine and noradrenaline which play a role in satiety.

**Social causes** include the glamorization of thin models in western culture and professions which put a premium on slim bodies, like modelling.

### **Complications of anorexia nervosa**

Physical complications involve virtually all body systems and include: amenorrhoea, hypotension, bradycardia, parotid swelling, lanugo hair, peripheral oedema, constipation, anaemia, osteoporosis, peripheral neuropathy, electrolyte imbalance, and so on. There is marked co-morbidity with conditions like depression, anxiety and obsessive-compulsive disorder.

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## **Treatment**

Treatment can be either as an outpatient or inpatient. Treatment involves a combination of psychological therapy and drug treatment where indicated. Since the patients are usually in denial, the primary task of the therapist is to establish rapport and win the patients' confidence in order to motivate them to see the need to gain weight. Inpatient treatment is indicated if the weight loss is severe, for example a 20% or more weight loss, and if the patient is suicidal or has severe medical complications arising from starvation, like electrolyte imbalance.

A comprehensive history is taken with emphasis on finding out about family relationships and stressors. Collateral history is important, since the patients tend to minimize any problems they have.

A thorough physical examination must be carried out and baseline lab workout done. Laboratory tests include, but are not limited to, full blood count, urea and electrolytes, liver function tests, thyroid function tests, urinalysis and urine toxicology.

Psycho-education about the condition, its complications and treatment is given to the patient and the family.

Psychological treatments include individual psychotherapy, family therapy and CBT.

Drugs used in management include antidepressants like fluoxetine, if there are depressive symptoms or obsessive-compulsive behaviours, amitriptyline if there is evidence of underlying depression, cyproheptadine (peractin), an antihistamine with appetite stimulating properties for overactive patients, and antipsychotics like chlorpromazine for patients with delusional symptoms. Newer antipsychotics like olanzapine and risperidone have also been used.

## **Bulimia nervosa**

Bulimia nervosa is characterized by repeated episodes of overeating (binges) followed by behaviour designed to counteract the effects of the overeating and prevent weight gain.

During the binge eating episodes the patient eats more food within a short time than most people would consume within that time under similar circumstances. The weight-preventing behaviour may be by self-induced vomiting, laxative abuse, use of diuretics and other drugs, fasting or excessive exercising.

Unlike in anorexia nervosa, the weight in bulimia nervosa can be normal.

Physical and medical complications of bulimia nervosa include electrolyte imbalances due to the vomiting and diuretic or purgative abuse, cardiac arrhythmias, dental problems

like erosion of enamel and tooth decay, and parotid gland enlargement, amongst others.

### **Management**

A thorough history and physical examination, as well as laboratory investigations as indicated in anorexia nervosa, are essential to identify the contributing psychological factors and complications as well as physical complications.

Psychological methods of treatment include cognitive therapy, interpersonal therapy, group therapy and behaviour therapy.

Drug treatments include use of antidepressants like fluoxetine in doses higher than those used for treating depression, for example fluoxetine 60mg daily.

The anticonvulsant topiramate has also shown promising results in trials.

### **Further reading**

Garner D M, Garfinkel PE(eds).(1997).Handbook of treatment for eating disorders.

New York: Guildford Press.

## *Chapter 17*

### **Sleep disorders**

Complaints of lack of sleep are common in the psychiatric clinical setting. However, disorders of sleep are not only confined to lack of sleep but also involve difficulties in staying awake and abnormal behaviours that occur during sleep, like sleep-walking.

Sleep is not uniform. It is divided into two types—rapid eye movement sleep (REM sleep) and non-rapid eye movement sleep (non-REM sleep).

Non-REM sleep, which makes up about 75% of sleep, is divided into four phases: 1, 2, 3 and 4. Phase 1 is the lightest, while stage 4 is the deepest. During stage 1 of Non-REM sleep, it is easy to awaken the sleeper, while during stage 4 sleep the sleeper is not easily aroused.

REM sleep is so called because during this stage the eyes move rapidly. The majority of dreams occur during REM sleep and during this phase the muscles are paralysed.

Sleep usually starts with stage 1 of non-REM sleep and then moves through the stages of non-REM sleep to REM sleep. The stages alternate every one hour or so, so that you have NREM-REM-NREM-REM.

These cycles occur up to six times in a night.

#### **Classification of sleep disorders**

ICD-10 classifies the non-organic sleep disorders into:

- Insomnia
- Hypersomnia
- Disorder of the sleep-wake schedule
- Sleep-walking(somnambulism)
- Sleep terrors

- Nightmares.

DSM-V classifies the sleep disorders under sleep-wake disorders. These are broadly:

- Insomnia disorder
- Narcolepsy
- Breathing related sleep disorders
- Circadian rhythm sleep-wake disorders
- Parasomnias
- Substance induced sleep disorders
- Unspecified sleep disorders.

The primary sleep disorders include insomnia, hypersomnia, narcolepsy and breathing related sleep disorder.

The parasomnias include: nightmare disorder, sleep terror disorder and sleep-walking disorder.

### **Assessment of sleep complaints**

The general tendency in a busy clinic is to prescribe medication, especially hypnotics, for patients complaining about their sleep. That is unlikely to solve the problem and may instead create more problems, like dependency on the hypnotic.

Assessment of a sleep complaint involves:

- Taking a complete sleep history
- Carrying out a mental status assessment
- Doing a physical examination.

### **Sleep history**

A proper sleep history is essential for diagnosing a sleep disorder.

Components of a sleep history include:

- Onset and duration
- Pattern of sleep
- Day time effects
- Sleep environment

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- Use of medications (prescription or OTC)
- Use of alcohol and other drugs
- Use of caffeine and other stimulants
- Any nightmares, sleep-walking
- Evaluate for any psycho social stressors.

### **Mental status assessment**

Evaluate for presence of mental disorder.

### **Physical assessment**

Rule out any medical or physical problem.

### **Specific sleep disorders**

#### **Insomnia**

Insomnia refers to a patient's complaint of difficulty or inability to get sufficient sleep either in quality or quantity leading to day-time fatigue. It is not defined by the actual amount of time spent in sleep. Insomnia can be primary when there is no identifiable medical or psychiatric cause or secondary when it arises due to an underlying medical or psychiatric cause.

#### ***Primary insomnia***

It is characterized by difficulty in initiating or maintaining sleep or having non-restorative sleep which causes clinically significant impairment in social and occupational functioning and lasts for longer than one month.

It is more common in women and the elderly than in men and the young. Assessment of primary insomnia includes taking a detailed sleep history, doing a full physical examination and mental state assessment. The mental state assessment must include an assessment for suicidal ideation. The patient is asked to keep a sleep diary for at least two weeks. Depression, anxiety and alcohol and drug abuse are common complications.

### **Management**

Management includes non-drug general principles like patient education on sleep hygiene, which are given later in this chapter, psychological methods like cognitive behavioural therapy to address faulty cognitions about sleep, and relaxation exercises.

Drug treatment can include the use of benzodiazepine hypnotics like flurazepam, nitrazepam and temazepam. Non-benzodiazepine drugs used include benzodiazepine

receptor agonist zaleplon, zolpidem and zopiclone and low-dose sedating antidepressants like amitriptyline.

Drugs are indicated for short term use, not more than two to three weeks, in conjunction with non-drug measures as outlined above.

Doses for hypnotic use of the above drugs:

|               |                |
|---------------|----------------|
| Flurazepam    | 15-30mg nocte  |
| Nitrazepam    | 5-10mg nocte   |
| Zaleplon      | 10mg nocte     |
| Zopiclone     | 7.5mg nocte    |
| Zolpidem      | 10mg nocte     |
| Amitriptyline | 25-50mg nocte. |

### **Secondary insomnia**

Secondary insomnia arises as a result of an underlying condition, either medical or psychiatric. Secondary insomnia is more common than primary insomnia.

Management involves the treatment of the underlying cause and treating the insomnia using the general principles applied in the treatment of primary insomnia.

Causes of secondary insomnia include psychiatric conditions like depression, anxiety, schizophrenia, mania and dementia.

A variety of medical conditions can be implicated, especially those associated with pain like cancers, arthritis, respiratory and cardiac problems, gastro-intestinal disorders like peptic ulcers and genito-urinary conditions causing nocturia, amongst others.

**Primary hypersomnia (non-organic hypersomnia)** Hypersomnia is excessive sleeping which continues for more than a few days and is not as a result of sleep deprivation or unusually heavy exercise. According to ICD-10, the disorder is characterized by excessive day time sleepiness or sleep attacks or sleep drunkenness in which there is a prolonged transition to a fully awake state upon awakening.

The sleep disturbance is usually severe enough to cause distress or interference with normal social and occupational functioning and is not due to an underlying physical condition. The duration of the complaint is for at least one month, or less if the episodes are recurrent.

### **Sleep disorders of the sleep-wake schedule**

These are sleep disorders in which there is either insomnia or hypersomnia arising due to

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a mismatch between the individual's sleep-wake schedule and that which is normal for the individual's environment or society.

