Indira Gandhi
National Open University
National Centre for Disability Studies

MCFT-002
Mental Health and Disorders

Block

2

MENTAL DISORDERS-I

UNIT 7
Cognitive Disorders **7**

UNIT 8
Mood Disorders **27**

UNIT 9
Schizophrenia and Other Psychotic Disorders **55**

UNIT 10
Substance Use Disorders **85**

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Acknowledgement:

We acknowledge our thanks to Prof. Omprakash Mishra, PVC, IGNOU; Prof. C.G. Naidu, Former Director P & DD and Head, Nodal Unit; and Dr. Hemlata, Director (I/c), NCDS for facilitating the development of the programme of study.

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Acknowledgement:

We acknowledge our thanks to the Ministry of Health and Family Welfare for providing inputs in art work for cover design.

September, 2010

ISBN:

Further information on Indira Gandhi National Open University courses may be obtained from the University's office at Maidan Garhi, New Delhi- 110 068 or the official website of IGNOU at www.ignou.ac.in.

Printed and published on behalf of Indira Gandhi National Open University by Registrar, MPDD.

Laser Composed by: Tessa Media & Computers, C-206, A.F.E.-II, Okhla, New Delhi-25

Printed by:

BLOCK 2 MENTAL DISORDERS-I

Introduction

The Block 2 "Mental Disorders-I" will acquaint you with understanding of various types of mental disorders like cognitive disorders, mood disorders, schizophrenia and other psychotic disorders. The Block also talks about substance use disorders. The Block consists of four Units.

Unit 7 is entitled "*Cognitive Disorders*". As the name suggests the Unit deals with various type of cognitive disorder. The Unit starts with the classification of cognitive disorders. The main three cognitive disorders are discussed in detail, that are delirium, dementia and amnestic disorder. The epidemiology and various clinical features of these cognitive disorders are described. Further, the important steps in examining the patient with cognitive disorders are explained like general description, functional assessment, mood, feeling and affect etc. The later part of the Unit deals with the management of cognitive disorders. In this section, management of all three cognitive disorders that are delirium, dementia and amnestic disorders are discussed in detail. The Unit will help you to understand cognitive disorders better including their examination and management.

Unit 8 is on "*Mood Disorders*". The definitions of mood and mood disorders are given in the beginning of this Unit. The Unit also explains the classification of mood disorders according to ICD-10 under section F30 – F39, for example F30 is Manic episode, F31 is Bipolar affective disorder etc. Further, the Unit acquaints you with knowledge on epidemiology of mood disorders. It includes depressive disorder and bipolar disorder. The clinical features of depressive episode, manic episode and mixed episode are also discussed. The middle part of the Unit deals with diagnosis and etiology of mood disorder. Various biological and psychological factors which are responsible for mood disorders are explained in this Unit. There are several treatments available for depressive disorder. The Unit explains these treatments under pharmacological treatment, psychosocial treatment and electro convulsive treatment. The pharmacological treatment and psychosocial treatment of bipolar disorder are also discussed in this Unit. In the end of this Unit, the chances of recovery, that is, the course and prognosis of depressive and bipolar disorders are described in detail. After studying this Unit, you will be able to understand mood and mood disorders including its types, causes and chances of recovery from these disorders.

Unit 9 is on "*Schizophrenia and Other Psychotic Disorders*". The Unit begins with the definition and causes of psychosis. The Unit also explains the classification of schizophrenia and other psychotic disorders according to International Classification of Diseases (ICD-10) under section F20-F29. Further, the Unit discusses the mental disorder 'Schizophrenia' in detail. It includes epidemiology, clinical features, diagnosis, etiology, treatment, pharmacological treatment, psychosocial treatment, family based interventions, rehabilitation and course and prognosis of schizophrenia. The later part of this Unit deals with the persistent delusional disorders; acute and transient psychotic disorders, and schizoaffective disorder. After studying this Unit, you will be able to understand and identify types of schizophrenia and other psychotic disorders.

Unit 10 is on "*Substance Use Disorders*". The Unit classifies and defines substance use disorders. The various types of drugs like alcohol, opioids, cannabis, nicotine etc, are discussed and important concepts and definitions related to this are also explained. The Unit further provides knowledge regarding the WHO diagnostic guidelines for substance dependence. The epidemiology of substance use in India is discussed in this Unit, which includes knowledge related to common substances used in India, profile of substance users and local variations in extent and pattern of substance use in India. A number of causes are responsible for substance abuse. The causes are classified and discussed under biological, environmental and psychological causes. The physical, social, familial, economic, psychological and legal consequences of substance use are explained in this Unit. There are number of ways to assess the substance use disorders like clinical interview, history, examination and use of structured tools. The Unit will help you to acquire detailed knowledge on treatment of substance use disorders. It includes general principles, goals and phases of treatment, treatment modalities etc. The later part of the Unit deals with the psychosocial approaches for treatment like motivation enhancement, brief intervention, relapse prevention and specific issues about psychological approaches.

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UNIT 7 COGNITIVE DISORDERS

Structure

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- 7.3.2 Clinical Features of Delirium

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7.1 INTRODUCTION

Cognitive Disorder is a disorder where a limitation of cognitive functioning is the main feature. These disorders involve impairment in areas of memory, attention, perception and thinking. Most common mental disorders affect cognitive functions, mainly memory processing, perception and problem solving. The most direct cognitive disorders are amnesia, dementia and delirium.

The term *cognition* (Latin: *cognoscere,* "to know" or "to recognise") refers to a faculty for the processing of information, applying knowledge and changing preferences. In other terms, cognition is used to refer to the mental functions, mental processes (thoughts) and states of intelligent entities. In particular, cognition involves comprehension, inference, decision-making and planning.

In the past, the cognitive disorders were classified into the category of *'organic mental disorders'* or *'organic brain disorders'* due to an identifiable pathological condition such as brain tumor, cerebro-vascular disease or drug intoxication.

Counsellors and family therapists must be able to recognise the mental illness of their geriatric patients especially cognitive disorders. In this Unit, we will discuss commonly occurring cognitive disorders. Each cognitive disorder will be explained, points identify to it will be highlighted and further to add clarity to understand these disorders case vignettes have been given.

Objectives

After studying this Unit, you will be able to:

- Define and describe different cognitive disorders;
- Understand the causes of cognitive disorders; and
- Get acquainted with non-pharmacological interventions for these disorders.

7.2 CLASSIFICATION OF COGNITIVE DISORDERS

The most common classified cognitive disorders include delirium, dementia and amnestic disorders. Furthermore, there are separate sub-categories based on etiology.

Delirium is characterised by short term confusional state and changes in cognitive functions. The four sub-categories of delirium depending on etiology are:

1) General medical condition like infection, tumour etc,
2) Drug induced like cannabis, alcohol etc,
3) Multiple causes, and
4) Other causes like lack of sleep.

Dementia is characterised by impairment in memory, judgment and other cognitive functions. The six defined categories of dementia are:

1) Dementia of the Alzheimer's type (DAT),
2) Vascular dementia,
3) Dementia caused by other medical conditions like head trauma, infections,
4) Dementia caused by toxins or medication,
5) Multiple etiologies, and
6) Dementia due to unknown cause.

Amnestic disorder is defined by memory impairment and forgetfulness. The three sub-categories of amnestic disorder are:

1) Amnestic disorders caused by medical condition like *hypoxia,*
2) Amnesia disorders caused by toxin or medication like *cannabis, benzodiazepines*, and
3) Cause not known.

Check Your Progress Exercise 1

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) What are the common cognitive disorders?

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7.3 DELIRIUM

Delirium is defined by the acute onset of fluctuating cognitive impairment and other behavioural phenomenon. It is frequently missed or misdiagnosed resulting into substantial morbidity and mortality. Recognition, evaluation and intervention strategies should be important to learn for a family therapist.

7.3.1 Epidemiology

Recent research shows estimate of 10 percent to 51 percent for delirium prevalence and 4 percent to 31 percent for incidence. The prevalence of delirium is reported to be between 10 percent to 14 percent in patients admitted in emergency departments. Patients having age of more than 60 years, and diagnosed with dementia, cerebro-vascular accidents, burns, infections, alcohol withdrawal state are more prone to delirium.

7.3.2 Clinical Features of Delirium

The following are the clinical features of delirium:

1) **Disturbance of consciousness and attention:** The most important feature of delirium is difficulty in sustaining attention and leading to distractibility. The patients having delirium have problem in focusing and sustaining their attention on one topic.

2) **Acute change in cognitive functioning:** The delirium patient reports problem in learning new information. He may also report disorientation to time, place and rarely to person. The clinical features associated with this category include illusions, hallucinations and delusions.

3) **Fluctuating course of symptoms over time:** The above mentioned symptoms may develop abruptly and fluctuate rapidly throughout the day. The presence of lucid intervals (normal periods between episodes of delirium) may also be present in delirium.

4) **Disturbance of arousal, psychomotor state and sleep:** Disturbance of psychomotor activity in delirium include hypoactive, hyperactive and mixed

behavioural states. Hypoactive patients may appear apathetic, withdrawn and confused, while hyperactive patients remain overactive and at times aggressive.

5) **Other mood and anxiety symptoms:** Emotional reactions in delirious patients include mood changes, depression, anxiety, fear, anger, apathy and euphoria.

Key feature is disturbed consciousness.

Associated features include:

- Clouded sensorium; that is, no clear awareness of surroundings,
- Problems with attention,
- Disturbance in memory,
- Incoherent speech, and
- Perceptual disturbances (for example, hallucinations).

Clinical Characteristics for Recognising Delirium

1) Susceptibility may be symptom of early dementia or delirium may predispose to later dementia,
2) Predisposing factors like age, infections, dementia etc,
3. Medical conditions like
   - Infections,
   - Urinary tract infections,
   - Respiratory (URI, pneumonia),
   - Gastro-intestinal infections
   - Constipation
4) Drug toxicity, and
5) Fracture (especially related to hip fracture).

Causes of Delirium

Case Vignette of Delirium

Mr. X, a 65 year old retired engineer was brought to the emergency services after being found wandering around in market in a confused and disoriented state. He did not look at the interviewer and was unresponsive to most of his questions. He knew his name and address, but not the day or the month. He was unable to describe the events that led to his admission. Patient's wife reported a noticeable change in his behaviour. He became hyperactive and seemed to have excessive energy. He was reported to be more irritable and agitated. He had difficulty in getting sleep at night. His condition became more pronounced in night hours ("Sun-downing effect"). On exploration, he was found out to be case of hypertension and diabetes. He was on irregular treatment. Fluctuations in his blood sugar level and impending diabetic keto-acidosis had probably led to this condition.

Check Your Progress Exercise 2

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) List the clinical characteristics for recognising delirium.

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2) What are the possible causes of delirium?

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7.4 DEMENTIA

Dementia is defined as a progressive impairment of cognitive functions that occurs in clear consciousness. It denotes a decrement of two or more intellectual functions, in contrast to focal or specific impairments such as amnestic disorder or aphasia. The persistent and stable nature of impairment also differentiates dementia from the fluctuating short term cognitive deficits of delirium. Dementia should be distinguished from mental retardation as the former represents an acquired loss of or declining prior intellectual and functional capacities.

7.4.1 Epidemiology

The prevalence of dementia is 2 to 5 percent in the general population older than 65 years of age and reportedly doubles every 5 years. Of all patients of dementia, 50 to 60 percent have dementia of the Alzheimer's type followed by 15 to 30 percent of vascular subtype. Other common causes of dementia are head trauma, alcohol related dementia and movement related dementia representing 1 to 5 percent of all cases of dementia.

7.4.2 Diagnosis and Clinical Features

The diagnosis of dementia is based on the clinical examination that is Mental Status Examination and on information provided by patient's family, friends and employers.

Memory impairment is typically a prominent feature in dementia. The patient finds difficulty in learning new information and to recall previously learned information. The patients in dementia may also suffer from *aphasia* (problem in

language), *apraxia* (inability to carry out motor activities despite intact motor functions), *agnosia* (failure to recognize or identify objects despite intact sensory functions) and disturbance in *executive functioning* (planning, organizing, sequencing, abstracting). These cognitive deficits cause significant decline in social or occupational functioning from previous level. The various types of dementia are discussed below:

1) Dementia of the Alzheimer's Type

The patients with this subtype had course of illness characterised by gradual onset and continuing cognitive decline without the evidence of other causes of dementia.

2) Vascular Dementia

In addition to general symptoms of dementia the diagnosis of vascular dementia requires definite clinical or laboratory evidence in support of vascular cause. The patient of this subtype usually show a decremental and stepwise deterioration than Alzheimer's dementia.

3) Dementia due to other General Medical Condition

This category includes dementias related to HIV disease, head trauma, Parkinson's disease, Huntington's disease, Pick's disease and Creutzfeldt-Jacob disease.

4) Substance Induced Persistent Dementia

The specific substances that may induce dementia are alcohol, inhalant, sedative, hypnotic or anxiolytics.

Clinical Characteristics for Recognising Dementia

1) Memory dysfunction (especially new learning, a prominent early symptom),
2) At least one additional cognitive deficit (aphasia, apraxia, agnosia, or executive dysfunction), and
3) Sufficiently severe to cause impairment of occupational or social functioning and must represent a decline from a previous level of functioning

Ten Warning Signs for Dementia

1) Recent memory loss affecting job,
2) Difficulty performing familiar tasks,
3) Problems with language,
4) Disorientation to time or place,
5) Poor or decreased judgment,
6) Problems with abstract thinking,
7) Misplacing things,
8) Changes in mood or behaviour,
9) Changes in personality, and
10) Loss of initiative.

Case Vignette of Dementia

Mr. Y, a 59-year-old high-school mathematics teacher lost interest in doing his usual hobbies. He was facing difficulty in managing financial transactions and made gross errors in home financial management. Gradually, he lost his way to home on several occasions. His intellectual deterioration started interfering in his work. He committed mistakes while solving problems in classroom. These reasons led him to take voluntary retirement from work. He spent most of the time in changing room settings at his house. He became stubborn and quarrelsome. Eventually, he required assistance in shaving and dressing. When examined 4 years after the first symptoms developed, the patient could not recall correct place and time. He could not recall his home address though he could describe his job by title only. He could not remember the birth dates of his two children. He could not recall about the last breakfast he had. His speech was fluent and well-articulated but he finds difficulty in finding words for common objects. He could not perform simple calculations correctly. He could not copy a cube or a pentagon. His interpretation of proverbs was concrete. He had no insight into the nature of his problems.

Check Your Progress Exercise 3

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) What are the clinical characteristics for recognizing dementia?

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2) List the ten warning signs for dementia.

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7.5 AMNESTIC DISORDER

The amnestic disorder is characterised by the acquired impaired ability to learn and recall new information associated with the inability to recall previously learned knowledge or past events which must be sufficiently severe to compromise functioning in personal, social or occupational areas. It should be excluded from delirium and dementia. These disorders are secondary syndromes caused by

systemic medical or primary brain disorders, substance use disorders or medication adverse effects, as evident from the history, physical examination or laboratory findings.

The amnestic disorder may be transient (if memory impairment lasts for one month or less) or chronic (if memory impairment lasts for more than one month).

7.6 EXAMINATION OF THE PATIENT WITH COGNITIVE DISORDER

Family therapist must determine whether a patient understands the nature and purpose of the examination. When a patient is cognitively impaired, an independent history should be obtained from a family member or caretaker. A complete history includes identification details (name, age, sex and marital status), chief complaint, history of the present illness, history of previous illnesses, personal history and family history. Patients older than age 65 years often have subjective complaints of forgetting persons' names and misplacing objects. These problems also can occur because of anxiety in the interview situation.

The mental status examination offers a cross-sectional view of how a patient thinks, feels, and behaves during the examination. Repeat mental status examinations may be needed for patients with cognitive disorders.

7.6.1 General Description

A general description of the patient includes appearance, psychomotor activity, attitude towards the examiner and speech activity. Change in motor activity (bodily movements) should be noted. Many patients with cognitive problems seem to be slow in speech and movement. The patient's speech may be pressured in cognitive dysfunctions. Tearfulness and overt crying may also occur in depressive and cognitive disorders, especially if the patient feels frustrated about being unable to answer one of the examiner's questions.

7.6.2 Functional Assessment

The family therapist must evaluate patients for their capacity to maintain independence and to perform the activities of daily life, which include self care, toileting, preparing meals, dressing, grooming and eating. The degree of functional competence in their routine behaviours is an important consideration in formulating a treatment plan for these patients.

7.6.3 Mood, Feelings and Affect

The therapist should specifically ask the patient about any thoughts of self harm, loneliness and worthlessness. Low mood and anxiety, can also interfere with memory functioning. An expansive or euphoric mood may signal a dementing disorder. Frontal lobe dysfunction of brain often produces *witzelsucht,* which is the tendency to make fun and jokes and then laugh aloud at them.

The patient's affect may be flat, blunted, constricted, shallow or inappropriate, all of which can indicate a depressive disorder, schizophrenia, or cognitive dysfunction. Dominant lobe dysfunction causes *dysprosody,* an inability to express emotional feelings through speech intonation.

7.6.4 Perceptual Disturbances

Hallucinations (perception without a sensory stimulus in the environment) and *illusions* (misinterpretation of sensory stimulus) by patients with cognitive dysfunction can be transitory phenomena resulting from decreased sensory acuity. The family therapist must note whether the patient is confused about time or place. Cognitive disorders may cause perceptive impairments like *agnosia* characterized by the inability to recognize and interpret the significance of sensory impressions.

7.6.5 Language Output

The family therapist must assess language output. The *aphasias,* are disorders of language output related to organic lesions of the brain. *Broca's aphasia* is among the common types of aphasia in which the patient's understanding remains intact, but the ability to speak is impaired.

7.6.6 Visuo-spatial Functioning

The family therapist may ask a patient to copy figures or a drawing in assessing the visuo-spatial function. A detailed neuropsychological assessment needs to be performed when visuo-spatial functioning is obviously impaired.

7.6.7 Thinking

The family therapist should evaluate any disturbances in thinking. The loss of the *abstract thinking* (ability to appreciate nuances of meaning) may be an early sign of dementia. Thought content should be examined for phobias, obsessions, somatic preoccupations and compulsions. Ideas about suicide or homicide should be discussed. The examiner should examine *delusions* (fixed false beliefs) and evaluate how such delusions affect the patient's life.

7.6.8 Sensorium and Cognition

Sensorium concerns the functioning of the special senses and cognition concerns information processing and intellect.

1) Consciousness

Altered consciousness is a sensitive indicator of brain dysfunction in which the patient does not seem to be alert, shows fluctuations in levels of awareness or seems to be lethargic.

2) Orientation

Problem in orientation to time, place, and person is associated with cognitive disorders. The examiner should test for orientation to place by asking the patient to describe his or her present location. Orientation to person may be checked by asking his or her own name. Time is tested by asking the patient the date, the year, the month and the day of the week.

3) Memory

Memory usually is assessed in terms of immediate, recent and remote memory. Immediate retention and recall are tested by giving the patient six digits or giving days of week to repeat forward and backward. The examiner

should record the result of the patient's capacity to remember. Persons with unimpaired memory usually can recall six digits forward and five or six digits backward. Remote memory can be tested by asking for the patient's age of marriage, age of eldest child and names of the patient's parents and children.

Recent memory can be assessed by giving the patient the names of three items early in the interview and ask for recall later. Memory of the recent past also can be tested by asking for the patient's place of residence, including the street number; the method of transportation to the hospital; and some current events. Retention and recall also can be tested by having the patient retell a simple story or names of three items told earlier.

4) Intellectual Tasks, Information and Intelligence

Various intellectual tasks estimate the patient's fund of general knowledge and intellectual functioning. Counting and calculation can be tested by asking the patient to subtract 7 from 100 and to continue subtracting 7 from the result until the number 2 is reached. The patient's fund of general knowledge is related to intelligence. The patient can be asked to name the local elected leader both at village or sub-district or district levels, to name the three adjoining villages or cities near his or her village and to give the distance from his or her village to clinic. The examiner must take into account the patient's educational level, socioeconomic status and general life experience in assessing the results of some of these tests.

5) Reading and Writing

The therapist may ask the patient to read a simple story loudly or write a short sentence to test for a reading or writing disorder.

6) Judgement

Judgement is the capacity to act appropriately in various situations. Does the patient show impaired judgement? What would the patient do on finding a stamped, sealed, addressed envelope in the street? What would the patient do if he or she smelled smoke in a theater? Can the patient discriminate? What is the difference between a dwarf and a boy? Why are couples required to get a marriage license?

7.6.9 Neuropsychological Evaluation

A thorough neuropsychological examination includes a comprehensive battery of tests that can be replicated by various examiners and can be repeated over time to assess the course of a specific illness. The most widely used test of current cognitive functioning is the Mini-Mental State Examination (MMSE). HMSE, Hindi adaptation by Ganguli *et al.,* 1995 is also available, which assesses orientation, attention, calculation, immediate and short-term recall, language, and the ability to follow simple commands. The MMSE is used to detect impairments, follow the course of an illness, and monitor the patient's treatment responses. It is not used to make a formal diagnosis. The maximal MMSE score is 30 (31 by HMSE). Age and educational level influence cognitive performance as measured by the MMSE.

Check Your Progress Exercise 4

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) List the various aspects and processes that a family therapist should examine for cognitive disorders.

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7.7 MANAGEMENT OF COGNITIVE DISORDERS

7.7.1 Management of Delirium

The management of delirium includes the following points:

1) **Reverse medical problems and provide supportive care:** The primary treatment of delirium is to identify and treat the underlying cause or contributing medical conditions which have a direct bearing on the survival of the patient. For example, in hepatic failure medication is given to reduce serum ammonium levels. In addition to reversing medical problems, delirious patients may need extra supportive medical care and maintenance of vital parameters for rapid recovery.

2) **Prevent further medical complications:** Benzodiazepines, opiates, anticholinergic agents and other non-essential medications should be avoided.

3) **Use environmental intervention to facilitate reality:** Keeping the patient in quiet environment and free of unnecessary stimulation may help in reducing agitation. Frequent familiar clues (like clock, calendar) to orientation may also be helpful. Supportive contacts with the patients, family and sometimes staff member are necessary to reassure the patient. The patient can be oriented to staff, surroundings and situations repeatedly, particularly before any hospital procedures. Sensory devices (like eyeglasses, hearing aid) also help the patient to get rid of sensory deficits.

4) **Facilitate sleep, cognition and healthy functioning:** Personalised interventions like certain medications may be helpful in promoting restful sleep and controlling anxiety. Sleep hygiene must be explained to care givers.

5) **Prevent and manage disruptive behaviour:** Control of agitation in delirious patients is essential to prevent self damage and allowing appropriate examination and treatment. Physical restraint or chemical restraint should be avoided as much as possible. Patient's bed can be maintained in low position with brakes locked and position the side rails up. Hazard free environment can be maintained by removing unnecessary equipment or furniture. Family members can be encouraged to be with patients. If required, patient be referred to psychiatrist.

7.7.2 Management of Dementia

The first step in the treatment of dementia is verification of the diagnosis. Preventive measures are important particularly vascular dementia which includes changes in diet, exercise and control of diabetes and hypertension (anti-hypertensives or anticoagulants or anti-platelet agents). The general treatment approach to patients with dementia is to provide supportive medical care, emotional support for the patient and their families, and pharmacological treatments for specific symptoms.

