



सत्यमेव जयते

Ministry of Health and Family Welfare  
Government of India



# **Training Manual on Mental, Neurological and Substance Use (MNS) Disorders Care for Medical Officer** at Ayushman Bharat – Health and Wellness Centres

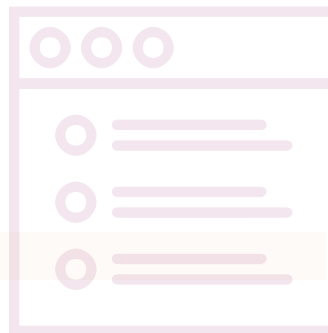


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Substance Use (MNS) Disorders Care for Medical Officer**  
at Ayushman Bharat – Health and Wellness Centres

**2021**



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# INTRODUCTION TO THE MODULE



Mental Health is state of well-being in which every individual realizes his/her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.” Any disturbance to this Mental health will result in not only impairment individually, but also adversely affect the society at large. Mental Health disorders cause significant morbidity, disability, and burden worldwide. India is not an exception.

National Mental Health Survey of India, 2016 has shown that nearly 150 million people in our country require active mental health intervention which is a huge public health problem. Mental Health Concerns of the population ranges from the very severe disorders (severe mental disorders; with lesser prevalence relatively) to a very large number of affected individuals with common mental disorders and other mental health concerns. Treatment gap (roughly defined as the proportion of eligible patients not having access to treatment) is nearly 80%. Though the task is enormous, it is heartening to note that in the recent past (4-5 years), many initiatives are underway in the country to bridge this treatment gap. Expansion of the District Mental Health program, launching the National Mental Health Policy, the Mental Healthcare Act, 2017 are some of the examples. Each of these have impacted the delivery of mental healthcare in a positive way. However, it must be noted that still there is a long way to go. It is at this crucial juncture, the Ayushman Bharat initiative is launched. This program envisages to impart primary, preventive and promotive healthcare to all through the Health and Wellness (HWC) Centres spread across the length and breadth of the country. Mental Health is one of the 12 components of the Comprehensive Primary Health Care (CPHC) under Ayushman Bharat and this training guideline intends to show pathways for learning and implementing the mental health component of the CPHC.

## MENTAL HEALTH IN PRIMARY HEALTHCARE PACKAGE

Mental Health is in a way best suited to be incorporated by the CPHC (and thereby integrating primary mental health care into the general health care) because of the following reasons:

- a. Most of the disorders seen in the community are milder ones that require basic interventions not needing specialist interventions.
- b. There is scope for a lot of preventive and promotive interventions, that can be carried out by grassroot level health workers (may be taken from various departments including social welfare, women and child development, disability affairs, education, health volunteers and others).
- c. Many research studies and ongoing training initiatives (such as the primary care psychiatry program of NIMHANS, Bengaluru and AIIMS, Rishikesh) in the country have already established the utility and fruits of utilizing these grassroot level workers to serve the mental health needs of the communities.
- d. Mental health and physical health problems are interwoven and thus integration will ensure that the people are treated in a holistic manner.

- e. Integrated approach will help people to get access to the mental health closer to their homes, keeping their families and functioning intact and it will also help in long term monitoring of individuals.
- f. It can reduce stigma and it is as well affordable and cost effective.
- g. The non-specialist workforce can easily learn to pick up issues that require higher level of care and to duly refer patients.

## IMPLEMENTING MENTAL HEALTH CARE AT THE PRIMARY LEVEL

Mental Health component of CPHC needs to be built on the following principles for it to be successful.

- a. Simplifying concepts related to disorders into elements that can be easily and quickly understood (by the grassroot level health workers) so that the care delivery is seamless and spontaneous.
- b. Integrate mental health component into the practicing style of the primary care health workers (particularly, the primary care physician) so that they are empowered to pick up mental health issues during their routine practice.
- c. Task-shifting: this is seen as a seminal tool to get comprehensive coverage of primary care. Task-shifting essentially means a process of delegation whereby tasks are moved, where appropriate to less specialised health workers. Good news is that mental health yields itself to task-shifting, particularly the promotive, preventive, provision of basic psychosocial support and counselling and follow-up aspects. Also, most of the uncomplicated common mental disorders (which anyway present to the primary care centres in disguised forms) can be handled effectively.
- d. Lastly, the SHC-HWCs and the Primary Health Centres (PHCs) can handle follow-up of non-complicated severe mental disorders and substance use disorders too.
- e. Affordable and simple technology has played a major part in many of the endeavours to reach the unreached and it will continue to guide similar such efforts in the future too.

## TRAINING IN THIS MODULE WILL HELP YOU

- ▶ Build your knowledge of mental, neurological and substance use (MNS) disorders, risk factors, symptoms and signs and management at PHC-HWC level.
- ▶ Build your knowledge on Standard Treatment Protocols of MNS disorders.
- ▶ Identify emergencies in MNS disorders and how to manage them.
- ▶ Build your general and specific counselling skills and ability to match counselling strategies to the needs of the patient.
- ▶ Understand vulnerabilities and stigma and discrimination faced by persons with mental disorders and rights violations associated with mental health disorders (legal, ethical issues).
- ▶ To conduct mental health promotion activities.
- ▶ Understand the National Health Programmes for mental health in the country.



## THIS MODULE IS DIVIDED INTO 11 CHAPTERS.

**Chapter 1** will give you an introduction to mental health and teach you how to approach a patient with mental health disorders.

**Chapters 2 to 7** elaborate the six major groups of MNS disorders-Common Mental Disorders (CMD), Severe Mental Disorders (SMD), Child and Adolescent Mental Health Disorders (C&AMHD), Neurological Disorders, Substance Use Disorders (SUD) and Suicide Ideation.

**Chapter 8** deals with Mental health promotion and strategies to improve functioning in people living with mental illness.

**Chapter 9** is about Legal, ethical and disability issues in mental health, including Mental Health Care Act and Persons with Disabilities Act.

**Chapter 10** talks briefly about National Mental Health Programme and District Mental Health Programme.

**Chapter 11** elaborates the Service delivery framework for MNS disorders and key roles and responsibilities of Medical Officer in MNS care.



# CHAPTER 1

## INTRODUCTION TO MENTAL HEALTH AND MENTAL HEALTH DISORDERS

Mental Illness are classified in many ways based on the characteristics of the illness, severity, duration and the disability it causes to an individual. Mental disorders can affect women and men differently. Understanding mental illness in human being is essential role of Community Health Officers.

### WHAT IS MENTAL HEALTH?

As per the definition of World Health Organization (WHO), health is “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” Thus, for an individual to stay healthy, apart from physical health, mental well-being is equally important. It has been proposed by WHO ‘that there can be no physical health without mental health’.

Mental well-being of an individual implies that an individual is able to:

- ▶ realize his or her own potentials,
- ▶ cope with the normal stresses of life,
- ▶ work productively and fruitfully, and
- ▶ make a contribution to her or his community.

Few major components influencing the mental health include,

**Resilience:** Life poses various short- and long-term challenges. Dealing with them effectively and not getting overwhelmed by them is crucial for mental health. Various life skills such as critical thinking, problem solving and stress tolerance can help us in this.

**Self-esteem:** Self-esteem refers to our perception towards ourselves; for example, in our own evaluation how valuable we are to others and how confident we are in our own abilities. Positive self-esteem helps us in realization of our potentials and having a sense of control.

**Emotional Well-being:** Regulations of emotions in constructive manner and dealing with emotional upheavals so that they do not affect us negatively are important for our emotional well-being.



**Spiritual Well-being:** It refers to having sense of purpose in life and our connectedness with others. Spirituality does not mean religiosity but religious beliefs can be one of the means for our spiritual well-being. Apart from this, sharing, helping etc. boosts our spiritual well-being.

**Social Connectedness:** Last but not least, having a wider perspective towards society, respect for others and acceptance of other's beliefs and values are important for positive mental health.

## BIO-PSYCHO-SOCIAL CAUSE OF MENTAL ILLNESS

Patients / caregivers/ general public will often ask you the reasons for development of mental illnesses. It is very important to make them understand that in contrary to the popular belief, mental illnesses are not the result of possession by evil spirits, curses, astrological influences, character weakness, laziness, karma or black magic. There are many factors that play a vital role in the onset and course of the mental illnesses. Most mental illnesses are caused by a combination of factors including: stressful life events, biological factors, individual psychological factors (e.g. poor self-esteem, negative thinking), adverse life experiences during childhood (e.g. abuse, neglect, death of parents or other traumatic experiences), social factors like poverty, migration, access to health and sanitation etc. These can be diagrammatically depicted as follows:

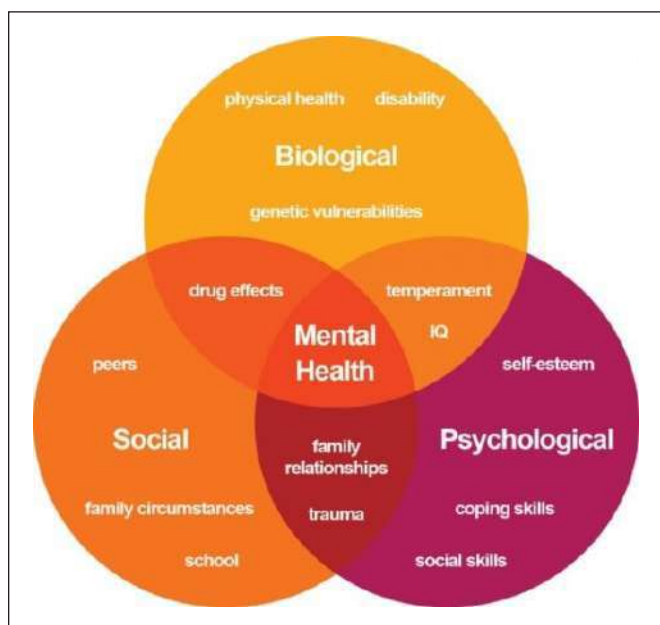


Fig. 1: Bio-psycho-social Model of Mental Illnesses

## FACTORS AFFECTING MENTAL HEALTH

Mental illnesses are often caused by a combination of biological, psychological and social factors. It is important to identify the contributing risk factors at various levels and also the

protective factors which can be leveraged upon for patient care. A brief description is as follows:

Most mental health disorders are caused by a combination of factors (figure 2) including:

- ▶ Stressful life events
- ▶ Biological factors
- ▶ Individual psychological factors e.g. poor self-esteem, negative thinking
- ▶ Adverse life experiences during childhood e.g. abuse, neglect, death of parents or other traumatic experiences

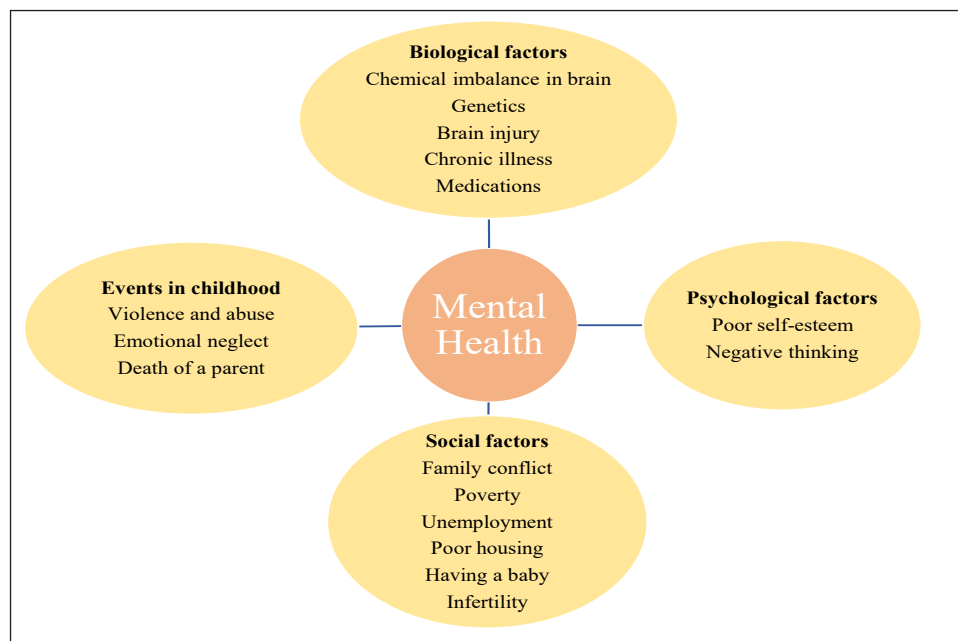


Fig. 2: Mental Health Disorders are Caused by a Combination of Factors

Some people may be more vulnerable to mental health disorders than others but may not develop an illness until they are exposed to stressful life events.

**Biological Factors** can include genetics, brain injury, and chemical imbalance in the brain. Sometimes people experiencing chronic medical problems such as heart, kidney and liver failure, and diabetes may develop mental health problems such as depression, as living with a chronic illness can be very stressful.

**Stressful Life Events** can contribute to the development of mental health disorders e.g. family conflicts, unemployment, death of a loved one, money problems, infertility and violence. A lot of stress may also contribute to an imbalance of chemicals in the brain.

**Poverty** can place a person at risk of mental health disorders because of the stresses associated with low levels of education, poor housing and low income. Mental health disorders are also more difficult to cope with in conditions of poverty.

**Difficulties in Childhood:** such as sexual or physical violence, emotional neglect, or early death of a parent can sometimes lead to a mental health disorder later in life.

Unhealthy behaviors such as **drug and alcohol abuse** can lead to the development of a mental health disorder as well as being the result of a mental health disorder.

## RISK FACTORS FOR MENTAL HEALTH DISORDERS

Table 1 shows level of acting of these risk factors and what could be protective factors against them.

**Table 1: Risk Factors for Developing Mental Health Disorders and their Protective Factors**

Risk Factors	Level	Protective Factors
<ul style="list-style-type: none"> <li>• Pessimistic attitude,</li> <li>• Low self-esteem,</li> <li>• Substance abuse,</li> <li>• Poor lifestyle</li> </ul>	Individual	<ul style="list-style-type: none"> <li>• Hobbies,</li> <li>• Physical activity,</li> <li>• Meditation/ yoga</li> </ul>
<ul style="list-style-type: none"> <li>• Broken families,</li> <li>• Harsh discipline styling,</li> <li>• f/h/o mental illness/ substance abuse</li> </ul>	Family	<ul style="list-style-type: none"> <li>• Supportive parents/ caregivers,</li> <li>• Family harmony and stability,</li> <li>• Strong family values</li> </ul>
<ul style="list-style-type: none"> <li>• Discrimination.</li> <li>• Isolation.</li> <li>• Lack of access to support services,</li> <li>• Socio-economic disadvantage</li> </ul>	Community/ society	<ul style="list-style-type: none"> <li>• Participation in community networks,</li> <li>• Access to support services,</li> <li>• Cultural identity and pride/ acceptance,</li> <li>• Economic security</li> </ul>

## MENTAL HEALTH DISORDERS

- ▶ Almost 30% of the patients visiting PHCs have one or more Mental disorders either in solidarity or in comorbid with a chronic physical condition.
- ▶ More than 80% of these go unrecognised leading to not only impairment in their daily routine but also increased utilisation of health care facilities with poor satisfaction in care.
- ▶ Thus, there would not be an increase in footfalls at the PHC rather an improved rate of detection of Mental disorders among existing footfalls leading to reduction in repeated visits of this population.
- ▶ The symptoms are caused due to imbalance in the levels of neurotransmitters like serotonin, dopamine, norepinephrine, etc. in various regions of the brain. Depending upon the region and neurotransmitter involved, it causes different types of mental disorders.
- ▶ Hence are treatable effectively with basic psychotropic medications (drugs of choice for each disorder shall be discussed in respective chapters).

## SCREENING, IDENTIFICATION AND DIAGNOSIS OF MENTAL ILLNESSES

All mental disorders can be divided broadly into 3 categories with few sub-divisions:

### Types of Mental Disorders

Common Mental Disorders (CMDs)	Severe Mental Disorders (SMDs)	Substance Use Disorders (SUDs)
<ul style="list-style-type: none"><li>▶ Predominantly Depressive Disorder (mild/moderate)</li><li>▶ Predominantly Anxiety Disorder</li><li>▶ Predominantly Somatization Disorder</li></ul>	<ul style="list-style-type: none"><li>▶ Psychosis</li><li>▶ Mania/Bipolar Disorder</li><li>▶ Severe Depression</li></ul>	<ul style="list-style-type: none"><li>▶ Tobacco Use Disorder</li><li>▶ Alcohol Use Disorder</li><li>▶ Other Substance Use Disorder</li></ul>

In addition, children and adolescent mental health disorders (C&AMHD) shall include neurodevelopmental disorders (eg. Mental Retardation, Attention Deficit Hyperactivity Disorder, Autism, etc.), learning disability in addition to the above-mentioned disorders in paediatric onset. Furthermore, some neurological disorders like epilepsy and dementia will also be discussed in this module.