DSM specifies four subtypes:

- **Delayed sleep phase type**, in which the individual habitually falls asleep late and wakes up late and finds it difficult to wake up early, even if it is desirable to do so.
- **Jet lag type**, which arises after travel across more than one time zone.
- **Shift work type**, which is associated with night shift work or frequently changing shiftwork.
- Unspecified type.

### **Narcolepsy**

Narcolepsy is characterized by recurrent attacks of excessive sleepiness during waking hours. It may be accompanied by symptoms of sudden loss of muscle control, for example on laughing, called cataplexy, or by sleep paralysis. Sleep paralysis is a feeling of the inability to move as one goes to sleep or wakes up. In some cases hallucinations also occur.

In cataplexy, the patient becomes momentarily paralysed and may fall to the ground or drop something they are holding, while in sleep paralysis the patient, at the moment of falling asleep or just before awakening, finds they are unable to move even though they want to do so.

Narcolepsy usually begins in adolescence or young adulthood.

### ***Treatment***

Investigations include an EEG.

Treatment involves:

- Advising the patient to take frequent naps
- Drugs: stimulants such as methylphenidate

Antidepressants like imipramine are helpful in relieving cataplexy.

### **Breathing related sleep disorder (sleep apnoea syndrome)**

These are sleep disorders in which the patient repeatedly stops breathing for more than ten seconds when asleep. This stoppage of breathing leads to a decrease in the oxygenation of the blood and with an accompanying increase in the carbondioxide levels in the blood.

The stoppage of breathing can be due to partial or full blockage of the upper air ways, when it is called obstructive sleep apnoea, or it can be due to a problem in the respiratory centre of the brain, central sleep apnoea. Other cases involve a mixture of the two causes. Central sleep apnoea is less common than obstructive sleep apnoea.

These repeated interruptions of breathing during sleep lead to the patient repeatedly waking up and thus interfere with sleep and lead to day time sleepiness and fatigue.

It was initially thought that obesity was the cause of obstructive sleep apnoea but it is now known to affect all body sizes and other aetiological factors include smoking, excessive alcohol use and chronic lung diseases. Genetic factors also play a causative role in some cases.

Symptoms of sleep apnoea, apart from insomnia, include headache, especially in the morning, irritability, impaired concentration, fatigue and snoring.

Patients suffering from sleep apnoea are usually not aware of the apnoeic attacks and the complaint is usually made by their bed partner. The patient may wake up gasping and choking and kicking, which alarms their partner.

Complications of sleep apnoea include hypertension, heart attacks, cardiac arrhythmias and increased mortality.

Diagnosis is made on the basis of history as well as investigations which include an EEG, best done in a sleep laboratory, measuring oxygen saturation with an oximeter, and measuring oral and nasal air flow.

### **Treatment**

Several treatments are used in managing sleep apnoea. These include:

- Encouraging weight loss for the obese
- Sleep-position training (patients should avoid sleeping on their back)
- Avoiding or stopping alcohol use
- Avoiding the use of sedatives
- Surgical procedures to enlarge the air way
- Nasal continuous positive airway pressure where air under pressure is delivered through a face mask
- Using dental appliances which push the mandible forward and separate the jaws and help keep the airway open.

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## **Parasomnias**

Parasomnias are abnormal behaviours or physiological events that occur during sleep.

They include:

1. Nightmare disorder
2. Sleep terror disorder
3. Sleep-walking disorder.

### **Nightmare disorder**

Nightmare disorder is characterized by repeated frightening dreams which are vivid in nature, awaken the patient and are usually easily recalled by the patient. They are more common in children and are usually associated with stress, traumatic experiences and the use of drugs or alcohol.

There is debate on whether nightmare disorder is a disorder on its own or a symptom of an underlying disorder.

### ***Treatment***

Management includes reassurance and dealing with the underlying stressors.

### **Night terror disorder**

Night terrors, like nightmares, are more common in children. These are frightening dreams occurring during non-REM sleep, in which the patient wakes up screaming and looking extremely frightened and hyperventilating with their heart racing. Unlike with nightmares, the patient usually doesn't recall the dream and does not even remember the episode. It may be difficult for them to be awoken during the episode and when they wake up they appear confused and disoriented.

Factors which may be associated with, or play a role in, causing night terror disorders include stress, fatigue, substance use or disruptions in the sleep-wake schedule. Other sleep disorders, like obstructive sleep apnoea, may also be associated with sleep terror disorder.

### ***Management***

- Education and reassurance about the condition
- Treating the underlying condition, if any.

### **Sleep-walking disorder (somnambulism)**

This disorder is characterized by repeated episodes of the patient waking up and walking about while sleeping. The patient who is sleep-walking may engage in complex motor activity, like opening the door, but usually has no recollection of the sleep-walking episode on waking up. There is a risk of injury to self or others during the episode. During the episode the patient is difficult to waken up.

Associated causes can include other sleep-related disorders like obstructive sleep apnoea and restless legs syndrome and also epilepsy.

Treatment includes:

- Education about the condition
- Reassurance
- Ensuring a safe sleeping environment
- Treatment of underlying causes, if any
- Non-pharmacological measures like relaxation training
- Drugs dealing with identified stressors.

The most commonly used drugs are clonazepam, the tricyclic antidepressants or serotonin receptor inhibitors.

Medication is continued for about four to six weeks.

### **Other dysomnias**

#### ***Restless legs syndrome***

This disorder is common in the middle aged and the elderly. The patient experiences a crawling or creeping feeling in the lower and upper limbs and gets an irresistible urge to keep moving the legs. This happens usually when the patient gets into bed and can lead to sleep onset insomnia.

It is associated with anaemia, pregnancy and patients with uraemia.

The condition can be very distressing and may lead to depression and suicide.

#### **Treatment**

- General measures like warm baths, and using cold or hot packs on limbs
- Treating underlying causes Drugs used are:
- Benzodiazepines, especially clonazepam

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- Carbamazepine
- Dopaminomimetics like L-dopa and bromocriptine.

### ***Nocturnal myoclonus***

This involves repetitive brief leg muscle contractions which interfere with sleep and lead to insomnia and day time sleepiness.

Causes include various physical conditions like liver and kidney problems, diabetes, brain disorders, head injury and epilepsy, amongst others.

Drug treatment is usually by use of anticonvulsants like carbamazepine and clonazepam and the other drugs used for restless legs syndrome.

### **General sleep hygiene measures**

Educating patients with a sleep complaint of sleep hygiene measures is an important part of treatment. Sometimes it may be the only treatment needed, if there are no other underlying causes of insomnia.

These measures include:

- 1) Having a comfortable bedroom or sleeping place that is used only for sleep and sex and not reading or watching TV. Those with partners should avoid emotional discussions in the bedroom when they go to bed.
- 2) Keeping regular sleeping hours, like going to bed at the same time and waking up at the same time every day, whether it is a week end or not.
- 3) Avoiding day time sleeping or naps.
- 4) Avoiding stimulants like caffeine and nicotine for at least four hours before bed time.
- 5) Avoiding alcohol before sleep, as alcohol interferes with sleep.
- 6) Doing regular physical exercise, but not too much stimulating exercise before bed.
- 7) Relaxation measures like listening to soothing music and meditation before bedtime.
- 8) Avoiding heavy meals before bed time. However, there are some light foods which can promote sleep, like taking a glass of warm milk and eating oats or bananas.

If none of the above measures help, and sleep has not set in within half an hour of going to bed, the patient should get up and do something else like reading (out of bed) ,till dozing sets in.

**In practice**

Complaints about sleep are very common in psychiatric practice. Try non-drug methods of management first and, where hypnotics are deemed necessary, use them for the shortest time possible.

**Further reading**

STORES, G (2009) *Insomnia and other adult sleep problems*, Oxford: Oxford university press.

## *Chapter 18*

# **Legal and ethical issues in psychiatry**

### **Legal issues**

Since this book is aimed at those taking care of psychiatric patients at primary care level, it will only give a brief overview of legal and ethical aspects in mental health.

### **Mental health legislation**

Each country has its own legislation dealing with mental health. Some countries have revised their legislation in the recent past while others have very old legislation. Most modern mental health legislation now puts emphasis on the rights of the mentally ill and on prevention, treatment and rehabilitation. It is necessary when dealing with the mentally ill to be familiar with the mental health legislation in whichever country you are practicing.

Unlike in most other specialties in medical practice, psychiatric patients can be involuntarily admitted to hospital following laid down legislation. Involuntary admission may occur through **civil** commitment, using the involuntary admission procedures laid down in the relevant act, or through **criminal** commitment where a court orders a patient to be admitted for assessment of their fitness to stand trial, or after a trial when the court makes a special finding of guilty but insane or not guilty by reason of insanity depending on the relevant legislation. Usually after such a finding the accused is then confined in a place of safety at the pleasure of the President and this place of safety is usually a psychiatric hospital.