1) Pharmacological Management

Most of the current approved pharmacotherapy of dementia is directed at reversing the known deficient cholinergic transmission. Some drugs have demonstrated beneficial effects in moderate to severe dementia. Disruptive behaviour and aggression can be managed with low dose antipsychotics. This programme does not qualify you to prescribe drugs/medicines to your patients/clients/people known to you/self.

2) Non-pharmacological Management

An increasing number of non-pharmacological therapies are now available for people with dementia. It is therefore important for a family therapist to have some knowledge of a number of these approaches, enabling a combination of treatments tailored to the individual requirements of the patient.

Non-pharmacological Therapies for Dementia

Standard therapies

1) Behavioural therapy
2) Reality orientation
3) Validation therapy
4) Reminiscence therapy

Alternative therapies

5) Art therapy
6) Music therapy
7) Activity therapy
8) Complementary therapy
9) Aromatherapy
10) Bright-light therapy
11) Multisensory approaches

Brief psychotherapies

12) Cognitive–behavioural therapy
13) Interpersonal therapy

Standard non-pharmacological therapies

1) **Behavioural therapy:** Traditionally, behavioural therapy has been based on principles of conditioning and learning theory using strategies aimed at suppressing or eliminating challenging behaviours. Behavioural therapy requires a period of detailed assessment in which the triggers, behaviours and reinforcers (also known as the ABC: Antecedents, Behaviours and Consequences) are identified and their relationships made clear to the patient. The therapist will often use some kind of chart or diary to gather information about the manifestations of a behaviour and the sequence of actions leading up to it. Interventions are then based on an analysis of these findings. The efficacy of behavioural therapy has been demonstrated in the context of dementia in wandering, incontinence and other forms of stereotypical behaviours. Behavioural interventions must be tailored to individual cases.

2) **Reality orientation:** Reality orientation aims to help people with memory loss and disorientation by reminding them of facts about themselves and their environment. It can be used both with individuals and with groups. In this therapy, people with memory loss are oriented to their environment using a range of materials and activities. This involves consistent use of orientation devices such as signposts, notices and other memory aids.

3) **Validation therapy:** Validation therapy was developed as an antidote to the perceived lack of efficacy of reality orientation. It was suggested by its originator, Naomi Feil, that some of the features associated with dementia such as repetition and retreating into the past were in fact active strategies on the part of the affected individual to avoid stress, boredom and loneliness. She argues that people with dementia can retreat into an inner reality based on feelings rather than intellect, as they find the present reality too painful. Validation therapy therapists therefore attempt to communicate with individuals with dementia by empathising with the feelings and meanings hidden behind their confused speech and behaviour. It is the emotional content of what is being said that is more important than the person's orientation to the present.

4) **Reminiscence therapy:** Reminiscence therapy involves helping a person with dementia to relive past experiences, especially those that might be positive and personally significant, for example family holidays and weddings. This therapy can be used with groups or with individuals. Group sessions tend to use activities such as art, music and artefacts to provide stimulation. Reminiscence therapy is seen as a way of increasing levels of well-being and providing pleasure and cognitive stimulation. The therapy also has a great deal of flexibility as it can be adapted to the individual. A person with severe dementia can still gain pleasure from listening to an old record, for instance.

5) **Alternative non-pharmacological therapies:** As in other areas of health care, alternative therapies are gaining currency in the treatment of people with dementia like art therapy, music therapy, activity therapy, complementary therapy, aromatherapy, bright-light therapy and multisensory approaches. All of these have received some research attention but efficacy is yet to be established.

6) **Brief psychotherapies:** Over the past 10 years there has been an increasing interest in applying some of the brief therapeutic frameworks such as cognitive–behavioural therapy (CBT) and interpersonal therapy to dementia. *Interpersonal therapy,* as the name suggests, examines the individual's distress within an interpersonal context. It uses a specific framework in which the individual's distress is conceptualised through one of the four domains: interpersonal disputes; interpersonal or personality difficulties; bereavement and transitions or life events. Both CBT and interpersonal therapy have limitations, particularly with severe dementia.

In short, patients often benefit from a supporting and educational psychotherapy. They may also benefit from assistance in grieving and accepting the extent of their disability. Patient should be encouraged to focus on the activities in which successful function is possible. Patient should be asked to keep calendars for orientation problem, making schedules to help structured activities and taking notes for memory problems. Emotional problems in family members of patients with dementia should be adequately dealt.

7.7.3 Management of Amnestic Disorders

The first approach for treatment of amnestic disorder is to treat the underlying cause. Supportive cues about the date, time and the patient's location can be helpful and reduce the patient's anxiety after resolution of the amnestic episode. Psychotherapy (cognitive, psychodynamic or supportive) may help patients to incorporate the amnestic experience in to their lives.

In the first phase of recovery, therapists provide supportive care to patients in the form of explaining patients what is happening. In the second phase of recovery, clinicians can build a therapeutic alliance with patients by explaining slowly and clearly what happened and by offering an explanation for a patient's internal experience. In the third integrative phase of recovery, a clinician can help the patient to form a new identity by connecting current experiences of the self with past experiences. This phase also includes grieving for the lost faculties. Therapist must respect and empathise with the patient's need to deny the reality of what has happened. Cognitive rehabilitation also helps in patients with amnestic disorders.

Check Your Progress Exercise 5

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) Write the steps one should follow in management of delirium.

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2) List the non-pharmacological therapies for dementia.

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7.8 LET US SUM UP

Cognitive disorders involve an impairment of memory, attention, perception and thinking that represents a change from previous functioning. Cognitive disorders are the most common group of psychiatric disorders in the elderly population and are also common in patients with chronic medical conditions. Cognitive disorders are associated with significant disability, poor quality of life and burden on families. There are various methods of treatment or modalities available from medication to supportive management. Early detection and intervention makes major impact on the outcome of the illness.

7.9 GLOSSARY

ABC : Antecedents, Behaviours and Consequences.

Abstract thinking : Ability to appreciate nuances of meaning.

Agnosia : Failure to recognize or identify objects despite intact sensory functions.

Aphasia : Problem in language.

Apraxia : Inability to carry our motor activities despite intact motor functions.

Delirium : Acute onset of fluctuating cognitive impairment and other behavioural phenomenon.

Delusions : Fixed false beliefs.

Dementia : A progressive impairment of cognitive functions that occurs in clear consciousness.

Dysprosody : An inability to express emotional feelings through speech intonation.

Hallucinations : Perceptions without a sensory stimulus in the environment.

Illusions : Misinterpretation of sensory stimulus.

Interpersonal therapy : Examining the individual distress within an interpersonal context.

Judgement : Capacity to act appropriately in various situations.

7.10 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

1) The common cognitive disorders are:
   i) Delirium,
   ii) Dementia, and
   iii) Amnestic disorder.

Check Your Progress Exercise 2

1) The clinical characteristics for recognising delirium are given below:

   Key feature is disturbed consciousness.

   Associated features include:

   Clouded sensorium – that is no clear awareness of surroundings

   Problems with attention,

   Disturbance in memory,

   Incoherent speech, and

   Perceptual disturbances (for example — hallucinations).

2) Following are the possible causes of delirium:

   1) Susceptibility may be symptom of early dementia, or delirium may predispose to later dementia,
   2) Predisposing factors like age, infections, dementia etc,
   3) Medical conditions like
      - Infections,
      - Urinary tract infections,
      - Respiratory (URI, pneumonia),
      - Gastro-intestinal infections,
      - Constipation
   4) Drug toxicity, and
   5) Fracture (especially related to hip fracture).

Check Your Progress Exercise 3

1) The following are the clinical characteristics for recognising dementia:

   i) Memory dysfunction (especially new learning, a prominent early symptom),

   ii) At least one additional cognitive deficit (aphasia, apraxia, agnosia, or executive dysfunction), and

   iii) Sufficiently severe to cause impairment of occupational or social functioning and must represent a decline from a previous level of functioning.

2) Following are the ten warning signs for dementia:

   1) Recent memory loss affecting job,
   2) Difficulty performing familiar tasks,
   3) Problems with language,
   4) Disorientation to time or place,
   5) Poor or decreased judgment,
   6) Problems with abstract thinking,
   7) Misplacing things,

8) Changes in mood or behaviour,
9) Changes in personality, and
10) Loss of initiative.

Check Your Progress Exercise 4

1) Following are the various aspects and processes that a family therapist should examined for cognitive disorder:
   i) General description,
   ii) Functional assessment,
   iii) Mood, feeling and affect,
   iv) Perceptual disturbances,
   v) Language output
   vi) Visuo-spatial functioning,
   vii) Thinking, and
   viii) Sensorium and cognition.

Check Your Progress Exercise 5

1) Following are the steps in management of indelirium:
   i) Reverse medical problem and provide supportive care,
   ii) Prevent further medical complications,
   iii) Use environmental intervention to facilitate reality,
   iv) Facilitate sleep, cognitive and healthy functioning, and
   v) Prevent and manage distruptive behaviour.
2) Following are the non-pharmacological therapies for dementia:

   Standard therapies

   1) Behavioural therapy
   2) Reality orientation
   3) Validation therapy
   4) Reminiscence therapy

   Alternative therapies

   1) Art therapy
   2) Music therapy
   3) Activity therapy
   4) Complementary therapy
   5) Aromatherapy
   6) Bright-light therapy
   7) Multisensory approaches

Brief psychotherapies

1) Cognitive–behavioural therapy
2) Interpersonal therapy

7.11 UNIT END QUESTIONS

1) What are cognitive disorders? How are they classified?
2) How will you examine the person who is suffering from cognitive disorders?
3) Explain the management of cognitive disorders.

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UNIT 8 MOOD DISORDERS

Structure

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8.15 Unit End Questions

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8.1 INTRODUCTION

In this Unit, we shall discuss a serious group of psychiatric disorders called mood disorders. The mood disorders are called so because one of their main features is abnormality of mood. *Mood* is a long lasting emotional state; it becomes abnormal when it prevails without any explainable circumstances in the person's life or lasts much longer than expected even when associated with significant life events. This mood abnormality is likely to influence the person's behaviour and thinking along with changes in other functions like sleep and appetite. Mood

disorders appear in the form of episodes and are characterised by abnormal mood which is associated with impaired interpersonal, social, and occupational functioning.

Objectives

After studying this Unit, you will be able to:

- Define mood and mood disorders;
- Identify the different types of mood disorders and their causes;
- Appreciate basic principles of pharmacological treatment;
- Outline basic principles of psychological treatment; and
- Judge the chances of recovery.

8.2 MOOD AND MOOD DISORDERS

8.2.1 What is Mood?

You must have used the word mood many times in your day to day conversation. Mood in plain English language means frame of mind, temper, disposition etc. The term mood in the context of psychiatric illnesses is used somewhat differently.

We all experience a range of emotions in different situations for example feeling happy on occasions like marriage, passing examination or feeling sad on having incurred huge financial loss, failure in exam etc. Most of us go back to the usual emotional state quickly. So, *mood* is a sustained feeling state that is experienced internally and that influences a person's behaviour and awareness of the world. Mood can be normal, cheerful or elevated, depressed, anxious etc. *Affect* is a related term which is external expression of mood usually understood based on the facial expression. The term *'euthymic'* mood is used to describe day to day normal feeling state.

However, when such an emotional state persists for longer period, usually for weeks together with sense of loss of one's control, it is termed as abnormal mood. It may not be associated with a reason or even if a reason is there, it may not be sufficient to produce such an effect on mood. Abnormal mood impairs proper thinking and influences the behaviour.

The abnormal mood of depression and cheerfulness or elation is focus of attention in this Unit.

8.2.2 What are Mood Disorders?

By now, you have understood that psychiatric disorders are syndromes where group of signs and symptoms occur together to make up a recognisable psychiatric condition. In mood disorders, the *fundamental disturbance* is a change in affect or mood, usually to depression or elation. This change in mood is accompanied by changes in the physical and mental activity. These changes are pervasive and persist for long periods and can be understood in the background of change in mood. They are accompanied by impaired biological, personal, social, and occupational functioning. Some general questions can be asked from patients and family members to check for presence of mood disorders, (See Box 1).

Box 1

Questions for screening mood disorders:

- Have you been consistently depressed or down most of the day, or every day, for the past two weeks?
- In the past two weeks, have you been much less interested in most things or much less able to enjoy the things you used to enjoy most of the time?
- Have you felt sad, low or depressed most of the time for the last two years?
- Have you ever had a period of time when you were feeling 'high' or 'very good' or so full of energy or full of yourself that you got into trouble, or that other people thought you were not your usual self?

Check Your Progress Exercise 1

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) What does one mean by the term 'mood'? How is it different from affect?

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8.3 CLASSIFICATION OF MOOD DISORDERS

In India, Chapter V (F) of Tenth Revision of International Classification of Diseases (ICD-10) is used for making diagnosis of psychiatric disorders, as you have already studied in the previous Units.

Mood disorders are generally episodic and recurrent. Characteristically, two types of episodes occur: manic and depressive episodes. In *manic episode*, the central feature is elevated mood and there is increase in the physical and mental activity in form of over activity and self important ideas. *Hypomania* is less severe form of mania.

In *depressive episode*, the central feature is depressed mood and there is decrease in physical and mental activity in form of negative thinking, lack of enjoyment, reduced energy and slowness.

One or both types of episodes may be present in one patient. The severity and duration of symptoms may vary in each episode. In ICD-10, mood disorders are classified taking into consideration number and types of episodes. The severity and duration of symptoms under section F30 to F39 are as follows:

F30 Manic episode

F31 Bipolar affective disorder

F32 Depressive episode

F33 Recurrent depressive disorder

F34 Persistent mood disorder

F38 Other mood disorder

F 39 Unspecified mood disorder

These different types of disorders will be discussed in detail in subsequent Sections of this Unit.

8.4 EPIDEMIOLOGY OF MOOD DISORDERS

In this Section, we shall discuss how common mood disorders are. As you are aware, *incidence* (new cases per unit of time) and *prevalence* (proportion of existing cases) are used to measure distribution of any disorder in a given population.

Mood disorders are common. These are serious mental disorders and so far, no society or culture anywhere in the world has been found free from mood disorders. These can afflict anyone irrespective of his or her age, caste, religion, race, country, employment status, educational status or economic status. World over, studies have been done to learn about their prevalence and distribution.

8.4.1 Depressive Disorder

Depressive disorders are highly prevalent with almost 15-25 percent of persons having suffered from it at least once during their lifetime. Almost every year nearly 2 out of 100 persons will get a depressive episode. There is two-fold greater prevalence in women than in men. It is believed to be due to hormonal differences, the effects of childbirth and differing psychosocial stressors for women and for men. It most commonly occurs between the ages of 20 to 50 years with mean age of onset at 40 years; children and elderly also get depressive disorders. No correlation is seen between socioeconomic status and depressive disorders. It is seen that people from Asian countries tend to report more of physical symptoms (for example saying, "I am having body aches") rather than low mood (for example saying, "I am feeling low") when they are suffering from depressive disorder.

The *life time risk* (is the risk of developing a disease during one's lifetime) of dysthymia is about 3 per cent. Rates are higher in women, divorced and single persons.

8.4.2 Bipolar Disorder

The life time risk for bipolar disorder is 0.3-1.5 per cent. The annual incidence is less than 1 percent. Bipolar disorder has an equal prevalence among men and women. However, manic episodes are more common in men, and depressive episodes are more common in women. It most commonly occurs between the ages of 18 to 24 years with mean age of onset at 21 years. Cases are reported in

children as well as elderly. It is more common in divorced and single persons than among married persons. A higher proportion of patients with bipolar disorder are found among the upper socioeconomic groups.

8.5 CLINICAL FEATURES

You have understood now that in mood disorders, manic and depressive episodes occur. Various types of mood disorder differ on number and types of episodes, the severity and duration of symptoms. So before discussing about various types of mood disorder, knowing about clinical features of manic and depressive episodes is essential.

Unlike tuberculosis, where simple tests like X-ray chest, blood and sputum tests confirm the diagnosis, there are no laboratory tests available for diagnosing mood disorders. So, detailed history and careful psychiatric evaluation is of vital importance in identifying mood disorders. These features which are helpful for understanding of a family therapist are discussed in the sub-sections underneath.

8.5.1 Depressive Episode

The symptoms (What the people in close contact will tell in history)?

The changes in behaviour of the patients are initially noticed by people who are in close contact with them like family members, friends or teachers. Generally, these behavioural changes develop gradually over a period of days and weeks. In contrast to manic episode, where the abnormal behaviour becomes evident soon enough to be brought to medical attention, recognition that something is abnormal takes longer in patients with depressive episodes.

You must have heard your friends or others saying 'I am feeling depressed or miserable or low'. But you must have also noticed that these feelings do not usually last longer, do not interfere too much with day-to-day functioning. In this section, the focus of attention is not this day-to-day transient sadness or feeling depressed but it is about identification of depression as clinical condition which needs treatment.

The initial changes are minimal. Patients start getting up early or may have difficulty falling asleep. After getting up they do not feel fresh and have to drag themselves to complete day-to-day tasks. They may start missing meals, may not be as attentive as before about their grooming. They start feeling sad and may worry about unnecessary things. The sadness does not get better in response to change in circumstances. The depressed mood is worse in the morning.

Another important change noticed by family members is that they seem to be losing interest in day to day activities. They are unable to enjoy activities from which earlier they used to derive pleasure like watching television, chatting with friends, reading newspaper, going out etc. They prefer to stay alone. They start complaining of tiredness even without doing any activity. Even if they get enough sleep, they complain of not feeling fresh after waking up.

They feel as if they do not have enough energy to carry on; they have difficulty finishing tasks, are unable to work properly at their job or school or household work, and have less motivation to take on new responsibilities. They are unable to concentrate at the task at hand and are therefore unable to remember events as

the events do not get registered. So, they complain of memory loss. Also, because of poor concentration, have problems with thinking clearly. Their mental and physical activities start slowing. Their speech, walk and other actions become slow.

They start getting gloomy and have negative thoughts. They take dark and depressing view of self, future and the world. They start blaming themselves for some trivial act done in the past or imagined misery brought over family. Their self confidence decreases. They have recurrent thoughts of death and are preoccupied with death and dying.

They complain of physical complaints like body aches, headache, sensation of nausea, dizziness, problems of indigestion like constipation, belching.

Majority of patients complain of trouble in sleeping, especially early morning awakening and frequently waking up at night, during which they tend to worry about their problems or difficulty in sleeping. They have loss of appetite and associated weight loss. They often complain of constipation. Their interest in sexual activity reduces.

As the illness progresses, patients become severely disturbed. Their personal care, sleep, appetite, interactions with friends, family members get severely reduced. They start neglecting or stop their occupation or job. They get almost confined to bed. They may start actively contemplating ending their lives as they see no end to their misery. Some make suicidal attempts. They might report beliefs not based on reality such as the belief that they have been responsible for all the misfortunes of self, family and maybe world, they have turned poor or they have died. They might report seeing or hearing things that don't exist. The voices may accuse them. In extreme conditions, patient may not speak or move at all.

In children, refusal to go to school, decreased interest with playing and excessive clinging to parents may be reported. Poor school performance, irritability, sexual promiscuity, missing classes without informing parents, lying and temper tantrums may be symptoms of depression in adolescents in addition to what has been reported above. In older people, physical complaints may be the first feature noted. Their decreased self care, eating less, lack of interest in maintaining hygiene and grooming, lack of concentration and decreased self confidence may present as severe forgetfulness.

The signs (What is seen on the examination)?

The mode of onset is often acute (within days or weeks), sometimes it is gradual. The patients report that they are depressed. They report that this 'depressed mood' has a distinct quality and is different from the normal emotion of sadness or grief. They may start crying without reasons. Some patients report that they feel empty and almost dried of all emotions. Sometimes mood may be anxious or irritable.

Their activities are slowed down and speech may be of low volume, slow and monotonous. This slowness in activity and speech is called *reduced psychomotor activity*.

There is *anhedonia* which is reduced loss of interest or pleasure in previously enjoyable things. They have *anergia* that means feeling of having reduced or no energy.

They report of feeling helpless, that is they are incapable of doing anything. They feel hopeless means they see their future as dark, nothing good is going to happen to them. They feel worthless, that is their lives do not have any value. These ideas of helplessness, worthlessness and hopelessness are called *depressive cognitions*. In severe cases these ideas are so firmly believed that they may reach delusional level.

They also report *ideas of guilt* in which they falsely hold themselves responsible for past or present misfortunes. Some patients may have *delusions* of poverty (that they have become poor), *nihilism* (that they do not exist) or ill health. They may also have *persecutory* (i.e. people want to harm them because they have committed mistakes) and referential delusions. They also may have auditory and visual hallucinations. Some patients may show catatonic features like *mutism* (not speaking at all) and *stupor* (complete absence of movements). Their judgement is impaired. They may deny any need for treatment as they may believe that nothing can help them. These changes should be present for a period of minimum two weeks for considering the same as a depressive episode.

About two thirds of all depressed patients contemplate suicide, and 10 to 15 percent commit suicide. Suicidal ideas can occur at any stage of illness; however suicidal attempts are common either when depression is not severe as in the beginning or when patients are recovering from depressive episode.

Depressive episode can be classified as mild, moderate and severe based on number of complaints and the degree of resulting dysfunction. The severity of the symptoms can vary from mild to severe. As a rule, the more symptoms, the more severe the depression is likely to be. Level of severity depends on number of symptoms and dysfunction resulting in disruption of normal activities. Mild depression presents with subjective complaints and may not be evident to others and patient may be able to cope up reasonably well with normal activities. In severe depression, all the symptoms may be present and person is severely dysfunctional and may require hospitalisation. Severe depression is sometimes associated with psychotic symptoms like delusions and hallucinations.

Box 2 **Case vignette 1**

Mr. R, 32 years old person, educated till matriculation and he is married person. He runs his own general stores. He has come with more than one month's duration complaints of getting tired easily for his routine work, loss of interest in his previously enjoyable things like reading newspapers, chatting with his neighbours, spending time with his child and wife. He has been feeling gloomy almost all day and he feels like crying for no apparent reason when alone. He is losing temper over minor matters at home and at work. He thinks that shop is not doing well though there is no change in income. He has difficulty in remembering routine things.

His wife reports that for last one month he has changed, he talks less at home or outside otherwise he was jolly fellow. He eats less when coaxed and has difficulty in falling asleep. He is not a user of any addictive substances and there is no family history of any psychiatric illness. He doesn't have any other medical conditions.

Diagnosis: Depressive disorder

Check Your Progress Exercise 2

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) How will you identify depression?

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8.5.2 Manic Episode

The symptoms (What the people in close contact will tell in history)?

Changes in behaviour of the patients are initially noticed by people who are in close contact with them like family members, friends or teachers. Generally, these behavioural changes develop rapidly over a period of days.

The initial changes in behaviour are often slight and may be misunderstood and hence missed. Patients start getting up early in the morning and appear happy and cheerful. The family members start noticing that patients tend to talk excessively. They start feeling self important and start talking about their enhanced abilities. They are full of new and exciting ideas and plans about many things like studies, buying, helping others, money, religion etc. They appear restless, start moving around more and quickly. While talking, they start shifting from one topic to another and become easily distractible. Even after sleeping less, they feel fresh and energetic. They become more interested in wearing new and bright clothes and eating fancy foods. They like to go out and meet people more than usual.