### Screening

Any case visiting the PHC shall be asked the following 3 GOLDEN QUESTIONS to screen for Mental Disorders in addition to the regular assessment:

- Feeling sad, worried or anxious (This is generally called the 6<sup>th</sup> vital sign)
- Disturbance in sleep and appetite
- Recent change in behaviour (eg. Found to be talking to self, poor self-care)

If any one of the above is present and none of the above is explained by any other medical condition, then the patient needs to be probed with further assessment for specific disorders (discussed in respective chapters). Disturbance in sleep and appetite shall be present in almost all cases whereas the other two symptoms are specific for screening CMDs and SMDs respectively. The following are the most common physical conditions associated with Mental Disorders that need to be ruled out:

- ▶ Endocrine conditions like Hypothyroidism, Diabetes Mellitus, etc
- ▶ Cardiovascular Conditions like Ischemic Heart Disease, Essential Hypertension, Stroke, etc.
- ▶ Nutritional Deficiencies like Anaemia, Vitamin D3 and B12, etc.

If one of the above-mentioned symptoms is present for a substantial period of time (varies with specific disorder) and has been interfering in the daily routine of the patient causing significant subjective distress (or distress to family members in case of SMDs) then the patient is suffering from a mental disorder.

## Identification & Diagnosis

The following parameters need to be assessed during the interview for a diagnosis:

Questions to ask/Signs to identify	Observations/Examination
How are you feeling?	Looks sad, anxious or suspicious
Facial expressions	Poor eye contact, hypervigilant of surrounding
Speech	Hesitant in talking or talking in high and harsh tone
Observe stretched out hands	Tremors and restless
Not wanting to talk about certain things when relatives are around	To interview the patient separately

If any one of the above is present, then probe further on:

- ▶ Interference in social and occupational domains of life (Eg. Unable to carry out household work, frequent absenteeism from work, etc.)
- ▶ Poor self-care, interpersonal conflicts at home, friends or workplace

## 1. EDUCATION ABOUT THE ILLNESS TO PATIENT & FAMILY

*Once diagnosed, initial management shall be attempted with basic psychotropic medications. However, prior to prescription, it is advisable to do a basic education on the illness with the patient and family on the following pointers:*

- ▶ Educate that it is also a medical illness caused due to chemical changes in the brain, similar to any physical condition like diabetes or hypertension.
- ▶ Inform that it is common among general population and assure that it is treatable with medications that are available free of cost at government hospitals.
- ▶ However, just like Diabetes and Hypertension, these conditions also require long term treatment in view of long-standing symptoms.
- ▶ Medications take 2-4 weeks to help reduce their symptoms, hence avoid discontinuing medications abruptly as it can cause worsening or relapse of symptoms.
- ▶ Usually these medications are safe to use with minimal side effects and does not damage kidney or liver. If any discomfort/side effects of medications are observed, kindly bring it to the notice during next visit.

- ▶ Suggestions like maintaining a daily activity schedule, practicing yoga, meditation, exercise, etc. (for CMDs especially) alongside good sleeping and eating habits can be provided as lifestyle modifications measures.
- ▶ They will be followed up regularly at the PHC by the Medical Officer and by ASHA/ MPW at the doorstep (home visits). If any further requirements in case of worsening or no relief from symptoms, then they will be referred to a Specialist.

## 2. MANAGEMENT INCLUDING PHARMACOLOGICAL AND NON-PHARMACOLOGICAL TIPS

*Prescription of psychotropics shall follow the usual rule for treating any other physical condition. The following factors should be considered:*

- ▶ Prudent ordering on investigations as there is no test for confirming a diagnosis.
- ▶ Investigations would be required to rule out/check on current status of comorbid or contributing causes like nutritional deficiencies and endocrine disorders and few baseline investigations before starting psychotropics.
- ▶ Advisable investigations include Complete Blood Count, blood sugar levels, Thyroid function tests, ECG, Liver function tests, Renal function tests and Lipids as per clinical judgement. Need for a CT or an MRI brain only when necessitates, eg. In case of suspected head injury in a delirious patient due to alcohol withdrawal, etc.
- ▶ Drug of choice shall be decided based on existing comorbidity and patient profile (details of each drug and its expected common side effects are discussed elsewhere in the manual).
- ▶ Always start at low dose and hike further by 3-5 days and avoid polypharmacy within psychotropic medications.
- ▶ Duration of prescription shall be for a short term (usually 2-4 weeks) during the first visit and subsequent visits shall be planned accordingly.
- ▶ In case of any doubts, either refer or contact the DMHP Psychiatrists.

(The drugs of choice discussed in this manual are reasonably safe to use among comorbidities and recommends lowest therapeutic dose as a Non-specialist).

## NOTE

- ▶ **Generally psychiatric medications take time to show their effect, which is around 2-3 weeks.**
- ▶ **Full effect of medication appears only after 4-6 weeks of being on uninterrupted medications.**
- ▶ **Always start the medications at lower dose and increase the medications gradually, except diazepam for withdrawal symptoms.**
- ▶ **Do not stop medications abruptly, always take time to reduce the dosages. Slower the process of reduction better it is.**

## 3. FOLLOW UPS & REFERRALS (INCLUDING IDENTIFYING CASES FOR EMERGENCY CARE):

During follow ups, the following parameters must be looked into:

- ▶ Compliance to treatment plan including confirmation of proper prescription practice.
- ▶ Degree of improvement and need for dose titration.
- ▶ If improvement is <50% at 4 weeks, increase dose further and continue same dose if >50% or satisfactory improvement reported by patient/family.
- ▶ Watch for noticeable side effects (as for each drug) and address accordingly.
- ▶ Subsequent follow ups can be paced between 2-3 months as per clinical judgement.

## INDICATIONS FOR REFERRAL

Referrals should be made to secondary or tertiary care mental health services, wherever a psychiatrist is available, for initial diagnosis and initiation of treatment in the following situations:

- ▶ Children with developmental health conditions e.g. Autism
- ▶ Children with mental health/developmental problems requiring medications e.g. Attention Deficit Hyperactivity Disorder (ADHD)
- ▶ Persons requiring initiation of Opioid Substitution Therapy (OST)\*
- ▶ Persons with severe mental health conditions (SMDs)
- ▶ Mental health conditions comorbid with physical disorders e.g. Parkinson's disease with depression
- ▶ Multiple co-existing mental health conditions e.g. Depression with Obsessive Compulsive Disorder (OCD)
- ▶ High risk of self-harm/suicide
- ▶ High risk to others (violence)



Referrals from PHC to STC of patients whose treatment has been started at PHC, in following conditions:

- ▶ If the person does not respond to adequate dose and duration of more than one class of medication indicated for that disorder, using one medicine at a time
- ▶ If acute agitation does not subside despite appropriate treatment
- ▶ Serious side effects with pharmacological interventions after emergency management of acute side effects (only if warranted)

\*OST services may be provided by MOs (after adequate training) at PHC/UPHC, in areas with high levels of opioid dependence (in keeping with the NDPS Act and Rules)

### Screening-Identification - Management of Mental Disorders by MOs

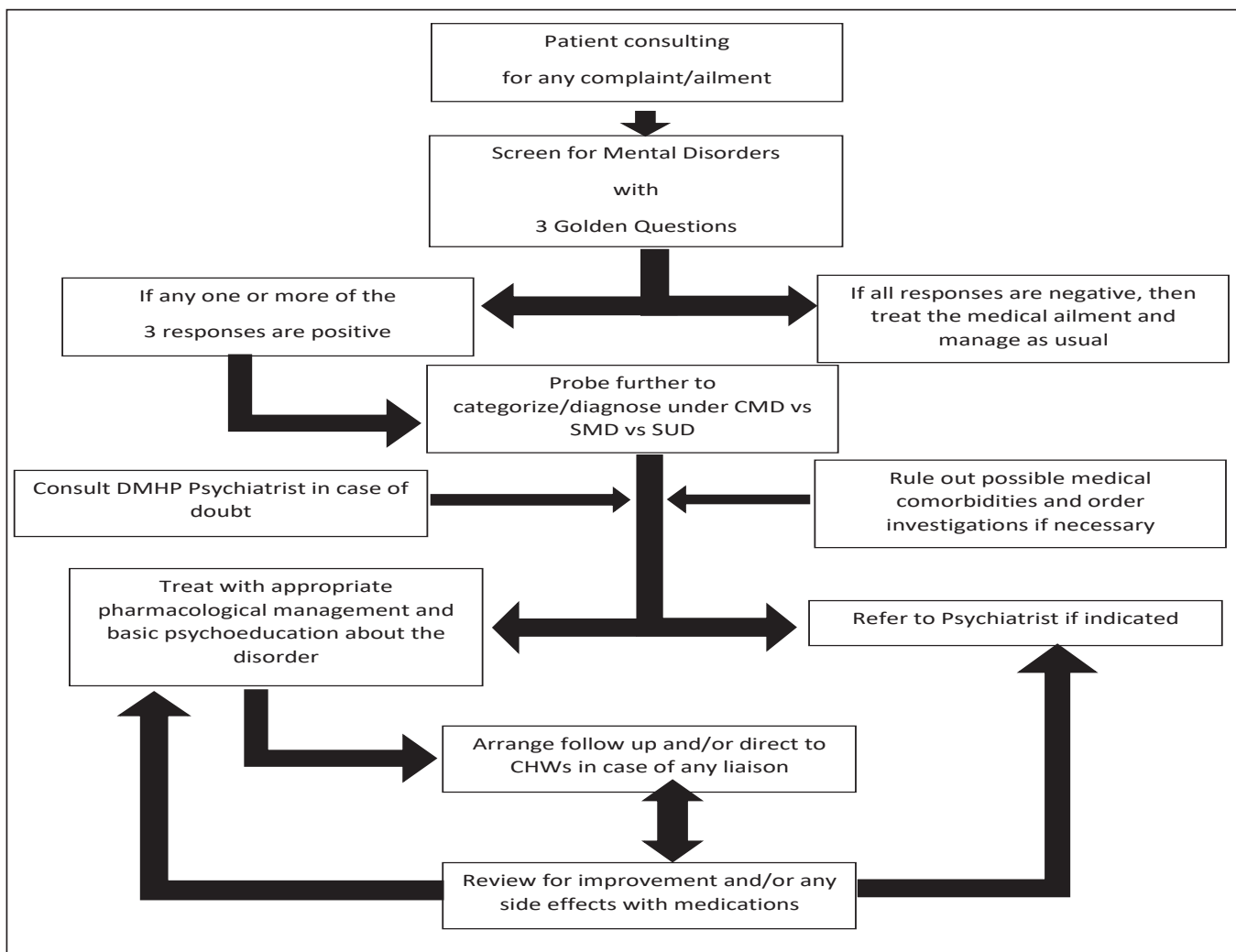


Fig. 3: Screening-Identification

## CHAPTER 2

### COMMON MENTAL DISORDERS (CMD)

#### CASE VIGNETTES

##### CASE 1

A 35-year-old married lady was brought by her family with complaints of remaining dull whole day, reduced sleep and decreased quantity of meals from three weeks.

On interviewing, patient reported of sadness for whole day. She also had no interest in doing house hold chores or taking care of her children. She felt no pleasure in watching movies or soaps, enjoying her favourite meal. She also felt weak, did not like speaking with her family or relatives. So, she spent most of her day in her room.

During interview she appeared sad, spoke in low tone, would not make eye contact and would cry sometimes.

##### Assessment Questionnaire

What are the core symptoms of Depressive Disorder present in above case?

What is the minimum duration of depressive symptoms required to diagnose Depressive Disorder?

##### CASE 2

A 20-year-old man studying in college presented to OPD for treatment of 'nervousness'. On interviewing, he narrated that he has been anxious from for last few years and it has worsened after he joined college. He worried about everything- getting to college on time (missing bus), keeping himself physically fit, college grades etc. He felt that he could never relax as he was always preoccupied with one worry or the other.

During the interview he appeared tense, swallowed frequently.

##### Assessment Questionnaire

What is the possible clinical diagnosis?

What are the features of generalized anxiety disorder?

What is the commonest differential diagnosis for this condition?

### CASE 3

A 25-year-old lady presented with two months history of recurrent episodes of tremors, sweating. Family reported that she complains of choking during those episodes and has been treated with nebulization by the private practitioner near their house.

On interviewing, she reported of episodes of sudden increase in fear, fear that 'she is dying' due to choking. She also recalls having palpitations, sweating, tremors. All these symptoms last for five to ten minutes and she always dreads when it will recur.

#### Assessment Questionnaire

What is the possible clinical diagnosis?

What are the clinical features of panic attack present in above case?

Can you diagnosis a panic disorder if patient come with first attack?

What is the duration of symptoms required for diagnosis?

### CASE 4

A 19-year-old boy presented with difficulty coping with fear of talking during class presentations.

On interviewing, he narrated with hesitancy that these symptoms are present from his childhood and he always feared that others looked at his way of dressing, speaking, walking. He felt shy to eat in front of his classmates, avoided talking to girls and avoided making eye contact during conversations.

#### Assessment Questionnaire

What is this clinical condition?

How do you wish to manage in your clinic?

### CASE 5

A 45-year-old man presented with repeated complaints of body aches, burning sensation in stomach and numbness of legs from many months. On interviewing, he complained that he has visited many doctors for these symptoms with little success. He showed multiple medication prescriptions and had reports of multiple investigations.

Physical examination was normal. Patient was not convinced when the doctor tried to reassure the patient that there is nothing wrong on physical examination or with his previous reports.

#### Assessment Questionnaire

How often can you come across these kinds of patients?

What is the possible clinical diagnosis?

How do you wish to investigate this case?

How do you want to treat this case?

## INTRODUCTION

A substantial portion of the patients in general outpatient clinic have psychiatric symptoms. Majority of such patients have Common Mental Disorders (CMDs) which include Depression, Anxiety Disorders, stress related disorders and Somatisation Disorder. CMDs as a whole, affect more people in the community than other psychiatric illnesses. As such, they cause significant morbidity and economic burden. Hence, there is a great need for their identification and management at primary health care level.

## EPIDEMIOLOGY OF COMMON MENTAL DISORDERS

According to National Mental Health Survey 2015-16, around 10% of people in the general population have CMDs. Around 2.68% of people have depressive disorders and 3.53% of people have neurotic and stress related disorders (including anxiety disorders) in the community. A significant part of the general population also suffer from psychosomatic disorders.

Amongst patients attending primary care OPD, around 27% have CMDs. Depressive and anxiety disorders are the commonest common mental disorder at primary health care setting. Co-occurrence of more than one psychiatric illness is common, and mixed depression-anxiety disorder is the commonest co-occurrence in primary care. Common mental health disorders are more prevalent amongst women than men.

## ETIOLOGY OF CMDS

Common mental health disorders are multi-factorial in origin. The risk for developing these disorders is inherited genetically. At the molecular level there is derangement in serotonin and norepinephrine levels in the brain.

### Common Mental Disorders

- A. Depressive Disorders
- B. Anxiety Disorders
- C. Somatization Disorder/ Psychosomatic Disorders

### A. DEPRESSIVE DISORDERS

Depressive disorder is characterized by presence of pervasive and persistent low mood, loss of interest and enjoyment in ordinary/routine things and experiences, increased fatiguability for at least 2 weeks.

### Risk Factors

- ▶ Depressive disorder in first degree relatives
- ▶ Stressful life events
- ▶ Chronic or disabling medical illness. Eg. Diabetes, obesity, cardiovascular diseases

Remember that depressive disorders may appear even without any risk factors similar to idiopathic (primary) hypertension.

### Clinical Features

#### a. Core Symptoms

**Pervasive Low Mood/Sadness:** Sadness is present on almost all days, present during all situations (even joyous moments).

**Loss of Interest and Enjoyment:** There is loss of interest in daily activities, work, loss of enjoyment of previously pleasurable activities.

**Reduced Energy:** There is feeling of decreased bodily energy, easy fatiguability (disproportionate to work done). All of which lead to reduced activity.

#### b. Additional Symptoms

- ▶ **Reduced Concentration and Attention:** During daily activities and work, reduced self-esteem and self-confidence.
- ▶ **Hopelessness:** Bleak and pessimistic view of future.
- ▶ **Ideas of Guilt and Unworthiness:** The patient is self-reproachful and self-critical. He/she also feels less worthy.
- ▶ Death wishes, ideas or acts of self-harm or suicide.
- ▶ Diminished appetite, disturbed sleep, reduced weight, marked loss of libido.

Presence of at least **TWO** core symptoms and at least **THREE** additional symptoms for more than **TWO** weeks is required to confirm the diagnosis of Depressive Disorder.

In addition, Patient Health Questionnaire-9 (**Annexure 1**) can be used to screen for depression.

### Differential Diagnosis

- ▶ Hypothyroidism
- ▶ Anaemia
- ▶ Chronic infections–TB, AIDS.
- ▶ Parkinson's disease
- ▶ Adjustment disorder
- ▶ Grief

## B. ANXIETY DISORDERS

Anxiety Disorders Covered in this Chapter are:

1. Generalized Anxiety Disorder
2. Panic Disorder
3. Social Anxiety Disorder

## 1. GENERALIZED ANXIETY DISORDER

Generalized Anxiety Disorder (GAD) is characterized by excessive fear, tension, stress, anxiety and worry, about a number of events or activities, occurring on more days than not for a period of at least 6 months.

### *Clinical Features*

- ▶ An experience of excessive and uncontrollable anxiety/tension/worry with no obvious reason or trivial reason, for many months (>6 months). The characteristics of this anxiety/tension/worry are;
- ▶ Apprehension- patient has worries about misfortunes (about family, health, finances, work etc), feeling 'on the edge', difficulty in concentration.
- ▶ Motor tension- being restless, fidgety, trembling, inability to relax, tension headaches.
- ▶ Autonomic overactivity- light-headedness, sweating, tachycardia or tachypnoea, epigastric discomfort, dizziness, dry mouth etc.
- ▶ The above symptoms must be present for at least 6 months to diagnose Generalized Anxiety Disorder.