### **Malpractice**

Malpractice is defined as failure to exercise a degree of skill that would reasonably be expected of a doctor in similar circumstances. For malpractice to be said to have occurred there must be four elements:

- There must exist a doctor-patient relationship

- There must be proven dereliction or breach of that duty
- There must be proof of harm or damage, be it physical or psychological
- The damage or harm must be shown to be as a result of the dereliction of duty.

### **Legal issues commonly dealt with by psychiatrists**

During the course of court proceedings, questions may arise about the soundness of an accused's mind. The courts may then order a psychiatric assessment of the accused. This is usually carried out by psychiatrists.

The court usually wants to know:

- Whether or not the accused suffers from a mental illness
- Whether at the time of the alleged offence the accused was laboring under a disease of mind
- Whether the accused is fit to follow proceedings.

### **Does the accused suffer from mental illness?**

A determination of this is done in the usual way, by history taking and mental status assessment.

### **What was the accused's state of mind at the time of the alleged offence?**

This is a difficult determination to make as it is usually made in retrospect.

Thus, in many cases one may only be able to determine a possible state of mind at the time of the alleged offence. Factors looked at which help make a determination include:

- Whether the accused suffers from mental illness
- The nature of that mental illness, whether it is an on-going chronic illness and whether it is likely to have been present at the time of the alleged offence
- The accused's account (if he is able to give it) of the alleged offence and his/her explanations of the alleged offence
- Planning and preparation for the offence
- The nature of the offence
- Eye-witness accounts if possible
- The accused's actions during and after the alleged offence.

### **Is the accused fit to plead?**

For one to be fit to plead one must:

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- understand the nature of the charges facing one
- be able to understand the difference between pleading guilty and not guilty
- be able to instruct their defence counsel
- be able to follow proceedings in court

Thus, in determining fitness to plead, one of the major factors considered is the accused's cognitive functioning. Contrary to what many laymen may believe, the presence of a mental illness does not necessarily make one unfit to plead. One may suffer from a major illness like schizophrenia and yet be fit to plead. However, some conditions, like severe intellectual disability, so affect cognitive abilities that one is unlikely to satisfy the criteria considered for fitness to plead.

Courts may also want to know about patients:

### **Testamentary capacity**

Testamentary capacity refers to a patient's ability to make or alter a will. For a person (the testator) to be said to have testamentary capacity he or she must:

- Know the nature and extent of their property
- Those expected to benefit from the property (beneficiaries)
- Understand the nature of a will
- Have the ability to express themselves clearly about the disposition.

### **Capacity to manage affairs**

For a person to be said to have decisional capacity, they must understand what it is they are making a decision about and why, and the consequences of making that decision. They must not have any cognitive impairment that makes them unable to absorb, understand and evaluate information about the decision given to them, and be able to communicate their decision.

### **Writing a psychiatric report**

Different psychiatrists may prefer different ways of writing psychiatric reports. Reports should be brief, and written in a language which a layman can understand, avoiding technical terms or, where technical terms are used, their meaning should be explained in the report. A forensic psychiatric report should contain at least the following:

1. An introductory statement on the qualifications and professional experience of the person making the report.
2. Date/s of assessment.

3. A statement on who asked for the report.
4. The reason that the report was requested.
5. Sources of information, for example who was interviewed, and documents referred to, like witness statements and the patient's clinical records
6. Accused's account of the alleged offence.
7. Past medical and psychiatric history of the accused.
8. Personal/family/social history, including drug and alcohol use.
9. Past forensic history.
10. Accused's mental state at time of examination.
11. Opinion and recommendations. This includes a statement on whether the accused suffers from mental illness, possible state of mind at the time of the alleged offence and evidence, if any, of knowledge of wrongfulness, fitness to plead, and recommendations for treatment, if any, to the court.

### **Ethical aspects of psychiatric practice**

Ethics refer to the moral principles influencing one's conduct. The ethical principles governing a profession refer to the code of behaviour expected within their profession. Unlike legal requirements, which are usually contained in written laws, ethical behaviour is usually a self-imposed duty not necessarily enforced by law.

Core ethical principles are: autonomy, beneficence, non-maleficence, justice, veracity and fidelity.

Most professions have ethical codes of conduct which may differ from country to country but have some common underlying principles.

In Botswana for example, the health professions code of conduct has the following core ethical principles to guide health professionals:

- Acting in the best interest of patients, even when there are conflicts with one's self interest;
- Not harming or acting against the best interest of patients;
- Respecting the patients' human rights;
- Respecting the patients' right to self-determination and to make their own informed choices
- Being truthful;
- Having integrity;

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- Respecting confidentiality;
- Having compassion;
- Having tolerance of differences, be they religious, personal or cultural
- Treating all in a fair, just manner
- Having professional competence and striving for self-improvement;
- Striving to contribute to the betterment of society.

The health practitioner has duties to the patient, to colleagues and other health professionals, to patients of other health professionals, to self, to one's profession, to society and to the environment.

### **Some ethical principles defined:**

**Autonomy:** the principle of autonomy recognizes that patients have the freedom to make their own informed decisions. However children and some patients who are cognitively impaired may not have the ability to make such autonomous decisions and thus precautions must be taken to protect them.

**Beneficence:** the principle of beneficence means that the clinician's actions should aim at intend to do good and do no harm or minimize harm to the patient.

**Justice:** justice refers to the principle that there is fairness and nobody is unfairly disadvantaged by our actions and all are treated equally.

**Confidentiality:** confidentiality is central to developing trust between patients and health care providers. The hippocratic oath which doctors take explicitly recognizes this.

There are exceptions to confidentiality. These include where there is a threat of self-harm or harm to others, or the patient waives the right to confidentiality, or the public health legislation requires mandatory reporting of a condition or a court of law orders disclosure. Confidentiality may also be waived where information is required by another practitioner or by any legal representative of a patient entitled to the information in the course of their duties.

**Consent:** informed consent needs the patient to be given all the necessary information about a proposed treatment or intervention, including risks and available alternatives, to have the capacity to understand that information (competence).

### **In practice**

Quite often it is erroneously assumed that psychiatric patients don't have the capacity to give informed consent. However, a patient can have a serious mental illness like

schizophrenia and still have the mental competence to make informed decisions, including decisions regarding their treatment. When in doubt about a patient's mental capacity, ask for a psychiatric evaluation.

**Further reading**

1. Geddes, J Price J, McKnight R.(2012). Psychiatry (4th edn). Oxford: Oxford University.
2. Code of Ethical and Professional Conduct, Botswana Health Professions Council. (Nov. 2012).

## *Chapter 19*

# **Drug treatments in psychiatry**

### **General principles in the prescribing of psychotropics**

These general principles apply not only to psychotropics but to the use of other drugs in general. Some of the principles may not apply everywhere.

1. **Information giving:** discuss with the patient. Tell them name of the drug you are prescribing, what you are prescribing it for and its side-effects. Inform the patient if there will be a delay in the onset of action and the expected duration of the treatment.
2. **Simplify the dosing:** this helps in adherence.
3. **Avoid polypharmacy:** where possible. Before adding another drug for the same indication ask yourself, have I reached the maximum tolerable dose? Have I given the drug enough time to work? Is the patient taking the drug as prescribed?
4. **Limit the number of drugs** given to a patient if there is a suicide risk or ask a caretaker to supervise the patient's taking of the drug.
5. **Always inquire about which other drugs the patient is taking**— drug-to-drug interactions can lead to increased or decreased levels of either drug, or have additive effects.
6. **Take a proper medical history** and do a physical exam when indicated. Liver pathology may interfere with drug metabolism, while renal pathology may lead to impaired excretion.
7. It is good practice to **inquire whether the patient still has a supply of drugs** before refilling the prescription. Patients may have packets of drugs at home and yet keep getting refills regularly.
8. Generally, lower doses will be needed in the maintenance phase.

9. For patients who are not treatment naïve, **ask them about their preferences** and which medications they responded to before. Many patients will tell you they responded well to a certain drug or treatment and therefore, if it is indicated and it is available, give it to them.
10. In prescribing a drug which a patient may have to take for a long period, **consider availability at the patient's nearest clinic/ hospital**. For example, although SSRIs may be indicated as first line in depression, there is no point in prescribing them for a patient coming from a very remote area who may not get them at the local clinic or be able to come for a refill. Generally, prescribe drugs which are easily available.
11. In most psychiatric conditions, **drugs alone are not sufficient as treatment**; therefore a biopsychosocial approach is needed.

### **Classes of commonly used drugs in psychiatry**

#### **Antipsychotics**

Typical antipsychotics (first generation antipsychotics)

1. Phenothiazines
2. Butyrophenones
3. Diphenylbutylpiperidines
4. Thioxanthenes
5. Substituted benzamides.

#### **Indications**

- Schizophrenia
- Mania
- Depression with psychotic symptoms
- Psychosis due to general medical conditions
- Substance induced psychosis.

#### **Non-psychiatric indications**

- Nausea and vomiting
- Intractable hiccup
- Tourette's disorder
- Agitated, restless and aggressive behaviour in children and elderly where verbal

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interventions have failed.