As the illness advances, the symptoms become severer. They talk excessively and constantly, often intrude into others' conversation. They become irritated and agitated with other people who don't listen to them or try to interrupt them. They start indulging in a lot of pleasurable activities. They make inappropriate advances towards opposite sex. They tend to indulge in increased and indiscriminate sexual activities. This may result in complications like pregnancy in an unmarried girl. They start spending more money needlessly and unreasonably, which they often cannot afford. They wear clothing and jewellery of bright colours in unusual or eccentric combinations. They talk to strangers. They plan a lot of risky, exciting or foolhardy ventures or schemes or business enterprises; may start or increase use of alcohol or illegal drugs. Their sense of self importance changes to beliefs that they have special powers and abilities or they are on an important mission and they act accordingly. Patients act impulsively and make rash decisions, often on the spur of the moment. These can be about jobs, relationships, money, health etc, and are often foolish and disastrous. They are often preoccupied by religious, political, financial or sexual ideas. They turn irritable, angry and abusive, particularly with people who do not seem to understand their 'great' ideas and plans.

As the illness progresses, patients become severely disturbed. Their personal care, sleep, appetite, social behaviour and interpersonal relationships with friends, family members get severely disturbed. They start neglecting or stop their occupation or job. They may become aggressive and assaultive on slightest provocation. They might report beliefs not based on reality such as the belief that they have special abilities, merits and powers and may act on them. They might report seeing or hearing things that don't exist. Their behaviour deteriorates to such an extreme that they become unmanageable.

The signs (What is seen on the examination)?

The mode of onset is often acute (within days or weeks); sometimes it may be abrupt (within 48 hours). The patients report subjective sense of well being. Mood is elevated and is out of keeping with the patient's circumstances and may vary from carefree cheerfulness to almost uncontrollable excitement. Mood may be irritable and may change rapidly. Patient reports that they are full of energy and are feeling exceptionally well. Increased energy is noticed as reduced need for sleep, feeling fresh and not getting tired despite mental and physical over-activity.

They may be very restless, may move in the room and may use a lot of gestures to express themselves. This is called *increased psychomotor activity*.

They speak spontaneously even when they are not asked a question. They speak non-stop and in a loud voice on any topic which comes to their mind or they pick up from environment. They show *pressure of speech* that is the speed of talking is so high that it is difficult to interrupt. The speech is full of embellishments like singing, rhyming, punning etc.

They report that their 'thoughts are racing' in the mind and they are full of ideas. They report about their 'special abilities' and 'powers' like being on special mission on Earth. They have delusions of *grandiosity* (special powers, worth, abilities). They may have delusions of *persecution* (people are planning to harm) and *reference* (people are talking about him). They may have *auditory hallucinations,* wherein voices may tell about their special powers.

Their judgement may be totally impaired and they may deny any need for treatment. These changes should be present for a period of minimum one week to consider them a manic episode. The severity of the symptoms can vary from mild to severe. As a rule, the more symptoms, the more severe the mania is likely to be.

Box 3

Case vignette 2

Mrs. S, 22 years old recently married woman, educated till class 5. She has been noticed to have changed for last fifteen days. She seems happy all the time, gets up very early than her usual time, wears new saree and ornaments every day even at home, spends more time in pooja worshipping God. She has been excessively talking to everyone at home and with neighbours and gives suggestions to others even when not asked. She tries to be centre of attraction when other people are discussing something important. When reminded of her work she behaves rudely with her mother-in-law and tells it is not her duty to do household chores as she is newly

married. She plays T.V and music in loud volume and does not seem to care for others' concerns. She demands that her husband take her daily for outing and demands for new clothes and jewellery not understanding his financial status. She sleeps less at night but still seems full of energy the next morning. She gives away money and food to every beggar who passes by her house and when opposed by family members she fights with them over this issue and tries to defend herself. She denied having any problems with her and says others are jealous of her well being. She doesn't take any psychoactive substance and doesn't have any medical conditions.

Diagnosis: Manic episode

Hypomania is milder form of manic episode; the patients have subjective feeling of well being, increased energy and confidence. They seem to work faster and more. Need for sleep is felt less desirable. Such episode sometimes may change to manic episode. Change in mood and behaviour is noticed by their family members. In most cases it does not lead to as much dysfunction as compared to manic episode. However, patients may still be at risk of making rash and dangerous decisions.

Check Your Progress Exercise 3

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) How will you identify mania?

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8.5.3 Mixed Episode

During this episode the person may exhibit symptoms of both depression and mania together or these are rapidly alternating.

8.6 DIAGNOSIS

Now you are familiar with the clinical features of manic and depressive episodes. You can identify the symptoms and signs in a given patient by careful history taken from the patient, family and other sources and detailed psychiatric examination. International Classification of Diseases – Tenth Revision (ICD - 10) gives diagnostic guidelines for making diagnosis of mood disorders. The different types of mood disorders are classified depending on number and types of episodes, the severity and duration of symptoms.

F30 Manic episode – There is only single episode of mania. Diagnostic guidelines are given as per ICD-10 diagnostic criteria (Box 4). Level of severity can be from hypomania to severe mania.

Box 4 **Mania**

Key symptoms: Present for a minimum period of one week

At least 4 symptoms besides first symptom are must

1) A mood which is predominantly elevated, expansive or irritable and definitely abnormal for the individual concerned and is sustained for at least a week (unless it is severe enough to require hospital admission),
2) Increased activity or physical restlessness,
3) Increased talkativeness ('pressure of speech'),
4) Flight of ideas or the subjective experience of thoughts racing,
5) Loss of normal social inhibitions resulting in behaviour which is inappropriate to the circumstances,
6) Decreased need for sleep,
7) Inflated self-esteem or grandiosity,
8) Distractibility or constant changes in activity or plans,
9) Behaviour which is foolhardy or reckless and whose risks the subject does not recognize for example spending sprees, foolish enterprises, reckless driving, and
10) Marked sexual energy or sexual indiscretions.

The episode is not attributable to psychoactive substance use or any organic mental disorder.

F31 Bipolar affective disorder: This is characterised by repeated episodes (that is, at least two) of either mania or hypomania only/episodes of both depression and hypomania or mania.

Box 5 **Case Vignette 3**

Mr. K is 50 years old, graduate and married person who works as a government employee. He smokes cigarettes daily for past many years. He comes with complaint of 3 months duration characterised by easily getting tired, lack of enjoyment in previously enjoyable activities, feels sad most of the day and has difficulty in concentrating in his work. His sleep and appetite has changed. He complaints not having freshening sleep, bad dreams and excessive worries that his job might be lost and he will not be able to take care of his family properly. He gets frightened to receive any phone calls and letters thinking that it might be some bad news.

He reports of having similar episode 5 years back and it was much severe and lasted for 8 months, during which he even thought of committing suicide to end his suffering.

His wife reports that 3 years back he had changed behaviour that lasted for 4 months approximately characterized by excessive indulgence in social activities. He would say that he wanted to be a politician and would frequently miss going to his job. He would be purchasing unnecessary things for self and house, would talk more than his usual self and there was decreased need for sleep. During that time even he used to point wrongs of his superiors and demand for apology from them and he used to pass lewd comment on other women colleagues who used to get offended.

Diagnosis: Bipolar disorder current episode depressive

Bipolar disorders are of two types:

- Bipolar I: There are episodes of mania only or episodes of both depression and mania.
- Bipolar II: There are episodes of hypomania only or episodes of both depression and hypomania.

F32 Depressive episode: There is only single episode of depression, diagnostic guidelines are given as per ICD-10 diagnostic criteria (Box 6). Level of severity can be mild to severe.

Box 6 Depressive Episode

Key symptoms: For a minimum of 2 weeks

At least 2 out of first 3 symptoms are must to call it a depressive episode:

1) Sustained depressed mood to a degree that is definitely abnormal for the individual, present for most of the day and almost every day, largely uninfluenced by circumstances,
2) Loss of interest or pleasure in activities that are normally pleasurable,
3) Decreased energy or increased fatiguability,
4) Loss of confidence and self-esteem,
5) Unreasonable feelings of self-reproach or excessive and inappropriate guilt,
6) Recurrent thoughts of death or suicide, or any suicidal behaviour,
7) Complaints or evidence of diminished ability to think or concentrate, such as indecisiveness or vacillation,
8) Change in psychomotor activity, with agitation or retardation (either subjective or objective),
9) Sleep disturbance of any type, and
10) Change in appetite (decrease or increase) with corresponding weight change.

About two-thirds of all patients with depression contemplate suicide, and 10 to 15 percent commit suicide.

Depressive episode can be mild, moderate or severe based on the number of symptoms present.

There should not be episode of hypomania, mania or mixed episode in the past.

This episode should not be attributable to psychoactive substance use or to any organic mental disorder.

F33 Recurrent depressive disorder: This is characterised by repeated episodes (that is at least two) of depression.

F34 Persistent mood disorder: These are persistent, longstanding fluctuating disorders of mood which are rarely if ever are sufficiently severe to be diagnosed as mild depression or hypomania.

- Dysthymia: It is characterised by persistent, long standing low grade depressive symptoms of minimum 2 years duration.

Box 7 **Case Vignette 4**

Mr. Z a 22 year old person who is pursuing his graduation, comes with complaints that he has never been able to enjoy whatever others of his age are able to do. He has frequent complaints not having adequate sleep, he is less confident to do any new venture. His daily chores need to be enforced by family members. Every day seems difficult to cope, there are periods when he feels alright but they last for few days only. He tends to talk less and not very optimistic on good things happening in future. Otherwise he does not take any addictive drugs, there are no physical or familial problems. He wears clean clothes, takes food and attends his classes regularly. Family members tell that he is not enthusiastic as his brothers since 4 years.

Diagnosis: Dysthymia

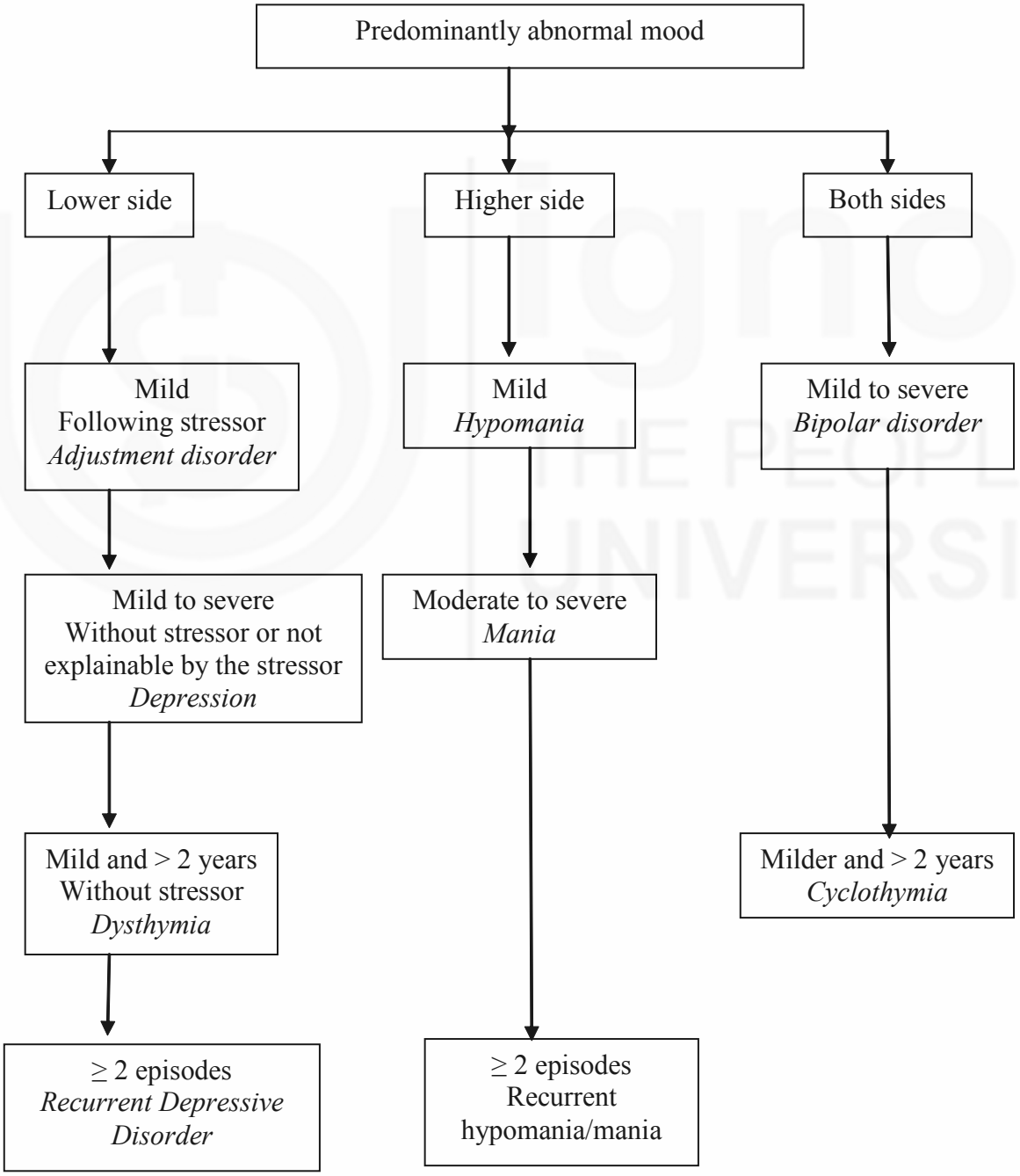


Figure 8.1: Diagnosing type of mood disorder in a person

- Cyclothymia: It is characterised by persistent, long standing frequent mood swings of mild depression and mild cheerfulness or elation of minimum 2 years duration.

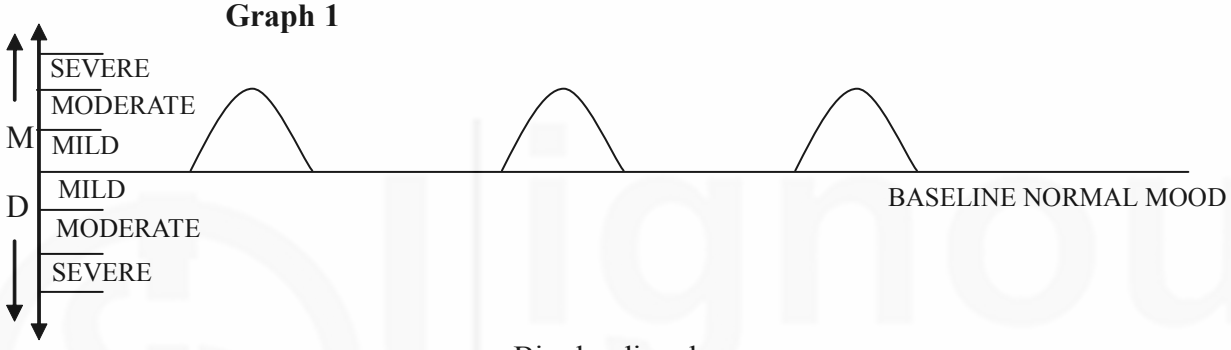
It is important to understand here that depressive and manic or hypomanic symptoms can arise out of medical or physical disorders and substance abuse. So before making the diagnosis of mood disorders, these should also be ruled out by history, physical examination and investigations if required.

Other (F38) and unspecified (F39) mood disorder are diagnosed when diagnostic guidelines of a specific category mentioned above are not met with.

If a person has four or more episodes of mania, hypomania or depression per year, it is called *rapid cycling* mood disorder.

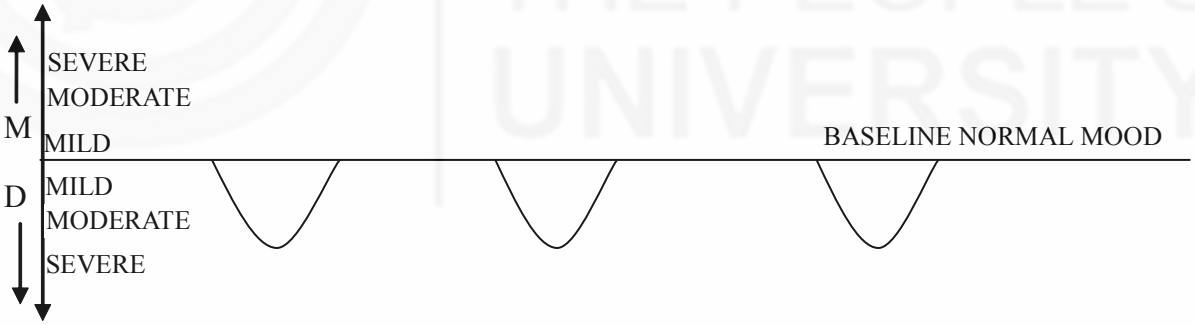
Figure 8.2: Graphical representation of mood disorders
M-Towards mania side, D-Towards depressive side

Graph 1



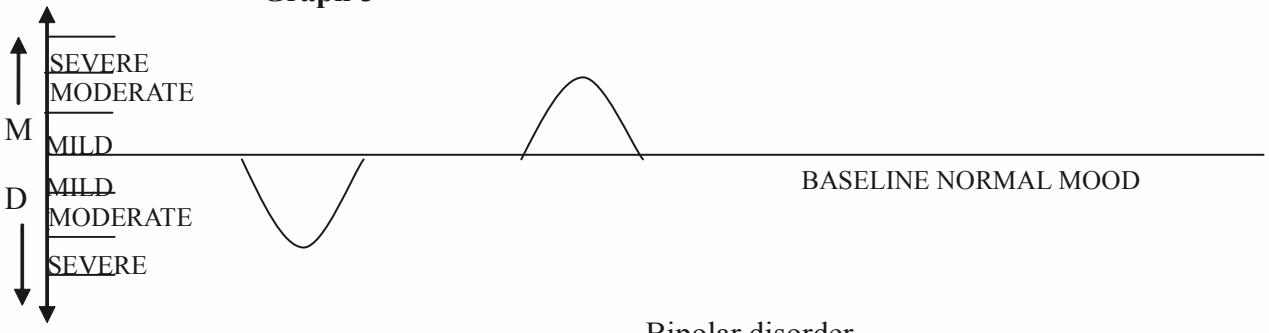
Bipolar disorder

Graph 2



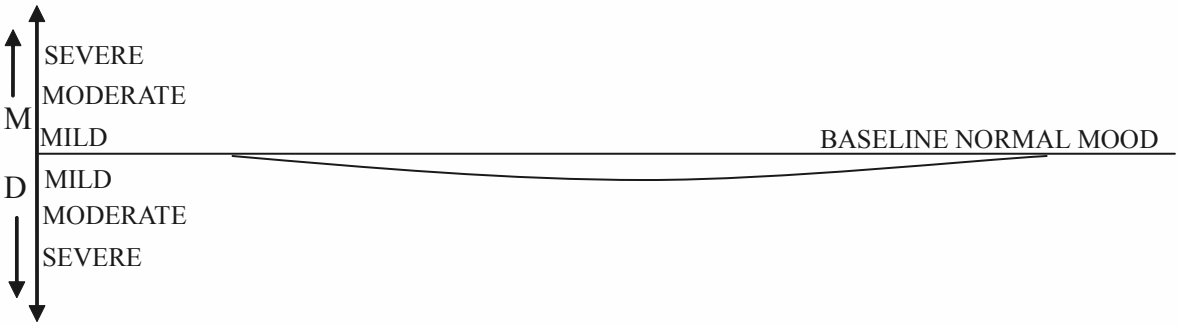
Recurrent depressive disorder

Graph 3



Bipolar disorder

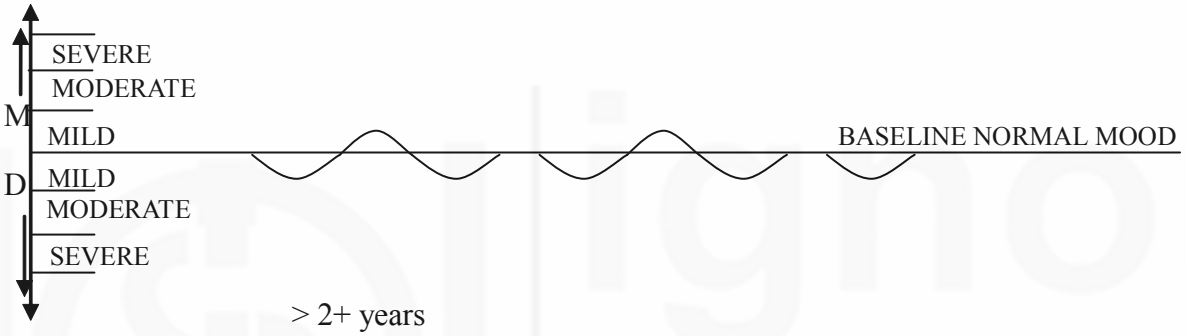
Graph 4



>2+ years

Dysthymia

Graph 5



> 2+ years

Cyclothymia

8.7 ETIOLOGY

What causes mood disorders still remains unanswered. There is no known single cause for mood disorders. At present, it is considered a biological disease which results from interplay of multiple factors like genetic and environmental factors as in many physical diseases, such as diabetes. Although not yet confirmed, the following biological and environmental factors have been implicated in the causation:

8.7.1 Biological Factors

These include genetic factors and changes in brain chemicals and hormones. Several family, adoption and twin studies have documented the heritability of mood disorders. Family studies suggest that if one parent has a mood disorder, the child will have a risk of 10 to 25 per cent for developing a mood disorder. If both parents are affected, this risk roughly doubles. Further, twin studies show that rate of having mood disorder in non- identical and identical twin of patients with mood disorders is 70 to 90 per cent and 16 to 35 per cent respectively. The more members of the family who are affected, the greater is the risk to the child. The risk is greater if the affected family members are first-degree relatives (genetically closer) rather than more distant relatives. This means that the *genetic closeness* (siblings and parents are genetically closer compared to uncles and grandparents) and *genetic loading* (number of relatives having disease) to the person with mood disorder increases the risk for development of mood disorder. It is believed that the predisposition or susceptibility to develop the disease is inherited.

Changes in *neurotransmitters* (substances that allow communication between nerve cells) have been reported in the development of mood disorders. These neurotransmitters are serotonin, nor-epinephrine, dopamine and histamine. It is believed that in the brains of patients with depression, decrease in norepinephrine produces depression and increase results in mania. Similarly, reduction of serotonin may result in depression. In some patients with suicidal impulses, low concentrations of serotonin metabolite in their brain fluid (cerebrospinal fluid) have been reported. Also, dopamine activity may be reduced in depression and increased in mania. These neurotransmitters are modified by drugs used to treat mood disorders; for example, selective serotonin reuptake inhibitors (SSRIs) act as antidepressant by increasing the levels of serotonin.

Hormones are secreted and controlled by *hypothalamo-pituitary* axis (a circuit that connects hypothalamus, a part of the brain involved in thinking and behaviour to pituitary gland. Pituitary gland located below hypothalamus in the brain is a master gland that in turn controls other hormone secreting minor glands of the body so that whole body is in proper functioning mode). Increased secretion of cortisol and dexamethasone non suppression test suggests elevated hypothalamo-pituitary axis activity in patients with depressive disorders. Thyroid hormone abnormalities have been reported in patients with mood disorders.