### *Differential Diagnosis*

- ▶ Hyperthyroidism
- ▶ Pheochromocytoma
- ▶ Alcohol, benzodiazepine, opioid withdrawal
- ▶ Social anxiety disorder
- ▶ Obsessive compulsive disorder
- ▶ Adjustment disorder
- ▶ Post-Traumatic Stress Disorder

## 2. PANIC DISORDER

Panic Disorder is characterized by recurrent, unexpected attacks of extreme anxiety (panic), accompanied by worry about having another attack for at least one month.

### *Risk Factors*

- ▶ Panic disorder in first degree relative.
- ▶ Stressful life events.

### *Clinical Symptoms*

- ▶ Recurrent attacks of intense anxiety (panic), which are not restricted to any particular situation and are therefore unpredictable.
- ▶ Anticipatory anxiety- persistent fear of having another attack.
- ▶ Panic attack is an abrupt surge of intense fear or discomfort that reaches a peak within minutes and during which time, any of the following symptoms occur:

- ▶ Palpitations, sweating, tremors, sensation of shortness of breath, feeling of choking, chest discomfort, nausea, feeling dizzy, tingling or numbness, fear of losing control or going crazy, fear of dying.
- ▶ The above symptoms must be present for at least one month and should not be explained by any medical illness.

### ***Differential Diagnosis***

- ▶ Anemia
- ▶ Heart failure
- ▶ Paradoxical atrial tachycardia
- ▶ Mitral valve prolapse
- ▶ Asthma
- ▶ Pulmonary embolus
- ▶ Epilepsy
- ▶ Transient Ischemic Attack
- ▶ Cerebrovascular accident
- ▶ Alcohol, benzodiazepine, opioid withdrawal
- ▶ Hypoglycemia
- ▶ Hyperthyroidism
- ▶ Pheochromocytoma
- ▶ Hypoparathyroidism
- ▶ Premenstrual syndrome
- ▶ Specific phobias
- ▶ Social anxiety disorder
- ▶ Agoraphobia

### **3. SOCIAL ANXIETY DISORDER**

Social Anxiety Disorder is characterized by irrational, excessive and disproportionate fear of humiliation or embarrassment in social settings.

#### **Risk Factors**

- ▶ Social anxiety disorder in first degree relative.

#### ***Clinical Symptoms***

- ▶ Fear of scrutiny by other people- others are observing my clothes, my hair style, my walking style, my way of speech, my eating style etc.
- ▶ Avoidance of social situations (fear of embarrassing oneself)–avoiding eating in public, speaking in public, conversing with people of opposite sex.
- ▶ Associated with low self-esteem and fear of criticism.



### ***Associated Symptoms***

Blushing, hand tremors, nausea, urgency for micturition, panic attacks.

The above symptoms usually begin in the adolescence and take many years before patients seek help.

### **Differential Diagnosis**

- ▶ Normal shyness
- ▶ Agoraphobia
- ▶ Panic disorder
- ▶ Generalized anxiety disorder

## **C. SOMATISATION DISORDER**

Somatisation disorders are characterized by repeated presentation of physical symptoms without a physical cause. Patients request repeatedly for investigations in spite of negative findings and reassurances by doctors.

### **Risk Factors**

- ▶ Stressful life events.

### ***Clinical Symptoms***

- ▶ Presents with multiple, recurrent physical symptoms for many months.
- ▶ Multiple visits to doctors, (Doctor Shopping) with repeated negative investigations- persistent refusal to accept advice or reassurance that there is no physical explanation for the symptoms.

### ***Common Symptoms***

- ▶ Gastrointestinal sensations- pain, belching, regurgitation, nausea etc.
- ▶ Abnormal skin sensations- itching, burning, tingling, numbness etc.
- ▶ Pains- limb pain, back ache, head ache etc.
- ▶ Sexual and menstrual complaints.
- ▶ Minor anxiety and depressive symptoms may also be present.

*The above symptoms should be present for **at least six months** for diagnosing Somatisation Disorder.*

### ***Differential Diagnosis***

- ▶ General medical conditions producing similar symptoms. Ex- gastritis, arthritis, anemia, chronic infections (HIV, TB), peripheral neuropathies, endocrinopathies, connective tissue disorders.

- ▶ Chronic fatigue syndrome
- ▶ Fibromyalgia
- ▶ Depressive disorder
- ▶ Anxiety disorders

### INVESTIGATION GUIDELINES FOR CMDs

- ▶ No laboratory investigation is required for making a psychiatric diagnosis.
- ▶ Investigations are used to:
  - a. Rule out any other medical etiology leading to symptoms mimicking psychiatric illness.
  - b. Help in ruling out co-morbid medical illnesses, so that the medications can be selected appropriately.
- ▶ Complete Hemogram, liver functions test, renal function test, serum electrolytes, thyroid function tests and ECG are NOT advised to make diagnosis.

### WHEN TO REFER IN CMDs?

- ▶ When diagnosis is NOT clear
- ▶ No adequate response (less than 50%) despite increase in initial dose in 4 weeks of pharmacotherapy
- ▶ Expressing active suicidal risk
- ▶ When multiple comorbid other physical conditions or multiple medications
- ▶ Pregnancy or lactating mother
- ▶ Children below 16 years
- ▶ Hepatic, or renal diseases

### TREATMENT GUIDELINES

#### A. PHARMACOLOGICAL INTERVENTION

##### a. Depression and Anxiety Disorders

- ▶ The main neurochemical implicated in etiology of depression is reduced levels of serotonin and to some extent reduced levels of Norepinephrine.
- ▶ So, antidepressants basically inhibit the reuptake of Serotonin and norepinephrine thereby increasing the level of serotonin and Norepinephrine in brain.

- ▶ The main classes of drugs used in depression include:
  - Selective Serotonin Reuptake Inhibitor (SSRI)
  - Serotonin - Norepinephrine Reuptake Inhibitor (SNRI)
  - Tricyclic Antidepressants (TCA)
  - Newer Antidepressants
- ▶ Tricyclic antidepressants, even though very effective, they are not first line due to their poor tolerability profile.
- ▶ Central Government has included Escitalopram, Fluoxetine, Amitriptyline in the National essential drug list.
- ▶ Escitalopram and Fluoxetine belong SSRI class of drugs and amitriptyline belongs to TCA class of drugs.

### ***Escitalopram***

- ▶ Escitalopram tablet is available in the dosages of 5 mg, 10 mg, 15 mg, 20 mg.
- ▶ Maximum dosage general practitioners can give is 20 mg/day.
- ▶ Escitalopram should be started at 5 mg/day and should be increased to 10 mg per day after 4 days.
- ▶ We can wait on 10 mg/day dosage for a month before we assess the need of further increasing dosage.
- ▶ If at the end on 1 month the improvement is less than 50%, we can increase the dosage to 20 mg/day.
- ▶ **Common Side Effect:** includes nausea, sexual side effects and hyponatremia, In sexual side effects it can cause reduced libido and delayed ejaculation.

### ***Fluoxetine***

- ▶ Fluoxetine tablet is available in the dosages of 20 mg, 40 mg and 60 mg.
- ▶ Maximum dosage for general practitioner's use can be given upto 40 mg/day.
- ▶ Fluoxetine should be started at 20 mg/day, can be hiked to 40 mg after 4 weeks if improvement is inadequate or less than 50%.
- ▶ **Common Side Effect:** gastritis, insomnia and sexual side effects.
- ▶ Fluoxetine should be always given in morning and after food as it can cause significant disturbances in sleep and gastritis.

**Table 3.1: Drugs Used in Depression**

S. No.	Medication	Adult dose (mg/day)		Side effects
		Acute dose	Maintenance dose	
1	Amitriptyline	Start with 25-50 mg, (Can be increased upto 200mg/d according to tolerability & response)	Same as acute dose	Anticholinergic side effects (Dryness of mouth, constipation) Orthostatic hypotension
2	Escitalopram	5-20 mg	Same as acute dose	Common- gastritis (self limited) Sexual side effects Hyponatremia in elderly
3	Fluoxetine	20-40 mg/day	Same as acute dose	Sexual side effects Insomnia

## b. Somatization Disorder

- ▶ Main neurochemical implicated in development of somatization disorder is norepinephrine.
- ▶ There by leading to reduced pain perception threshold.
- ▶ Tricyclic Antidepressants (TCAs) are first line drugs, among which Amitriptyline is first choice.

### Amitriptyline

- ▶ It is one of the oldest drugs, very effective but has multiple side effects especially at higher doses and hence to be started at low dose and gradually increased.
- ▶ Amitriptyline tablet is available in dosages of 10 mg, 25 mg and 75 mg.
- ▶ The dosage range for this drug is 25-225 mg/day, but for GPs use the maximum dosage advised is 50 mg/day only.
- ▶ Generally, it should be started at 1 m/day and the increased to 25 mg/day on 5<sup>th</sup> day and then to 50 mg/day on 9<sup>th</sup> day.
- ▶ If no improvement after a month the patient should be referred to psychiatrist.
- ▶ Common side effects are sedation, dryness of mouth, constipation and blurred vision.

S. No.	Medication	Adult dose (mg/ day)		Side effects
		Acute dose	Maintenance dose	
1	Amitriptyline	25-225mg	Same as acute dose	Anticholinergic side effects Orthostatic hypotension

## B. NON-PHARMACOLOGICAL INTERVENTIONS (PSYCHOSOCIAL INTERVENTIONS)

### Psychoeducation (Counselling about Illness, Medication Compliance and follow-ups)

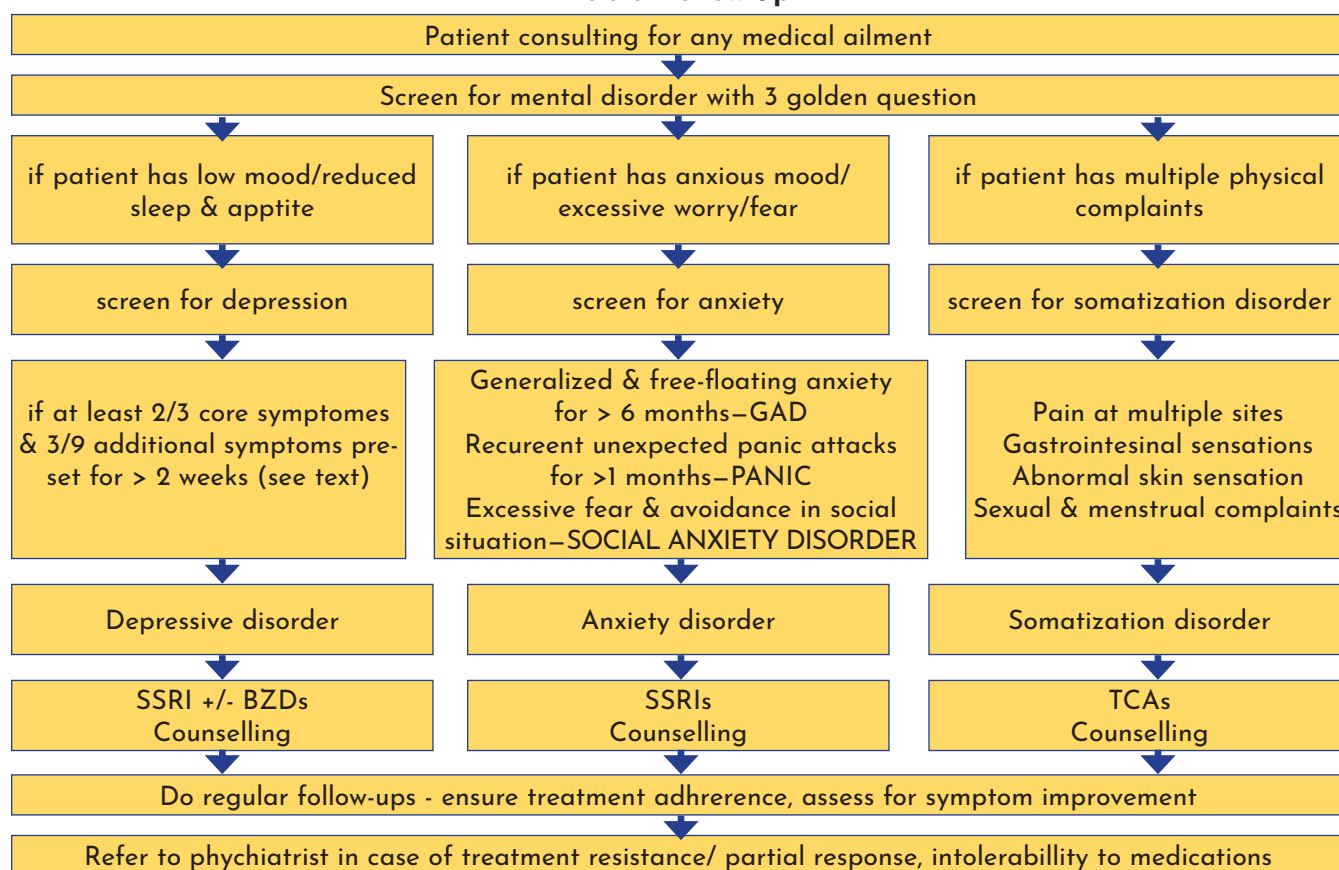
- ▶ Counseling is not psychotherapy, counseling is in fact practiced by every doctor in one or the way while dealing with patients of different medical illnesses, similar thing can be practiced for psychiatric illnesses as well.

- ▶ Counseling should include information about nature of illness, duration of treatment, important side effects, need of regular follow-ups, setting realistic expectations from treatment and practical tips to handle stressors.
- ▶ Explaining about the illness, duration of treatment and the need for strict adherence to treatment.
- ▶ Addressing on going stressors with the help of brief supportive counselling.

#### Follow up Care, Frequency and Follow up Assessment at Primary Care Level

- ▶ Follow up to be done every month
- ▶ In follow up need to assess for improvement in symptoms and side effects that are relevant to the medication as mentioned in the table above
- ▶ At the end of 1<sup>st</sup> month: If improvement is less than 50% then to consider increasing the dosage to next level (from 25 mg to 50 mg of amitriptyline)
- ▶ At the end of 1<sup>st</sup> month: If improvement is more than 50% then consider observing for a period of another month before deciding on dose titration, and if the improvement remains less than 50% even after 2 months then consider increasing the dosage to 50 mg/day

**Table: Follow up**



Abbreviations: GAD-Generalized Anxiety Disorder, SSRI-Selective Serotonin Reuptake Inhibitor, BZD-Benzodiazepine, TCA-Tricyclic Antidepressants.

# CHAPTER 3

## SEVERE MENTAL DISORDERS (SMD)

### CASE VIGNETTES

#### CASE 1

Mr. X, is 24-year-old gentleman working in an MNC. For the past one-week patient is having disturbed sleep, and suspicious about the family members that they are trying to kill him by poisoning his food so the patient had stopped taking food. He was talking irrelevant, aggressive, his clothes were dirty. During the interview patient-reported few of his colleagues were jealous of his income so they started to conspire against him, they were tracking his mobile number through a chip placed in his body started reading his mind, and brainwashed his family members to kill him. Though the family tried to convince the patient saying no such thing is happening, he strongly believed about the conspiracy. He also reports few of his friends were talking about him, he can clearly hear the voices, where voices were discussing about him but he could not see anyone nearby.

#### Assessment Questionnaire

1. What are the core symptoms of psychosis?
2. What is the minimum duration of psychosis symptoms required to diagnose psychosis Disorder?

#### CASE 2

Mr. Z, is a 22-year-old gentleman, working as daily labour, for the past two week patient is having decreased sleep, most of the time he was feeling very happy and cheerful, he appeared energetic throughout and sleeps less than 3-4 hours. All the time he was pacing around, interacting with unknown people like he knew them from long time, insisted family members to get him married also family noticed he was approaching every woman though they were not known to him, asking them to marry him. Also, family noticed he was praying more than usual went to the temple frequently sometimes dressed like priest. During the interview patient-reported he was chosen by God, had direct connection with god, he is son of god, he got the abilities to change the world by donating all his properties around 50 crores which is in his

bank account and is going to be next prime minister of India. When family and friends argued otherwise, he was not convinced became irritable and aggressive. With the help of 5-6 people patient was brought to the clinic.

### Assessment Questionnaire

1. What are the core symptoms of Manic episode?
2. What is the minimum duration of Manic episode symptoms required to diagnose Manic episode Disorder?

### CASE 3

Mrs. K, 32-year-old lady, working as daily labour, for the past one and half month patient is having sleep disturbance and loss of appetite (lost almost 5% of previous weight), most of the time she was feeling sad, she appeared dull lethargic and woke up early in the morning 2-3 hours early than before. All the time she was sitting idle and did not do any work not even watching tv or doing household work which patient was doing previously, not interacted with known people like her family members and relatives even. From last 1-month family noticed patient was sitting alone and talking to self. Reporting them that she did not find any hope in future, she is worthless and worried about family. She also strongly believed that the world was going to end and her body parts were getting ruined. Gradually she stopped taking food and became almost bed ridden, staring in one direction, almost no speech output, occasionally family noticed she soiled her clothes with urine and stools one week back.