### **Side-effects**

- Extra pyramidal side-effects
- Parkinsonian symptoms (tremor, rigidity, bradykinesia).
- Acute dystonic reactions
- Akathisia
- Tardive dyskinesia
- Neuroleptic malignant syndrome
- Endocrine effects
- Gynaecomastia
- Galactorrhoea
- Loss of libido.
- Menstrual disturbances
- Weight gain
- Blood dyscrasias like agranulocytosis.

### **Some typical antipsychotics**

#### **Chlorpromazine**

Until recently, chlorpromazine was the most widely available and commonly used antipsychotic in most countries and the drug with which most non-psychiatric health workers are familiar.

It is a phenothiazine with analipathic side chain and has marked sedative properties due to its antihistaminic activity. It also causes postural hypotension due to its anti-alpha adrenergic activity. It has epileptogenic effects and dose adjustments to either the anticonvulsants or chlorpromazine itself may have to be done when used in epileptics.

Chlorpromazine is indicated for treatment of schizophrenia, manic states and for emergency control in severely agitated, violent and aggressive patients from whatever cause.

Non-psychiatric uses include treatment of intractable hiccups and nausea and vomiting.

Doses depend on indication. For management of schizophrenia, chlorpromazine doses range from 25mg to 300mg daily, although higher doses of up to 1000mg/day can and

have been given.

Oral and parenteral preparations are available. It can be given orally, by deep intramuscular injection or rectally as suppositories.

Whenever possible, give orally but in situations where you have to give it parenterally monitor vital signs, especially blood pressure, every thirty minutes till stable. Avoid it in the very weak and elderly. This author has had the experience of being called to attend to patients who had been given intramuscular Chlorpromazine and who had then subsequently gone into hypotensive shock. Haloperidol, if available, is preferable to chlorpromazine for parenteral emergency use.

### **Thioridazine**

Thioridazine has been associated with sudden death due to cardiac toxicity. It prolongs the QT interval. It has been withdrawn from the market in some countries like the U.K., however since it is still available in some countries it is important to know about it. It has been favoured for use in the elderly, despite its offering no extra advantage over other antipsychotics in that age group.

It is now mostly indicated as second-line treatment for schizophrenia. A baseline ECG is necessary before it is used.

The dosage ranges are 200–800mg per day in divided doses.

### **Butyrophenones**

#### ***Haloperidol***

Haloperidol is a widely used drug and it has the same indications as those of chlorpromazine. It is also indicated for tourette's disorder and severely aggressive and violent behaviour.

It is a high-potency antipsychotic with marked extrapyramidal side-effects but fewer hypotensive effects than chlorpromazine. It is also less sedating.

Dose ranges depend on the indication. Doses for schizophrenia range from 5mg to 20mg, although higher doses of up to 100mg per day have been given; however most studies show that doses higher than 20mg/ day confer no added therapeutic advantage and only increase the incidence of side-effects.

### **Diphenylbutylpiperidines**

**Pimozide** is not available in public hospitals in Botswana. It has been associated with sudden death due to cardiac toxicity.

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### **Thioxanthenes**

The most commonly used is flupenthixol as a depot injection. It will be covered under depot medications. The other thioxanthene is zuclopenthixol (clopixol), which has recently become available.

### **Substituted benzamides**

These include **sulpiride** and **amisulpiride**.

### **Atypical antipsychotics**

The most widely available atypical antipsychotics are risperidone, olanzapine, quetiapine and clozapine.

Other typical antipsychotics ziprasidone, aripiprazole and others.

They cause fewer extra pyramidal side-effects and act on both negative and positive symptoms of schizophrenia and have fewer prolactin elevating effects.

### **Risperidone**

Apart from its use in the treatment of schizophrenia, risperidone is indicated for behavioural disturbances in children with mental retardation and in behavioural or psychotic symptoms in dementia.

Doses in schizophrenia range from 2-8mg/day, with lower doses of 1-4mg in the elderly. To avoid hypotension, treatment is initiated with low doses and increased daily to the maximum dose if tolerated.

### **Olanzapine**

This is also indicated for treatment of acute episodes of mania and prophylaxis in bipolar disorder.

Dose range is 5-10mg daily.

It can cause significant weight gain and increase the risk of diabetes. Both oral and parenteral preparations are available.

The parenteral form is given intramuscularly, and can be used for control of acute behavioural disturbance in psychotic patients and should not be given together with parenteral benzodiazepines at the same time.

### **Quetiapine**

Dose range is 300-800mg/day, usually started with a low dose of 50mg or 25mg bd day

1, 100mg day 2, 200mg day 3, 300mg day4, and subsequently adjusted according to response.

It is indicated for use in schizophrenia and is also used in bipolar disorder. Side-effects include somnolence, postural hypotension, dizziness, liver enzyme abnormalities and some modest weight gain at the beginning of treatment.

### **Clozapine**

Clozapine is indicated for treatment-resistant schizophrenia. The patient must have failed to respond to at least two different antipsychotics from two different classes inadequate doses for an adequate duration of treatment. The usual dose range is 150-600mg/day. Maximum dose is 900mg/day in divided doses.

It can cause fatal agranulocytosis in a small minority of patients –less than 1%. It therefore needs close haematological monitoring during its use. Various countries have different monitoring protocols.

It is mandatory to carry out a pre-treatment WBC count and then weekly for the first year, and twice weekly thereafter. Treatment is stopped if the WBC count falls below 3000 or the neutrophil count falls below 1500.

Clozapine is highly sedating and causes excessive weight gain. Other side-effects include excessive salivation, seizures, and hypotension and gastro-intestinal effects like nausea, vomiting and constipation.

### **Depot neuroleptics**

The available depot neuroleptics in Botswana are modecate (fluphenazine decanoate.) fluanxol (flupenthixol decanoate) and zuclopenthixol decanoate (clopixol).

They are mostly used in patients who have problems with adherence to oral medications.

They should, however, not be given as the initial treatment and patients should be started on oral preparations first and stabilized before they are considered for depot preparations.

### **Fluphenazine decanoate (modecate)**

This is a phenothiazine with a piperazine side chain. It has significant extrapyramidal side-effect.

It is given in an initial test dose of 12.5mg and, if tolerated, can be given up to 50mg every two to four weeks.

### **Flupenthixol decanoate (fluanxol)**

This is a thioxanthene derivative. The commonest available commercial preparation is fluanxol. Doses range from 20-60mg every two to four weeks. It has an activating effect and should be avoided in excited, hyperactive patients.

### **Zuclopenthixol decanoate (clopixol)**

This is a thioxanthene derivative like fluanxol. It is given by deep intramuscular injection in doses of 200-400mg every two to four weeks. The clopixol acuphase (zuclopenthixol acetate) can be used for more acute sedation in doses of 50-150mg, which can be repeated after two days.

## **Antidepressants**

### **Classes**

1. Tricyclic antidepressants
2. Selective serotonin receptor inhibitors
3. Tetracyclic antidepressants
4. Serotonin – noradrenaline re-uptake inhibitors
5. Monoamine oxidase inhibitors.
6. Others, for example tetracyclics, serotonin antagonists and reuptake inhibitors, noradrenergic and specific serotonin antagonists.

### **Tricyclic antidepressants**

The most commonly available tricyclics are amitriptyline and imipramine. Trimipramine is also sometimes available in the referral hospitals.

### ***General advice on use of tricyclics***

1. Antidepressant effect sets in after two weeks or more and the patient is most likely to experience the side-effects before getting relief from their depressive symptoms and therefore it is important to counsel the patient on this.
2. Tricyclics can be fatal in overdose and the risk of suicide should be assessed in all patients and, in cases of risk, patients should be given small quantities, for example a week's supply, or the tablets be given to a care giver who can supervise treatment.
3. Alcohol enhances the sedative effects of tricyclics and the patient should be advised to avoid alcohol when taking tricyclics.

### ***Amitriptyline***

Apart from its use in depression, amitriptyline is also used for treatment of nocturnal enuresis in children, in anxiety disorders, and as adjuvant therapy in neuropathic pain disorders. Amitriptyline is more sedating than imipramine.

Dose range:

For depression, 75-150mg, preferably as a single bedtime dose but can be given in divided doses.

Neuropathic pain, 10-25mg at night.

Nocturnal enuresis, 10-50mg at night

Side-effects include dry mouth, sedation, constipation, increased appetite, and endocrine side-effects like galactorrhoea, gynaecomastia, and hypersensitivity reactions like urticaria.

### ***Imipramine***

Dose range is 75-150mg/day, preferably at bed time, but can be given in divided doses.

Side-effects are as for amitriptyline, but imipramine is less sedating than amitriptyline. It can also be used for nocturnal enuresis in doses of 10-25mg up to 200mg, depending on response. It can also be used for treatment of generalized anxiety disorder and has been found useful in some cases of bulimia nervosa.

Trimipramine has marked sedative effects and can lead to marked weight gain.