8.7.2 Psychosocial Factors

It is important to know psychosocial factors believed to be responsible for mood disorders. You have to appreciate that a variety of life experiences produce mood disorders. Stressful life events like loss of job, death of loved one etc. are seen more often before the onset of an episode of mood disorder. The life events most often associated with development of depression are losing a parent before the age of 11 years, loss of a spouse and being currently unemployed. Recent stressful events are the most powerful predictors of the onset of a depressive episode.

As per cognitive theory, depression results from specific distortions in thinking present in persons susceptible to depression. Cognitive triad of depression – a negative attitude towards self, environment and future mainly in the form of expectation of suffering and failure is responsible for depressed mood.

According to learned helplessness model of depression, depression is linked to the experience of uncontrollable events. These result from early experiences and lead to thinking that 'whatever best I do, nothing is going to change and it is better not to do anything, things are no more under my control'. This leads to a sense of futility and hopelessness and loss of motivation to do anything worthwhile.

8.8 TREATMENT OF MOOD DISORDER

The aim of the treatment in mood disorders is to:

- Reduce the symptoms,
- Decrease the dysfunction,
- Help in early recovery and return back to normal state, and
- Prevent complications and prevent occurrence of future episodes.

Before starting the treatment, making correct diagnosis and identification of symptoms and contributing factors is of greatest importance.

In the treatment of mood disorders two commonly used terms are therapeutic and prophylactic treatment. The former means treatment of an individual episode and the latter means prevention of further episodes.

Both pharmacological and psychosocial treatments are available to manage patients with mood disorders. These reduce the symptoms of mood disorders and allow the patient to function more effectively and appropriately. They help in restoring functioning of the brain to near normal by correcting neurotransmitter abnormalities in the brain. The drugs used to treat depression are called *antidepressants*; *antipsychotics* are used for control of acute mania. However, mood stabiliser drugs are the mainstay of treatment; these are used for both therapeutic as well as prophylactic treatment.

The most important thing to understand here is that treatment has to be planned keeping this fact in mind that every patient with mood disorder has unique characteristics and needs.

Most of the patients with mood disorders can be treated on outpatient basis where a person meets a doctor, takes medicines and other forms of treatment and stays at home.

Hospitalisation is indicated in the following conditions:

- Grossly disorganised or inappropriate behaviour,
- Patient is at suicidal risk or has made a suicidal attempt,
- Patient is violent and dangerous to others,
- Patient is unmanageable,
- Total refusal of food,
- Patient is unwilling to take medications,
- No improvement with medications trials at full dose on outpatient basis, and
- Diagnostic clarification.

Short hospitalisation is effective and long term hospitalisation has no extra advantage.

Issues of compliance with drug treatment, reasons for poor compliance and steps to improve it have been discussed in detail in the Unit on schizophrenia and other psychotic disorders. You may please refer to sub section 'compliance' of this Unit.

8.9 TREATMENT OF DEPRESSIVE DISORDERS

8.9.1 Pharmacological Treatment

Following are the important points needed to be kept in mind while giving treatment for depressive disorders:

- Medications given for treating depression are called *antidepressants*.
- A number of antidepressant drugs are available. Although their chemical structures vary widely, none of these drugs has been shown to be more effective than the other. They differ in their side effects.
- These medications can be prescribed only by a qualified physician.
- The choice and dosage of drugs is individualised for each patient by defining target symptoms. The drug is usually started at a low dose and the dose is gradually increased depending on the improvement.
- There is delay in onset of effect of antidepressants and it takes 2weeks to 4 weeks before their effect builds up fully. Sometimes this results in a common problem; some people stop the medicine after a week or so as they feel that it is not helping them.
- A drug should be tried for minimum of 4 weeks to 6 weeks in adequate dosage before changing it as single type of antidepressant works well to relieve symptoms in about 60 per cent cases.
- The improvement takes place gradually. First sleep, appetite and personal care improve followed by improvement in depressed mood and negative thinking.

One should be cautioned while driving or while walking. Women who are planning to become pregnant and those who are breast feeding need caution as these medications may have side effect on growing babies.

How long to continue treatment?

- The treatment has to be early; delay in seeking and starting treatment leads to unnecessary prolongation of misery experienced by patient. Also, it results in poor and delayed response to treatment.
- After improvement with the treatment, the drugs should not be stopped. It is recommended that in a patient with single episode of depression, the drugs should be continued for a period of minimum 6 to 9 months or more after the symptoms of depression have disappeared. If one stops them too soon the depression may quickly return.
- If there is no recurrence, the drugs should be gradually decreased and stopped over a period of weeks.
- In patients with multiple episodes, and incomplete improvement, the drugs need to be continued for long periods.

8.9.2 Psychosocial Treatment

For mild to moderate depression, psychosocial treatments work well. For example, while cognitive behaviour therapy as stand alone therapy is effective; its combination with antidepressants works much better. These treatments may not be as beneficial as stand alone therapies for people with severe depression where use of antidepressant drugs is essential. Most psychological treatments for depression last for 16-20 sessions over 6-9 months.

Psychoeducation

Providing patient and the family members with adequate knowledge about the illness, involving them in therapy issues and helping them to develop support mechanisms go a long way in reducing their burden and improving their quality of life.

- This can be imparted by trained health workers also, besides doctors and psychologists.
- It involves educating the person affected and the family members in simple and clear language about the illness.
- Family members have myths surrounding this illness and its treatment. Common myths are that depression is a person's character weakness or it is a way of pretending. They feel that these patients are not trying enough to become alright. Common myths surrounding the drugs are that they are addicting and control the mind. These should be dispelled by emphasising that it is an illness similar to other well known illnesses which are treatable like diabetes.
- Rationale for various treatment, side effects and dosage of drugs is told. It is explained that although medications do have some side-effects, their beneficial effects far outweigh the adverse effects. Family members and patients need to be told about ensuring drug compliance.
- They are educated about the symptoms, how to identify early symptoms of relapse and when to seek proper help.
- Available treatment options are discussed with family members and patients. They are told about both benefits and side effects of treatment so that choice, mode and duration of treatment can be made as team effort.
- They are advised to keep a record of name of medications, side effects and effectiveness of the medications.
- Family members are told to provide encouragement and support to patient.
- Course of illness that is how long it lasts and its outcome with treatment and without treatment is discussed. Course and influence of untreated illness on the person and others are discussed in detail.
- Many patients require supervision of medications as there is risk of not taking medicines because due to negative thinking, they might believe that treatment may not help them or they may take an overdose of medicines as a way of suicidal attempt.

Cognitive Behaviour Therapy (CBT)

- It is combination of cognitive therapy and behaviour therapy.
- Behaviour therapy aims to bring changes in behaviours which are harmful or not helpful. It helps people to achieve changes in the way they think, feel and behave.
- Cognitive therapy is based on the idea that faulty ways of thinking can trigger depression. The therapist helps to understand one's thought patterns.

- First, any harmful, unhelpful and 'false' ideas or thoughts which are making one depressed are identified. For example if one has a belief during episode that 'I can not do anything' this statement is assessed in detail to collect evidence in favour of it and evidence against it.
- A more adaptive way of coping is taught. The aim is then to change ways of thinking to avoid these ideas. Also patients are helped to have thought patterns which are more realistic and helpful. Therapy is usually done in weekly sessions over several months. 'Home work' is given between sessions. Patients are asked to follow structured daily routine.
- Once these techniques are taught, the persons have to apply these for themselves whenever symptoms occur.

Physical Exercise

Regular exercise helps to improve symptoms (if one is able to do some exercise). A typical exercise programme which would ease depression is three sessions per week of moderate duration (45-60 minutes) for 10-12 weeks. Exercises like jogging, brisk walking, swimming, etc are useful. Going out for a walk each day is also important.

Counselling

It is directed at a specific problem. It may be helpful in cases where there is a particular problem that triggered the depression, or is making it worse. For example, marital problems, sexual problems, bereavement, previous childhood abuse, etc.

8.9.3 Electro Convulsive Treatment (ECT)

It is hospital based treatment. It may be advised if one has severe depression which has not improved with other treatments. In the procedure of ECT, brain is stimulated to produce seizures under careful and controlled environment. It has been evaluated to be quite safe with experienced doctors. It is not given forcibly. It is useful in treatment of patients with depression who are actively suicidal, refuse to eat, have catatonic features or are refractory to other treatments.

Check Your Progress Exercise 4

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) What are the options available for treatment of mood disorders?

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8.10 TREATMENT OF BIPOLAR DISORDERS

8.10.1 Pharmacological Treatment

Medicines are used to treat and prevent episodes of mania, and hypomania. Treatment largely depends on the episode type; main goal of treatment is to reduce the duration of episode and to prevent further episodes. Mood stabilizer drugs are the cornerstone of the management of bipolar disorders. These drugs are used to treat as well as prevent episode of mania, hypomania or depression in future. Patients with mania donot want to be treated because of poor judgement and due to elated mood, along with accompanying high thinking. Hence supervision of their medication intake is must.

Medications can be dangerous to the growing baby if a woman becomes pregnant while on medications and for babies on breast feed as these medications pass onto the child through the breast milk.

How long to continue the treatment?

- The treatment of mania has to be started immediately as impaired judgement, impulsivity, aggressiveness combine to put the patient and others at risk.
- After improvement with the treatment, the drugs should not be stopped.

  It is recommended that in a patient with first episode, the drugs should be continued for a period of minimum 6 months - 9 months or more after the symptoms of mania have disappeared.
- If there is no recurrence, the drugs should be gradually decreased and stopped over a period of weeks.
- Chances of recurrence in bipolar disorder are very high. After the second episode, prophylactic treatment should be planned. However in patients with first episode mania, where there is positive family history of mood disorders and initial severity is very high, prophylactic treatment is recommended.

8.10.2 Psychosocial Treatment

Bipolar disorder is often a life long illness which results in significant problems. There are several problems in psychosocial functioning like interpersonal and marital difficulties, occupational problems etc. To address these issues, following should be included in the management:

Psychoeducation

The principles of psychoeducation are same as for depressive disorders. Some additional points to remember are:

- Family members should watch for early signs of relapse, such as sleeplessness, increased restlessness, irritability, increased talks. The patient should be taken to a psychiatrist immediately so that medication may be adjusted and a relapse prevented.
- Patients should themselves learn to identify early subjective signs of relapse like feeling excessively cheerful, feeling driven, sleeping poorly. Also, they

should have a plan in advance about what to do if such subjective symptoms are noticed.

- Family members are encouraged to check on the progress regularly after patients become alright, when they go back to work or study to prevent a sudden and unexpected relapse.
- The patient should be educated to delay any major decisions about relationships, jobs, or money until one is well again. This is particularly important for patients having mania. During the manic episode, they might sell or donate properties; ask for divorce etc. due to poor judgement.

Supportive Psychotherapy

It involves guiding patients with mood disorder and their family members during illness period and even after recovering from the illness.

They are provided with assurance that help is always available when need arises. Bizarre and odd behaviour in episodes of mania or depression in a close relative or friend can be distressing for family and friends, particularly a first episode of mania. People with mania usually do not realise that they are ill. So, family and friends are often of great help in alerting a doctor or other health workers if symptoms of a new episode of illness develop.

Family members need support, usually to address their concerns like whether the person has gone mad, can he or she be ever alright or worry that there might be some damage to the brain.

Patients should be advised to modify their lifestyles and stick to new lifestyle. They should have regular social and sleep routines; should avoid illicit substances.

They should identify and avoid triggers for relapse like sleep deprivation and substance misuse.

Family members and patients should be explained about the need for guiding the patients even when they are alright. They have to understand that each person is different, and the ability to work will vary and they require reassurance and support during periods of illness.

Check Your Progress Exercise 5

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) How long should one continue treatment in a patient with mood disorders?

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8.11 CHANCES OF RECOVERY (COURSE AND PROGNOSIS)

8.11.1 Course and Prognosis of Depressive Disorders

The first depressive episode occurs before the age of 40 years in about 50 percent of the patients. A later onset is associated with the absence of a family history of mood disorders, presence of antisocial personality disorder and alcohol abuse.

An untreated depressive episode lasts for about 6 to 13 months. It lasts for longer duration in elderly people. Most treated episodes last for about 3 months. The withdrawal of antidepressants before 3 months almost always results in the return of the symptoms. Depressive disorder tends to be chronic and patients tend to relapse. About 50 to 75 percent of patients have another episode of depression within first 5 years.

Generally, as a patient experiences more and more depressive episodes, the time between the episodes decreases, and the severity of each episode increases. Over a 20 year period, the mean number of episodes is five or six. Some of the patients with depressive disorder may have manic episode and turn into bipolar disorder after several years.

Factors related to good prognosis are:

- Mild episodes,
- Absence of psychotic symptoms,
- Late age of onset,
- Short hospital stay, and
- History of stable family and social functioning for the 5 years preceeding the illness.

Factors related to poor prognosis are:

- Co-existing dysthymic disorder,
- Abuse of alcohol and other substances,
- Anxiety disorder symptoms,
- History of more than one previous depressive episode, and
- Men are more likely than women to experience a chronically impaired course.

8.11.2 Course and Prognosis of Bipolar Disorders

Bipolar disorder can affect both the very young and older persons. Bipolar disorder with an early onset is associated with poor prognosis. The onset of true bipolar disorder in older persons is relatively uncommon. Elderly patients with manic symptoms may be caused by medical or physical conditions and should be thoroughly examined for presence of these illnesses.

An untreated manic episode lasts about 3 months; therefore, clinicians should not stop drugs before that time.

Bipolar disorder most often starts with depression in 60-75 per cent of cases and is a recurring disorder. Most patients experience both depressive and manic episodes, although 10 to 20 percent experience only manic episodes.

After the first manic episode, 90 percent of the patients are likely to have another episode. About 40 to 50 percent of patients with bipolar disorder may have a second manic episode within 2 years of the first episode.

As the disorder progresses, the time between episodes often decreases. Of persons with bipolar disorder, 5 to 15 percent are rapid cyclers. Patients may have from 2 to 30 manic episodes, although the mean number is about 9. One third of all patients with bipolar disorder have chronic symptoms and evidence of significant social decline. Patients with bipolar disorder have a poorer prognosis than do patients with major depressive disorder.

Factors related to good prognosis are:

- Short duration of manic episodes,
- Advanced age of onset,
- Few suicidal thoughts, and
- Few co-existing psychiatric or medical problems.

Factors related to poor prognosis are:

- An early onset,
- Presence of substance abuse, such as alcohol dependence,
- Ongoing stressors in the family, and
- Poor psychosocial support.

8.12 LET US SUM UP

- Mood is a sustained feeling state that is experienced. A sustained and extremes of mood with loss of one's sense of control is termed abnormal. Mood disorders are characterized by abnormal mood and are associated with impaired interpersonal, social, and occupational functioning.
- Depressive episode usually is characterized sustained low mood, lack of energy and loss of interest in previously enjoyable activities for at least 2 weeks.
- Manic episode is characterized by sustained elevated or irritable mood for at least one week and is associated with increased self esteem, racing thoughts, increased planning and spending time in pleasurable activities, decreased need for sleep and changed appetite.
- Patients with both manic and depressive episodes or patients with manic episodes alone are said to have bipolar disorder.
- Currently all mood disorders are viewed based on biopsychosocial model for their etiology.
- Treatment of each episode and each individual may vary based on type of episode and number of episodes, family history and consists of pharmacological and psychosocial treatment.
- Pharmacological treatment consists of antidepressants, antipsychotics, mood stabilizers and anxiolytics. Patient might rarely require electroconvulsive treatment.

- Psychosocial treatment mainly consists of Psychoeducation, Cognitive Behaviour Therapy, Interpersonal Therapy, Supportive Psychotherapy, and Behaviour Therapy.
- An untreated depressive episode lasts for about 6 to 13 months. Over a 20-year period, the mean number of episodes is five or six. An untreated manic episode lasts about 3 months. Patients may have 2 to 30 manic episodes; the mean number is about 9.

8.13 GLOSSARY

Bipolar disorder : Persons who had mania and depressive episodes in the past or patients with manic episodes alone in the past are said to have bipolar disorder. Persons with bipolar disorder on current examination can be symptom free (in remission), or in depression, depression with psychotic symptoms or in hypomania, mania or mania with psychotic symptoms.

Depression : Here in this context means depressive episode, a clinical condition usually characterised by presence of lack of energy, loss of interest in previously enjoyable activities along with sustained low mood (sadness) for at least 2 weeks.

Mania : An episode is characterised by sustained elevated or irritable mood for at least one week and is associated with increased self esteem, racing thoughts, increased planning and spending time in pleasurable activities, decreased need for sleep and changed appetite.

Mood : It is a sustained feeling state that is experienced. A sustained and extremes of mood with loss of one's sense of control is termed abnormal.

Psychosocial intervention : Any non-pharmacological intervention intended to alter a patient's environment or reaction to lessen the impact of a given disorder which can be mental or physical. The method uses means other than medication to relieve suffering. Psychosocial treatment mainly consists of psychoeducation, cognitive behaviour therapy, interpersonal therapy, supportive psychotherapy and behaviour therapy.

8.14 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

1) Mood is a sustained feeling state that is experienced internally and that influences a person's behaviour and awareness of the world. Mood can be normal, cheerful or elevated, depressed, anxious etc. Affect is a related term which is external expression of mood usually interpreted based on the facial expression. Mood is considered based on longitudinal course of feeling state while affect is cross sectional assessment of feeling state.

Check Your Progress Exercise 2

1) Diagnosis of depressive disorder is based on the characteristic symptoms and signs. ICD-10 is used for diagnosing clinical depression.

   At least 2 out of first 3 key symptoms must be present for a minimum of 2 weeks to call it a depressive episode. The symptoms are given below:

   i) Sustained depressed mood to a degree that is definitely abnormal for the individual, present for most of the day and almost every day, largely uninfluenced by circumstances,

   ii) Loss of interest or pleasure in activities that are normally pleasurable,

   iii) Decreased energy or increased fatiguability,

   iv) Loss of confidence and self-esteem,

   v) Unreasonable feelings of self-reproach or excessive and inappropriate guilt,

   vi) Recurrent thoughts of death or suicide, or any suicidal behaviour,

   vii) Complaints or evidence of diminished ability to think or concentrate, such as indecisiveness or vacillation,

   viii) Change in psychomotor activity, with agitation or retardation (either subjective or objective),

   ix) Sleep disturbance of any type, and

   x) Change in appetite (decrease or increase) with corresponding weight change).

Check Your Progress Exercise 3

1) Diagnosis of mania is based on symptoms and signs. ICD-10 is used for diagnosing clinical manic episode.

   At least 4 symptoms besides first symptom must be present for a minimum period of one week. The symptoms are as follows:

   i) A mood which is predominantly elevated, expansive or irritable and definitely abnormal for the individual concerned and is sustained for at least a week (unless it is severe enough to require hospital admission),

   ii) Increased activity or physical restlessness,

iii) Increased talkativeness ('pressure of speech'),

iv) Flight of ideas or the subjective experience of thoughts racing,

v) Loss of normal social inhibitions resulting in behaviour which is inappropriate to the circumstances,

vi) Decreased need for sleep,

vii) Inflated self-esteem or grandiosity,

viii) Distractibility or constant changes in activity or plans,

ix) Behaviour which is foolhardy or reckless and whose risks the subject does not recognize for example spending sprees, foolish enterprises, reckless driving, and

x) Marked sexual energy or sexual indiscretions.

The episode is not attributable to psychoactive substance use or any organic mental disorder.

Check Your Progress Exercise 4

1) Main treatment options available for mood disorders can be listed as below:

- Pharmacological treatment: These include antidepressant drugs, antipsychotics and mood stabilizers. During manic episodes there can be need for sedative drugs also.
- Psychosocial treatment: These include psychoeducation, cognitive behaviour therapy, physical exercise and counselling, interpersonal psychotherapy, and supportive psychotherapy.
- Electro convulsive treatment (ECT).

Check Your Progress Exercise 5

1) In the treatment of mood disorders two commonly used terms are *therapeutic* and *prophylactic treatment*. Therapeutic treatment is for the current ongoing episode and it aims at reducing the duration of the episode and continued sometime after remission of the current episode and stopped. While prophylactic treatment is aimed at preventing further episodes and it is continued for longer period.

For single episode of depression drugs should be continued for a period of minimum 6 -9 months or more after the symptoms of depression have disappeared. If one stops them too soon the depression may quickly return. If there is no recurrence, the drugs should be gradually decreased and stopped over a period of weeks. In patients with multiple episodes and incomplete improvement, the drugs need to be continued for long periods.

In cases of single manic episode drugs should be continued for a minimum of 4-6 months after the symptoms of mania have disappeared.

In case of bipolar disorder or recurrent depressive disorder treatment should be continued at least for 5 years of episode free period. Treatment needs to be longer in cases where there is likelihood of further episodes considering past or family history of mood disorders.

8.15 UNIT END QUESTIONS

1) Name the different episodes that a person with mood disorders can have?

2) What are the symptoms of depressive episode?

3) How is mania different from depression?

4) How can a person with depressive disorder become well?

5) What happens if treatment is stopped for mania immediately after becoming symptom free?

8.16 FURTHER READINGS AND REFERENCES

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UNIT 9 SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS

Structure

9.1 Introduction

9.2 What is Psychosis?

- 9.2.1 Definition of Psychosis
- 9.2.2 Causes of Psychosis

9.3 Classification of Schizophrenia and other Psychotic Disorders

9.4 Schizophrenia

- 9.4.1 Epidemiology
- 9.4.2 Clinical Features
- 9.4.3 Diagnosis
- 9.4.4 Etiology
- 9.4.5 Treatment
- 9.4.6 Pharmacological Treatment
- 9.4.7 Psychosocial Treatment
- 9.4.8 Family Based Interventions
- 9.4.9 Rehabilitation
- 9.4.10 Chances of Recovery: Course and Prognosis

9.5 Persistent Delusional Disorder

9.6 Acute and Transient Psychotic Disorders

9.7 Schizoaffective Disorder

9.8 Let Us Sum Up

9.9 Glossary

9.10 Answers to Check Your Progress Exercises

9.11 Unit End Questions

9.12 Further Readings and Referenes

9.1 INTRODUCTION

In the previous Block, you have learnt about notions of mental health. By now you have understood what mental disorders are, how they are classified and assessed. You have studied that psychiatric disorders are syndromes where a group of signs and symptoms occur together to make up a recognisable psychiatric condition. In this Unit, we shall learn about a serious group of psychiatric disorders called schizophrenia and other psychotic disorders. These were earlier known as functional psychotic disorders as these were not associated with any recognisable brain structure abnormality. Similar resembling clinical conditions showing similar symptoms are also seen in people after head trauma, following stroke, in those with brain tumours or following epilepsy. These are known as *organic psychotic illnesses*. Certain drugs of abuse when consumed heavily like cannabis can produce similar illness. Symptoms of psychotic disorder may appear in patients with other physical illnesses.

Unlike physical illnesses, where a person presents with few complaints and doctor is able to objectively identify physical parameters and abnormalities like increased body temperature, redness of eyes, running nose, vomiting etc. which tally with the patient's complaints, persons with psychotic disorder rarely come forward to seek treatment, as they don't understand that they are mentally ill. Persons with psychotic disorder are brought by family members for odd behaviours. In this Unit, we will discuss about schizophrenia and psychotic disorders.