### Assessment Questionnaire

1. What are the core symptoms of 'severe depressive disorder with psychotic symptoms'?
2. What is the minimum duration of onset of symptoms of 'severe depressive disorder with psychotic symptoms'?

## INTRODUCTION

Severe Mental Disorders (SMDs) are defined as mental, behavioural, or emotional disorders resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities. Most commonly encountered SMDs in the general population in the adult population are Acute transient psychotic disorder, Schizophrenia, Mania/hypomania (Bipolar Affective Disorder), and Severe Depressive Disorder (SDD) with psychotic symptoms.

## TAXONOMY

For the ease of understanding and management, the following classification is being used. It is based predominant presenting symptoms and clinical course of the illness.



## 1. FIRST/ ACUTE EPISODE PSYCHOTIC DISORDERS

Includes First/ acute episode of schizophrenia, first/ acute episode mania, acute severe depression

Acute psychotic disorders Symptoms last for less than six months

### Subtypes:

- a. **Predominantly Psychotic Symptoms:** Acute transient psychotic disorder (ATPD), schizophrenia like symptoms etc
- b. **Predominantly Affective (Mood) Symptoms:** Mania/hypomania with/without psychotic symptoms and Severe Depressive Disorder with psychotic symptoms.
- c. **Mixed Affective and Psychotic Symptoms:** Presence of Affective (Mood Symptoms) symptoms and psychotic symptoms

## 2. EPISODIC PSYCHOTIC DISORDERS

If presented with more than one episode i.e. symptoms usually subside completely in between two episodes. It includes Bipolar Affective Disorder (BPAD) where there may be episodes of mania or depression, or Recurrent depressive disorder/ Severe depression with Psychotic symptoms.

## 3. CHRONIC PSYCHOTIC DISORDERS (SYMPTOMS PERSIST FOR MORE THAN 6 MONTHS)

Includes Schizophrenia

### A. PSYCHOTIC DISORDERS

Acute Psychotic disorder have sudden onset of symptoms from one day to two weeks (onset) and can usually persist up to 1-3 months, can also be up to 6 months. This disorder can present with only psychotic symptoms, mood (affective) symptoms or both. These symptoms can present with acute onset that is either in the first episode psychosis or episodic course or chronic course (symptoms persist for more than 6 months)

### RISK FACTORS FOR PSYCHOTIC DISORDERS

**Family History:** First degree relatives

**Gender:** Bimodal risk for females

**Culture:** Immigrant status

**Living Environment:** Urbanicity

**Abnormal Fetal Development:** Maternal malnutrition

**Abnormal Cognitive Development:** Low IQ

**Use of Addictive Substance**

## DIAGNOSTIC CRITERIA FOR ACUTE PSYCHOTIC DISORDERS

1. Agitation or restlessness
2. Bizarre behaviour (irrelevant speech, poor self-care)
3. Hallucinations (hearing of voices/noises, muttering to self, talking to self, laughing to self)
4. Delusions (false, firm and fixed beliefs), e. g., Beliefs such as patient is related to royal family, receiving messages from television, being followed or somebody planning to kill/harm)
5. Social withdrawal (sitting alone, not interacting with others, etc.)
6. Low motivation or interest, self-neglect (poor self-care, not going for work, etc.)
7. Non-understandable speech or irrelevant talking

In case of Bipolar affective disorder (BPAD): Episodic Illness (More than 1 episode) - Mood disorder - Presents with mood symptoms listed below, can often present as Psychosis.

Mood Symptoms are:

**1. Manic Episode:** Elated (excessive happiness) mood or irritable mood, over cheerfulness/ over talkativeness/ over religiosity/ over familiarity/ excess spending of money/ increase libido etc.

Increased energy levels, decrease need for sleep and increased activity levels, grandiosity, tall claims etc.

**2. Depression:** Episode of Depression presents with symptoms of depression

## B. SEVERE DEPRESSIVE DISORDER WITH PSYCHOTIC SYMPTOM

In some patients with Major Depressive Disorder (MDD), depressive episode can be severe wherein patient has all the core symptoms of depression (low mood, easy fatigability and loss of interest plus other associated symptoms) along with psychotic symptoms. It can present as first episode of severe depression or Recurrent Depressive Disorder (RDD).

### PROMPT NOTE

- ▶ The diagnosis of MDD should meet the criteria for a depressive episode
- ▶ Should have psychotic symptoms or severe psychomotor retardation
- ▶ Should not have previous manic episodes or schizophrenia

### DIAGNOSTIC CRITERIA FOR SDD

The diagnostic criteria for SDD remain the same as of depressive episode mentioned in common mental disorders.

There are two types of SDD: SDD with/without psychotic symptoms. SMDs cover SDD with psychotic symptoms. SDD without psychotic symptoms is covered under CMDs chapter.

However additional psychotic symptoms in SDD are hallucinations, delusions, and significant psychomotor retardation (may include symptoms of catatonia).

### C. BIPOLAR AFFECTIVE DISORDER

Bipolar Affective Disorder (BPAD) is a disorder of mood. BPAD is an episodic illness with acute or subacute onset of symptoms with either of mania or depression. Episodes may last for weeks to months. Patient mostly improves in between the episodes with continued medications.

#### EPIDEMIOLOGY OF BIPOLAR AFFECTIVE DISORDER

The mean age of onset of illness in the Indian population is **23±7 years with prevalence around 0.5%**.

#### Etiology

Etiopathogenesis of BPAD is complex and heterogeneous with genetic and environmental factors contributing to illness

#### Risk Factors

Factors that may increase the risk of developing bipolar disorder or act as a trigger for the first episode include:

- ▶ Family History: Having a first-degree relative, such as a parent or sibling, with bipolar affective disorder
- ▶ Periods of high stress, such as the death of a loved one or other traumatic event
- ▶ Drugs or alcohol use

### DIAGNOSTIC CRITERIA FOR BPAD

More than 1 episode of Manic episode or episodes Mania and depression during the lifetime of the person

**Depressive Episode:** Symptoms similar to the depressive episode mentioned in common mental disorders with/without psychotic or psychomotor retardation.

**Manic Episode:** Elated mood, over cheerfulness, over talkativeness, over religiosity, over familiarity, excess spending of money, increased libido, increased energy levels, decrease need for sleep hyperactivity, grandiosity, tall claims etc. present throughout for a period of one week

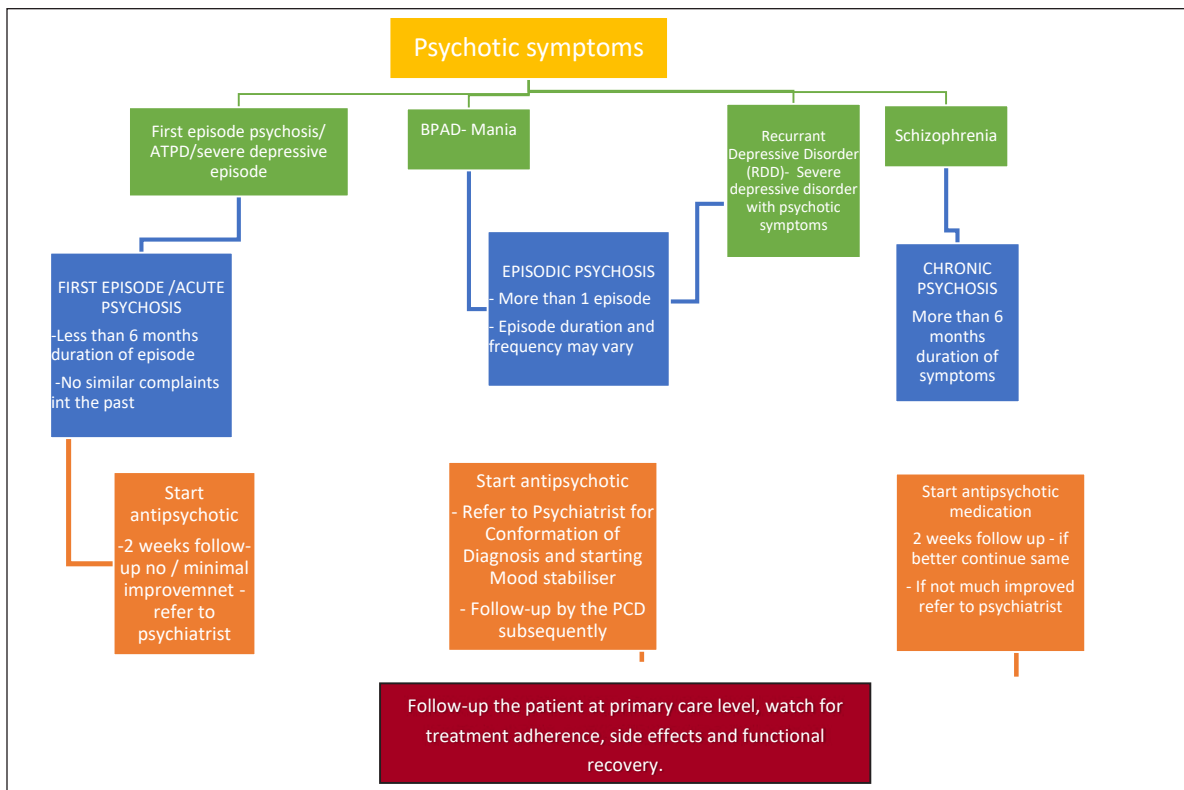
## PROMPT NOTE



**Hallucinations:** Hallucinations are primarily false perceptions i.e. perceptions without real external stimulus. It can be various types and different modalities i.e., auditory (hearing of voices), visual (Someone might see lights, objects, people, or patterns), olfactory (this can include pleasant and bad smells), gustatory (this can include pleasant and bad taste) and tactile (this creates a feeling of things moving on your body, like hands or insects). The most common type are auditory hallucinations where the patient hears the noises/voices which of a single person or group of people.

**Delusions:** Delusions are false, firm and fixed beliefs which are illogical and out of sociocultural background of the patient. Delusions are the disorder of thought content where patients have false belief, they are not ready to accept the alternate arguments and difficult to convince them. Based on the content various types of delusions include:

- i. Persecutory delusions: The feeling someone is after them or that they are being stalked, hunted, framed, or tricked.
- ii. Referential delusions: When a person believes that people are talking about him or referring about him. They believe public forms of communication, like song lyrics or a gesture from a TV host, have a special message just for them.
- iii. Delusion of infidelity: A person has a strong belief that their intimate partner or spouse is cheating on them and having another relationship.
- iv. Grandiose delusions: They consider themselves a major figure on the world stage, like an entertainer or politician and having special identity, ability, and roles.



Flow Chart: Identification, Management & Referral Psychotic Disorders.

## TREATMENT GUIDELINES

All types of psychosis will require antipsychotics as the first line treatment. In cases of Possible BPAD/SDD treatment with antipsychotics should be initiated and referred to a psychiatrist for confirmation of diagnosis and to assess the addition mood Stabiliser for BPAD or antidepressant in case of SDD.

Once treatment has been initiated with antipsychotics, if no improvement within 2 weeks then refer to psychiatrist.

### 1. PSYCHOSIS

#### A. PHARMACOLOGICAL INTERVENTION

- ▶ Psychosis is a severe mental disorder, characterized by excess of dopamine in some regions of brain and reduced dopamine in other regions.
- ▶ Excess of dopamine leads to delusions and hallucinations.
- ▶ Reduction dopamine in few brain areas leads to social withdrawal, reduced interactions and sitting aloof.

- ▶ So, symptoms of delusions and hallucinations can be reduced very effectively, but social withdrawal, reduced interactions cannot be treated very effectively.
- ▶ While treating Psychosis irrespective of the subtype—First Episode/ Episodic Psychosis-BPAD/ RDD or Chronic psychosis, first initiate antipsychotic and subsequently patient may be referred to a Psychiatrist in Case of BPAD and RDD to confirm the diagnosis and to initiate Mood stabilizer in case of BPAD. Follow-up to be continued.

## Risperidone

- ▶ This is available in 1 mg, 2 mg, 3 mg and 4 mg formulation.
- ▶ Dosage range advised for GPs is 2 mg-4 mg/day.
- ▶ This tablet should be started at 2 mg/day and increased to 4 mg/day after 4 days.
- ▶ If no improvement after a month the patient should be referred to psychiatrist.
- ▶ If improvement is less than 50% then increase the dosage to 6 mg/day.
- ▶ **Common Side Effect:** Risperidone can cause extrapyramidal symptoms as side effects, which is discussed in separate paragraph.
- ▶ Risperidone should always be accompanied by Trihexyphenidyl 2 mg/day to prevent extra pyramidal side effects.

## Olanzapine

- ▶ This is available in 5 mg, 10 mg, 15 mg and 20 mg.
- ▶ Dosage range advised for GPs is 10-20 mg/day.
- ▶ Olanzapine should be started at 5 mg/day and increased to 10 mg/day after 4 days.
- ▶ If improvement is less than 50% in 2-3 weeks, increase the dosage to 20 mg/day
- ▶ **Common Side Effect:** Olanzapine can cause sedation, increased appetite and weight gain as side effects
- ▶ Dietary advice on reduced carbohydrate intake and regular physical activity should be provided while prescribing Olanzapine.

## Haloperidol

- ▶ This is a typical antipsychotic, available in 1, 5 mg, 5 mg and 10 mg formulation
- ▶ Maximum dosage GPs can give is 10 mg/day.
- ▶ Haloperidol should be started at 5 mg/day and increased to 10 mg /day after 4 days.
- ▶ We can wait on 10 mg/day dosage for a month before we assess the need of further increasing dosage.
- ▶ If at the end on 1 month the improvement is less than 50%, we can increase the dosage to 20 mg/day after making consultation with psychiatrist.
- ▶ **Common Side Effect:** Haloperidol can cause significant extra pyramidal side effects.

### Injection Fluphenazine (Depot Preparation)

- ▶ Depot injections are very essential part of managing patients of schizophrenia and bipolar disorder.
- ▶ Depot injections of different molecules are available like Haloperidol, Fluphenazine, Flupentixol, Olanzapine, Risperidone and Paliperidone.
- ▶ National Essential Drug List has made provision of injection Fluphenazine at PHC level.
- ▶ Primary care doctor can continue this if a psychiatrist has already started a patient on the same.
- ▶ The dosage should not be altered, it should be continued at the same dosage and frequency that has been advised by the treating psychiatrist.
- ▶ **Common Side Effect:** This injection too can cause extra-pyramidal side effects, so patient should be assessed for the same in every follow-up.

Table

S.No.	Medication	Adult Dose (mg/day)		Side Effects
		Acute dose	Maintenance dose	
1	Risperidone	2-4 mg	Same as acute dose	EPS, Menstrual disturbances,
2	Olanzapine	5-20 mg	Same as acute dose	Weight gain, metabolic syndrome
3	Haloperidol	5-10 mg	Same as acute dose	EPS

### B. NON-PHARMACOLOGICAL INTERVENTIONS (PSYCHOSOCIAL INTERVENTIONS)

- ▶ Explaining about the illness, duration of treatment and the need for strict adherence to treatment
- ▶ Addressing family burnout by using supportive counselling

### Follow up Care, Frequency and Follow up Assessment at Primary Care Level

- ▶ Follow up to be done every month,
- ▶ In follow up need to assess for improvement in symptoms and side effects that are relevant to the medication as mentioned in the table above
- ▶ At the end of 1<sup>st</sup> month: If improvement is less than 50% then to consider increasing the dosage to next level (from 2 mg to 4 mg of Risperidone)
- ▶ At the end of 1<sup>st</sup> month: If improvement is more than 50% then consider observing for a period of another month before deciding on dose titration, and if the improvement remains less than 50% even after 2 months then consider increasing the dosage to next level.



## Extra-pyramidal Side Effects of Antipsychotics

The common side effect of antipsychotics medications is a group of symptoms called extra-pyramidal side effects.

### *Dystonia*

- ▶ It is the first side effect that can appear after giving antipsychotic medication, typically within few hours of receiving 1<sup>st</sup> dose of antipsychotic.
- ▶ It is characterized by sudden sustained contraction of muscle group thereby leading to twisting of arms, head turning to one side or up rolling of eye balls.
- ▶ When even this side effect appears Inj. Phenergan 25 mg intramuscular should be given and as a prophylaxis to prevent further such episode, Trihexyphenidyl 2 mg/day should be added to the ongoing prescription.

### *Akathisia*

- ▶ This is characterized by an inner feeling of restlessness, because of which patient will not be able to sit at a place and will be roaming around constantly.
- ▶ This generally appears in the first week after the antipsychotics have been started.
- ▶ For treating this we can either give propranolol in the dosage range of 20 mg/day or 40 mg/day or alternatively, we can also treat it with clonazepam 0.25 mg in the morning.

### *Pseudo-Parkinson's Syndrome*

- ▶ This is characterized by symptoms like Parkinson's disease.
- ▶ The symptoms are rigidity of arms, tremors, slowness in activities, drooling of saliva.
- ▶ The treatment of this should be done by giving Trihexyphenidyl, the dosage of which can be from 2mg to 6mg per day depending upon severity of EPS.