### **Selective serotonin re-uptake inhibitors**

These include fluoxetine, paroxetine, citalopram, escitalopram, fluvoxamine and sertraline. Of these, only fluoxetine is widely available in the public sector.

The SSRIs have less trouble, some side-effects and are better tolerated than the tricyclics. They are also less dangerous in over dose. They are thus the drugs of first choice for treatment of depression. However, in most developing countries they are not widely available in the public health sector and thus the tricyclics are still widely used as first choice drugs for depression. They cause gastro-intestinal side-effects, including nausea, anorexia, diarrhoea and vomiting and may also cause sexual dysfunction, especially low libido, insomnia, inhibited orgasm, and agitation.

Fluoxetine can initially cause weight loss, especially in the first weeks after starting the drug, although some patients gain weight on the drug.

Fluoxetine is taken in the morning as it can cause insomnia and some restlessness. Some

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clinicians combine fluoxetine with a low dose benzodiazepine, for example diazepam 5mg, in the first week of treatment to counter this effect.

Side-effects that can occur with SSRIs and are less commonly recognized are extrapyramidal side-effects. Fluoxetine especially can cause dystonic reactions and akathisia.

Serotonin syndrome can occur when SSRIs are combined with drugs that lead to an increase in serotonin levels. These include monoamine-oxidase inhibitors and lithium.

### **Doses**

|              |          |
|--------------|----------|
| Fluoxetine   | 20-60mg  |
| Citalopram   | 20-40mg  |
| Escitalopram | 20-40mg  |
| Paroxetine   | 20-60mg  |
| Sertraline   | 50-200mg |

### **Monoamine oxidase inhibitors**

Monoamine oxidase inhibitors are not commonly available in public hospitals.

Monoamine oxidase inhibitors cause an increase in amine neuro-transmitters and interact with foods containing tyramine and sympathomimetic amine drugs potentiating their pressor effects and this can lead to a hypertensive crisis which can be fatal. Consequently, food restrictions for foods containing tyramine have to be observed by a patient taking the MAOIs.

Those foods includes mature cheese, pickled herring, chopped liver, broad beans, some meat products like salami and some wines and beers.

MAOI inhibitors should not be combined with tricyclics and should not be started until two weeks after stopping the tricyclics.

Reversible monoamine inhibitors like moclobemide have less of a pressor effect, but caution should still be exercised and patients advised not to consume large amount of tyramine-containing foods.

The monoamine oxidase inhibitors include irreversible and non-selective inhibitors like:

- Phenelzine
- Isocarboxacid
- Tranylcypromine and the reversible monoamine oxidase inhibitor, moclobemide.

Selective inhibitors of MAO B: Deprenyl(selegiline)DOSAGE

Phenelzine 30-90mg/day

Tranylcypromine 20-60mg/day

Isocarboxazid 10-40mg/day

Moclobemide 150-600mg daily.

The MAOIs are better than the tricyclics in atypical depression, and for those with phobic and hypochondriacal symptoms. They can also be useful in those patients who fail to respond to other antidepressants.

### **Noradrenaline re-uptake inhibitors (naris)**

Include:

- Reboxetine
- Atomoxetine
- Mazindol.

### **Serotonin and noradrenaline re-uptake inhibitors (Snris)**

***Venlafaxine (effexor)***

Indicated for depressive illness and generalized anxiety disorder.

**Dose:** 75-150mg/day

**Side-effects** include insomnia, nervousness, agitation and anxiety. It is contraindicated in patients with heart disease.

### **Norepinephrine and dopamine re-uptake blockers**

***Bupropion***

Bupropion is not available in the public hospitals and at the time of writing was mostly prescribed as an adjunct to smoking-cessation treatment.

It has good antidepressant properties, especially in those depressed patients with psychomotor retardation.

It has been associated with a tendency to cause seizures.

It doesn't cause weight gain and is safer in overdose than the tricyclics.

The dose depends on the preparation, but generally between 100-400mg/ day.

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## **Anxiolytics and hypnotics**

These are classified into:

1. Benzodiazepines
2. Serotonin 1A partial agonists, for example buspirone
3. Barbiturates.

### **Benzodiazepines**

The Benzodiazepines are the most widely used anxiolytics.

They have anxiolytic, muscle relaxant, hypnotic and anticonvulsant properties.

The Benzodiazepines have sedating and specific anxiolytic activity at low doses and hypnotic activity at high doses.

### ***Mechanism of action***

They act as agonists at the GABA-Benzodiazepine receptor complex. They thus enhance the activity of the inhibitory neurotransmitter, GABA.

Indications include:

- Anxiety and restlessness
- Panic disorder
- Alcohol withdrawal
- Short term treatment of insomnia
- In seizure disorders (status epilepticus –diazepam)
- Combined with antidepressant in initial treatment of depression with anxiety symptoms.
- Muscle spasms (diazepam).

### ***Side-effects***

Benzodiazepines are relatively safe and have few side-effects, although these include:

- Drowsiness
- Amnesia
- Confusion
- Motor incoordination (ataxia)

- Paradoxical agitation.

Benzodiazepines should be avoided in patients who abuse substances and those with a marked personality disorder. They can lead to physical dependence when used for long periods and should be withdrawn slowly after prolonged use. The shorter-acting drugs have a higher tendency to cause dependence.

Benzodiazepines can cause respiratory depression and should be used with caution in respiratory disease.

### ***Classification***

- Ultra-short acting (<6 hours), for example midazolam
- Short acting (6-12 hours) for example temazepam.
- Intermediate acting (12-24 hours) for example lorazepam
- Long acting (>24 hours) for example diazepam.

### ***Dosages of some benzodiazepines commonly used in Botswana***

- Diazepam 5-40mg/day
- Nitrazepam 5-10mg
- Chlordiazepoxide 15-60mg
- Lorazepam 2-6mg
- Midazolam 7.5-15mg
- Clonazepam 1-4mg

### **Non-benzodiazepine hypnotics**

Include:

- Zolpidem
- Zopiclone
- Zaleplon.

There are also partial agonists of GABA. They are not usually available in public hospitals.

### **Doses**

- Zolpidem 10mg at bedtime
- Zopiclone 7.5mg at bedtime
- Zaleplon 10mg at bedtime.

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### **Serotonin 1A receptor agonists**

**Buspirone** is the commonest example in this group. It has a delayed onset of action, which may take one to two weeks, and is non-sedating.

**Dose:** 15-30mg in divided doses.

**Side-effects** include nausea, nervousness and restlessness.

Other non-benzodiazepine drugs used for anxiety include beta-blockers like propranolol, especially in cases where autonomic symptoms like palpitations and sweating are prominent.

Mood stabilizers

Drugs used for mood stabilization include:

- Lithium
- The anticonvulsants:
  - Carbamazepine
  - Sodium Valproate
  - Lamotrigine
- Other anticonvulsants like topiramate and gabapentin have also been used off label.

Some atypical antipsychotics

- Olanzapine
- Risperidone
- Quetiapine.

### **Lithium**

Although it is one of the most effective mood stabilizers, Lithium is not commonly used in some countries because of difficulties in getting laboratory measurements of serum and plasma concentrations in time. Using Lithium without being able to monitor blood concentration is dangerous because lithium has a narrow therapeutic index and it is also necessary to know whether the dosage being given orally has translated into therapeutic levels in the blood.

### **Indications**

Lithium is indicated for treatment and prophylaxis of mania, bipolar depression, and as augmentation in cases of poor response to antidepressants in unipolar depression. It is

also useful in aggressive and self-mutilating behaviour.

**Relative contra indications** include severe renal and cardiovascular disease, severe dehydration, untreated hypothyroidism, pregnancy and lactation.

### ***Mechanism of action***

These are not clearly known, but it is thought to reduce glutamate and dopamine activity, increase GABA activity and also to act on serotonin, amongst other mechanisms.

### ***Side-effects***

The severity of side-effects increases as the serum levels increase.

Side-effects include anorexia, nausea, diarrhoea, tremors, polydipsia, polyuria, weightgain, leucocytosis, hypothyroidism, psoriasis, and oedema, amongst others.

### ***Dose***

Doses are adjusted until serum concentrations of 0.6-1.2mmol/l are attained. Doses depend on the preparation, but generally start from 300mg b.d to up to 2000mg/day.

During the first month, monitor weekly then monthly for the next six months.

### ***Signs of toxicity***

Depending on serum levels, signs of toxicity range from mild to fatal.

Signs of toxicity may start showing at levels of 1.5mmol/litre. Onset can be acute or gradual and the signs include gastro-intestinal effects like nausea, diarrhea and vomiting to CNS effects like confusion, slurred speech, dizziness, ataxia, tremor, coma and even death.

Management includes supportive management with IV fluids, activated charcoal in the acute stage and may require dialysis.

Lithium should not be used in the first trimester of pregnancy unless considered absolutely necessary after a risk benefit analysis. It can cause congenital abnormalities, especially Ebstein's anomaly.