Objectives

After studying this Unit, you will be able to:

- Define psychosis;
- Understand and identify types of schizophrenia and other psychotic disorders;
- Know basic principles of pharmacological treatment for these;
- Explain psychosocial treatment including details about psychoeducation; and
- Judge chances of recovery.

9.2 WHAT IS PSYCHOSIS?

9.2.1 Definition of Psychosis

Psychosis is a psychiatric condition in which a person has hallucinations, delusions, disorganised behaviour and impaired reality testing.

Hallucinations are false perceptions without stimulus. A person starts perceiving something that does not exist in reality. These false perceptions can occur in all five senses like sound, sight, smell, touch and taste and are called auditory, visual, olfactory, tactile and gustatory hallucinations.

Delusions are false and unshakable beliefs that are held on inadequate grounds and cannot be corrected by any amount of reasoning or evidence to the contrary. These beliefs cannot be explained by the educational, social and cultural background of the patient. Delusions may have varied themes and depending on the theme are called delusion of persecution, reference, grandiosity etc.

A person with psychosis may also show disorganised behaviour in form of extreme excitement or slowing of motor activities, abnormal feelings, abnormal postures etc.

Impaired reality testing means that the person incorrectly understands his experiences and makes incorrect conclusion about the external world. These false perceptions and beliefs make it very difficult for the ill person to tell what is real from what is not real.

These patients are often totally unaware that their behaviour is in any way strange, or that their experiences could be imaginary.

There is severe disturbance in social and personal functioning in which patients may withdraw from social situations and may be unable to perform their usual household and occupational tasks. Persons with psychosis generally are reluctant to seek medical help as they believe that there is nothing wrong with them.

Check Your Progress Exercise 1

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) Differentiate between delusion and hallucination.

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2) Define psychosis.

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9.2.2 Causes of Psychosis

Presence of delusions, hallucinations, disorganised behaviour and impaired reality testing tells us that person is suffering from psychosis (see Box No.1). You have to understand that having psychosis is like having fever. Once we know that person has fever, we search for its causes and treatment of its cause results in relief of fever. Similarly, when we are sure that a person has psychosis, we have to search for its causes.

Box 1

Some questions which can be asked to screen for psychosis (confidentiality has to be maintained)

These following questions are about unusual experiences that some people have:

1) Have you ever believed that people were spying on you, or that someone was plotting against you or trying to hurt you?
2) Have you ever believed that some one was reading your mind or could hear your thoughts, or that you could actually read someone's mind or hear what another person was thinking?
3) Have you ever believed that you were being sent messages through the TV, radio, or newspaper, or that a person you did not personally know was particularly interested in you?
4) Have your relatives or friends ever considered any of your beliefs strange?
5) Have you heard things such as voices or seen things that other people could not hear or see?

If 'Yes' to any of these questions, then whether these have happened in the past or currently?

There can be three main causes of psychosis (see Box No.2):

Box 2

Causes of Psychosis:

- Psychological or functional disorders,
- Physical or organic disorders, and
- Psychoactive substance abuse.

1) **Psychosis caused by psychological conditions:** The most common causes of psychosis generally are psychiatric disorders like schizophrenia, delusional disorders, bipolar disorders and depressive disorders. The latter two disorders and their treatment has been dealt with in the earlier Units.

2) **Psychosis caused by physical conditions:** Many physical/medical conditions may result in psychosis, like Alzheimer's disease, brain tumours and infections, head injury, Parkinson's disease, diabetes, malaria, endocrinological (hormonal) disorders, HIV/AIDS, etc. The list of physical conditions causing psychosis is long. It is important to understand here that in patients, who show abnormal behaviour suggestive of psychosis, physical or medical disorders should also be suspected as a cause. Medical or physical disorders responsible for psychotic symptoms should be ruled out by history, physical examination and investigations, if required (see Box No.3). Treatment of the underlying physical condition results in relief of psychotic symptoms.

Box 3

The pointers to a medical or physical cause of psychosis are:

- Sudden appearance of symptoms in previously well individual,
- Elderly persons,
- Under treatment for many medical conditions,
- Presence of fever,
- Presence of altered consciousness and inattentiveness,
- Presence of confusion, memory problems and incontinence,
- Reversal of sleep wake cycle, that is a person starts sleeping in the day time and remains awake in the night, and
- Presence of visual hallucinations.

3) **Psychosis caused by psychoactive substance use:** Psychoactive substance abuse can trigger a psychotic episode. A psychotic episode can also be triggered if a person suddenly stops taking the substance after using it for a long time. This is known as *drug withdrawal*. Psychoactive substances that are known to trigger psychotic episodes are alcohol, cannabis, cocaine, amphetamines, ketamine etc. Treatment of drug abuse or withdrawal results in treatment of psychotic symptoms.

Check Your Progress Exercise 2

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) What are the causes of psychosis?

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9.3 CLASSIFICATION OF SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS

As you have already studied in the previous sections, that psychiatric disorders are classified according to two most important classificatory systems: International Classification of Diseases (ICD) developed by World Health Organization and Diagnostic and Statistical Manual of Mental Disorders (DSM) developed by American Psychiatric Association. In India, Chapter V (F) of tenth revision of International Classification of Diseases (ICD -10) is used for making psychiatric diagnosis. In ICD- 10, schizophrenia and other psychotic disorders are classified under F20 to F29 as follows:

F20 Schizophrenia

F21 Schizotypal disorder

F22 Persistent delusional disorders

F23 Acute and transient psychotic disorders

F24 Induced delusional disorder

F25 Schizoaffective disorder

F28 Other non-organic psychotic disorder

F 29 Unspecified non-organic psychosis

Worldwide, schizophrenia and other forms of psychosis represent a major health problem. It results in an enormous burden on individual, family and society. In the subsequent sections, we shall be learning about schizophrenia in detail and shall discuss about other conditions in brief.

Check Your Progress Exercise 3

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) Enumerate the psychotic disorders other than schizophrenia as listed in ICD-10.

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9.4 SCHIZOPHRENIA

The term schizophrenia was introduced at the beginning of this century by the Swiss psychiatrist Eugene Bleuler. The word schizophrenia does not mean split personality or multiple personality as is popularly believed. Literally, it means split mind as there are characteristic disturbances of thinking, perceptions and emotions. It is a serious mental disorder and so far, no society or culture anywhere in the world has been found free from schizophrenia.

9.4.1 Epidemiology

Before understanding how common is schizophrenia, you have to understand the meaning of two common terms used for knowing it. The distribution of a disorder in a given population is measured in terms of *incidence* and *prevalence*. *Incidence* refers to the proportion of new cases per unit of time (usually one year), while *prevalence* refers to the proportion of existing cases (both old and new). Studies have been carried out in various countries by the World Health Organisation.

Incidence rates per year of schizophrenia in adults have been found to be between 0.1 and 0.4 per 1000 population. Life time prevalence of schizophrenia is about 1 per cent which means that about 1 in 100 persons will develop schizophrenia during their lifetime. So if we consider a village with population of about 10,000, chances are that 1 to 4 new cases of schizophrenia will be seen in that village every year. However in their life time, about 100 persons residing in that village can have schizophrenia.

So you can see though number of new cases is less yet total number of cases is high. This is because schizophrenia is a chronic illness. Once a person has it, it continues.

Schizophrenia is a disorder of young people; usually it appears at the age of 15-35 years. It affects men and women with equal frequency. However, it often appears earlier in men than in women. In men, it starts usually in the late teens or early twenties whereas in women, it starts in the twenties and early thirties (see Box 4). Suicide is a leading cause of death in persons suffering from schizophrenia; about 15 per cent of them may commit suicide.

Box 4

Epidemiology of Schizophrenia

Incidence — 0.1 to 0.4 per 1000 population

Prevalence — 1%

Men:Women —1:1

Earlier onset in men

Age of onset: 15-35 years

9.4.2 Clinical Features

Before learning about clinical features of schizophrenia, let us tell you about Mr. R.

Mr. R. was a 24 year old unmarried, graduate shopkeeper. He was brought to psychiatric clinic by his parents. They reported that he was completely alright till about 3 months back. They had noticed a gradual change in him. He had started sleeping less and was often restless at night. Earlier after coming back from shop, he would eat meals, would watch TV and chat with his family. However, now he started remaining alone in his room and at times would skip meals. He started keeping windows of his room closed and appeared anxious. He told family members that people in neighbourhood had turned against him, were trying to spy on him, talked about him and were planning to kill him. Even when his neighbours did not do any such thing he would accuse and fight with them. His family members could not believe this and told that he had cordial relationship with neighbours prior to appearance of these problems. He started remaining self absorbed and was seen muttering and talking to self. Also, sometimes he would smile to self for which he gave no reason. He stopped taking care of personal hygiene on his own; his mother had to coax him. He avoided going out of house and meeting his friends. He stopped going to his shop. He would become angry on trivial matters. Later, he started refusing food, accusing that poison was mixed in it to kill him. He would be abusive and assaultive at times. There was no past history of psychiatric disease. History of similar illness was present in his maternal cousin. On physical examination no abnormality was detected. Psychiatric evaluation revealed an agitated anxious individual who was muttering to self. He told the doctor that his neighbours were planning to kill him. His food was being poisoned. He further told that his neighbours constantly discussed during the day and night about him, they called him names and threatened to kill him. Though he heard their voices clearly, he could not see them. He also told that they had fitted a computer chip in his head by which they were putting thoughts in his mind against his will. He told that they had fitted the chip while he was asleep. He denied that he had any problem and did not see any point in taking treatment.

What is the problem with Mr. R? Mr. R. has schizophrenia. This case highlights the main clinical features of schizophrenia.

Unlike malaria, where a simple blood test confirms the diagnosis, there are no laboratory tests available for diagnosing schizophrenia. Detailed history and careful psychiatric evaluation is required for recognising schizophrenia. So it becomes important for you to know the characteristic features with which such patients will present.

The symptoms (What the people in close contact will tell in history)?

Changes in behaviour of the patients are initially noticed by people who are in close contact with them like family members, friends or teachers. The initial behavioural changes often appear confusing or sometimes even shocking. It will depend on the way in which these changes have developed. In some cases, this happens fast over a period of days to weeks. In other cases, change may develop

gradually over months and may not be noticeable at first and may be slow so that before these get recognised by the family members, a period of weeks to months might have elapsed.

Disturbances in the sleep might be only initial problems; patients may look anxious or depressed. In appearance and behaviour, some patients may be entirely normal. Others seem changed and different. They may be preoccupied, may smile, laugh or cry without any apparent reason. They may mutter or talk or shout loudly to self, they may make apparently meaningless gestures in the air with their hands and it appears as if they are talking to someone. Some of the patients may be restless and noisy, may show sudden or unexpected changes in behaviour. Others may avoid company, spending a long time in their rooms lying on the bed immobile as if lost in thought.

The speech of the patients may be vague, disordered or muddled and may be hard to understand. It may appear meaningless due to lack of logical connection between sentences or phrases or words. They may speak very less or may not speak at all. However, some patients may speak relevantly and coherently.

The patient might report beliefs not based on reality such as the belief that there is a conspiracy against him, people are talking about him, a persistent feeling of being watched, their actions are controlled by others or some external force etc.

They might report seeing or hearing things that don't exist. Hearing voices is especially common. Some voices seem to talk directly to the patient or seem to talk about him in third person. Some voices may give direct command to the patient or may comment about his actions. The voices may be abusive, threatening or neutral. Some voices are recognised by patient as their own thoughts which are spoken aloud. Some persons and even their relatives might attribute it to black magic or effect of bad spirits and tend to seek help from faith healers.

They may show lack of emotions or emotional indifference. Their emotions may seem inappropriate to the situation for example while describing about death of his mother, a patient may start laughing. They may appear depressed, anxious or irritable.

Some of the patients may show clumsy, uncoordinated movements. They may remain in one position or may maintain awkward postures for long periods of time for example they may keep standing at one place for hours.

They may start neglecting their personal hygiene and may need coaxing for taking bath, changing clothes etc. Their social behaviour may deteriorate. They may start withdrawing from friends, family and others and may seem to be lost in their own world. They may have trouble functioning at home, workplace or school. They may lose interest in the activities which they used to be fond of like watching TV, reading newspaper, going to market, etc.

They withdraw away from world around them, retreating into an inner world marked by abnormal experiences. This results in abnormal interpretation of reality by them.

They need assistance in meeting basic living needs. They are at increased risk of alcohol and drug problems, anxiety, depression, hostility and medical diseases.

The Signs (What is seen on the examination)?

The mode of onset can be acute (a florid psychotic state develops within days or weeks from their previous normal state) or insidious (a gradual transition to obvious psychotic illness).

The patients with schizophrenia present with three groups of features:

1) Positive Symptoms

In the first section, you have already learnt about psychosis and you know that it is characterized by hallucinations, delusions and disorganized behaviour. These are easily recognisable behaviours and are not seen in healthy people.

i) Hallucinations

- Auditory hallucinations are the most common type of hallucinations in schizophrenia. Patients report hearing of voices when actually nobody is speaking and others cannot hear the same. Following types of auditory hallucinations are characteristic of schizophrenia:
  - o Running commentary: Voices comment on the behaviour,
  - o Commanding: Voices command them to do things,
  - o Third person: Voices talk to each other about the patient, and
  - o Thought echo: Patients hear aloud exactly whatever they think.

  They may hear these voices for a long time before family and friends notice that something is wrong.
- Sometimes, patients may have visual hallucinations that is seeing people or objects that are not there.
- They may have tactile hallucinations and may complain that invisible fingers are touching their bodies.
- Rarely, they may have olfactory hallucinations and may complain of smelling rotten flesh.
- Somatic passivity is special type of hallucinations in which the patient believes that he is passive recipient of the bodily sensations caused by an external agency. The patient may report that electric sensations in his body are being sent by neighbours.

Check Your Progress Exercise 4

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) Name the hallucinations which are characteristic of schizophrenia.

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ii) Delusions

- Delusion of control wherein patients believe that some external agency can control their emotions, behaviour or sensations and they have to passively feel, do or experience these.

- Delusion of reference in which patients believe that people are talking about them or are laughing at them even when it is not so in reality. They may believe that there is talk about them on television, radio and newspaper.

- Delusions of persecution where patients believe that they are being cheated, harassed or poisoned. They may believe that others are spying on them, plotting against them or their family members.

- Bizarre delusions are improbable and absurd beliefs, for example the patient may report that 'four persons are residing inside my stomach and whenever they fight among themselves they cause pain in my stomach'.

- Delusions of thought withdrawal and insertion in which patients believe that their thoughts are withdrawn or new thoughts are being inserted into their mind.

- Delusion of thought broadcast where patients believe that their thoughts are known to others without their speaking them aloud.

- Delusional perception in which patient attributes a new meaning, usually in the sense of self-reference, to a normally perceived object. For example, sudden belief in a patient that having a tree in front of his house meant that he was not a man. This tree was there all these years in front of his house and he never thought of it earlier.

iii) Formal Thought Disorder

People with schizophrenia have difficulty in organising their thoughts; and this gets reflected in their speech. In patient's speech, there is no apparent connection between sentences, phrases or words. This results in their speech becoming vague, irrelevant and incoherent. They may coin new words with special meaning, this is called *neologism.*

iv) Catatonic Signs

People with schizophrenia show clumsy and uncoordinated movements. These are called *catatonic signs*. They may completely stop talking or may become completely immobile. They may be excited and may run from here to there without any reason. They may repeat certain movements. They may grimace or show unusual mannerisms. They may maintain awkward postures. In this condition, patient may stop taking meals completely.

2) Negative Signs

Negative signs imply that there is a loss or decrease in emotions and behavioural abilities. This is in contrast to new symptoms like psychotic or positive symptoms. These symptoms are harder to recognise as part of the disorder and can be mistaken for laziness or depression.

- *Anhedonia* is loss of interest in everyday activities,
- *Apathy* is appearing to lack any emotions and there is no reactivity to any good or bad events,
- *Alogia* is no or minimal speech output,
- *Avolition* is reduced ability to initiate or carry out activities, and
- *Asociality* is minimal or no interaction with other persons.

These patients may appear to lack motivation, show social withdrawal and may neglect personal hygiene.

3) Cognitive impairment

They experience problems with attention, memory, and the decision-making functions that are needed to plan and organize. Cognitive deficits are most difficult to recognize but have the most disabling impact in terms of leading a normal life.

Check Your Progress Exercise 5

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) Name delusions that are found in schizophrenia.

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9.4.3 Diagnosis

Now, you are familiar with the clinical features of schizophrenia. You can identify the symptoms and signs in a given patient by careful history taken from the patient, family and other sources and detailed psychiatric examination. International Classification of Diseases – tenth revision (ICD -10) gives diagnostic guidelines for making diagnosis of schizophrenia (Box No.5). These guidelines give importance to presence of first rank symptoms in making diagnosis (Box No.6) and require the symptoms to be present for duration of at least one month. Before making the diagnosis of schizophrenia, medical or physical disorders responsible for psychotic symptoms should be ruled out by history, physical examination and investigations if required.

Box 5

ICD-10 diagnostic criteria for Schizophrenia

At least one of the following must be present most of the time for a month:

1) Thought echo, thought withdrawal, thought insertion, or thought broadcast,

2) Delusions of control connected with the movements of the body or extremities, specific thoughts, acting or feelings,

3) Delusional perception,

4) Hallucinatory voices giving running commentary on patient's actions, discussing the patient between them, or voices coming from some parts of the patient's body, or

5) Bizarre or culturally inappropriate delusion.

Or

At least two of the following first three must be present most of the time for a month; or last one symptom for 2 years:

1) Persistent daily hallucinations accompanied by delusions,

2) Incoherent speech,

3) Catatonic symptoms, or

4) Negative symptoms and a significant and consistent change in personal behaviour. Such symptoms should not be due to organic causes or due to psychoactive substance use.

Schizophrenia has been further divided into paranoid, hebephrenic, catatonic and undifferentiated types depending upon which group of symptoms dominates.

1) **Paranoid schizophrenia:** Well-organised persecutory, referential or grandiose delusions dominate the picture. Speech, behaviour and affect are relatively spared.

2) **Hebephrenic schizophrenia:** Disorganized speech and behaviour, inappropriate emotions are the characteristic features of hebephrenic schizophrenia. If delusions or hallucinations are present, they are ill organised.

3) **Catatonic schizophrenia:** Catatonic signs mentioned in the above section dominate the presentation.

4) **Undifferentiated schizophrenia:** In this type all features mentioned above may be present and no clinical features dominate.

Box 6

First rank symptoms

1) Thought echo,
2) Third person,
3) Running commentary,
4) Thought insertion,
5) Thought withdrawal,
6) Thought broadcast,
7) Made acts,
8) Made impulses,
9) Made feelings,
10) Somatic passivity, and
11) Delusional perception.

Let us go back again to Mr. R. For 3 months he had gradual onset delusions of persecution and reference, auditory hallucinations of third person type, thought insertion and bizarre delusion. There was deterioration in personal, social and occupational functioning. So, he is a case of paranoid schizophrenia as he meets ICD-10 diagnostic criteria for the same.

9.4.4 Etiology

There is no known single cause for schizophrenia. However, it is considered a biological disease which results from interplay of multiple factors like genetic and environmental factors as in many physical diseases, such as heart diseases. Although not yet confirmed, the following genetic and environmental factors have been implicated in the causation:

Genetic Factors

It has long been known that schizophrenia runs in families. People who have a close relative with schizophrenia are more likely to develop the disorder than are people who have no relatives with the illness. The results of family studies show a 10 per cent risk in siblings of patients with schizophrenia. If both parents are affected, the risk in children becomes 50 per cent. Further, twin studies show that rate of having schizophrenia in non-identical and identical twin of patients with schizophrenia is 8-12 per cent and 50 per cent, respectively (see Table 1). This means that the genetic closeness (siblings and parents are genetically closer compared to uncles and grandparents) and genetic loading (number of relatives having disease) to the person with schizophrenia increases the risk for schizophrenia.

Although the role of genetic transmission in liability to schizophrenia has been well documented, only a small minority of patients with schizophrenia have positive family histories, so genetic counselling is not possible.

Table 1: Risk of having schizophrenia in relatives

Relatives with schizophrenia	Chances of developing schizophrenia
None	1%
One parent	10%
Both parents	50%
One non-identical twin	8-12%
One identical twin	50%

Environmental Factors

A host of environmental factors have been implicated in the causation of schizophrenia. Poverty and lower socioeconomic class have been linked to higher rates of schizophrenia. It is reported more commonly in urban areas than in rural areas. In the mothers of patients with schizophrenia, smoking, poor nutrition and infections during pregnancy and complications during delivery have been reported. An excess of winter birth has been seen among the patients with schizophrenia. It is hypothesised to be due to viral infection of the foetus during pregnancy. It has also been reported that family members of patients with schizophrenia show high expressed emotions in the form of critical comments, emotional over-involvement and hostility.

Brain-imaging studies (CT scan, MRI scan etc.) have shown enlargement of cerebral ventricles (cavities in brain), reduction of brain flow, volume and cortical grey matter in certain areas. Changes in *neurotransmitters* (substances that allow communication between nerve cells) have been reported in the development of schizophrenia. These neurotransmitters are dopamine, serotonin and nor-epinephrine. It is believed that in the brains of patients with schizophrenia, increased dopamine is produced. These neurotransmitters are modified by drugs used to treat schizophrenia.

9.4.5 Treatment

Both pharmacological and psychosocial treatments are used to manage patients with schizophrenia. However, the treatment for schizophrenia has three main components, these are:

- Medications to relieve symptoms and prevent relapse.
- Psycho-education and family interventions help patients and families cope with the illness and its complications, and help prevent relapses.
- Rehabilitation helps patients reintegrate into the community and regain educational or occupational functioning.

The most important thing you have to understand is that every patient having schizophrenia has distinctive individual, familial, psychological and social characteristics and needs. Treatment has to be planned keeping this fact in mind.

9.4.6 Pharmacological Treatment

Medical treatment is the most important component of intervention and must be adhered to strictly if the patient is to show consistent improvement. Most of the

patients with schizophrenia can be prescribed treatment on outpatient basis and can remain at home. *Hospitalisation* is indicated in following conditions:

- Grossly disorganised or inappropriate behaviour,
- Patient having suicidal ideations,
- Patient is violent,
- Patient is unmanageable, and
- Diagnostic clarification.

Short hospitalisation of 4 to 6 weeks is as effective as long term hospitalisation.

1) Drugs

Antipsychotic drugs are used to treat schizophrenia and are the mainstay of the treatment. They have greatly improved the chances that patients with schizophrenia will lead productive lives. These drugs reduce the symptoms of schizophrenia and allow the patient to function more effectively and appropriately. A number of antipsychotic drugs are available. Although their chemical structures vary widely, none of these drugs has been shown to be more effective than the other. They help in restoring the normal functioning of the brain.