## 2. BIPOLAR AFFECTIVE DISORDER (BPAD)

- ▶ BPAD can be treated by using antipsychotics and mood stabilizers.
- ▶ PCD can initiate antipsychotic for immediate treatment of Symptoms and then refer the patient to the psychiatrist to confirm diagnosis and starting mood stabilizers.
- ▶ If a patient has been started on mood stabilizer by a psychiatrist, then primary care doctor should be able to continue the same, with monitoring for side effect.

### *Valproate*

- ▶ Valproate is an anti-epileptic drug which can be used as mood stabilizer as well.
- ▶ The tablet comes in formulations of 200 mg, 250 mg, 500 mg, 1 gm.
- ▶ This should be given at 10-20 mg/kg of body weight.

- ▶ This should be accompanied by regular liver function tests and serum ammonia level estimation.
- ▶ **Common Side Effects:** Valproate can cause liver injury, reduced platelet count, pancreatitis rarely.
- ▶ It is very notorious to cause fetal neural tube defects if given in pregnancy, so absolutely contraindicated during pregnancy.

### Lithium

- ▶ Very potent mood stabilizers.
- ▶ The medication comes in the formulations of 300 mg and 450 mg
- ▶ The dosage range usually used is 600 mg/day to 1200 mg/day
- ▶ PCDs are not advised to start Lithium for fresh cases, but if this has been already started by a psychiatrist, PCDs should be able to continue the same medications with regular monitoring of side effects
- ▶ It is advised to get renal function test, thyroid function test and serum lithium levels once in every 6 months.

### Carbamazepine

- ▶ This is also a mood stabilizer.
- ▶ This is available in formulations of 100 mg, 200 mg and 400 mg.
- ▶ This is given in dosage range of 200 mg-800 mg.
- ▶ This should always be started at 100 mg/day and gradually increased 100 mg every 2<sup>nd</sup> day.
- ▶ **Common Side Effects:** Rapid increment of Carbamazepine dosage can cause ataxia, diplopia, and giddiness.
- ▶ Carbamazepine can also cause hyponatremia, reduction in WBC counts, agranulocytosis, aplastic anemia and benign/ severe rash.

**Table 3.**

S. No.	Medication	Adult Dose (mg/day)		Side Effects
		Acute dose	Maintenance dose	
1	Lithium	600 mg-900 mg	Same as acute dose	Tremors, Thyroid dysfunction, Renal dysfunction
2	Valproate	10 mg-15 mg/kg body wt	Same as acute dose	Weight gain, hair fall, liver injury, tremors
3	Carbamazepine	200 mg – 800 mg	Same as acute dose	Ataxia, cerebellar toxicity, hyponatremia

## B. NON-PHARMACOLOGICAL MANAGEMENT OF SEVERE MENTAL DISORDERS

### Psychoeducation (educating patient and family about illness, medication compliance and follow-ups)

- ▶ Counseling is not psychotherapy, counseling is in fact practiced by every doctor in one or the way while dealing with patients of different medical illnesses, similar thing should be practiced for psychiatric illnesses as well.
- ▶ Counseling should include information about nature of illness, duration of treatment, important side effects, need of regular follow-ups, setting realistic expectations from treatment and practical tips to handle stressors.
- ▶ Educating patient and family about SMDs will impact the outcome of the illness.

### Follow up Care, Frequency and Follow up Assessment at Primary Care Level

- ▶ Follow-up to be done every month.
- ▶ In follow up you need to assess for improvement in symptoms and side effects that are relevant to the medication as mentioned in the table above.
- ▶ Titrating the dosage of mood stabilizers should be done by a psychiatrist, if patients has any issues regarding improvement or side effects, refer to psychiatrist.
- ▶ Regular serum lithium levels should be done once in 3-6 months.
- ▶ Regular Renal function test and thyroid function test to be done once in 6 months for those who are on T. Lithium.
- ▶ Regular Liver function test to be done once in 6 months for those who are on valproate.

Table

Drug	Doses available (mg)	Starting Dose	Maximum Dose for GPs	Common Side Effects	Remarks
Antipsychotics					
Risperidone	2, 3, 4	2	6	EPS, Sexual side effects, Menstrual disturbances	Avoid in those who are planning pregnancy
Olanzapine	5, 10, 15, 20	5	10	Sedation, weight gain, metabolic syndrome	Avoid in those with high BMI
Haloperidol	5, 10	5	10	EPS, Sexual side effects	
Inj. Fluphenazine	25mg/ 1ml	12.5/ fortnightly	25-50mg/ fortnightly	EPS	

Table.(Contd.)...

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Mood Stabilizers					
Lithium	300, 450	600	1200	Tremors, nausea, thyroid dysfunction	NSAIDs increase serum lithium level and might cause toxicity
Valproate	200, 250, 500, 1000	250	750	Tremors, nausea, weight gain, hair loss,	
Carbamazepine	100, 200, 400	100	600	Nausea, blurred vision, ataxia, hyponatremia, reduced blood counts	Regular serum Sodium level monitoring

## REHABILITATION

Several individuals with severe mental illness (SMI) can be free of symptoms and they may lead their lives like any other individual. Ideally, attaining such a state should be the goal of treatment. However, many of them do not attain this state despite best efforts—they may live with different levels of symptoms and disability. In its broadest sense, 'disability' means inability to perform activities that most others can perform, as well as disadvantage that a person experiences because of this. In this context, it is important to understand the following:

- Similar to individuals with physical impairment (i.e., visual, hearing, locomotor, etc.), persons with mental illness also experience disability - as it is not obvious, disability due to mental illness is also known as the "invisible disability".
- Not all persons with mental illness are disabled - many of them recover substantially from their illness.
- Disability is only partly due to the illness. A number of psychosocial factors like stigma, discrimination, exclusion from participation, lack of supportive attitude and facilities contribute to disability in persons with mental illness.

## MEDICAL OFFICERS' ROLE IN REHABILITATION OF PERSONS WITH SMI

In a proportion of patients, MOs can prevent disability with treatment. In those with substantial disability despite best treatment, they can facilitate rehabilitation efforts to ensure that such persons live with dignity and enjoy the best possible quality of life. The guiding principle should be 'person-centered approach', i.e., the MOs should give utmost preference to the goals and choices expressed by the patients and their family members.

## LIMITING DISABILITY

This should be the first goal in every person with SMI.

- a. Early identification and treatment of SMI can result in prevention of disability. MOs should help the community in this. Many persons with SMI remain untreated or get delayed treatment because of poor awareness, alternative explanations and stigma about mental illness, and difficulty in accessing services due to logistic and financial reasons. MOs, with the help of healthcare staff and other community resources, should take steps to improve awareness, reduce stigma and make treatment accessible.
- b. Poor continuity of care is a common cause of relapse and adverse long-term outcome of persons with SMI. This is commonly due to the same factors as mentioned above. Unsatisfactory improvement and adverse effects (actual and feared/imagined) also contribute to discontinuation of treatment. MOs should address these concerns in liaison with higher centers, healthcare staff and the families.

### PROMPT NOTE

Disability is only partly due to the illness. A number of psychosocial factors like stigma, discrimination, exclusion from participation, lack of supportive attitude and facilities contribute to disability in persons with mental illness.

## FACILITATING REHABILITATION

When disability persists despite best efforts, the MOs should coordinate provision of disability certificate and welfare benefits. Please note that 'disability' here means inability to function and participate in activities expected of most people in the community. Certifying authorities assess disability of persons with mental illness with a tool called the IDEAS (**Annexure 2**). Those with  $\geq 40\%$  disability are eligible for several benefits including pension, reservation in government jobs and educational institutes, financial assistance for livelihood, travel concessions, income-tax benefits, etc. The MOs should take the help of other governmental and non-governmental agencies in making these and other rehabilitation services available. MOs should also educate the individuals with mental illness and their families about centers where interventions to improve functioning and quality of life are available.

## CHAPTER 4

### CHILD AND ADOLESCENT MENTAL HEALTH DISORDERS (C&AMHD)

#### CASE VIGNETTE

##### CASE 1

Santosh is about 20 years from lower socio-economic background. His mother had obstructed labour during delivery. Now she needs to help him for brushing his teeth, bathing or dressing. He spills while taking food. He talks in sentences, needs repeated instructions to carry out simple tasks. He went to a school and attended class I. He had been in the same class for the last four years and has learnt to write a few alphabets and numbers without understanding. If given money and instructed several times, he can buy one or two things from shop but cannot calculate and get balance. His father brought him to hospital for the first time.

##### CASE 2

A. Chhotu, 8-year-old, is always quiet in class. He sits and fantasizes in the class room and shows less interest with poor academic performance.

B. Babu, 7-year-old, is always the centre of attention. He will make lot of noise and tell an answer in class before teachers complete the question, whether he knows the correct answer or not. He often distracts students around him and talks loudly, gets up, jumps, runs around, wiggles his hand, and taps his pencil loudly.

##### CASE 3

Sasikumar is about 9-years-old from lower socio-economic background. His father had history of mood disorder and received treatment few years ago from hospital. While Sasikumar interacts well with peers his own age, his parents noted that he can be easily led and influenced by others. They also report that Sasi gets upset and irritable when he does not receive recognition or feels that he has been ignored. His teacher notes that he sometimes acts 'socially immature, aggressive', and that he often demonstrates attention-seeking behaviour and shows stubborn attitude.

## Questions

- i. What are the signs and symptoms you have observed in the case scenarios?
- ii. What can be the probable disorder in the above case scenarios?
- iii. What can be the possible risk factors for the disorders?
- iv. How will you manage the cases?

## INTRODUCTION

Child and adolescent mental disorders comprise the following disorders:

1. Attention Deficit Hyperactivity Disorder
2. Oppositional Defiant Disorders
3. Conduct Disorders
4. Disorders of Intellectual Development and Intellectual disabilities.

### 1. ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

Attention Deficit Hyperactivity Disorder (ADHD), a neurodevelopmental disorder, is characterized by inattention and hyperactivity/impulsivity. Inattention or hyperactivity/impulsivity may predominate, however, a combined presentation is commonest. ADHD affects about 5%-7% children worldwide. Boys are four times more often affected than girls. Hyperactivity/impulsivity is commoner in boys, whereas girls commonly report day-dreaming and over-talkativeness. In 50%-60% cases features persist into adulthood.

### Risk Factors

Genetic factors (having a first degree relative with ADHD) and perinatal insults in the form of prolonged labour, low birth weight and delayed birth cry are risk factors for developing ADHD.

### Importance of Early Identification and Intervention

ADHD can manifest in preschool children. It impacts all aspects of a person's life - academic, social, personal and occupational, and causes significant functional impairment, ultimately leading to sub-optimal realization of a child's developmental potential. Untreated ADHD leads to secondary problems - mood disorders, conduct disturbances, school dropout, delinquency, and substance abuse. It is crucial to identify this condition early and intervene.

### Clinical Features

ADHD typically presents in young school-goers who present with complaints of poor academic performance, complaints from school regarding behavioural/emotional issues, temper tantrums, or other behavioural disturbances.

Inattention results in distractibility in class and at home, poor task completion, 'absent-mindedness'. Hyperactivity/impulsivity presents in the form of motoric restlessness, talkativeness, hasty decision making and risk-taking. Degree of hyperactivity varies across contexts, and age. Hyperactivity diminishes with age, while inattention and impulsivity persist.

Comorbid disorders are common - a) Other developmental disorders - intellectual disability, learning disability, speech and language delays; b) Disruptive behaviour disorders - Oppositional defiant disorder or Conduct disorder; c) Mood disorders; and d) Substance use disorders (especially in adolescents).

### Assessment and Scales Used

A multi-informant approach with incorporation of self, parent and teacher reports is needed. In addition to the clinical history taking and mental status examination, parent and teacher rated scales are used. The Conner's scale (**Annexure 3**) may be used. Comorbidities, functional impairment, family history and schooling history, must be evaluated, given the bidirectional relationships with ADHD.

#### PROMPT NOTE

##### Clinical Features of ADHD

- ▶ Hyperactivity manifesting as fidgetiness, motoric restlessness, running as though driven by a motor
- ▶ Inattention characterized by easy distractibility, careless mistakes, 'daydreaming'
- ▶ Impulsivity manifesting in the form of blurting out answers, interrupting and acting rashly without thinking through

### Management & Referral

Mild symptoms are managed by behavioural interventions. With the child focus is on - enhancing self-awareness and regulation, environmental manipulation, and social and life skills training. Insight has to be facilitated and training provided to parents in the areas of reinforcements and contingencies, education methods and enhancing parent-child relationship.

Management of moderate-severe ADHD requires a combination of medication and psychotherapy. If symptoms are not managed by behavioural interventions, refer to a Psychiatrist for initiating pharmacotherapy. Methylphenidate (stimulant) and Atomoxetine and Clonidine (non-stimulants) are used according to the body weight and tolerability of a child. They are typically continued long-term with close supervision and monitoring.

Liaison with school is important. An empathic, rather than punitive, attitude by the teachers and modification of teaching methods to match the child's learning potential can go a long way in improving long-term outcomes.



Comorbid disorders, any risk to self or others, non-response to medication are certainly contexts for referral to higher centres.

The following can be advised to the parents:

**Table 4.1**

To Prevent Injury	To Improve Social Interaction	To Improve Low-Self Esteem	To Improve Attention
<ul style="list-style-type: none"> <li>• Keep away sharp instruments</li> <li>• Provide safe environment for the child</li> </ul>	<ul style="list-style-type: none"> <li>• Develop a trusting relationship.</li> <li>• Explain about unwanted behaviours</li> </ul>	<ul style="list-style-type: none"> <li>• Keep realistic goals,</li> <li>• Provide opportunity for success,</li> <li>• Convey unconditional regard,</li> <li>• Give positive reinforcement for achievement</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure the child's attention by calling his/her name and make eye to eye contact,</li> <li>• Assign simple steps and avoid giving complex work at a time</li> <li>• Enhance attention through colouring, grain sorting</li> <li>• Allow short breaks between work</li> <li>• Reward each step completion,</li> <li>• Reward for independent achievement based on Token economy</li> </ul>

**Table 4.2**

Name Of Medication	Dose		Side Effects
	Starting Dose	Maintenance Dose	
Methylphenidate	5-10 mg/day in divided doses. Last dose to be given preferably before 5 pm.	20-30 mg/day (Maximum- 60 mg/day)	Appetite reduction, sleep disturbances, increased blood pressure and heart rate (relatively contraindicated in structural cardiac defects)
Atomoxetine	0.5 mg/kg/day. Can be given as a single dose in the morning.	1-1.2 mg/kg/day	Headache, somnolence, GI disturbances like nausea, vomiting, appetite loss.
Clonidine	25-50 microgm/day	0.3-0.7 microgm/kg/day in divided doses	Drowsiness, hypotension. To avoid sudden cessation as this may lead to rebound hypertension

## FOLLOW-UP

Medication and psychotherapeutic interventions need to be reviewed in follow-up. Regular monitoring should include: symptom status (using rating scales), school performance (teacher report), growth (height, weight), heart rate and blood pressure, and other side effects.

## 2. OPPOSITIONAL DEFIANT DISORDER

Disruptive Behavior Disorders (DBDs) include Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD).

These are called 'disruptive' because the behavioral disturbances seen in children affected by them creates disruption in their environment, including home, school and with peers. The prevalence of this disorder is recorded at around 2%-10%.

Children with ODD present with a persistent pattern of anger outbursts, argumentativeness and disobedience. This is usually directed at older people-typically authority figures, like parents and teachers, and also older siblings. There may also be complaints of similar behaviour with classmates and other children.

### PROMPT NOTES

#### Clinical Features of ODD

- ▶ Excessive argumentativeness with adults
- ▶ Refusal to comply with adult requests/ instructions by adults
- ▶ Questioning rules at school and home
- ▶ Refusal to follow rules
- ▶ Behaviour intended to annoy or upset others
- ▶ Blaming others for their misbehaviours or mistakes
- ▶ Becoming easily annoyed with others
- ▶ Frequently seen to be angry or upset
- ▶ Speaking harshly or unkindly to others
- ▶ Behaviour to seek revenge when upset by others



### RISK FACTORS

Child factors like difficult temperament, presence of ADHD and environmental factors like parental depression, inconsistent parenting, adverse neighbourhood, exposure to media violence are all factors that may increase the risk of developing disruptive behaviour disorders like ODD and CD.

## EVALUATION OF ODD

An evaluation for these disorders is a must in every child presenting with - academic difficulties, frequent complaints about child's behaviour at school, temper tantrums, and other behavioural disturbances. Very often the school may initiate the referral and ask the parents to get their child evaluated. The following table lists questions useful in clinical elicitation of features.

**Table: Questions to Detect Oppositional Defiant Disorder During Clinical Evaluation**

Questions to Detect ODD
<ul style="list-style-type: none"><li>▶ Does your child actively defy or refuse to comply with requests and rules?</li><li>▶ Does your child say cruel, mean, or hateful things when upset?</li><li>▶ Does your child argue excessively with adults and other authority figures?</li><li>▶ Do you find that your child just doesn't take rules seriously?</li><li>▶ Is your child touchy, prickly, or easily offended?</li></ul>

## MANAGEMENT

If you suspect ODD in a child, it is preferable to refer to a Psychiatrist or child psychologist.

### Pharmacotherapy

There is *little* evidence for the use of medication, unless there are comorbid disorders that stand to benefit from them, e.g. mood disorders.