Mothers on lithium should be advised not to breastfeed.

### ***Sodium valproate***

Sodium valproate is now widely used in most countries as the drug of choice for both acute and maintenance treatment of bipolar disorder. It can also be used in the management of violent and aggressive states. It is a hepatic enzyme inhibitor and can lead to increased

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levels of several drugs.

### ***Dose***

The dose depends on the preparation, but the dose ranges from 400mg to 2.5g/day. It can be started as a loading dose of 20mg/kg/day.

### ***Side-effects***

Gastro intestinal side-effects like nausea, vomiting and diarrhea are common. Other side-effects include drowsiness, ataxia, alopecia, weight gain and oedema.

### ***Usage***

- Check FBC, LFTS, U/E before starting if possible (but treatment can be started and the tests done after starting).
- Not recommended in pregnancy, can cause spina bifida. Give folic acid supplementation if it is to be used.

## **Carbamazepine**

Apart from its use as a mood stabilizer in the acute and prophylactic treatment of bipolar disorder, indications in psychiatry include panic disorder, alcohol withdrawal, and control of violent and aggressive patients and in post-traumatic stress disorder. It is said to be better than lithium in rapid cycling patients.

### ***Dose***

Dosage ranges from 600-1600mg/day.

### ***Side-effects***

These include sedation, dizziness, ataxia, allergic rashes, nausea, vomiting, haematological changes, including agranulocytosis and aplastic anaemia, syndrome of inappropriate antidiuretic hormone secretion (SIADH) and diplopia.

It is a powerful hepatic enzyme inducer leading to reduced levels of some drugs. It should not be combined with antiretrovirals, especially protease inhibitors.

### ***Usage***

Do blood counts, liver function tests and urea and electrolytes before initiating.

## **Lamotrigine**

This has been found especially useful in bipolar depression and rapidly cycling bipolar disorder.

### ***Side-effects***

It may cause a severe rash leading to Stevens-Johnson syndrome. If a rash develops, it is recommended to stop the medication.

Other side-effects include drowsiness, ataxia, blurred vision, gastrointestinal symptoms, headache, insomnia and occasionally haematological abnormalities like thrombocytopenia and leucopenia.

### ***Dose***

Start low with 25mg per day and then titrate upwards to 200mg/day.

### **Central nervous system stimulants**

CNS stimulating drugs used in psychiatry include methylphenidate, dextroamphetamine and modafinil. The commonest brand name available is Ritalin.

### **Indications:**

These are mostly used in attention deficit hyperactivity disorder and narcolepsy. They have also been shown paradoxically to reduce aggression associated with conduct disorder.

These drugs can cause dependence and have abuse potential.

### **Dosage**

Methylphenidate: initial dosing of 5mg twice a day at breakfast and noon, can be titrated up to 60mg/day.

### **Usage**

Initiate treatment with low doses. If there is no response on maximum tolerated dose after one month, consider stopping. Monitor growth in children. Take baseline weight, height and monitor during therapy (monthly or every two months). Check pulse rate and blood pressure every visit.

Side-effects of methylphenidate include: insomnia, loss of appetite, nausea, anxiety, skin rash, and irritability. Weight loss may occur, although it is uncommon.

**Atomoxetine:** 40mg-80mg/day.

### **Drugs used in management of dementia**

Drugs used in the management of dementia include the anticholinesterases tacrine, donepezil, rivastigmine and galantamine.

The anticholinesterases enhance cholinergic activity by inhibiting acetylcholinesterase.

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They do not stop the dementing process, but slow down the rate of progression of the condition in some patients.

### **Donepezil (aricept)**

Dosage: start with 5mg at bedtime. Increase in four weeks to 10mg nocte if tolerated.

**Side-effects:** gastrointestinal side-effects—nausea, vomiting, diarrhoea and anorexia. CNS: abnormal dreams, headache and insomnia. It may cause urinary incontinence.

### **Drugs used in substance dependence**

Drugs are used in conjunction with psychological and social interventions.

### **Drugs used in alcohol abuse**

#### **Disulfiram**

This is used under specialist supervision. It should be used in patients who are willing to use it and need to stop drinking but keep relapsing. It acts by inhibiting the enzyme aldehyde dehydrogenase which is responsible for breaking down acetaldehyde. Accumulation of acetaldehyde therefore ensues and this leads to an unpleasant reaction, characterized by sweating, headache, a feeling of hotness in the body, tachycardia, nausea, vomiting and flushing of the face. The disulfiram-alcohol reaction takes place within ten to fifteen minutes of taking the drug and can be severe and fatal.

**Dose:** 125-500mg once a day. Start with a high dose of 800mg on first day.

Then reduce to dose of between 100-500mg daily.

**Side-effects:** these include drowsiness and peripheral neuropathy. Psychotic reactions may occur.

#### **Acamprosate**

This is used for maintenance of abstinence.

**Dose:** 666mg three times daily for adults 60kg and over.

#### **Naltrexone**

This is an opioid antagonist which acts by decreasing the craving for alcohol.

**Dose:** Start with 25mg daily, then increase to 50mg daily.

**Side-effects:** these include insomnia, anxiety, headache, fatigue and anorexia. In high doses it may be hepatotoxic and it is contraindicated in liver failure.

### **Nicotine dependence**

Drugs used as adjuncts in smoking cessation include the anti-depressant bupropion (zyban). Adverse effects include dose-related seizures.

**Dose:** 150mg for three days then increased to 150mg b.id. Maximum dose is 300mg daily.

### **Opioid dependence**

Drugs used in opioid dependence include buprenorphine, methadone and naltrexone. Methadone is used for maintenance treatment in opioid dependency. Naltrexone blocks the euphoric effects of opioids. Naloxone is an opioid antagonist used for treatment of opiate overdose.

Most of the drugs used in dependence states are not readily available in sub-sahara Africa.

### **In practice**

One needs to be familiar with brand names of medication or be armed with a good formulary, preferably a local one like the South African Medicines Formulary (SAMF) because a patient may have a prescription with the medication only identified by some unfamiliar brand name.

Before renewing a prescription, ask the patient if they still have a supply. Many patients on long-term medication have bottles of unused pills at home. Some medications, like the newer atypical antipsychotics, are only available in the main hospitals and sometimes the supply may be unreliable so, even though the drug may be a good first-line choice, it doesn't make sense to prescribe it for a patient coming from a remote area who may not be able to easily get a refill at their nearest clinic.

### **Further reading**

South African Medicines Formulary (2005) Ed: Gibbon JC. Health and Medical Publishing Group, Cape Town, South Africa.

Nurses Hand book of Behavioral and Mental Health Drugs (2003), Philadelphia: Blanchard Loeb

## *Chapter 20*

### **Intellectual disability (mental retardation)**

The DSM-V has dropped the term mental retardation and now refers to intellectual disability (intellectual developmental disorder). ICD-11 which is also in its final stages of development will also drop the term mental retardation. Intellectual disability is grouped under neuro developmental disorders and refers to a state of arrested or incomplete development of the mind, leading to impairment in the individual's ability to carry out social, occupational and other activities of daily living. Disturbances are in the areas of intellectual functioning and adaptive functioning.

Onset is during the developmental period.

Although IQ test scores can give an indication of an individual's degree of intellectual functioning, there are few culturally validated IQ tests for most African countries, and diagnosis of intellectual disability is mostly done on clinical grounds. Average IQ is 100 and an IQ of less than 70 is indicative but not diagnostic of intellectual disability. Diagnosis of intellectual disability is made on clinical grounds rather than IQ testing. DSM-V does not rank severity of intellectual disability depending on IQ scores but on the basis of adaptive functioning.

Based on IQ test scores, estimates of levels of severity fall within the following ranges:

|          |         |
|----------|---------|
| Mild     | 50-70   |
| Moderate | 35 – 50 |
| Severe   | 20-35   |
| Profound | below20 |

#### **Mild intellectual disability: IQ 50-70**

The majority of intellectually disabled people have mild intellectual disability. The majority are able to acquire sufficient language and social skills to be able to live independently, but may need support in making decisions. They may also be easily

manipulated and thus can be taken advantage of.

The disability may not become apparent until they go to school, when their inability to cope with learning activities gets noticed.

### **Moderate intellectual disability: IQ level 35 to 49**

The majority of those with moderate intellectual disability have an underlying organic cause. There is limited development of language skills and some may have difficulties in carrying out activities of daily living and need supervision. However, the degree of development of various skills varies.

### **Severe intellectual disability: IQ level 20 to 34**

Like those with moderate intellectual disability, the majority of those with severe intellectual disability have an underlying organic cause. Language development and social skills development is limited.

### **Profound intellectual disability: IQ below 20**

There is usually some underlying neurological condition. There is severe impairment in language and social skills development and the individuals are unable to take care of themselves and live independently and therefore need close supervision.

### **Aetiology of intellectual disability**

Intellectual disability can arise from a multiplicity of causes. Severe to profound intellectual disability is usually due to an underlying pathological condition.