The treatment follows broadly following principles:

- These medications can be prescribed only by a qualified physician,
- They help in restoring the normal functioning of the brain.
- The choice and dosage of drugs is individualised for each patient,
- This is achieved by defining target symptoms,
- The drug is usually started at low dose and the dose is gradually increased depending on the improvement,
- Different patients may need different dosage of drug to reduce symptoms without producing bothersome side effects,
- The improvement takes place gradually. First sleep, appetite and agitated behaviour improve followed by improvement in psychotic symptoms. Negative symptoms take long time to improve or sometimes do not improve,
- A drug should be tried for minimum of 4-6 weeks in adequate dosage,
- Majority of patients show substantial improvement when treated with antipsychotic drugs. For unknown reasons a particular patient may respond to one drug and may not be improved by another drug, and
- Electroconvulsive therapy can be useful in treatment of patients with schizophrenia who have prominent catatonic symptoms, are actively suicidal or are refractory to treatment.

Families of the patients have two most important misconceptions regarding medication, these are:

- They worry that these drugs are addicting. However, the antipsychotic drugs do not produce joy or drug seeking behaviour in people who take them.
- They worry that antipsychotic drugs act as a kind of mind control. Yes, though sedating effect of these drugs can be useful but it is their ability to diminish the hallucinations, agitation, confusion and delusions which is curative.

2) How Long to Continue Treatment?

- The treatment has to be started as soon as possible.
- Delay in seeking and starting treatment leads to poor and delayed response to treatment.
- After improvement with the treatment, the drugs should not be stopped. If they are stopped, the disease will continue to progress on its course of relapses (recurrence of symptoms) and deterioration. Research shows that there is high risk of relapse in the first year, if medicines are discontinued.
- Treatment with drugs has to be continued for a long period, beyond the point of recovery, to prevent relapses or deterioration.
- It is recommended that in a patient with first episode, the drugs should be continued for a period of 1 to 2 years after improvement. If there is no recurrence, the drugs should be gradually decreased and stopped. The family members need to be educated about the chances of recurrence and symptoms. The drugs need to be restarted in case of a recurrence.
- In patients with multiple episodes and incomplete improvement, the drugs need to be continued indefinitely.
- Continued antipsychotic medications reduce the risk of future psychotic episodes in patients who have recovered from an acute episode.
- Even then, some people who have recovered may have recurrences.
- In about 20 per cent of cases, relapses occur even if they are on continuous medicines. Even if a recurrence occurs while on medicines, the intensity of the symptoms and the frequency of the relapses is less.

3) Compliance

Compliance to treatment is the extent to which patients follow the treatment plans recommended by their doctors. Good compliance with treatment means that patient is taking prescribed medication at the correct dose and accurate times every day, reporting for follow-ups at recommended periods.

Poor compliance with drug prescription is fairly common in the treatment of schizophrenia; about 50 per cent of outpatients and 20 per cent of inpatients fail to take prescribed medications. Because relapse of illness is more likely when antipsychotic drugs are discontinued or taken irregularly, it is very important for patients with schizophrenia to be compliant with their treatment plan.

There are a variety of reasons for poor drug compliance, these are:

- Family members or caretakers and patients may have negative view about medications.
- Patients believe that they are not ill and hence do not need the medication.
- Patients' thinking may be so disorganised that they may not remember to take their daily doses.
- Prescribing doctors may not have explained the treatment plan adequately.

- Family members may not understand the instructions correctly, so may unintentionally give drugs to the patient in incorrect way (dosage and timing).
- Side effects of the drugs.
- Family members may incorrectly stop treatment when the patient is feeling better.
- Substance abuse like alcohol, cannabis interfere with the effectiveness of treatment, leading to stopping the medications.
- Cost of treatment and long term of treatment.

The issue of compliance remains a major issue in the treatment of schizophrenia and any one or combination of these reasons may be true for a single patient.

The following strategies can be used to improve the drug compliance:

- Education of patient and family about schizophrenia, its symptoms, and the medications being prescribed.
- Physicians can prescribe medicines according to the patient's work day; most of these drugs can be given in a single night time dosage.
- Combining medication taking with routine daily events like meals.
- Patients to be motivated to continue taking their medications properly.
- Family members should observe carefully the intake of oral medication by patients; some patients may not swallow the tablets and later on throw away the tablets.
- Side effects reported by the patient to be treated.
- Tablet boxes labeled with the days of the week can help patients and caregivers know when medications have or have not been taken.
- Health professionals should listen carefully to the subjective experiences of the patients associated with medications.
- Some antipsychotic drugs are available in long-acting depot injections. These injections may be repeated at an interval of 2 to 4 weeks.

Check Your Progress Exercise 6

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) Enumerate reasons for poor compliance to treatment in persons with schizophrenia.

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9.4.7 Psychosocial Treatment

Antipsychotic drugs play a central role in the treatment of schizophrenia. However, even when patients with schizophrenia are relatively free of symptoms, they still have difficulties with communication, motivation, self-care and establishing and maintaining relationships with others. Moreover, they frequently become ill during the crucial years of life, they are less likely to complete their education and training required for suitable occupation. As a result, significant number of patients with schizophrenia lack social and vocational skills required to start and maintain any job or occupation. It is with these psychological, social and occupational problems that psychosocial treatments help most.

A variety of interventions are there to improve social abilities, self sufficiency, practical skills and interpersonal communication and relationships in patients with schizophrenia.

9.4.8 Family Based Interventions

In a developing country like India where mental health resources are scarce, the patients with schizophrenia are cared for by the family and in 95 per cent of the cases live with them. They are often discharged from the hospital into the care of their family. This results in high levels of psycho-social, economical burden and stigma experienced by the family members. So it is important for family members to learn about schizophrenia and understand the difficulties and problems associated with the illness.

Family-based interventions are designed to strengthen the resources of the family in its caring function by providing adequate knowledge about the illness and involving them in treatment issues. These also aim at relieving family burden and helping them to develop support mechanisms. It intends to improve communication between family members and modify family interactions and attitudes. These interventions have to be planned as a long-term support rather than as a short time-limited treatment. Providing adequate knowledge about the illness, involving them in therapy issues and helping them to develop support mechanisms go a long way in reducing burden and improving the quality of life of the patient.

Some of these interventions are:

- Engagement of the family early in the treatment process.
- **Psychoeducation about schizophrenia** — It includes the following components:
    1) Schizophrenia is a biological disease like heart disease with multi-factorial causation.
    2) Rationale for various treatments, side effects and dosage of drugs. They have to be explained that although medications do have some side-effects, their beneficial effects far outweigh the adverse effects.
    3) Ensuring drug compliance.
    4) Variation in outcome.
    5) Keeping a record of symptoms, name of medications, side effects and effectiveness of the medications.

6) Identification of symptoms early and to prevent a relapse. A checklist can be provided both to the family and the patient to help them recognise and report early warning signs.

7) Role of drug compliance.

8) Role of daily planned and structured routine, engaging in tasks or occupation.

9) Providing encouragement and support to patient.

10) Suggestions for coping with the disorder.

- Improving family's ability to work towards individual and shared goals.
- Problem-solving training aimed at improving ways of managing everyday activities.
- Communication training directed at enhancing the clarity of communication and improving the exchange of both positive and negative feedback within the family.

Check Your Progress Exercise 7

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) How does psychoeducation help in the treatment of schizophrenia?

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What can be done by families regularly?

- Ensure compliance,
- Involve them in performing simple tasks around the house helps; increases their sense of worth and productivity as they improve,
- Talk to the patients and show an interest in what they are doing, even if they sound dull and repetitive,
- Keep one's emotional reactions to patients at low level. Emotions of overprotection and over-involvement to hostility and rejection are to be avoided. But one should not shy away from contradicting or disagreeing with the ill relative. Feelings must be expressed in a matter-of-fact way rather than angrily,
- Help in keeping persistent symptoms from interfering too much with their daily lives in patients with incomplete improvement,
- Supervise periodically in order to ensure that they take their medicines, maintain personal hygiene and perform activities of daily living,

- Appreciate the smallest task and achievements of the patient; recognition of patient's efforts and abilities increases their self confidence,
- Ignore deluded or abnormal talk, appear interested and prolong normal talk and conversation,
- Be patient and supportive,
- Encourage and support the patient,
- Do not make derogatory statements; it can have very traumatic effect on the patients,
- Watch for early signs of relapse, such as sleeplessness, increased restlessness, irritability and a return of hallucinations. The patient should be taken to a psychiatrist immediately so that medication may be adjusted and a relapse prevented,
- Check on the progress regularly after becoming alright, when they go back to work or study to prevent a sudden and unexpected relapse, and
- Encourage the patient to go for some form of exercise like walks, sports. Patients prefer to stay in bed or sit still for hours and may dislike this.

The inclusion of family interventions in the comprehensive care of people with schizophrenia significantly reduces the symptoms, risk of relapse and admission rates, improves treatment compliance, reduces burden on caregivers and increases patients' and caregivers' satisfaction with the service provided and helps in rehabilitation of the patient.

9.4.9 Rehabilitation

Rehabilitation includes a wide range of non-medical interventions for patients with schizophrenia, as after treatment the patients go back to community and have to resume their roles in society. Rehabilitation measures put emphasis on social and vocational training to help patients and recovered patients. These may include vocational counselling, job training, problem-solving and money management skills, use of public transportation, and social skills training.

Most developing countries including India do not have a social security system for the mentally disabled and unemployed persons. The government provides minimum money to sustain themselves. So, it becomes important to focus on providing these persons with employment and work.

First of all, it is necessary to decide what kind of job or occupation the patient is most suited for. This can be done by an assessment of skills and disabilities. Then they have to be motivated to think of starting work by encouragement and suggestions to apply for jobs or learn specific skills for the job or occupation, to pursue this and to be prepared for any possible opportunity.

Training is also provided in daily activities such as bathing, cleaning, cooking, using the telephone, using modes of transport and making basic financial transactions. Social skills such as making friends, engaging in conversation and communicating with family and friends can also be taught.

Social skills training is based on social learning theories that aim to teach these skills. Complex behaviours are assessed and broken down into smaller separate components. These components are taught through various behavioural

techniques such as problem specification, instruction, modeling, role playing, behavioural rehearsal, coaching, reinforcement, structured feedback and homework assignment. Procedures for social skills training must be tailored to the needs of individual patients as they present different combinations of social abilities and deficiencies and have varying degrees of support from their environment.

9.4.10 Chances of Recovery: Course and Prognosis

The typical course of schizophrenia is one of exacerbations and remissions. After the first episode patients generally recover, many function normally for a relatively long period. Usually relapse and pattern of illness during first 5 years after diagnosis generally indicates the future course. With each relapse, there is further worsening in patient's baseline functioning.

Several studies have reported that about 45 per cent recover after one or more episodes, about 20 per cent show unremitting symptoms and increasing disability, and about 35 per cent show a mixed pattern with varying degrees of remission and exacerbations of different length.

The studies have reported that outcome is better in developing rather than developed world. Better tolerance of the sick role, availability of suitable jobs, supportive family attitudes and extended family networks have been suggested as explanations are the factors for better outcome in developing countries.

The course in an individual patient is very difficult to predict.

Features related to good prognosis are female gender, late onset, good *premorbid* (status of the patient before he or she had schizophrenia) social functioning, acute presentation with positive symptoms, married status, good work histories, good support system and family history of mood disorders.

Features related to poor prognosis are: young onset, no precipitating factors, insidious onset, poor premorbid social functioning, poor premorbid work histories, single divorced or widowed, family history of schizophrenia, poor support systems, negative symptoms, neurological signs and symptoms, history of perinatal trauma, no improvement in 3 years, many relapses and history of assaultive behaviour (Box No.8).

Box 8

Good prognostic factors	Bad prognostic factors
• Late age of onset	• Young age of onset
• Good social, work history prior to onset	• Poor adjustment in society, unemployed even prior to onset
• Good support from family, married	• Poor social support— single/ divorced
• Positive symptoms—delusion/ hallucinations	• Insidious onset
• Acute onset	• Negative symptoms from the initial phase of illness
• Presence of stressor at the time of onset	• Long duration of illness before onset

Box No.9

John Forbes Nash, Jr. *(born 1928), is an American mathematician and economist. In 1994, he received the Nobel Memorial Prize in Economic Sciences (along with two others). Nash began to show signs of schizophrenia in the adolescence. He began to show signs of extreme paranoia and his wife later recognised his behaviour as becoming increasingly erratic as he began to speak of characters who were putting him in danger.*

Nash is also the subject of the Hollywood movie, 'A Beautiful Mind', which was nominated for eight Oscars (winning four). It was based on his biography and describes his struggle with schizophrenia. He could live his life to satisfaction despite having severe psychiatric condition like schizophrenia because of drug treatment, care by his wife and employment provided by Princeton University where he was a student.

Check Your Progress Exercise 8

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) What are the types of treatment available for schizophrenia?

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9.5 PERSISTENT DELUSIONAL DISORDER

This is an uncommon disorder, and prevalence is about 0.025 to 0.03 per cent. The mean age of onset is about 40 years. It is slightly more common in females. In this condition long standing delusions constitute the only prominent clinical feature. The delusions may be either single or a set of related delusions. These delusions can be persecutory, *hypochondriacal* (false belief that they are suffering from serious disease) or grandiose. Clear hallucinations and schizophrenic symptoms are generally absent. The disease runs waxing and waning course. These delusions must be present for at least 3 months for making the diagnosis (see Box No.11). The treatment is with antipsychotic drugs and psychosocial therapies including family intervention.

Box 10

ICD-10 Diagnostic Criteria for Persistent Delusional Disorder:

1) The presence of a delusion or a set of related delusions other than those listed as typical schizophrenic.
2) The delusion(s) in the person must be present for at least three months.
3) The general criteria for schizophrenia are not fulfilled.
4) Persistent hallucinations in any modality must not be present.
5) Exclude evidence of brain disease or a psychotic disorder due to psychoactive substance use or secondary to mood disorder.

The commonest examples are persecutory, grandiose, hypochondriacal, jealous or erotic delusions.

9.6 ACUTE AND TRANSIENT PSYCHOTIC DISORDERS

The psychosis occurs in association with an acute stress. It develops within about 2 weeks of one or more stressful events like bereavement, unexpected loss of partner or job, marriage etc. It is short lasting and complete recovery usually occurs within 2-3 months, often within a few weeks or even days. Hallucinations, delusions, rapid emotional changes, schizophrenic symptoms are the usual clinical features (see Box No.11). The treatment is with antipsychotics and recovery is often complete.

Box 11

ICD-10 Diagnostic Criteria for Acute and Transient Psychotic Disorder:

1) An acute onset of delusions, hallucinations, incomprehensible or incoherent speech, or any combination of these.
2) The time interval between the first appearance of any psychotic symptoms and the presentation of the fully developed disorder should not exceed two weeks.
3) Transient states of bewilderment, misidentification, or impairment of attention and concentration are present.
4) The disorder does not meet the symptomatic criteria for manic episode, depressive episode.
5) Exclude: evidence of brain disease or a psychotic disorder due to psychoactive substance use or serious metabolic disorder.

May be associated with acute stress (occurring within two weeks prior to evidence of first psychotic symptoms).

9.7 SCHIZOAFFECTIVE DISORDER

In this disorder, both affective (mood) and schizophrenic symptoms are prominent within the same episode. It is episodic disorder. The patient may have either depressive (schizo-depressive) or manic (schizo-manic) symptoms during the same episode. These patients generally respond to antipsychotic medications and mood stabilizers. Usually long term maintenance treatment is required.

Persons with psychosis generally are reluctant to seek medical help as they believe that there is nothing wrong with them. If a person has psychosis, we have to search for its causes. Psychosis can be caused by psychoactive substance use, psychological and physical conditions.

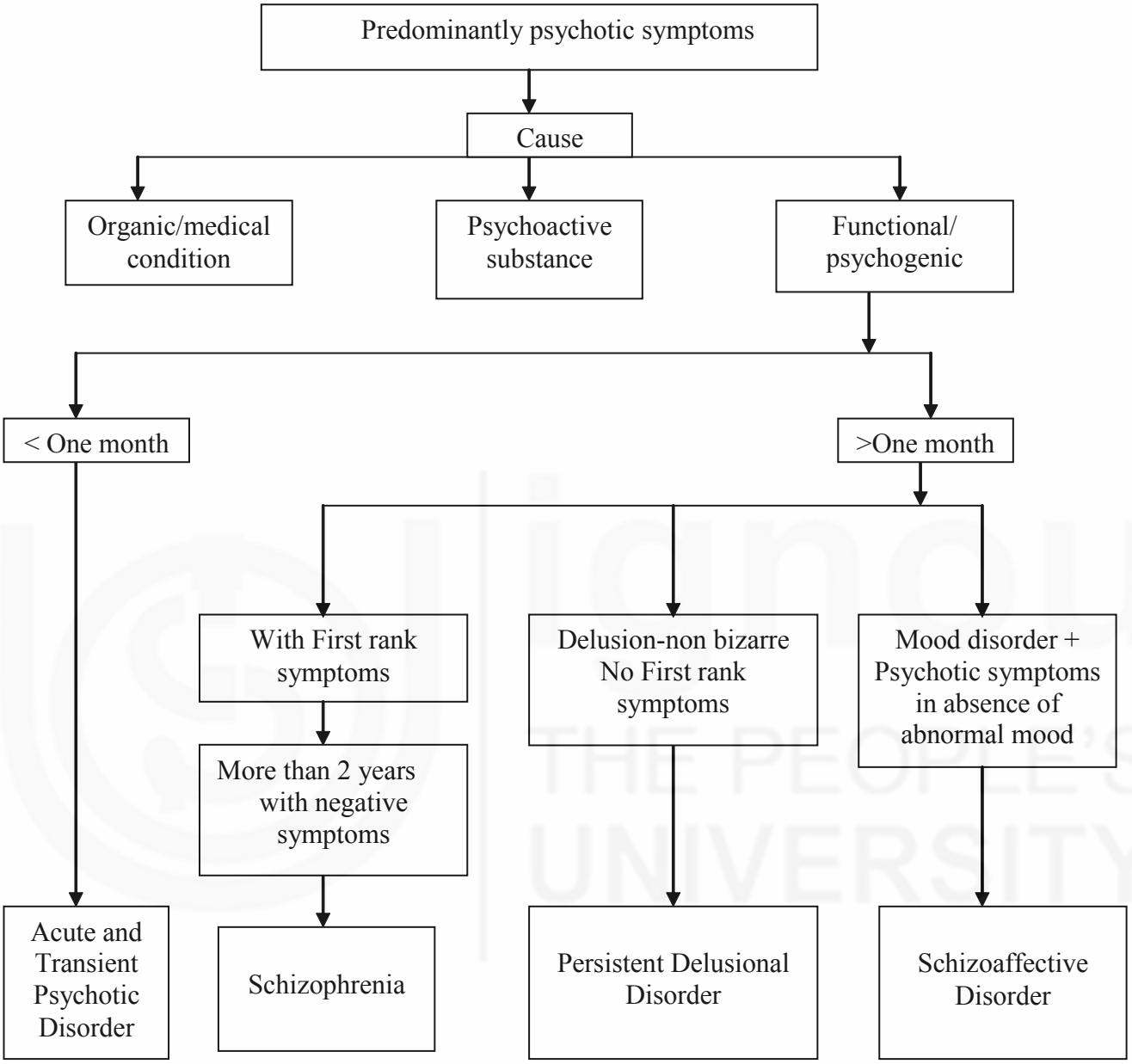

Figure 9.1: Diagnosing type of psychotic disorder in a person

Check Your Progress Exercise 9

Note: a) Read the following question carefully and answer in the space provided below.

b) Check your answer with that provided at the end of this Unit.

1) What will you tell the family members regarding the chances of recovery of a person suffering from schizophrenia?

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9.8 LET US SUM UP

In conclusion, schizophrenia does not mean split personality or multiple personality. Literally, it means split mind as there are characteristic disturbances of thinking, perceptions and emotions. Incidence rates per year of schizophrenia are between 0.1 and 0.4 per 1000 population. Life time prevalence of schizophrenia is about 1 per cent. It affects young people, occurs among both men and women with equal frequency, onset early in men. The patients with schizophrenia present with three groups of features these are: psychotic, negative and cognitive. Negative and cognitive symptoms are harder to recognize and treat.

There is no known single cause for schizophrenia; considered a biological disease which results from interplay of multiple factors like genetic and environmental factors as in many physical diseases, such as heart diseases.

The treatment for schizophrenia has three main components that are medications, psycho-education and family interventions, rehabilitation. Drugs called antipsychotics are the most important component of intervention. It is possible to treat patients on outpatient basis; few may require short term hospitalisation for 4 to 6 weeks. Most side-effects of antipsychotics are mild and time-limited and can be corrected by lowering the dosage or can be controlled by other medications. In patients with first episode, the drugs should be continued for a period of 1 to 2 years after improvement. In patients with multiple episodes and incomplete improvement, the drugs need to be continued indefinitely.

Compliance to treatment is the extent to which patients follow the treatment plans recommended by their doctors. There are a variety of reasons for poor drug compliance and various strategies can be used to improve the drug compliance. Even when patients with schizophrenia are relatively free of symptoms, they still have difficulties with communication, motivation, self-care, and establishing and maintaining relationships with others. These can be improved by psychosocial treatment.

Family-based interventions strengthen the resources of the family in its caring function by providing adequate knowledge about the illness and involving them in treatment issues. These relieve family burden and helping them to develop support mechanisms. These improve communication between family members and modify family interactions and attitudes.

9.9 GLOSSARY

Compliance : A term that is used to indicate a patient's correct following of medical advice. It is estimated that only 50 per cent of patients suffering from chronic diseases in developed countries follow treatment recommendations.

Counsel : Advice or guidance, especially as given from a knowledgeable person.

Delusions : These are false and unshakable beliefs that are held on inadequate grounds and cannot be

corrected by any amount of reasoning or evidence to the contrary. Similar beliefs are not held by majority of people of the same socio-cultural background.

Hallucinations : These are false perceptions without stimulus. Perceptions occur in one of the sensory modalities: touch, hearing, seeing, taste and smell.

Incidence : It is a measure of the risk of developing some new condition within a specified period of time. Although sometimes loosely expressed simply as the number of new cases during one year period.

Insight : In mental disorder it is the extent to which a person is able to recognise one's own mental illness.

Prevalence : In epidemiology, it is the total number of cases of the disease or disorder in the population at a given time. It includes all cases both old and new ones.

Psychiatric Rehabilitation : It includes a wide range of non-medical interventions for patients with schizophrenia and other psychotic illnesses. Rehabilitation measures put emphasis on social and vocational training to help patients and recovered patients to minimize their occupational dysfunction. Social skills training are also used.

Psychosis : A psychiatric condition in which a person has hallucinations, delusions, disorganised behaviour and impaired reality testing.

Side effect : Any result of a drug or therapy that occurs in addition to the intended effect, regardless of whether it is beneficial or undesirable.

9.10 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

1) Delusion is a false, unshakeable belief that is out of keeping with the patient's social and cultural background and this belief is not shared by other people of the same social and cultural background.

   Hallucination is defined as 'a perception without an object' referred to sense organs of the body. This false perception is not a sensory distortion or a misinterpretation, but which occurs at the same time as real perceptions.

2) Psychosis is defined broadly as impairment of reality testing. The person may have delusions or hallucinations or disorganised behaviour.

Check Your Progress Exercise 2

1) Psychosis can be caused by physical conditions known as organic psychosis, from psychoactive substance use such as cannabis known as substance induced psychosis or it can be without apparent cause known as psychological or functional psychosis.