### Psychotherapeutic Interventions with the Child

Children with ODD have significant difficulties with social and emotional skills. They benefit from new skills for identifying and managing feelings, managing anger, problem solving, interacting with other people more effectively, and strategies for making good decisions that are based on thinking rather than feeling.

### Psychotherapeutic Work with the Parents

Behavioural disorders, especially ADHD and ODD, most frequently present in young children. The role of parents therefore becomes very important in management. The most important thing for parents to understand is that the child has a clinically diagnosable condition and that he or she is not just 'bad'. Parents should learn to distinguish the child from the 'bad behaviour' and continue to strengthen their relationship with the child, while mutually working on the child's problematic behaviours. Certain useful strategies to be discussed with parents are presented below.

**Table: Parent-Mediated Interventions**

Parent-Mediated Interventions
<ul style="list-style-type: none"> <li>▶ “Catch the child being good”. Use abundant social rewards - attention, praise, affection, physical proximity.</li> <li>▶ Positive, quality family time where no ‘problems’ are discussed.</li> <li>▶ Ignore mild unwanted behaviours and pay attention to alternate positive behaviours.</li> <li>▶ Clear, direct communication by looking into child’s eyes. Avoid repeating commands.</li> <li>▶ Give choices - foster a sense of control and responsibility.</li> <li>▶ Setting limits on unacceptable behaviour with consistent consequences for non-compliance.</li> <li>▶ Increase “Do” instructions, Decrease “Don’t” instructions.</li> <li>▶ School-home contract: Daily behaviour report card from teacher with home-based reward system.</li> <li>▶ Engage child in multiple co- and extra-curricular activities.</li> <li>▶ Know who your child’s friends are and how your child is spending time in and outside home. Protect from association with deviant peer groups.</li> </ul>

Parents need to be told that punishment, negative attention, criticality and hostility only serve to maintain behavioural problems. Instead children need to be positively engaged and their behaviours differentially reinforced.

Disruptive children, typically, only get attention when they are being problematic. This is the first thing parents need to change. They should try to catch them being good, even if for mundane activities, multiple times a day. Seemingly annoying, unwanted behaviour (e.g. making sounds, jumping around) that does not have any real detrimental consequences for the child or others needs to be ignored. At the same time, clear limits need to be set, and consistently followed, for behaviour that has detrimental personal or social consequences, e.g. aggression in any form, missing school, etc.

## DIFFERENTIAL DIAGNOSIS AND COMORBIDITY

ODD is characteristically comorbid, in that it occurs together with or before a wide range of other disorders including anxiety and depressive disorders (girls), conduct disorder and substance use disorders. Children with ADHD often go on to develop ODD, and a subset of children with ODD may eventually develop conduct disorder (CD). If a child is becoming increasingly aggressive and is also frequently displaying behaviours like lying, stealing and cruelty to animals then a diagnosis of conduct disorder is more likely.

### 3. CONDUCT DISORDER

Conduct disorder is a serious clinical condition, in terms of the extent and nature of behavioural concerns. It can involve intentional cruelty to people and animals, violent behaviours and criminal activity. Children and adolescents with the disorder have significant difficulty in following rules and behaving in a socially acceptable way. There may be aggressive, destructive, and display deceitful behaviour that violates the rights of others. Conduct disorder is often comorbid with Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), mood disorders like depression and substance use disorders. The clinical features of this disorder are depicted in Figure below.

Boys with CD are more likely to display physically aggressive and destructive behaviour than girls, who are more prone to show deceitful and rule-violating behaviour.

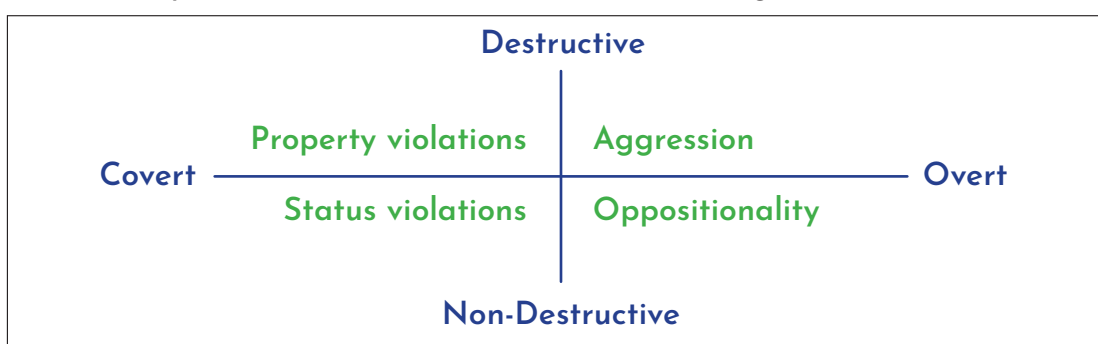


Fig. 1: Clinical features of Conduct Disorder

### EVALUATION OF CONDUCT DISORDER

An evaluation for conduct disorder is a must in every child presenting with academic difficulties, frequent complaints about child's behaviour at school, temper tantrums, and other behavioural disturbances. Very often the school may initiate the referral and ask the parents to get their child evaluated.

Table: Questions to Detect Conduct Disorder

Questions to Detect Conduct Disorder
<ul style="list-style-type: none"> <li>▶ Does your child say cruel, mean, or hateful things when upset?</li> <li>▶ Do you find that your child just doesn't take rules seriously?</li> <li>▶ Does your child bait classmates and pick fights with them by purposely doing things that annoy them?</li> <li>▶ Has your child ever tried to intentionally harm/hit/intimidate younger children or tried to harm animals?</li> <li>▶ Does your child frequently lie to you/ steal money or other objects without showing any remorse for actions?</li> <li>▶ Has your child threatened to damage objects or indulged in such behaviour in case his demands are not met?</li> </ul>

## MANAGEMENT

If you suspect CD in a child, it is preferable to refer to a Psychiatrist or child psychologist.

### Pharmacotherapy

There is little evidence for the use of medication, unless there are comorbid disorders that stand to benefit from them, e.g. mood disorders and ADHD. Prescribing antipsychotics for relatively short periods in low doses can help families cope. Any antipsychotic for children with CD will be prescribed by a Psychiatrist. During this time, it is crucial to introduce more effective psychological management. However, antipsychotics are not recommended in anything other than unusual circumstances.

### Psychotherapeutic Interventions with the Child

Identifying the strengths of the young person is crucial. This helps engagement and increases the chances of effective treatment. Encouragement of abilities helps the child spend more time behaving constructively rather than destructively – e.g., more time spent playing football is less time spent hanging round the streets looking for trouble. Encouragement of prosocial activities –for example to complete a good drawing or to play a musical instrument well–also increases achievements and self-esteem and hope for the future.

Where there are pervasive problems including fights with peers, then individual work on anger management and social skills should be added.

### Psychotherapeutic Work with the Family

The role of parents is very important in management. Explicit attempts are made to reduce negative spirals in family interactions by interrupting and diverting the flow of negative, blaming speeches.

The most important thing for parents to understand is that the child has a clinically diagnosable condition and that he or she is not just 'bad'. Parents need to be told that punishment, negative attention, criticality and hostility only serve to maintain behavioural problems. Instead children need to be positively engaged and their behaviours differentially reinforced using parent training techniques.

Parent training techniques are similar to those found in standard approaches (please review section on Oppositional Defiant Disorder) and include praise, rewards (e.g., if you come home by 6pm each night, I will take you to the cinema on Saturday), limit setting, consequences and response-cost (e.g., losing TV time for swearing).

## 4. DISORDER OF INTELLECTUAL DEVELOPMENT (DID) & INTELLECTUAL DISABILITY (ID)

- a. Disorder of intellectual development (DID) is common permanent developmental condition, in which 6 years or above individuals will have limitations in their intellectual and adaptive functioning.

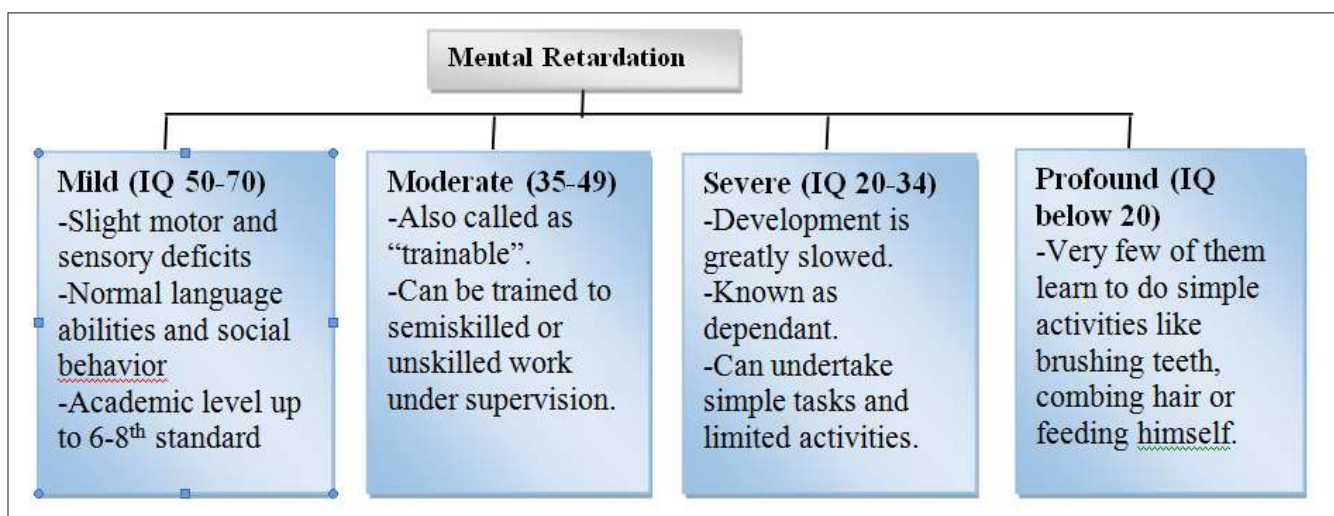
- b. It is difficult to accurately diagnose DID in children who are 5 years or below (between 3 months to 5 years), who have delay in 2 or more developmental domains, viz; gross/fine motor, speech/language, social, cognition, and activities of daily living are diagnosed to have Global Developmental Delay (GDD).
- c. Across world the prevalence is of DID is around 2.5%. However, Indian studies on DID have used varied definitions and methodology and reported prevalence range of 1/1000 to 32/1000.
- d. Children with DID and family need multi-disciplinary care and services across the lifespan.

## IMPORTANCE OF EARLY IDENTIFICATION AND INTERVENTION

- a. Among parents, Lack of awareness/ knowledge about GDD/DID and the child rearing skills leads to multiple short term and long term untoward developmental, family, financial, emotional and social consequences.
- b. Providing basic clinical services and appropriate referral services for children with GDD/DID can effectively improve the child's and overall family's wellbeing and the functioning.

## CLASSIFICATION OF IDD

- a. Based on testing of intellectual ability on intelligence quotient test, DID is classified into four clinical subgroups. In absence of testing facility, based on the clinical assessment of developmental behaviours, the subgroup can be diagnosed.
- b. Among DID subtypes, mild DID subtype is most common amounting to 70% to 80% of DID's.



## RISK FACTORS OF INTELLECTUAL DISABILITY

- ▶ **Before Birth of a Child:** Infections, placental dysfunction, hormonal disturbances, exposure to certain drugs, radiation or nutritional deficiencies during pregnancy.
- ▶ **During Delivery:** Prolonged labour or obstructed labour, prematurity, lack of respiration immediately after birth, instrumental delivery, low birth weight.
- ▶ **After Delivery:** Injury, malnutrition, infection, etc.
- ▶ **Other Factors:** Chromosomal abnormalities (Down's syndrome), metabolic disorders, etc.
- ▶ **Other Co-morbidities:** Epilepsy, hyperactivity, mood disorders, personality disorders, autism, and sensory problems like difficulty in hearing or vision.

It is important to know that medical conditions like hypothyroidism, iodine deficiency and phenylketonuria can be treated and development of DID can be prevented.

## CLINICAL FEATURES

DID children present to clinics with following complaints: Slow in development / delayed milestones of development, Poor speech, Poor in self-care, Poor learning and memory, less intelligent compared to other children and Poor in reading and writing.

## ASSESSMENT

### GDD/Subtype of DID

- Assess the important milestones attainment and look for delay
- Assess that, the delay is single domain of development or in 2 or more domains
- Ask parents regarding their estimation of child's mental age

### Cause of IDD

- Do a physical examination and look for major and minor congenital anomalies
- Check for family history of DID, GDD, non-progressive and progressive neurological disorder
- Check for history of regression (loss of attained milestones) in child

### Family/Parents

- Assess the parents' knowledge about of the child's problems, caring practices, treatment seeking, and coping (Look for stress/depression in parents)



## MANAGEMENT AND REFERRAL

### Psycho-education of Parents-Points to Communicate are:

- a. Insult to developing brain (prenatal/perinatal/postnatal) is the cause.
- b. Child can learn new skills with repeated, graded training inputs.
- c. The child will learn at a slower pace; (what a typical child learns in one year, the child with DID may take 1.5 years to 2.5 years to learn the same).
- d. As child grows older, with training he/she will become more independent in his/her day to day activities and may be able to do unskilled and semi-skilled jobs under supervision.
- e. No medications are available to cure the condition.
- f. Usually the parents will give up on training thinking the child can't learn, or they will do all the work for child instead of training the child. So they should be counselled and trained regarding the same.
- g. Parents need to plan and implement a daily routine according to child's mental abilities.

### Early Intervention/ Sensory-motor Stimulation for Young Children: Under 3-4 years

- a. Spend more time interacting with child.
- b. Make different types of sounds, rhymes, draw child's attention and imitate the child sounds (Parallel vocalization). Using touch sensation (e.g., tickling, stroking, gentle massaging) stimulate the child. Attempt to improve hand functions (taking, holding, giving, pushing, pulling) by using are safe and easily available play materials. Show different coloured objects, play peek a boo, show different facial expressions and try to improve the eye-to eye contact while stimulating.
- c. Teach simple imitation, pointing, body parts, colours, shapes.
- d. Teach simple verbs, common nouns for family members, day to day food items and utensils, teach opposite words like big /small, in/out with visual cues.
- e. Teach self helps skills step-by-step.

### Home-based Parent Mediated Skills Training: Teach and Train Parents What and How to Teach Their Children at Home Itself

- a. Find the current level of mental age and adaptive abilities and ask the parents to teach self-help, communication, conceptual and practical skills for that age for next one and half year to two years. (10-year-old child with mental abilities of a 5-year-old should be taught a 5-year-old's learning activities).

- b. The child will learn at a slower pace; (what normal child learns in one year, the child with DID may take 1.5 years to 2 years to learn the same).
- c. Teach household chores, basic academic skills, vocational skills, agro-based activities under adult supervision. Also teach concept of safety and self-protection.

### **Education**

- a. Liaise with Anganawadi/ schools /special schools.
- b. Advocate for reduction of academic pressure and involvement in extra-curricular activities.