Amongst the identified causes are:

#### **Genetic**

- Chromosomal abnormalities, for example Down's syndrome, Turner's Syndrome, Klinefelter's. Down's syndrome is the commonest chromosomal cause of intellectual disability.
- Sex-linked disorders, for example fragile X syndrome. Fragile X syndrome is the commonest inherited cause of intellectual disability.
- Metabolic disorders, for example phenylketonuria, galactosaemia and Gaucher's disease.
- Autosomal dominant conditions like neurofibromatosis and tuberous sclerosis.

#### **Antenatal complications**

Infections like syphilis, rubella and HIV.

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### **Perinatal complications**

These include birth trauma, asphyxia, infections like rubella, toxoplasmosis and HIV.

### **Postnatal complications**

Trauma, for example from child abuse, and infections like meningitis and encephalitis.

### **Social and environmental Influences**

Deprived early childhood environment leading to lack of social and physical stimulation, unstable family background, and poverty can lead to intellectual disability.

### **Drugs and toxins**

Maternal alcohol use during pregnancy can lead to foetal alcohol syndrome.

### **Assessment of intellectual disability**

The aim is to determine if there are any identifiable causes that can be corrected through treatment.

### **History taking**

- Antenatal, natal and postnatal history.
- Family social history
- Collateral history
- Behavioural assessment.

### **Physical examination**

Check for tell-tale stigmata of congenital conditions like Downs syndrome.

### **Psychological tests**

Do tests like IQ tests if possible.

### **Management of intellectual disability**

Management of intellectual disability is a multidisciplinary effort which may involve doctors, social workers, occupational therapists, physiotherapists and teachers.

- Educate and counsel family and patient where possible about the condition
- Treat any identified treatable causes like hypothyroidism
- Treat associated complications like epilepsy
- Medication is rarely indicated and only useful to deal with identified complications,

for example epilepsy and psychiatric illness.

### **Differential diagnosis of intellectual disability**

This includes autism spectrum disorders, childhood psychotic disorders, ADHD, blindness, deafness, malnutrition states and chronic physical illnesses

### **Psychiatric disorders in the intellectually disabled**

The prevalence of psychiatric disorder is higher than in the general population. Psychiatric disorders in the intellectually disabled may arise as a result of:

- Brain damage leading to epilepsy and hyperactivity
- Communication difficulties leading to frustration and depression.

### **Prevention of intellectual disability**

- Improving antenatal and obstetric and postnatal care. This includes screening for chromosomal abnormalities, testing for conditions like syphilis, and immunization.

Health workers and school teachers play a pivotal role in preventative education and identifying cases early for appropriate intervention.

### **In practice**

Like in most other conditions with onset in childhood, on-going psycho-education for care givers is necessary for patients with intellectual disability. Caregivers need a lot of support and referral should be made to social workers or other professionals as appropriate. Sometimes respite admission may be necessary.

### **Further reading**

The ICD-10 Classification of Mental and Behavioural Disorders. Clinical descriptions and diagnostic guidelines. (1992). WHO. Bombay: Oxford University Press.

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Arlington, VA, American Psychiatric Association, 2013.

## *Chapter 21*

# **Psychological methods of treatment**

Psychological methods of treatment play an important role in the management of psychiatric disorders.

There are many psychological methods of treatment. They include behavioural and cognitive therapies as well as psychoanalytic therapies. The choice of treatment method depends on the identified psychological issues, diagnosis and the clinician's training and experience. This book will not go into details of how the various psychological methods of treatment are carried out, but will only give a brief description of some of the most commonly used psychological methods of treatment.

Since almost all patient encounters, regardless of discipline, involve some counselling in one form or another, it is appropriate that this chapter starts with a brief look at counselling.

### **Counselling**

Counselling is the process through which the counselor helps the patient to make informed decisions and to make changes which help them understand and deal with a problem in a better and more satisfying way.

Counselling then obviously can be applied to a wide variety of problems, ranging from helping a patient deal with a crisis to developing personal insight and knowledge, to dealing with interpersonal problems.

**The process of counseling** involves:

- **Listening to the patient's problem.** The listening is active. Active listening involves establishing appropriate eye contact, using non verbal cues like nodding one's head, occasionally repeating or rephrasing what the patient has said; to make sure you have understood, and summarizing, amongst other skills. The use of open-ended questions helps the patient to express themselves.

- **Information giving:** the counsellor gives correct and appropriate information about the patient's problem.
- **Allowing emotional expression:** the patient is allowed or facilitated to express their feelings and unburden themselves. The patient is helped to explore the areas of concern and helped to put their feelings into words.

### **Behaviour therapy**

Behaviour therapy is based on learning theory. The underlying premise is that patients' abnormal behaviours are learnt ways of reacting to or behaving in particular situations. The emphasis is more on changing the behavior than on understanding why the behaviour came about or changing the patient's personality.

Behavioural analysis in behaviour therapy involves identifying the behaviours to be changed, the events preceding the behaviours (antecedents) and the consequences.

The patient is given tasks to carry out in a graduated manner and quite often monitors progress with a behaviours diary.

### **Some specific methods used in behaviour therapy**

**Flooding:** in flooding, the patient is exposed to the feared situation and made to stay there until the fear subsides. For example, somebody with a phobia of rats may be put in a room full of rats and not let out until their fear subsides. It can be useful in the treatment of phobias and obsessive-compulsive disorders.

**Systematic desensitization:** this can be carried out in imagination or in real life. The patient is first taught relaxation and a hierarchy of the feared situation is prepared from the least frightening to the most frightening. The patient practises imagining carrying out the fear-provoking action while relaxing, until they no longer experience anxiety. They then move on to the next item on the hierarchy.

**Aversion therapy:** the patient is punished by being subjected to an unpleasant experience when they exhibit the undesirable behaviour, for example by being exposed to a mild electric shock. This method of treatment is controversial and poses difficult ethical questions. It has been used in patients with sexual deviations.

**Modelling:** the patient acquires a new desirable behaviour by observing and copying that behaviour being carried out by someone else – the model. It can be used in phobias and OCD and in building new social skills.

**Response prevention:** response prevention can be useful in preventing the rituals associated with obsessive compulsive disorder. It is usually combined with exposure methods like flooding or graded exposure. The patient resists the urge to carry out

the ritual. This causes a build-up of anxiety but the patient resists carrying out the response until the anxiety wanes.

**Thought stopping:** thought stopping involves interruption of thoughts as they occur. This can be helpful in the obsessional thoughts of OCD. Various methods can be used to carry out the thought stopping, for example wearing an elastic band around the wrist which is snapped when an obsessional thought occurs. The resultant pain interrupts the flow of the obsessional thoughts.

**Contingency management:** in contingency management, desired behaviours are identified and rewards given each time the desired behaviour is carried out. For example, in a child exhibiting temper tantrums, the behaviour to be changed would be the temper tantrums, the reinforcing behaviour would be the parent paying attention when the child exhibits the temper tantrums and the desired behaviour would be the child behaving well and not exhibiting temper tantrums. The child is rewarded when they behave well by, for example, being given a sweet or a toy.

**Biofeedback:** involves the use of physiological monitoring machines to make the patient aware of physiological processes which would not normally be noticed consciously, like blood pressure, heart rate, skin temperature and so on. The patient then learns to control those functions.

**Assertiveness training:** this can be used for people who suffer from shyness or are socially awkward in some way. They are taught skills to enable them to stand up for themselves. This can be done by role acting, modeling and the patient is encouraged to practice in real life situations.

**Relaxation techniques:** relaxation methods can be used alone or in combination with other methods already described above. Relaxation is useful in conditions like anxiety and pain disorders. Relaxation methods include progressive muscular relaxation, in which patients are taught to progressively tense and relax muscle groups. As they practise, the patients are able to identify muscle tension when it occurs and relax immediately. Other relaxation methods include meditation and yoga.

### **Classical psychoanalysis**

Sigmund Freud developed psychoanalysis in the early twentieth century.

Psychoanalysis is based on the theory that mental disturbances in adulthood are influenced by unresolved early psychological urges which are mostly irrational and unconscious. Mental disturbance arises when there is a conflict between these unconscious thoughts and conscious thoughts.

Freud developed a structural theory of the mind in which he divided the mind into the ego, id and superego.

In classical psychoanalysis, which is rarely used nowadays, the patient lies on a couch and the analyst sits behind the couch. The patient says whatever comes to their mind without censorship (free association). The analyst mostly has a passive role, but occasionally points out the unconscious conflicts and defences the patient may be using. During the analysis, the patient often develops transference towards the analyst. Transference refers to the unconscious transfer of emotions the patient had towards a significant figure in their past to the analyst. The analyst identifies and clarifies the meaning of the transference. The analyst can also develop motions towards the patient and this is called counter-transference. For successful analysis, the analyst identifies and works on the counter-transference feelings.

Classical psychoanalysis is a lengthy process with the patient being seen several times a week for up to three or more years.