Check Your Progress Exercise 3

1) Psychotic disorders other than schizophrenia in ICD-10 chapter V, mainly are:

   i) Schizotypal disorder,

   ii) Persistent delusional disorders,

   iii) Acute and transient psychotic disorders,

   iv) Induced delusional disorder,

   v) Schizoaffective disorder,

   vi) Other non-organic psychotic disorder, and

   vii) Unspecified non-organic psychosis.

Check Your Progress Exercise 4

1) Auditory hallucinations are the most common type of hallucinations in schizophrenia. Sometimes, patients may have visual or tactile or olfactory hallucinations.

   Following types of auditory hallucinations are characteristic of schizophrenia:

   - Running commentary: Voices comment on the behaviour,
   - Commanding: Voices command them to do things,
   - Third person: Voices talk to each other about the patient, and
   - Thought echo: Patients hear aloud exactly whatever they think.

   Somatic passivity is special type of hallucinations in which the patient believes that she or he is passive recipient of the bodily sensations caused by an external agency. The patient may report that electric sensations in her or his body are being caused by her or his neighbours and she or he is reluctantly receiving them causing her or him discomfort.

Check Your Progress Exercise 5

1) Delusions that are seen in schizophrenia are usually false, firm beliefs considered as strange by family members or friends of the patient. These can be any of the following type:

   - Delusion of control wherein patients believe that some external agency is controlling their emotions, behaviour or sensations and they have to unwillingly feel, do or experience these.

   - Delusion of reference in which patients believe that people are talking about them or are laughing at them even when it is not so in reality. They may believe that there is talk about them on television, radio and newspaper.

- Delusions of persecution where patients believe that they are being cheated, harassed or poisoned. They may believe that others are spying on them, plotting against them or their family members.
- Bizarre delusions are improbable and absurd beliefs, for example the patient may report that 'four persons are residing inside my stomach and whenever they fight among themselves they cause pain in my stomach'.
- Delusions of thought withdrawal and insertion in which patients believe that their thoughts are withdrawn or new thoughts are being inserted into their mind by some invisible external force.
- Delusion of thought broadcast where patients believe that their thoughts are known to others without their speaking them aloud through some invisible mechanism.
- Delusional perception in which patient attributes a new meaning, usually in the sense of self-reference, to a normally perceived object. For example, sudden belief in a patient that a tree in front of his house meant that he was not a man. This tree was there all these years in front of his house and he never thought of it earlier.

Check Your Progress Exercise 6

1) Main reasons for poor compliance to treatment in persons with schizophrenia are as follows:
   - Patient or family members may believe that schizophrenia is not a medical illness; they may not believe that medications can treat it,
   - No quick benefit and rather waiting for some more time, patient or family members can discard treatment,
   - Myth that drugs are mind controlling or drugs are addictive,
   - Prescribing doctors may not have explained the treatment plan adequately,
   - Side effects of the drugs,
   - Family members may incorrectly stop treatment when the patient is feeling better,
   - Substance abuse like alcohol, cannabis interfere with the effectiveness of treatment, leading to stopping the medications, and
   - Cost of treatment and long term of treatment.

Check Your Progress Exercise 7

1) Psychoeducation about schizophrenia is targeted towards patient and family members. Components included are:
   - Schizophrenia is a biological disease like heart disease with multi factorial causation.
   - Rationale for various treatments, side effects and dosage of drugs.

- Ensuring drug compliance.
- Variation in outcome.
- Keeping a record of symptoms, name of medications, side effects and effectiveness of the medications.
- Identification of symptoms early and to prevent a relapse.
- Role of drug compliance.
- Role of daily planned and structured routine, engaging in tasks or occupation.
- Providing encouragement and support to patient.
- Suggestions for coping with the disorder.

Check Your Progress Exercise 8

1) Pharmacological and psychosocial treatments are available for treatment of schizophrenia. Treatment components include drugs, psycho-education, family based interventions, cognitive behaviour therapy for individual symptoms like delusions or hallucinations, social skills training and rehabilitation. Drugs remain mainstay of treatment.

Check Your Progress Exercise 9

1) Regarding chances of recovery, it is seen that about 45 per cent show recovery after one or more episodes, and about 20 per cent show continuing symptoms and associated disability, and about 35 per cent show a mixed pattern with varying degrees of remission and exacerbations of different length as reported by major studies involving treatment of large number of persons with schizophrenia. However these can not be applied to individual cases. Some pointers to predict good chances of recovery are late age of onset of disorder, early treatment seeking, women, presentation with positive symptoms, well adjusted work and social functioning prior to onset of disorder, good social support and absence of substance abuse, absence of symptoms of brain damage. There is no cure but only treatment is possible; even if one is improved totally there can deficits in social functioning and cognitive functioning and might require long term drugs and other psychosocial interventions for better outcome.

9.11 UNIT END QUESTIONS

1) What are the manifestations of psychosis?
2) What do you mean by organic psychosis? What are the different types of psychotic disorders?
3) What are the false beliefs that persons with schizophrenia may have?
4) How is diagnosis of a psychotic disorder made? How will you predict who will respond better to treatment?

9.12 FURTHER READINGS AND REFERENCES

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UNIT 10 SUBSTANCE USE DISORDERS

Structure

10.1 Introduction

10.2 Substance Use Disorders: Classification and Definitions

- 10.2.1 Types of Drugs
- 10.2.2 Important Concepts and Definitions
- 10.2.3 Diagnosis Criteria

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10.4 Causes of Substance Abuse and Dependence

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10.5 Consequences of Substance Use

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10.1 INTRODUCTION

Substance Use Disorder (SUD) is a rapidly growing problem that places a huge burden on the society because of the myriad of physical, familial, social, financial and legal complications it generates. SUD has also come to recent intense focus, because the population of substance users is at a heightened risk of receiving and subsequently transmitting HIV due to high risk sexual and injecting behaviour.

Treatment of SUD is challenging, as it takes all the skills of counselling to understand the unique reasons of each substance user as to why one takes drugs and to motivate her or him to give it up.

The work of a counsellor or psychologist begins right at the beginning, when a user is actively using drugs where the goal is to motivate the client into treatment; to the end where an ex-user has quit using drugs but has increased risk of restarting again; and all stages in between where the user is contemplating, planning or actually leaving the substance. Over the past half a decade or so, scientific evidence have gathered from all over the world which now enable us to provide effective structured psychosocial interventions that help the client to move on from one stage of motivation to the next, ultimately making him capable to live a healthy drug free life.

Additionally all drugs of abuse are not the same and a counsellor must understand the different patterns of addiction associated with each "drug". A counselling effective for cigarette might be ineffective for heroine. Even in a group of same "drug" users all "addicts" might not have the same severity of "addiction". Some users take drug in a "harmful" manner while others use it in a "dependent pattern".

This Unit therefore attempts to guide the learner through the basic concepts of drugs, addiction, characteristics of the drug user and the complication that drug use brings into a client's life.

Objectives

After studying this Unit, you will be able to:

- Understand the various types of drugs used for addiction;
- Explain the stages and the severity of addiction and the meaning of terms like "abuse" and "dependence";
- Identify the people who use drugs;
- Discuss the magnitude of the drug use problem in India;
- Understand basic concepts of why drug dependence happens, including genetic, biological and psychological theories for why people use drugs; and
- Explain the consequence of drug use and the complication that ensues in a drug user's life.

10.2 SUBSTANCE USE DISORDERS: CLASSIFICATION AND DEFINITIONS

The commonest terms that one would associate with drug use is "Drug addiction" and "Drug addict". These terms however have fallen to disrepute because of their pejorative and derogatory implications, and new terms like "Substance use disorder(s)" and "Substance user(s)" have taken their place. It is also being increasingly recognized that substance use is not an all or none phenomenon (that is every user is an addict and a non-user is a Good Samaritan) but a complex spectrum ranging from "occasional use", "recreational use" to "dependent use". Further confusion arises from the fact that there is no single, precise definition of the word "Drug", and its meaning changes from time to time (Cocaine, now a drug was once a constituent of a popular beverage that is Coca Cola!) and place to place (Is Coffee a drug?). In this section, we will look into these important concepts and try to understand the current terminologies that are used to describe the "Drug Addict" (Substance User) and his "Drug".

10.2.1 Types of Drugs

A *drug*[1] , broadly speaking, is any chemical substance that, when absorbed into the body of a living organism, alters normal bodily function. There is no single definition, as there are different meanings in medicine, government regulations, and colloquial usage.

[1] Throughout this Unit, terms 'drug' and 'substance' have been used interchangeably.

In the area of Substance Use Disorders (SUD) a *drug* or a *substance* is any chemical that, upon consumption, leads to changes in the functioning of human mind and more specifically leads to a state of intoxication. These drugs or substances are also referred to as *Narcotics* and *Psychotropics*. Indeed, the law regarding these drugs and psychoactive substances in India is called *the NDPS Act,* The Narcotic Drugs and Psycho-Tropic Substances (NDPS) Act, 1985. This Act introduces the terms *"Narcotic Drugs"* and *"Psychotropic Substances"*. As per international conventions certain substances have been listed under the category of "Narcotic drugs" and certain others have been placed under "Psycho-Tropic Substances."

The term *Narcotic* is of Greek origin and refers to agents that 'benumb or deaden, causing loss of feeling or paralysis'. The NDPS Act lists coca leaf, cannabis (hemp), opium and poppy straw including all the manufactured goods from them as narcotics. A *Psychotropic substance* is a chemical that acts primarily upon the central nervous system where it alters brain function, resulting in temporary changes in perception, mood, consciousness and behaviour. The NDPS Act has a list of 110 substances, and lists "all substance, natural or synthetic, or any natural material or any salt or preparation of such substance or material" as psychotropic substances.

Some of the psychotropic substances like alcoholic beverages and nicotine (tobacco), are legally allowed for trade and consumption in India (albeit in a strictly regulated fashion). These are called *Licit* (or Legal) substances. The trade and consumption of many other substances are strictly prohibited and are therefore called *Illicit* (or Illegal) substances.

Popular literature often talks about substances like *Recreational Drugs / Party Drugs / Designer Drugs* (drugs used to enhance an experience), *Entheogen* (spiritual and religious use), *Smart Drugs* (claimed to improve human abilities, taken by students and atheletes) etc. They all are subtypes of psychotropic substances and do not have any particular medical significance. The World Health Organization (WHO) lists substance use disorders for the following classes of substances:

Box 1

Substances listed by WHO

- Alcohol,
- Opioids,
- Cannabis,
- Sedative Hypnotics, and
- Cocaine.
- Other stimulants, including caffeine
- Hallucinogens,
- Tobacco, and
- Volatile solvents.

A brief description of common substances of use is as follows:

1) Alcohol

One of the oldest and most popular psychotropic substance drug known to mankind is alcohol. In the ancient Indian texts one finds mention of *Madira* and *Sura*, which are believed to be alcoholic preparations. Ethyl alcohol (ethanol) is the active ingredient. 'Distilled spirits' such as whisky, brandy, rum, vodka and gin contain 35 per cent to 50 per cent (usually about 42 per cent in India) alcohol whereas beers ordinarily contain 4 to 8 per cent. Wines usually contain approximately 12 per cent alcohol. Due to these variations therefore, alcoholic drinks are measured in *"Standard units"*, one standard unit of alcohol is 10ml of absolute alcohol. The rule of thumb for comparison is, one Standard Drink = ½ bottle of Standard Beer = ¼ bottle of Strong Beer = 1 peg (30 ml.) Spirits = ½ packet of Arrack (that is country liquor) = 1 glass (125 ml.) of table wine. This will help readers identify the magnitude of the drinking problem of a particular person.

The effects of alcohol on the user depend on the level of alcohol in the blood (called: Blood Alcohol Concentration or BAC) and are as follows:

Box 2

BAC and its effects

BAC in mg/dl	***Effects***
Around 40 to 80	Feeling of happiness, feeling of relaxation and talking freely, some clumsy movements of hands and legs, reduced alertness but user believes himself to be alert.
More than 80	Noisy, moody, impaired judgement, impaired driving ability.
At 100-200	Blurred vision, unsteady gait, talking loudly, slurred speech, quarrelsome, aggressive, gross motor in-coordination.
At 200-300	Inability to remember the experience – blackout.
More than 300	Coma and in higher levels even death.

Alcoholic drinks available in India can be divided into *Indian Made Foreign Liquor* (IMFL), which are drinks made in India according to specifications of International brands; *Indian Made Country Liquor* (IMCL), which are drinks made in India with government license; and *Home Brewed Country Liquor* (HBCL), which are illegally brewed. Most cases of toxicity develop due to other chemicals substances added to such home brewed liquor to make them stronger.

2) Opioids

Opium is the prototype opioid which is derived from the poppy plant (*Papaver somniferum*). An opioid is any drug that acts like opium in the human body (as described below). There are three broad classes of opioids:

i) Naturally occurring substances, such as morphine and codeine;

ii) Semi-synthetics such as heroin, oxycodone that are produced by modifying natural substances; and

iii) Pure synthetics such as fentanyl and methadone that are not produced from opium but act just like opium on the human brain. When given to a subject who has not previously experienced the effects of the drug, opioids produce an unpleasant feeling. However on continued use, injecting heroin or morphine produces a short lived (less than a minute) intense experience – "rush". It is described as a *state of profound happiness*. There is also pain relief due to inability to feel any pain (opioids are used as medications for pain-relief for this property) and a dreamlike state characterised by decreased responsiveness to the environment. Excitation with convulsions may occur at higher doses.

Heroin, popularly called 'smack' or 'brown sugar' is one of the very common forms to be used. Heroin may be smoked, chased (inhaled) or injected (intramuscular or intravenous). However, '*chasing*' (inhaling the vapours emanating from a heated metallic foil) is the commonest mode of heroin use in India. Several other opioids that are used as medications (for pain relief) are also abused. Oral ingestion of opium as well as smoking through a special wooden pipe has been the traditional Indian method. "*Khas*" the seeds of poppy plant are the only product that is non-narcotic and are widely used in Indian cuisines.

3) Cannabis

Cannabis is derived from the plant *cannabis sativa*, which grows in the wild all around the world including India. At low dose, cannabis causes a state of well being (high) and a dreamy, state of enjoyment. This is generally followed by a period of drowsiness. Even relatively modest amounts of cannabis can impair coordination and make the operation of heavy machinery hazardous. Dexterity and hand steadiness are both adversely affected. At medium dose perceptual and sensory distortions occur. Capacity for depth perception declines and scenes appear to have greater depth. Sounds and colours may become more intense along with *derealization* (what is seen or heard has an air of unreality) and *depersonalization* (one's own body feels unreal). Subjective sense of time seems to be much slower than it actually is. Sometimes restlessness, fear and even panic may spoil the experience ("bad trip"). At higher doses delirium (confusion), psychosis and paranoid ideations (unwarranted suspicion) occur but are generally self limited.

Cannabis is also available in various forms *viz*: *Bhang,* paste of leaves of the plant or dried leaves, *Ganja* – dried flowering stem of the plant and *Charas* or *hashish* – extracted from the resin covering the plant. It can be smoked in cigarettes, or in clay pipes (most common method in religious settings and rural areas) or in water pipes like the traditional *hookah* or modern '*bong*', where the smoke passes through water before being inhaled. Interestingly, though products of the same cannabis plant, *Bhang*, which is used in various religious festivals, is legal in India; while *Charas* and *Ganja* are illegal.

4) Nicotine

Nicotine is the main active chemical in Tobacco, yet another legal and popular substance the world over. Nicotine generally causes heightened alertness and improved functioning in continuous repetitive tasks. Users also report relaxation on use, and decrease in fatigue with smoking and irritability, restlessness, anger

and frustration with difficulty in concentration and sleep while trying to give it up.

Tobacco is the commonest substance of use in India. It is legally and socially sanctioned and so used in a wide variety of ways including smoking, chewing, applying to gums, sucking and gargling. Beedi smoking is the most popular form of smoking in India, while cigarettes come second. *Chewing paan* (betel leaf) with tobacco is the major form of smokeless-tobacco use and peculiar to our region. Dry tobacco and areca nut preparations such as *paan masala*, *gutka* and *mawa* are also popular and highly addictive.

5) Sedative or Hypnotics

These are medications that are prescribed by doctors to reduce anxiety and produce sleep. They are also abusable because of their easy availability and cheap price. Though detailed discussion is outside the scope of this Unit, certain medications including cough syrups are widely used.

6) Cocaine

A common substance in Americas and Europe, it is extracted from the leaves of *Erythroxylon Coca*, a plant that grows wildly in Latin American countries. As of now, it is not widely available in India. It is generally snorted, but can also be chewed and smoked. Its use causes a short lived sensation (7 to 10 minutes) of "rush" which is felt intensely pleasurable to the user.

7) Stimulants

These are a group of substances that cause activation of the brain thereby increasing alertness, producing euphoria, improving performance and decreasing fatigue.

8) Hallucinogens

These are also called *Psychedelics*. These are a group of various drugs that have the common property to alter how a person sees or hears things (that is produce hallucinations). The classic example is LSD (Lysergic Acid Diethyamide), which has been described to make one see music and hear light. Other substances of this group include PCP (Phencyclidine) and Ecstasy.

9) Inhalants

These are substances that give vapours without heating. They are mostly petroleum products and are ubiquitous, present with glue, thinners, cleaners, solvents etc. The vapours are "huffed", sniffed or "Bagged" (re-breathing from a bag). Their use also produces a rush and sense of wellbeing and an urge to reuse after only five to six minutes. On regular use, however, they are associated with brain damage and multiple liver and lung problems.

10) Injecting Drug Use (IDU)

A special mention needs to be made about this pattern of drug use whereby the users inject themselves with drugs, mostly Opioids with or without Sedative/ Hypnotics. Apart from the risk inherent to the substance used, injecting drug use poses additional risks such as injection-site infection, thrombosis (vessel gets clotted), skin necrosis (skin becomes dead and falls off), and spread of various infections, most notable HIV (Human Immune-Deficiency Virus).

10.2.2 Important Concepts and Definitions

Various terms have been used to describe the phenomenon of substance use. These include terms such as "use", "abuse", "misuse", "dependence" etc. The following section describes the meaning of these terms.

1) Use

Use is simply the ingestion of alcohol or other drugs *without experiencing any negative consequences.* It may be *social use*, in parties and marriages; *recreational use, experimentation* and group activity by the youth, *dietary practice* or may be *religious ritual.* However, use is not to be taken lightly because once initiated, susceptible individuals may graduate to more problematic categories of abuse and even dependence.

For example, if a student had beer at a party and his parents had not found out we could say he had USED alcohol.

2) Misuse

When a person experiences negative consequence from the use of alcohol or other drugs it is clearly misuse.

For example, a 40-year old man uses alcohol occasionally, his boss throws a party and the man drinks more than usual and on the way home he is arrested by police. This man has clearly misused alcohol.

3) Abuse

Abuse is a maladaptive pattern of use resulting in physical, social, legal harm or continued use in-spite of such negative consequences.

For example, the same 40-year old man continues drinking alcohol even after the incident and continues to experience negative consequences.

4) Harmful use

A pattern of substance use that is causing damage to health. The damage may be physical or mental. To clearly state harmful use one requires that actual damage should have been caused to the mental or physical health of the user. Mere possibility of harm is not sufficient to label harmful use. The terms 'Abuse' and 'Harmful use' are quite similar in implication except that 'Abuse' includes legal and social dimensions in addition to health, which is the sole consideration of the term 'Harmful use'. The World Health Organisation (WHO) uses the term 'Harmful use' in their classificatory system while American authorities prefer the term 'Abuse'.

5) Dependence

First and foremost it is necessary to understand that Drug Dependence is not a "disease" but a "syndrome" (See Box 4). This implies that there is no single test or sign or symptom that can tell us for sure if a person is having drug dependence. Rather, when a number of signs and symptoms are found in cluster in a substance user and a pattern of use becomes evident then the diagnosis of dependence is reached.

Box 4

When something goes wrong in the body it generally manifests in signs (observable to others; like fever, rash) and symptoms (felt by self; like pain, headache). If the root cause of the problem is found it can be promptly treated and condition is called a "disease". But even if the root cause is not found it is prudent to recognise such cluster of signs and symptoms because once a treatment is found to remit the cluster it can be utilised every time the same cluster of signs or symptoms appear. Such a cluster of signs or symptoms, occurring more frequently than by chance, constitutes a "syndrome". Dependence is still a syndrome because it is not known for sure why some persons continue to use substances while others can stop at will.

The World Health Organisation (WHO) defines *Substance Dependence Syndrome* as "A cluster of physiological, behavioural and cognitive phenomena in which use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had greater value". The complete WHO diagnostic guideline is given in the next section.

6) Addiction

Addiction is an older term which has similar meaning as that of dependence. It is not favoured in current diagnostic systems because of its derogatory connotation. However, it is ingrained in literature and hence continues to be used.

10.2.3 Diagnostic Criteria

The following box presents the guidelines provided by the World Health Organisation for a diagnosis of substance dependence.

Box 5

WHO Diagnostic guidelines for substance dependence

A definite diagnosis of dependence should usually be made only if three or more of the following have been present together at some time during the previous year:

a) A strong desire or sense of compulsion to take the substance;

b) Difficulties in controlling substance-taking behaviour in terms of its onset, termination, or levels of use;

c) A physiological withdrawal state when substance use has ceased or has been reduced, as evidenced by the characteristic withdrawal syndrome for the substance; or use of the same (or closely related) substance with the intention of relieving or avoiding withdrawal symptoms;

d) Evidence of tolerance, such that increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses (clear examples of this are found in alcohol- and opiate-dependent individuals who may take daily doses sufficient to incapacitate or kill nontolerant users);

e) Progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects;

f) Persisting with substance use despite clear evidence of overtly harmful consequences, such as harm to the liver through excessive drinking, depressive mood states consequent to periods of heavy substance use, or drug-related impairment of cognitive functioning; efforts should be made to determine that the user was actually, or could be expected to be, aware of the nature and extent of the harm.

Check Your Progress Exercise 1

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) Which of the following is a legal substance of abuse?

a) Cannabis

b) Hashish

c) Bhang

d) Charas

2) Drunken driving is punishable in India if the blood alcohol level is-

a) 10 gm%

b) 20 gm%

c) 30 gm%

d) 40 gm%

3) Which of the following substances have the highest addictive potential?

a) Nicotine

b) Cannabis

c) Alcohol

d) Heroin

4) For a diagnosis of harmful use:

a) Actual physical harm needs to be documented

b) Knowledge of physical harm is sufficient

c) Actual harm to others needs to be documented

d) Any form of social, familial, legal harm is considered harmful use

10.3 EPIDEMIOLOGY OF SUBSTANCE USE IN INDIA

Substance use has been prevalent in India since time immemorial with alcohol consumption sanctioned in mythological texts and opium use flourishing under the British rule. However the magnitude of various substances used in the country was not known till the nineties when some small surveys were done and national

values were extrapolated from their results. Ultimately in 2000-2001, the Indian government carried out a massive national survey, and assessed the extent and pattern of drug use in India. Since then, our knowledge of magnitude of drug use in the country has further evolved.

10.3.1 Common Substances Used in India

The national survey found that tobacco, alcohol, cannabis, opium and heroin are the major drugs of abuse in the country. The following table gives the estimate of various substance users in the country.