### **Social Welfare/ Liaison Measures**

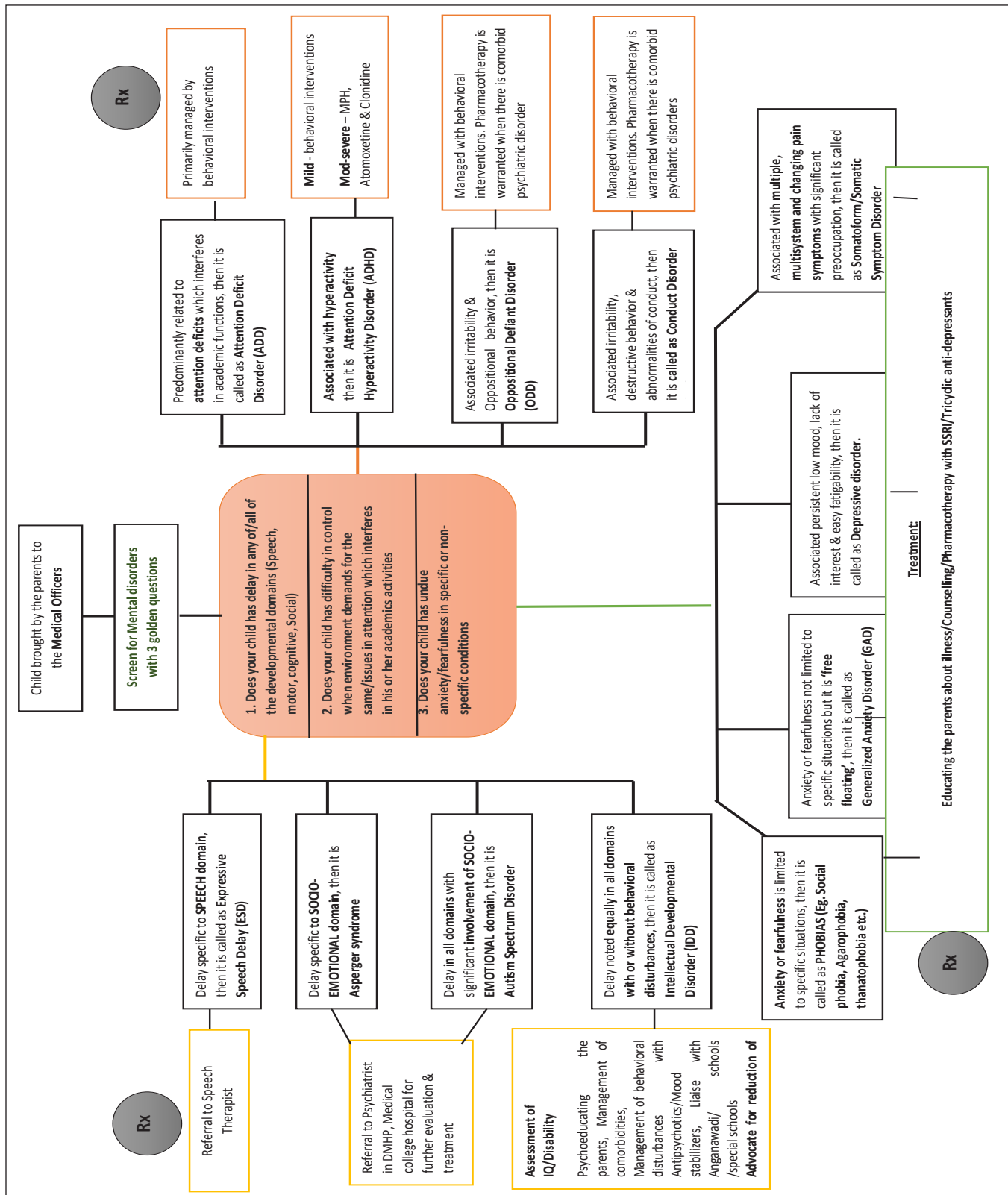
- a. Disability certification for social welfare benefits
- b. Encourage parents to consult other agencies or services such as parent support groups and associations
- c. Give information on National Trust Act and welfare schemes

### **REFERRAL**

There is need of referral if:

- a. Child has severe developmental problems
- b. Cause for DID is not clear or/ and parents are thinking of family expansion indicating need for genetic counselling
- c. History of regression (loss of acquired skills)
- d. Definite family history of developmental problems such as history of similar problem in the sibling
- e. Co-morbid severe behavioral or emotional problems, uncontrolled seizures
- f. Very poor social responsiveness - autism
- g. Difficulty in diagnosing mild DID vs learning disorder (child will have poor academic performance with normal intelligence and adaptive abilities)

## Training Manual on Mental, Neurological and Substance Use (MNS) Disorders Care for Medical Officer at Ayushman Bharat – Health and Wellness Centres



# CHAPTER 5

## NEUROLOGICAL DISORDERS CASE VIGNETTES

### CASE VIGNETTES

#### CASE 1

A 72-year-old hypertensive man, was seen at 5:30 AM in the morning by his wife, having abnormal posturing of all four limbs with head turning to the left and frothing from the mouth. The movements lasted for around 2 minutes following which the patient lost consciousness. There was no history similar episode in the past. On examination, patient was unconscious and non-responsive even 10 mins after the seizure stopped.

1. What is the first aid that should be given here?
2. What is the most common cause of the seizure in the elderly?
3. What investigations should be advised immediately?
4. What management protocol should be carried out?

#### CASE 2

A four-year-old child is brought by the parents with recurrent episodes for episodes of sudden onset blank staring that occur abruptly and lasts for 10-15 seconds and occurs 10-15 times a day since last 2-3 months. Patient is unresponsive and stops all activities during the episodes. Patient occasionally have rapid eye blinking during these episodes. He resumes the activity immediately after that and stays unaware of the episode. There are no convulsions. There is no similar history in family member.

1. What is the likely diagnosis?
2. What can precipitate these episodes?
3. What additional investigations will you carry out?
4. What is the drug of choice for absence seizures?

### CASE 3

A 78-year-old obese male, hypertensive and diabetic for the past five years and stroke in the past, now presented with progressive difficulty in recalling the name of familiar objects and forgetfulness for the past one year. The family members reported that he had stopped interacting with them and used to prefer staying alone. They reported that at a recent family function, he had been disinterested in the events and did not play any role in organization of the festivities, which was unusual for his usual personality. He had stopped watching television and no longer wanted to play with his grandchildren. He was also a heavy smoker.

1. Does this patient have dementia? What are the features to support your answer?
2. What other condition could mimic this patient's complaints?
3. What are the risk factors for dementia in this patient?
4. When should a patient with cognitive decline be referred?

## INTRODUCTION

Neurological disorders are caused as a result of structural, biochemical or electrical abnormalities in the brain. The disorders that will be discussed in this module are:

1. Epilepsy
2. Dementia
3. Alzheimer's disease

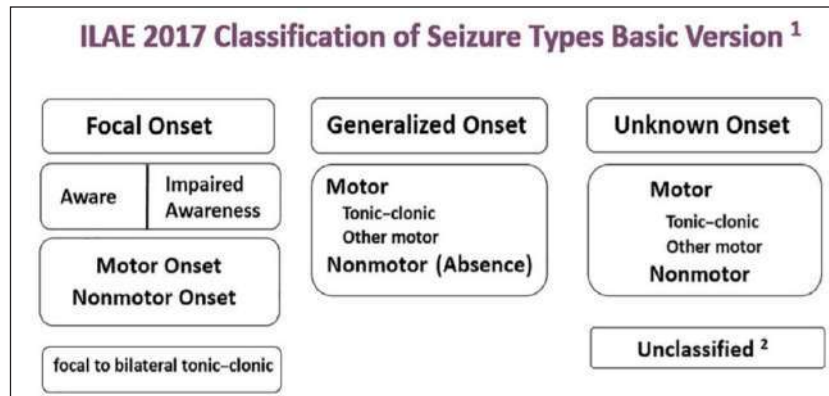
### A. EPILEPSY

Epilepsy is one of the most common neurologic conditions and about 1% of the population suffers from epilepsy, and about one-third of patients have refractory epilepsy (i.e., seizures not controlled by two or more appropriately chosen antiepileptic medications or other therapies). Approximately 75% of epilepsy begins during childhood, reflecting the heightened susceptibility of the developing brain to seizures.

Epilepsy is a disease where a person tends to have recurrent seizures. Seizures are caused by abnormal nerve signals in the brain and can cause a variety of symptoms. According to International league against epilepsy (ILAE), epilepsy is a disorder of the brain defined by any of the following conditions:

1. At least two unprovoked (or reflex) seizures occurring more than 24 hours apart.
2. One unprovoked (or reflex) seizure and a probability of further seizures similar to the general recurrence risk (at least 60%) after two unprovoked seizures, occurring over the next 10 years.
3. Diagnosis of an epilepsy syndrome.

## Classification of Epilepsy



- ▶ Definitions discussed in text
- ▶ Due to inadequate information or inability to place in other categories

Repeated seizures are a symptom of epilepsy. The seizures can be of the following types:

1. **Generalized Seizures:** that affect both sides of the brain. These occur without warning and hence are commonly associated with injuries.

a. **Tonic-clonic Seizures:** The patient can have sudden onset jerking/shaking with stiffness/tightening of the whole body, which can be associated with:

- Cry out
- Loss of consciousness
- Fall to the ground
- Passage of urine or stools
- Tongue bite
- Excessive salivation from mouth
- Difficult breathing
- Up rolling of eyes
- Pale skin colour

The person may feel tired, confused, or sleepy and may have headaches after a generalized tonic-clonic seizure. This state is called 'post-ictal' (after-seizure) state. They may or may not remember the seizure afterward.

b. **Tonic Seizures:** In a tonic seizure, the patient's body may suddenly become stiff. If they are standing, they often fall and develop injuries.

c. **Atonic Seizures:** In an atonic seizure (or 'drop attack'), the patient's muscles suddenly relax and become floppy. If they are standing, they often fall, usually forwards, and may injure the front of their head or face.

- d. **Myoclonic Seizures:** Myoclonic means 'muscle jerk'. Myoclonic seizures are brief but can happen in clusters (many happening close together in time), and often happen shortly after waking. These are the prominent seizure types in "juvenile myoclonic epilepsy." Muscle jerks are not always due to epilepsy (for example, some people have them as they fall asleep).
- e. **Absence Seizures:** This is generally seen in children and young adults. The patient can have rapid blinking of eyes; the patient may seem confused or look like they are staring at something that is not there. This

**2. Focal Seizures:** In this type of seizure, abnormal activity starts in just one area of the brain. In this type of seizures, there can be:

- ▶ Muscle twitching, or abnormal jerking of one limb
- ▶ Abnormal sensation over some part of the body
- ▶ Feeling of strange taste or smell

Patients with focal seizures may become confused or be unable to respond to questions for up to a few minutes. The focal seizure begins in one part of the brain but can spread to both sides of the brain. In such cases, the person first has a focal seizure that is followed by a generalized seizure.

Some people experience strange sensations before a seizure known as **aura**. The aura can be:

- ▶ 'rising' feeling in the stomach, or
- ▶ déjà vu (feeling like you have 'been here before')
- ▶ getting an unusual smell or taste
- ▶ a sudden intense feeling of fear or joy
- ▶ a strange feeling like a 'wave' going through the head
- ▶ a sensation that an arm or leg feels bigger or smaller than it is; or
- ▶ visual disturbances such as colored or flashing lights
- ▶ hallucinations (seeing something that is not there)

Once the patient starts recognizing the aura, they can identify it as a warning they get before seizure occurrence.

Some patients can have some abnormal behaviour/ movements at the beginning of a seizure, where they are unaware of these movements. They can rub their hands or pick at the clothes, chewing movement, movement of lips, or swallowing. These movements are automatisms and can be recognized as seizure onset.

Not all seizures are epilepsy.

Some patients can present with seizures or seizure-like episodes but do not qualify to be due to epilepsy.

- ▶ Seizures can also occur due to changes in body electrolytes. These seizures generally do not recur if the electrolytes are corrected.
- ▶ Alcohol withdrawal seizures can occur in chronic alcoholics when they do not drink alcohol for a few days.
- ▶ Psychogenic non-epileptic seizures may be caused by mental stress or a physical condition and are not actual seizures.

## ETIOLOGY

### What are the Causes of Epilepsy?

Epilepsy can occur due to many causes that lead to brain damage. In 60%-70% of cases, no cause is found.

The causes may be different for different age groups. These include:

- ▶ Difficult birth causing low oxygen supply to the brain of the newborn.
- ▶ Head injuries
- ▶ Brain tumors
- ▶ Genetic conditions where other family members can also be affected. Eg.
  - ▶ Tuberous sclerosis.
  - ▶ Brain infections
  - ▶ Stroke

### What can Precipitate Seizures in Epilepsy Patients who are Already on Treatment?

- ▶ Missing medication doses.
- ▶ Lack of sleep (a common cause of seizures in patients with juvenile myoclonic epilepsy)
- ▶ Fever
- ▶ Intake of other drugs that cause seizures
- ▶ Heavy alcohol intake

## Investigations

Patients with epilepsy may have to undergo a variety of investigations. These include:



- ▶ Computed Tomography (CT) scan or Magnetic Resonance Imaging (MRI) scan–The images can help identify tumours, strokes, or abnormalities in brain structure.
- ▶ An Electroencephalograph (EEG) records the electrical activity in the brain. It helps confirm seizure activity, determine the type of seizure, and identify the part of the brain involved in it.
- ▶ Video recording may be used with EEG to record the seizure.
- ▶ Blood investigations may also be required.

### When to Refer a Patient with Epilepsy to a Higher Center?

Patients with epilepsy can generally be managed well at primary care facilities. However, in the circumstances discussed below, patient should be referred to a higher center

- ▶ The epilepsy is not controlled with medication within 2 years despite good compliance.
- ▶ Management is unsuccessful after two drugs given in adequate dose.
- ▶ Patient with epilepsy experiences unacceptable immediate or long-term side-effects from medication.
- ▶ There is a unilateral structural lesion on CT or MRI brain.
- ▶ There is psychological and/or psychiatric co-morbidity.
- ▶ Seizures are associated with other symptoms like declining school performance, behavioural disturbances, difficulty in walking, frequent falls, visual disturbances etc.
- ▶ Patients with strong family history of seizures.

### Management

Although seizures can be frightening to see, they are not usually a medical emergency. Usually, the seizures are self-limiting and stop within 1 to 2 minutes. Once the seizure stops, the person recovers and goes back to normal after some time. The following points must be followed when helping a patient who has an active seizure. This guide is particularly relevant for tonic-clonic seizures where the person shakes or jerks.

### Pharmacotherapy

There are multiple drugs known as antiepileptic drugs that can be used to treat epilepsy. However, 30% of patients are not controlled with medications. These patients can have drug-refractory epilepsy.

### What is the Duration of Treatment?

In patients with epilepsy, discontinuation of antiepileptic treatment can be considered after two to three seizure-free years. However, the duration of treatment is individualized and depends on many factors like cause of epilepsy, seizure type, patient's occupation.

**Table: Dose and Side Effects of the Common Drugs Used in Management of Epilepsy**

Medication	Dose	Common side-effects
Phenytoin	5 mg per kg	Sleepiness, swollen gums, rash, Poor coordination or balance.
Carbamazepine	10-20 mg per kg	Sleepiness, rash, poor coordination or balance, double vision, decreased blood cell count, decreased sodium level in blood.
Valproate	20-40mg/kg	Sleepiness, weight gain, hair loss, decreased blood cell counts, birth defects in the newborn of a pregnant women patient taking valproate
Lamotrigine	5 mg/kg (Use half of this dose with slow titration if patient is on valproate) Very slow up titration not more than 25 mg per week increase	Rash
Clobazam	0.2 to 0.5 mg per kg	Sleepiness
Levetiracetam	10-40 mg/kg	Mood and behaviour changes

## Surgery

Brain surgery can be done in some eligible patients with drug-refractory epilepsy. Medications are mostly continued even after surgery.

## Non-Pharmacological Intervention

All non-pharmacological interventions are used in addition to the pharmacological therapy. These include:

- ▶ **Diet Therapy:** The ketogenic diet and modified Atkin's diet are usually used in patients with drug-resistant epilepsy. The ketogenic diet is a high-fat, low-carbohydrate diet that is typically implemented with a 3:1 or 4:1 fat to carbohydrate/protein ratio by weight. Modified Atkin's diet focuses more on carbohydrate restriction. Patients limit their daily intake of net carbohydrates to 10 to 20 grams per day indefinitely. Fat to protein and carbohydrate ratios is closer to 1:1.
- ▶ **Alternative Therapies:** Yoga, exercise, music therapy have been tried in patients with epilepsy. Though these can be advised to patients with epilepsy, these cannot be relied upon for epilepsy control.
- ▶ **Neuro-modulation:** Electrical or magnetic stimulation of the brain directly or indirectly through the cranial nerves have been tried in patients with epilepsy with good results in patients with epilepsy. The procedures include deep brain stimulation, vagal nerve stimulation and responsive neuro-stimulation.

General Precautions to be taken to prevent injuries:

**1. General Precautions to Prevent Seizures:**

- a. Do not skip medications
- b. Adequate sleep for at least 8 hours
- c. Early treatment of fever

**2. Precautions to Prevent Seizure-Related Injuries:**

- a. Do not drive—Driving is not permitted in patients with epilepsy as per Indian laws.
- b. Avoid swimming—Patients should avoid swimming or should be supervised while swimming. Patients with frequent seizures should not swim to avoid drowning. Taking a shower in running water is better than with a bucket full of water to avoid drowning if a seizure occurs during bathing.
- c. The patient should avoid going at height alone.
- d. Patients with frequent drop attacks can be given a helmet to avoid head injuries.

**Follow up Care, Frequency and Follow up Assessment at Primary Care Level**

Since epilepsy is a chronic disease, long term follow-up is required. Generally, in a patient with well controlled epilepsy 3-6 monthly follow up is adequate. In other epilepsy patients, a more frequent follow up should be done. During each follow up visit:

- ▶ Ask for the last seizure episode
- ▶ Ask for the compliance
- ▶ Ask if patient had any reaction/ side-effects to the drug (especially if a new drug is introduced)
- ▶ Ask for sleep duration
- ▶ Preferably patients should maintain the seizure diary to record all this information. Patients immediate relative/ witness of the seizures should be interviewed for the seizure episodes
- ▶ Ask for use of any alternate medications
- ▶ In females, the drug changes may be required before conceiving, proper counselling is needed for this issue
- ▶ Patients with well controlled epilepsy, who remain seizure free for > 3 years can be considered for tapering the drug dose. During tapering, the patient should be informed about the risk of breakthrough seizures with drug tapering

## Advice to Patient and Family

### Seizure First Aid

1. Stay calm. Note the time when the seizure started.
2. Look around - is the person in a dangerous place like in a swimming pool or near the fire? If not, do not move them. Move objects like furniture away from them.
3. Position: Keep the patient in a lateral position to allow draining of saliva outside.
4. Cushion their head with something soft if they have collapsed to the ground.
5. Rescue therapy:

There are a few drugs that can be given to abort a seizure at home.