### **Psychodynamic psychotherapy**

Psychodynamic psychotherapy aims to unravel and clarify the unconscious causes behind a patient's problem. It is based on the same principles as classical psychoanalysis. Unlike in classical psychoanalysis, the analyst sits with the patient face-to-face. The analyst actively clarifies the underlying psychodynamics.

### **Supportive psychotherapy**

This is psychotherapy aimed at helping a patient go through a difficult situation by reducing distress and helping the patient function without being overwhelmed. Unlike psychoanalysis or psychodynamic psychotherapy it does not delve into past causes of behaviour or aim to bring about personality change. It is thus useful in a wide variety of conditions, including both physical and psychiatric illnesses. Successful supportive therapy depends on the therapist establishing a warm and empathic relationship with the patient, listening to the patient's concerns, educating the patient about their condition, giving advice and helping the patient find ways to cope with the situation through their own efforts. This is done without promoting dependency.

### **Interpersonal therapy**

Interpersonal therapy is based on the assumption that the patient's problems arise due to problems in interpersonal relationships and was initially developed as a treatment for depression but can be used in other conditions. The therapy focuses on helping patients identify areas that may be contributing to their problems in their interpersonal

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relationships or feelings of low self-esteem. These areas usually include problems arising from interpersonal difficulties in communicating with others, role transitions and unresolved grief.

### **Cognitive therapy**

Cognitive therapy is based on the theory that faulty and maladaptive ways of thinking about oneself, the outside world and the future, determine how one behaves and feels and this leads to the symptoms. Cognitive therapy thus involves changing the way a patient thinks about and reacts to their problem.

Steps involve eliciting the negative and automatic thoughts, challenging and correcting the faulty thoughts, formulating realistic alternatives to the maladaptive thoughts and trying out and testing the alternatives. One of the best known cognitive theories is that developed by Aaron Beck. He initially developed the theory in regard to the treatment of depression but it has been applied to other conditions like anxiety. Beck postulated that, due to negative experiences one may have had in childhood or early in life, like the loss of a parent or bullying, one may develop a negative way of thinking about the world and one's self and keep reacting to events that remind one of these negative experiences in a similar manner.

In depression, people hold negative views about themselves, the world and the future. Treatment involves challenging these views and the way they reached them. The patient learns to monitor their negative thoughts and see how the negative thoughts are related to their behaviour. They learn to examine the evidence for and against these negative thoughts and eventually replace them with more reality-oriented thoughts.

### **Cognitive behaviour therapy**

Cognitive behaviour therapy, or CBT as it is commonly known, refers to a wide group of therapies which have common characteristics. The therapy is based on cognitive and behavioural theories and aims at changing ways of behaving or looking at a particular problem by changing the thinking that may have led to or is maintaining the problem. CBT can be applied to a wide range of problems, ranging from anxiety, depression, sleep disorders, eating disorders, anger problems and other difficulties in life. CBT is usually short and time-limited, taking on average sixteen sessions. The therapist and the client take an active role and work together. Therapy starts with identifying the problems to be worked on. Home work is an essential part of the therapy.

### **Group therapy**

Group therapy involves more than one individual with a common problem meeting with

one or more therapists to deal with the problem. Groups can be used for treatment of a variety of problems, ranging from substance abuse to social anxiety disorders. They can be used for inpatients as well as outpatients.

On average, group sizes range from six to twelve patients.

Usually, the therapist plays a less active role than the group members.

A group can be open-ended with no time set for when the group ends, while others are time-limited.

### **Further reading**

Baumann, S.E Ed: Primary Health Care Psychiatry, A practical guide for southern Africa (2007).Juta, CapeTown, South Africa

Corey, Gerald(2005).Case Approach to counseling and Psychotherapy.Australia.

Thomson-Brooks/Cole.

## *Chapter 22*

### **Dealing with a violent and aggressive patient**

Every clinician will at one time or another have to deal with a violent and aggressive patient. Below are some guidelines on dealing with a violent and aggressive patient:

1. Be calm. If anxious breathe in slowly and count up to ten. Tell yourself you will manage even if you are panicking inside.
2. Obtain a quick history. This can even be from the patient, relatives or escorts or from the cards. If the violent patient is on the ward, obtain history from nurses and quickly read through the file, paying special attention to nurses' notes.
3. Always try verbal de-escalation first. Talk to the patient. Address them by name. "Mr. Obonye, I can see you are very angry. Perhaps we can talk about it". If the patient is willing to talk, remove him from the charged environment if it is possible and safe to do so. "Let's sit down and talk about how you feel". Acknowledge the patient's feelings. Avoid making false promises or taking sides in an effort to defuse the situation, for example, "the nurse is wrong. I will punish her."
4. If the patient agrees to sit down, offer him oral medication like diazepam 10mg. "This will help you calm down." Offer a drink if available, water or juice. Don't give a hot drink or cigarettes.
5. If non-verbal means fail, inform patient that you will have to restrain him. "Mr. Obonye, I am sorry but we will have to restrain you as your behaviour is disrupting the clinic/ward."
6. Before restraining the patient physically, ensure you have sufficient man power. The ideal minimum is five people with you as the team leader. Organize your team.
7. Assign each team member a limb. "Phiri, you will go for the right upper limb. Akuje, you will go for the left upper limb. Namusokwe, you will go for the left leg. Mbulawa, you will go for the right leg."

8. At a pre-arranged signal, rush the patient, every member to the assigned limb.
9. Bring down the patient gently. Don't use excessive force. Don't block the airways. Do a quick physical examination.
10. If the decision is made to chemically restrain patient, use following drugs:

**First choice:**

Benzodiazepines:

IM Lorazepam 2-4mg stat

If not available other benzodiazepines: IM Midazolam 2.5–15mg stat

Or

IV Diazepam 10-20mg stat slowly. (use diazepam IV only if resuscitation facilities available).

Or if non of the above benzodiazepines available use antihistamine sedative

IM Promethazine (phernegan) 50 mg stat.

**Second choice:**

Antipsychotics:

IM Haloperidol 15-10 mg stat.

(If you have to use an antipsychotic haloperidol is best, avoid parenteral chlorpromazine if possible. In fact in places with availability of other drugs IM chlorpromazine is not used for acute sedation at all. It can cause severe hypotension. However the reality is that it may be the only drug available.

If you have to use parenteral chlorpromazine, give IM 25-50 mg. Avoid "heroic" doses like 100-200 mg (which this author has seen used.)

When giving haloperidol, have Akineton available in case the patient develops acute dystonia.

**Third Choice:**

Combination of benzodiazepines and antipsychotics

Depending on the degree of violence/disturbance a combination of antipsychotics with benzodiazepines may be used.

Combinations can be:

IM Haloperidol 5-10 mg and IM Lorazepam 2-4 mg stat

IM Haloperidol 5-10mg and IM Midazolam 2.5-15 mg stat

A combination of IM Haloperidol 5-10mg and IM Promethazine 50mg stat has been found very useful in acute sedation.

**After sedation:** monitor vital signs every 30 mins–1 hour till patient out of sedation.

Allow the medication to work before repeating, generally 30 minutes to one hour.

Avoid sedating with antipsychotics in dementia.

## *Appendix*

### **Changes in DSM-V**

Some of the most significant changes are:

1. The multiaxial system has been removed.
2. Mental retardation is now called intellectual disability.
3. New disorders include hoarding disorder, excoriation (skin pricking disorder), disruptive mood dysregulation disorder, binge eating disorder, caffeine withdrawal, disinhibited social engagement disorder, restless legs syndrome, cannabis withdrawal, premenstrual dysphoric disorder, social communication disorder, rapid eye movement sleep behavior disorder, major neurocognitive disorder with Lewy body disease, mild neurocognitive disorder, central sleep apnoea and sleep related hypoventilation.
4. Autistic disorder, asperger disorder, childhood disintegrative disorder and pervasive developmental disorder have been grouped into a single category: Autism spectrum disorders.
5. Post-traumatic disorder has been moved from anxiety disorders to trauma and stress related disorders.
6. Substance abuse and substance dependence have been merged into substance use disorders.
7. The bereavement exclusion has been removed from the diagnostic criteria for major depressive disorder.

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**Dr. Philip Opondo is the assistant programme director and acting head of department in the department of Psychiatry, Faculty of Medicine at the University of Botswana. He has had extensive experience practicing and teaching Psychiatry both in Kenya and Botswana. He was head of the department of Psychiatry at Nyangabgwe referral hospital for over eight years.**

**This book arose out of his experiences practicing psychiatry in the public sector and it is hoped it will be useful to medical officers, clinical officers, medical students, psychiatric nurses, both qualified and in training, and all other doctors who come into contact with psychiatric patients.**

“Dr. Opondo uses his many years of psychiatric practice in Botswana as he writes simply, clearly, but with abundant clinical detail and minus medical jargon, to produce an invaluable practice guide in psychiatry in Botswana and Southern Africa. This is a must have book for medical students and officers in Botswana and beyond”. Dr. James Otieno Ayugi, University of Botswana.