Table 10.1: Common substances used in India

Substance used	Percentage of males who are 'Current Users' that is, who used the substance in the last month (in percentage)	Estimates of Number of Users in the country in 2001 (in millions)	Dependent users in the country (requiring urgent treatment, in millions)
Tobacco	55.8	162.86	—
Alcohol	21	62.5	10.5
Cannabis	3	8.7	2.3
Opiates	0.7	2.0	0.5

Source: The National Survey on Extent Pattern and Trends of Drug Abuse in India, UNODC & MSJE, 2004

It was observed that between 17 and 26 percent of current users of various substances were dependent users. Thus, the proportion of dependent users would be around one quarter of the total drug using population requiring immediate treatment for substance use problem. Around 22.3 per cent of drug users were found to be poly-drug users implying greater severity of problems. Drug abuse was seen in both rural and urban India, which is contrary to the previously held belief that drug use is a problem of the urban population. Attempt was also specially made to find out the number of people reporting Injecting Drug Use (IDU) ('ever'). Around 0.1 per cent of population reported IDU.

Alcohol is the commonest substance used in India (apart from tobacco). Even then, when compared to other similar countries (China, 87.3 per cent) annual prevalence of drinking in India is low (21 per cent). There is no scope for complacency however, as the worrying development is that over two decades the consumption of alcohol in India has increased by 106 percent as against many countries where the consumption of alcohol actually declined.

It has been observed that all substance users from community do not seek treatment. For example, nicotine and cannabis are widely used in communities, but only a minority of population seeks treatment for use of these substances. In contrast injection drug users and heroin (smack) users come to de-addiction centers more, presumably as a result of greater complication rates associated with these substances. The implications of these observations are twofold. Firstly, people need to be educated about the complications of some drugs (nicotine,

cannabis) which are perceived as mild or less harmful in the community and secondly, there is urgent need to develop treatment plans for some other drugs (opioids etc.) although their use in general population might be low.

10.3.2 Profile of Substance Users in India

1) **Gender of substance users:** It is safe to say that substance use is primarily a phenomenon occurring among the males in India; only a small minority of women indulges in substance use. In tribal areas, consumption of home brewed alcoholic beverages occurs among both the sexes. Similarly, raw opium consumption for therapeutic and other traditional purpose is prevalent in women in Rajasthan.

2) **Age:** The age group of 15-24 years has emerged as critical period for the initiation of substance use; more than half of all substances users initiate the use of substance in this period. Tobacco use starts at an even earlier age. Quite often, the initiation of substance use occurs with so called '*softer drugs*' (that is tobacco, alcohol), which then goes on to progress to use of '*harder drugs*' such as cannabis and heroin.

3) **Occupation:** Substance use has been reported from different occupational categories such as students, factory employees, auto rickshaw drivers, sex-workers, professionals and businessmen. About one-third to half the drug dependent individuals were found to be either currently unemployed or had never been employed.

4) **Risk behaviours:** In injecting drug users sharing of needles was extremely common and overall varied between 58 and 97 per cent. Other high-risk behaviour i.e. unsafe sex and sex with commercial sex workers (CSWs) was also seen under the use of substances.

10.3.3 Local Variations in Extent and Pattern of Substance Use in India

Though the phenomenon of substance use is widely prevalent across the country and no region of the country can be said to be entirely free of the substance use problems, significant regional variations in the types of drugs used have been found. The following table summarises the situation.

Table 10.2 Prevalance of substance use across the country

Region	States with high prevalence of		
	Alcohol use	**Cannabis use**	**Opiate use**
North-East	Nagaland, Arunachal Pradesh, Manipur,	Manipur	Mizoram, Nagaland, Arunachal Pradesh
North	Himachal Pradesh, Haryana		Haryana, Himachal Pradesh, Punjab
East		Bihar	
West			Rajasthan

Thus, it must be realised that substance abuse is now not a local trend indulged by some fringe groups, but a nationwide phenomenon sweeping all nooks and corners of the country and all kinds of people.

Check Your Progress Exercise 2

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with that provided at the end of this Unit.

1) Most common substance of abuse in India is:
   a) Cannabis
   b) Tobacco
   c) Alcohol
   d) Opium

2) The most common illicit (illegal) substance of use in India is:
   a) Cannabis
   b) Tobacco
   c) Alcohol
   d) Opium

3) Early onset of substance use is associated with:
   a) More severe dependence
   b) More rapid shift to harder drugs
   c) More co-morbid illness like antisocial personality
   d) All of the above

4) Women substance users generally:
   a) Are introduced to substance use by their male partners
   b) Have a more rapid downhill course
   c) Come for treatment less often
   d) All of the above

10.4 CAUSES OF SUBSTANCE ABUSE AND DEPENDENCE

There is no simple answer to the question — why people take drugs? Many hypotheses exist to explain the occurrence of drug dependence. Some of these are moral model (use seen as sin/crime), characterological (use seen as a defect in personality), conditioning model (use as a result of learning new behaviour), and biomedical model (genetic and physiological/biological cause of SUD). However, it is not possible to explain the phenomenon of SUD based on one model exclusively. Currently SUDs are best conceptualized as bio-psycho-social in origin that is a variety of factors interact with each other to result in substance abuse and dependence. Let us take a brief look at the current understanding of substance use disorder.

10.4.1 Substance Abuse: Biological Causes

1) Genetic

Many studies have tried to find if drug use is a heritable condition, that is, if a person is predisposed from birth to become a drug addict. Researchers found that sons of alcoholic fathers took to drinking more frequently, twins separated at birth showed similar drug use pattern later in life and children of non-alcoholic parents adopted by liberal alcoholic families were less susceptible to alcohol use! Indeed for alcoholism around 40 to 60 percent of the predisposition is actually heritable (runs in families). For other drugs too, genetic predisposition has been found, *albeit* to a lesser extent. Recent genome wide scans are trying to pinpoint if we have a drug dependence gene in us.

2) Neurobiological Mechanisms

Brain researchers have pinpointed a *pleasure centre* in the brain, which becomes activated when 'good' (that is likable) things like food, sex, music comes our way. It has been shown that drug use stimulates the same pleasure centre and, therefore, is felt by the user as a highly satisfying and rewarding experience, resulting in repeated use. Indeed, so rewarding is this experience that even in laboratory conditions, animals like rats who could stimulate their own pleasure centre by pushing a lever (after an operation that placed an electrode in their brain) continued doing it thousands of times, till they died of exhaustion.

10.4.2 Substance Use: Environmental Causes

1) Drug Related Factors

Availability and social sanction of drug use are the chief drug related factors that promote initiation and continuation of use. The very fact that socially sanctioned drugs like alcohol and tobacco are the gateway drugs proves that availability plays major role in initiation. Studies have shown that for alcohol and tobacco, to certain extent, consumption has gone down whenever their price has increased. Availability also decides the pattern of drug use. When there was a sudden decrease in Indian market of heroin due intensive law-enforcement, many heroin smokers shifted to injecting route of drug use (which was cheaper and easily available).

Additionally smoking a drug or injecting it into a vein increases its addictive potential, as compared to drinking it. Both smoked and injected drugs enter the brain within seconds, producing a powerful rush of pleasure. However, this intense high can fade within a few minutes, taking the user down to lower, more normal levels. It is a starkly felt contrast, and scientists believe that this low feeling drives individuals to repeated drug abuse in an attempt to recapture the high pleasurable state.

Worldwide observations have found that a sizable population of drug users reported onset of drug use while they were young. Users generally started with softer drugs like alcohol, cannabis and then gradually graduated to harder drugs like opioids. These observations have given rise to the concept of *gateway hypothesis,* which says that drug use is a developmental sequence in which earlier drug use results in greater risk of use of later drugs. Nicotine and alcohol have been labeled as *gateway drugs* because they are socially sanctioned and provide the gateway of entry for a novice user to the world of drugs.

2) Social/Cultural/Legal Factors

Environmental risk factors are characteristics in a person's surroundings that increase their likelihood of becoming addicted to drugs. A person may have many environments, or domains, of influence such as the community, family, school and friends. Individuals' connection with the community in which they live plays a big part in their likelihood of using drugs. Statistics show that if a person's community has favourable attitudes toward drug use the risk of substance use is increased. Even religious proscriptions modify drug use as evidenced by the low use of alcohol in Islamic countries. The single biggest contributing factor to drug use risk is having friends (that is peer group) who engage in drug use. Family conflict and home management problems are contributing factors in drug abuse risk. If parents have favourable attitudes towards drug use or use drugs themselves, often their children will be more likely to use drugs. Conversely, a substance user is often in conflict with family and authority resulting in pushing her or him further to the accepting drug using peer group. Legal and policy issues not only govern the availability of drugs but also often result in incarceration of soft drug users who learn use of other and harder drugs in jail.

10.4.3 Substance Use: Psychological Causes

1) Concept of 'Self Medication'

A model of '*self-medication*' as an etiological factor in substance use has been proposed. It is believed that many drug users are trying to counteract their "painful feelings" by taking drugs. In this light, drug act as a kind of medication, helping the user to alleviate his emotional problems. By this principle chronic cannabis users may be seen as self-medicating for anxiety problems. Alcohol may be used to alleviate panic and anxiety. Opioids may be used to control anger and amphetamines to alleviate depression. Cocaine is thought to help overcome fatigue and alleviate depression in some individuals. While such use may provide immediate relief of some symptoms, but in long term drug use may itself produce other psychiatric illness.

Psychologists also see substance use as a *learned behaviour* picked up from parents and peers, and describe continued use as forms of classical and/or operant conditioning.

Conditioned Behaviours

We often learn to associate one behaviour with another – a cigarette after dinner, a cup of coffee after completion of work etc. Over time such behavioral associations become fixed and it becomes difficult to alter these behaviours. Such "classically conditioned" behaviours significantly contribute to the continuation of drug use, even when the client is trying to quit.

We also learn to do many things to get a reward or avoid a punishment – study to avoid failing, dress well to be complimented by others etc. Use of substance, also, similarly rewards the user by giving a high, and, non-use punishes the user by withdrawals. Over time these rewards and punishments become subconsciously ingrained and the client may be very averse to change her or his behaviour for the fear of punishment or losing the reward. Such behaviours are then said to be due to "operant conditioning".

2) Personality Related Variables

Several common personality traits (that is, patterns of feeling and behaving in particular situations) have been observed in people who take up and continue using drugs. "Low frustration tolerance" and "sensation seeking" are by far the most studied of them. People with low frustration tolerance seek to avoid immediate pain at the cost of long-term stress and defeatism. They take to drugs to escape the simple and inevitable problems of daily life. Sensation seeking on other hand focuses on the need for new and varied experiences through risky behaviour. Doing things at the spur of the moment without consideration of outcome (*impulsivity*) and nonconformity to social rules and norms are integral part of their lives. Many substance users also suffer from inability to experience pleasure from normal activities (*anhedonia*) or understand their own emotions (*alexithymia*) and therefore require a stronger high to feel pleasure. Such personality traits have been postulated to maintain substance use in affected persons.

These models of causation of SUD are not mutually exclusive and generally many factors overlap in every substance user to result in her or his dependence on substances. Someone may have a genetic vulnerability, due to which she or he is predisposed to substance use disorders. This individual finds herself or himself in an environment where a substance (say alcohol) is easily available and she or he also has many alcohol using friends. The individual may initiate taking alcohol due to pressure by her or his friends and after finding that it is pleasurable and reduces her or his anxiety, may continue to drink. Then, after long periods of continuous use her or his body may become physically dependent on alcohol (that is, in absence of alcohol she or he would experience distressing withdrawal symptoms). Now in order to relieve these symptoms as well as to continue experiencing pleasure she or he will continue to drink and would ultimately suffer from alcohol dependence. The following diagram will help to understand the interplay of the various factors leading to drug use.

The simple illustration below shows how various factors contribute to the phenomenon of substance use.

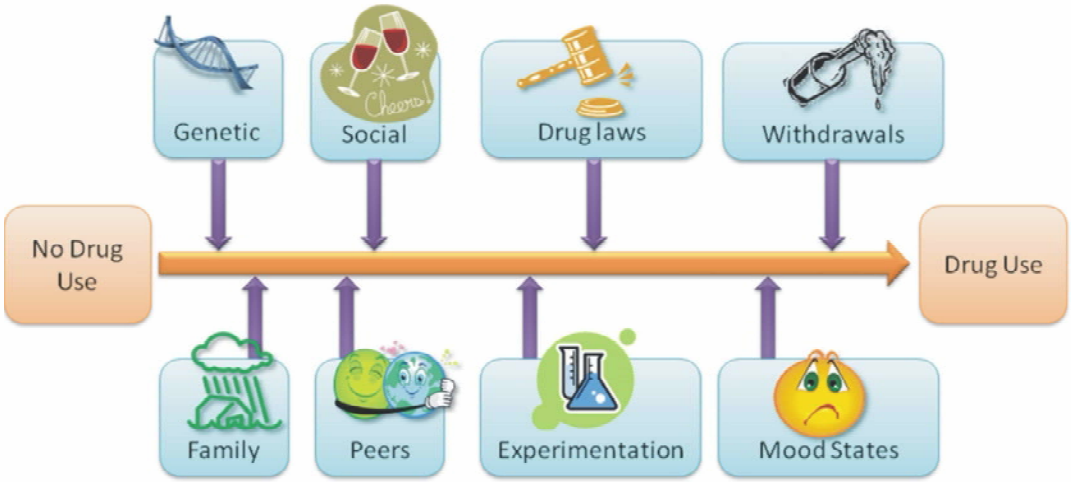

Fig. 10.1 Illustration showing various factors leading to substance use

Check Your Progress Exercise 3

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) The commonest chemical substance in brain, which is implicated in addiction of substances is:

   a) Dopamine

   b) Serotonine

   c) Adrenaline

   d) GABA

2) The single most important environmental factor for drug use starting is:

   a) Poor socio-economic status

   b) Substance use in father

   c) Substance use in friends

   d) Substance availability in the locality

3) Gateway hypothesis states that:

   a) Softer drugs lead to subsequent harder drug use

   b) Drug use is the gateway to the world of crime

   c) Ports and harbours are the major gateway of influx of illicit drugs in any country

   d) Addictive potential of a drug depends on the way (injection/ smoking) the drug is used

4) Drug use happens mostly due to:

   a) Genetic cause

   b) Environmental cause

   c) Depends in individual cases

   d) Suitable environment results in manifestation of the genetic predisposition

10.5 CONSEQUENCES OF SUBSTANCE USE

It is necessary to know the widespread consequences of substance use on the user, her or his family and the society at large. Such knowledge not only helps us to understand the disorder better but also can be used during counselling sessions to point out to the user, harms of her or his behaviour which are not imminently visible, thus helping her or him to shift her or his decisional balance. Also outcomes of treatment are measured not only by the direct decrease in substance use but also by indirect decrease in such harmful consequences.

10.5.1 Physical Consequences

Physical complication of drug use are varied and numerous and differ from substance to substance. In general, any drug harms the body in acute use by

intoxication and by overdose toxicity. Acute alcohol overdose can cause fall, unconsciousness, severe vomiting, bleeding in stomach, and sedation, progressing to coma and ultimately death. Adulterants of alcohol can cause blindness, and even death. Opioids, cannabis and other drugs can cause various mental illnesses including the severe ones like psychosis in overdose. Chronic (long-term) use causes harm to almost all organ systems of the human body. Jaundice and liver-diseases (alcohol), dementia (alcohol), cardiac problems (alcohol), cancer (tobacco and alcohol), asthma (tobacco), viral hepatitis (IDU), HIV (IDU), psychiatric illness (most drugs) represent only a tiny fraction of the list. Even sudden stoppage of drugs by a dependent user can cause severe physical symptoms in the withdrawal state, which sometimes may be fatal. Rather than listing all possible physical harm in each case, it is important to find out what physical harm has actually occurred to the user and show her or him the benefits she or he will have on leaving substance.

10.5.2 Social, Familial and Economic Consequences

It must be remembered that the segment of the population, which most commonly is affected by the substance use problems, is young adult males. In other words people who are most productive members of any society are ironically most vulnerable to substance use disorders. Apart from the direct economic loss of money spent on substances (which can go up to thousands of rupees per day), substance users face various indirect monetary loss due to loss in productivity, absenteeism from work, being expelled from job etc. Adolescent users drop out from school, thereby curtailing all future earning capabilities. Multiple physical complications and recurrent hospitalisations drain money. Stigma of substance use prevents them from getting job even when they are trying to quit substance.

Family members of substance users bear the major burden. Apart from money being diverted from family fund for sustaining substance use behaviour, the whole family suffers from the stigma of drug use and discrimination. Stories of families having difficulty in finding prospective brides and grooms, when one member of the family is a substance user, are fairly common. On a more personal level substance users are often in conflict with family members. In India, as most users are males and dominant members of the family, women suffer silently from marital physical abuse, sex without consent and risk of HIV infection secondarily transmitted to them by their husbands. Children of such dysfunctional families are not spared and often suffer from psychiatric illness, and have increased chances of falling into antisocial ways and substance use.

The society at large suffers from loss of productivity and an increased burden to support and treat these potentially productive members. Crime rates rise and rash behaviour often cause accidents and destruction of properties.

10.5.3 Psychological Consequences

Psychological complications range from lack of wellbeing to frank depression. Substances like alcohol cause depression on long-term use and on trying to stop cause severe anxiety. Cannabis has been long associated with precipitation of the illness like schizophrenia. Cannabis can also cause "amotivational syndrome" where the user loses all interest and goals in life. Opioids and amphetamines are known to cause psychosis. Any underlying mental illness is generally aggravated by substance use.

10.5.4 Legal Consequences

Substance users are always at conflict with law. They are often incarcerated when caught with illicit substances and a life revolving in and out of jail follows, thereby severely hampering any gainful employment. Though the law in India (NDPS Act) has provision for treatment of substance users, in lieu of sending them to jail, it is seldom followed in real life. In order to sustain substance use behaviour, many users are forced to indulge in illegal activities like stealing, robbing and peddling drugs. This makes them more a criminal than a patient in the eyes of law. Vandalism, rash driving, intoxicated behaviour often brings them to court. More importantly young novice users when put in jail with hardened criminals sink into more dangerous activities and drug use rather than getting reformed. Thus the law of the land, even when applied with best intentions, may not bring about the best consequences for the substance users.

Such dire consequences of drug use make it imperative to develop strategies that will help in early identification of substance users and treat them effectively to minimise the harmful consequences of substance use.

Check Your Progress Exercise 4

Note: a) Read the following questions carefully and answer in the space provided below.

b) Check your answers with those provided at the end of this Unit.

1) Which of the following is true:
   a) The harm of "light" or "mild" cigarettes is less than normal cigarettes
   b) Passive smoking is not as harmful as active smoking
   c) Alcohol in low dose is beneficial to the body
   d) None of the above.
2) According to the Indian law:
   a) Any illegal drug user can be imprisoned by police
   b) The drug user can opt for treatment instead of going to jail
   c) Death sentence can be given to drug peddlers if they are repeat offenders
   d) All of the above
3) Use of cannabis:
   a) Increases the chance of mental illness
   b) Decreases pain particularly in cancer
   c) Decreases the chance of seizure
   d) All of the above
4) Inhalants (glue sniffing) can result in:
   a) Blindness
   b) Memory loss
   c) Disturbance in body balance
   d) All of the above

10.6 LET US SUM UP

- Substance use is not an all or none phenomenon but a complex spectrum ranging from "occasional use", "recreational use" to "dependent use."
- Substance Dependence syndrome is defined as "A cluster of physiological, behavioural and cognitive phenomena in which use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviours that once had greater value".
- Tobacco, alcohol, cannabis, opium and heroin are the major drugs of abuse in India.
- Substance use is primarily a phenomenon occurring among the males in India.
- Though no region of the country can be said to be entirely free of the substance use problems, significant regional variations in the types of drugs used have been found.
- SUDs are best conceptualised as bio-psycho-social in origin, that is a variety of factors — biological, psychological and social — interact with each other to result in substance abuse and dependence.
- Substance use is associated with a variety of physical, social/familial/ economic, psychological and legal consequences.

10.7 GLOSSARY

AA	:	Alcoholic Anonymous
AIDS	:	Acquired Immunodeficiency Syndrome
Alexithymia	:	Inability to understand one's own emotions
Anhedonia	:	inability to experience pleasure from normal activities
ASI	:	Addiction Severity Index
AUDIT	:	Alcohol Use Disorder Identification Test
BAC	:	Blood Alcohol Concentration
BI	:	Brief Intervention
CAGE	:	An acronym for 4 questions used to assess those with alcohol problem
Coping	:	The process of managing taxing circumstances, expending effort to solve personal and interpersonal problems, and seeking to master, minimize, reduce or tolerate stress or conflict
CSW	:	Commercial Sex Workers
DAST	:	Drug Abuse Screening Test
EAP	:	Employee's Assistance Programme

Empathy	:	The capacity to know emotionally what another is experiencing from within the frame of reference of that other person, the capacity to sample the feelings of another or to put one's self in another's shoes
Entheogen	:	Drugs used for religious purpose
HBCL	:	Home Brewed Country Liquor
HIV	:	Human Immunodeficiency Virus
IDU	:	Injection Drug Use
Illicit drugs	:	Drugs whose manufacture, sale and consumption is strictly prohibited by law
IMCL	:	Indian Made Country Liquor
IMFL	:	Indian Made Foreign Liquor
Lapse	:	A single discontinuity (use of substance) during abstinence
Licit drugs	:	Drugs available for sale and procurement legally. Example: Nicotene, Alcohol
MAP	:	Maudsley Addiction Profile
MAST	:	Michigan Alcohol Screening Test
Motivation	:	The psychological feature that arouses an organism to action toward a desired goal
MSJE	:	Ministry of Social Justice and Welfare
NA	:	Narcotic Anonymous
NDPS Act	:	The Narcotic Drugs and Psycho-Tropic Substances Act, 1985
Narcotics	:	Drugs that 'benumb or deaden, causing loss of feeling or paralysis.'
Psychedelics	:	Drugs that produce hallucinations
Relapse	:	A return to the previous pattern of substance use
RTCQ	:	Readiness to Change Questionnaire
Stigma	:	Severe social disapproval of personal characteristics or beliefs that are perceived to be against cultural norms.
SUD	:	Substance use disorder
TC	:	Therapeutic Community
UNODC	:	United Nations Office of Drugs and Crime
WHO	:	World Health Organization

10.8 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

1-c,

2-c,

3-d,

4-a

Check Your Progress Exercise 2

1-b,

2-a,

3-d,

4-d

Check Your Progress Exercise 3

1-a,

2-c,

3-a,

4-d

Check Your Progress Exercise 4

1-d,

2-b,

3-d,

4-d

10.9 UNIT END QUESTIONS

1) The most common symptom associated with alcohol withdrawal is:

   a) Body ache

   b) Tremor

   c) Diarrhoea

   d) Rhinorrhoea

2) An alcoholic instead of accepting his problems, starts blaming the problems in his family as a cause of his alcohol intake. This phenomenon is called as:

   a) Projection

   b) Denial

   c) Rationalisation

   d) Sublimation

3) The following are all features of alcohol withdrawal except:
   a) Hypersomnolence
   b) Epileptic seizure
   c) Restlessness
   d) Hallucination

10.10 FURTHER READINGS AND REFERENCES

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