- ▶ In a patient with known epilepsy, Midazolam nasal spray can be given during the seizure to abort the seizure. Give 5 mg into one nostril. Do not administer any extra dose if the patient has breathing trouble or if excessive sedation occurs that is uncharacteristic of the patient during a seizure cluster episode. Do not use > two doses per single seizure episode.
  - ▶ Mouth dissolving Clobazam tablet in the dose of 5 mg or 10 mg can also be used as a rescue therapy to control seizure out of the hospital.
6. Stay with the patient. If the patient does not collapse but seems blank or confused, gently guide them away from any danger. Speak quietly and calmly.
  7. Recheck the time. If the seizure continues for more than 5 minutes, take the patient to the hospital's emergency department.
  8. If possible, try to record the video.
  9. After the seizure has stopped, gently put the patient into the recovery position and check if breathing is returning to normal. Gently check their mouth to see that nothing is blocking their airways, such as food, tongue, or broken teeth. If their breathing sounds difficult after the seizure has stopped, call for an ambulance.
  10. Stay with the patient until fully recovered.

### WHAT NOT TO DO IN THE EVENT OF A SEIZURE?

1. Do not hold them down. This can lead to injuries and fractures.
2. Do not put anything to eat or drink in their mouth.
3. Do not make them smell shoes or onions.

### When Should a Person with a Seizure Taken to the Hospital?

Usually, not all patients with seizures need to be rushed to the hospital. A patient should be taken to hospital if:

- ▶ it is the person's first seizure;
- ▶ they have injured themselves severely;
- ▶ they have trouble breathing after the seizure has stopped;
- ▶ one seizure immediately follows another with no recovery in between;
- ▶ the seizure lasts for more than five minutes.
- ▶ the patient does not gain consciousness even after 20-30 mins of seizure.
  - Seizures are associated with weakness of any limb, slurred speech that persist even after the seizure stops.
  - All patients > 65 years of age with new onset seizure should be taken to hospital as new onset seizure in this age group is most commonly due to stroke.
  - Seizures are associated with altered sensorium, fever, intense headache, recurrent vomiting.

## B. DEMENTIA

**Dementia is a Syndrome** usually of a chronic or progressive nature—in which there is deterioration in cognitive function (i.e. the ability to process thought) beyond what might be expected from normal ageing (WHO). It affects:

- ▶ Memory
- ▶ Thinking
- ▶ Orientation
- ▶ Comprehension
- ▶ Calculation
- ▶ Learning capacity
- ▶ Language
- ▶ Judgement and social interaction

Consciousness is not affected. The impairment in cognitive function is commonly accompanied, and occasionally preceded, by deterioration in emotional control, social behaviour, or motivation. Dementia is one of the major causes of disability and dependency among older people worldwide. It can be overwhelming, not only for the people who have it, but also for their carers and families. There is often a lack of awareness and understanding of dementia, resulting in stigmatization and barriers to diagnosis and care.

### Risk Factors

#### *Potentially Non-Modifiable Factors*

- ▶ Genetic factors

### **Modifiable Factors**

- ▶ Illiteracy
- ▶ Hearing Loss
- ▶ Diabetes
- ▶ Hypertension
- ▶ Obesity
- ▶ Smoking
- ▶ Depression
- ▶ Physical Inactivity
- ▶ Social Isolation
- ▶ Stroke

### **Overview of Disease Progression**

Dementia progresses differently in everyone. Many people will experience the symptoms associated with the following stages of Dementia:

### **Stages of Dementia**

#### ***Mild Cognitive Impairment (MCI)***

MCI is a condition that can affect older people. Some of these people will go on to develop Alzheimer's disease. MCI is characterized by losing things often, forgetfulness, and having trouble coming up with words.

#### ***Mild Dementia***

People may still be able to function independently in mild dementia. However, they'll experience memory lapses that affect daily life, such as forgetting words or where things are. Common symptoms of mild dementia include:

#### ***Moderate Dementia***

People experiencing moderate dementia will likely need more assistance in their daily lives. It becomes harder to perform regular daily activities and self-care as dementia progresses. Common symptoms during this stage include:

#### ***Severe Dementia***

People will experience further mental decline as well as worsening physical capabilities once the disease progresses to the point of severe dementia.

### **Sign and Symptoms**

Dementia affects each person in a different way, depending upon the impact of the disease and the person's personality before becoming ill. The signs and symptoms linked to dementia can be understood in three stages.

Table

S.No.	Stages of Dementia		Sign & Symptoms
1	Early stage/Mild Dementia	The early stage of dementia is often overlooked, because the onset is gradual	<ul style="list-style-type: none"> <li>• forgetfulness</li> <li>• losing track of the time</li> <li>• becoming lost in familiar places</li> </ul>
2	Middle stage/Moderate Dementia	As dementia, progresses to the middle stage, the signs and symptoms become clearer and more restricting.	<ul style="list-style-type: none"> <li>• becoming forgetful of recent events and people's names</li> <li>• becoming lost at home</li> <li>• having increasing difficulty with communication</li> <li>• needing help with personal care</li> <li>• experiencing behaviour changes, including wandering and repeated questioning.</li> </ul>
3	Late stage/Severe Dementia	The late stage of dementia is one of near total dependence and inactivity. Memory disturbances are serious and the physical signs and symptoms become more obvious.	<ul style="list-style-type: none"> <li>• becoming unaware of the time and place</li> <li>• having difficulty recognizing relatives and friends</li> <li>• having an increasing need for assisted self-care</li> <li>• having difficulty walking</li> <li>• experiencing behavior changes that may escalate and include aggression.</li> </ul>

## Diagnosis of Dementia

No single test can determine dementia. Diagnosis is based on:

- ▶ clinical including neurological examination
- ▶ mental status examination
- ▶ other laboratory tests to rule out other causes

Not all confusion and memory loss indicate dementia, so it's important to rule out other conditions, such as drug interactions and thyroid problems.

## Mini-Mental State Examination (MMSE)

The MMSE is a questionnaire for measuring cognitive impairment. The MMSE uses a 30-point scale and includes questions that test memory, language use and comprehension, and motor skills, among other things. A score of 24 or higher indicates normal cognitive function. While scores 23 and below indicate that you have some degree of cognitive impairment.

## When to Refer?

A patient suspected to have dementia should be referred to a specialist in the presence of the following features:

1. Rapidly progressive cognitive dysfunction
2. Worsening impairment in activities of daily living
3. Presence of focal neurological deficits such as paralysis of one half of the body

4. Headache and vomiting
5. Fever
6. Involuntary weight loss and loss of appetite
7. Incontinence of bowel or bladder
8. Self-injury or injury to a caregiver
9. Recent history of head trauma
10. Associated seizures

### **Differential Diagnosis**

There are some conditions that may mimic dementia. These include:

#### ***a. Delirium***

Delirium is a condition that leads usually to a sudden change in mental status, causing the person to become confused and lose awareness of his environment. Delirium is common in older adults and is reversible if the underlying cause is identified and treated. Some of the triggers of delirium include infections, drugs, metabolic abnormalities (such as low sodium), surgery, alcohol et.

#### ***b. Depression***

Depression may lead to loss of interest in surroundings and usual activities, which may appear as if the patient has developed features of memory loss. Once the depression is treated, this form of memory impairment also reverses. It is important to screen all persons who complain of memory loss for the possibility of underlying depression.

#### ***c. Metabolic/ Endocrine Conditions***

Low sodium, thyroid dysfunction, calcium abnormalities can lead to memory impairment. Deficiencies of certain vitamins such as B12, niacin, thiamine can also lead to a dementia-like state.

#### ***d. Drugs***

Some medications such as anticholinergic drugs can cause confusion and memory issues.

### ***Pharmacological Intervention***

Pharmacological treatment is largely guided by the type of dementia that is diagnosed. There is no curative therapy for dementia, and hence, the focus is on treatment of symptoms and associated comorbidities, including psychiatric concerns.

Some drugs that may be useful, predominantly for Alzheimer disease, by may be useful in other forms of dementia also, include:



## Cholinesterase Inhibitors

These medications prevent the breakdown of acetylcholine in the brain, which helps in transmission of signals between neurons in the brain.

These drugs include: Donepezil (5 mg, 10 mg, 23 mg), Rivastigmine (transdermal patch 4,6 mg/24 hours or 9.6 mg/ 24 hours), Galantamine (8 mg, 16 mg, 24 mg)

Although these drugs may provide some benefit in memory, attention and other symptoms, they mainly slow down the progression of dementia for a period of time.

Some of the side effects include nausea, vomiting, diarrhea, fatigue, insomnia.

## Memantine

Memantine mainly helps to balance a substance called glutamate in the brain. It is used predominantly for moderate to severe Alzheimer disease.

Side effects may include giddiness, headache, constipation, fatigue and somnolence.

Occasionally, the above two drugs may be combined.

## Other Drugs

Additional drugs may be considered for symptomatic benefit of associated problems:

- ▶ Occasionally, patients with dementia may suffer from delusions or hallucinations. In such a case, antipsychotics such as risperidone may be added.
- ▶ Insomnia: Sedative-hypnotic drugs may be added to benefit sleep issues.
- ▶ Antidepressants: for comorbid depression.

## Non-Pharmacological Intervention

**Environmental Modification:** Alterations must be made in the environment of the patient with dementia to make it safe and comfortable for the patient. There should be adequate lighting, handrails in the washroom, nightlight while sleeping etc. to ensure that the patient does not trip and fall. Noise and clutter should be reduced.

**Memory Training:** External memory aids such as reminder notes or alarms on the patient's phone may be used.

Patients with dementia should be encouraged to participate in activities that demand mental activity such as doing the crossword, playing sudoku to keep their mental abilities sharpened.

**Adequate Sensory Cueing:** Vision and hearing issues among persons with dementia must be corrected with the help of spectacles or hearing aids, so that they are able to better interact with their family and friends.

**Simplification of Tasks:** Complex tasks may be simplified or broken down to several simpler individual tasks to avoid confusing the patient with dementia.

**Dementia Support Groups:** Patients with dementia must be encouraged to maintain their social network and possibly, become part of a dementia support group for moral support and social interactions.

**Other Therapies:** Other therapies which may provide relaxation among these patients include music therapy, aroma therapy, light exercises, art therapy.

### *Psychosocial Interventions*

**Cognitive Behavioral Therapy:** This form of psychosocial interventions that helps to improve emotional regulation and coping strategies and may be of immense benefit in the initial part of the diagnosis to enable patients to come to terms with the diagnosis of dementia.

**Psychotherapy and Psycho-Educational Interventions:** These strategies entail systematic and didactic transfer of disease-based knowledge, integrating it with emotional aspects of the disease. These help caregivers in assisting persons with dementia while simultaneously ensuring their own emotional well-being.

**Behavioural Management Therapy:** Behavioural management therapy focuses on promoting wanted behaviour and dissuading unwanted behaviour. It is useful in persons with dementia who develop difficult behavioural issues such as temper tantrums, self-injurious behaviour, wandering, repetitive questioning etc.

### **Prognosis**

Patients with dementia have shorter lifespans than those without dementia. Women tend to live longer than men. Several features are associated with shortened survival: feeding issues, malnutrition, swallowing difficulties, admission to hospital and advanced stages of dementia. Additionally, the presence of comorbid diabetes, heart failure, cancer, and infections further worsen prognosis.

### **C. ALZHEIMER'S DISEASE**

Alzheimer's is a degenerative brain disease that is caused by complex brain changes following cell damage. It leads to dementia symptoms that gradually worsen over time. The most common early symptom of Alzheimer's is trouble remembering new information because the disease typically impacts the part of the brain associated with learning first.

As Alzheimer's advances, symptoms get more severe and include disorientation, confusion and behavior changes. Eventually, speaking, swallowing and walking become difficult. There is no way to prevent, cure or even slow Alzheimer's disease.

### **Risk Factors**

Advancing age, illiteracy, addiction, hypertension, diabetes, poor socioeconomic status, trauma, familial or genetic factors, nutritional factors, and stroke.

## Stages of Alzheimer's

### Early Stage

In the early stage of Alzheimer's, a person may function independently. He or she may still drive, work and be part of social activities. Despite this, the person may feel as if he or she is having memory lapses, such as forgetting familiar words or the location of everyday objects.

### Middle Stage

Middle-stage Alzheimer's is typically the longest stage and can last for many years. As the disease progresses, the person with Alzheimer's will require a greater level of care.

During the middle stage of Alzheimer's, the dementia symptoms are more pronounced. the person may confuse words, get frustrated or angry, and act in unexpected ways, such as refusing to bathe. Damage to nerve cells in the brain can also make it difficult for the person to express thoughts and perform routine tasks without assistance.

### Advanced Stage

In the final stage of the disease, dementia symptoms are severe. Individuals lose the ability to respond to their environment, to carry on a conversation and, eventually, to control movement. They may still say words or phrases, but communicating pain becomes difficult. As memory and cognitive skills continue to worsen, significant personality changes may take place and individuals need extensive care.

## Sign And Symptoms

1. The initial and most common presenting symptom is episodic short-term memory loss with relative sparing of long-term memory and can be elicited in most patients even when not the presenting symptom.
2. Short-term memory impairment is followed by impairment in problem-solving, judgment, executive functioning, lack of motivation and disorganization, leading to problems with multitasking and abstract thinking.
3. In the early stages, impairment in executive functioning ranges from subtle to significant.
4. This is followed by language disorder and impairment of visuospatial skills. Neuropsychiatric symptoms like apathy, social withdrawal, disinhibition, agitation, psychosis, and wandering are also common in the mid to late stages. Difficulty performing learned motor tasks (dyspraxia), olfactory dysfunction, sleep disturbances, extrapyramidal motor signs like dystonia, akathisia, and parkinsonian symptoms occur late in the disease.
5. This is followed by primitive reflexes, incontinence, and total dependence on caregivers.

## Investigation Guidelines

1. Routine laboratory tests show no specific abnormality.
2. Complete blood count (CBC), complete metabolic panel (CMP), thyroid-stimulating hormone (TSH), B12 are usually checked to rule out other causes.

3. CT brain shows cerebral atrophy and widened the third ventricle. It is suggestive but it's nonspecific because these abnormalities are also present in other illnesses and people with normal age-related changes.
4. Cerebrospinal fluid (CSF) analysis for low beta-amyloid 42 and elevated tau is helpful in the diagnosis of the preclinical stage.
5. EEG typically shows a generalized slowing with no focal features. It is diagnostically helpful but still nonspecific.
6. The most reliable method to detect mild cognitive impairment in early disease is neuropsychological testing.

### ***When to Refer?***

Patients with Alzheimer disease should be referred if they develop the following features:

- ▶ Challenging behaviour
- ▶ Wandering
- ▶ Hallucinations
- ▶ Delusions
- ▶ Abrupt worsening of cognitive issues or sudden confusion
- ▶ Fever
- ▶ Seizures
- ▶ Swallowing dysfunction
- ▶ Respiratory distress
- ▶ New onset incontinence of bladder or bowel
- ▶ Focal or lateralising neurological signs
- ▶ Side effects to medications

### **Differential Diagnosis**

Age-associated memory impairment, alcohol or drug abuse, vitamin-B12 deficiency, patients on dialysis, thyroid problems, and polypharmacy.

### **Management**

#### ***Pharmacological Intervention***

There is no cure for Alzheimer's disease. Only symptomatic treatment is available.

**Cholinesterase Inhibitors:** Cholinesterase inhibitors act by increasing the level of acetylcholine; a chemical used by nerve cells to communicate with each other and is important for learning, memory and cognitive functions. Of this category, 3 drugs: Donepezil, Rivastigmine, and Galantamine are FDA-approved for the treatment of Alzheimer's disease.

Donepezil can be used in all stages of Alzheimer's disease.

**Side Effects:** The most common side effects of cholinesterase inhibitors are gastrointestinal-like nausea, vomiting, and diarrhea. Sleep disturbances are more common with donepezil. Due to increased vagal tone, bradycardia, cardiac conduction defects, and syncope can occur, and these medications are contraindicated in patients with severe cardiac conduction abnormalities.

## **Non-Pharmacological Intervention**

### **Psychosocial Interventions**

1. Environmental and behavioural approaches are beneficial especially in managing behavioural problems. Simple approaches such as maintaining a familiar environment, monitoring personal comfort, providing security objects, redirecting attention, removing doorknobs and avoiding confrontation can be very helpful in managing behavioural issues.
2. To minimize caregiver burden, mild sleep disturbances can be reduced by providing exposure to sunlight and providing daytime exercise.
3. The expected benefits of the treatment are modest. Treatment should be stopped or modified if no significant benefits or if intolerable side effects.
4. Regular aerobic exercise has been shown to slow the progression of Alzheimer's disease.

### **Follow up Care, Frequency and Follow up Assessment at Primary Care Level**

The goal of follow up is to detect, prevent and treat any complications that may arise during the course of the disease such as falls and malnutrition. Additionally, emergency situations should be prevented as much as possible.

The frequency of follow up should be individualized to each patient, with more frequent follow up for more severely affected patients. It may vary from one to three months, depending on how stable the patient is.

- ▶ At each visit, the patient should be assessed for cognitive, functional and nutritional status. The patient's weight must also be checked to ensure that weight loss or malnutrition is not developing.
- ▶ Any changes in behavior must be assessed. Additionally, gait and balance issues must be looked out for. Patients should be screened for the development of any comorbid illnesses such as hypertension and diabetes regularly.
- ▶ Compliance to medications and any side-effects due to these should be asked for.
- ▶ Lastly, the patient as well as the caregivers should be educated at each visit. Their emotional health and resilience must be also enquired into.
- ▶ If the patient develops rapid cognitive impairment, delirium may have been precipitated and the patient must then be referred to a specialist.

## **Prognosis**

1. Alzheimer's disease is invariably progressive. Average life expectancy for a person age 65 years or older diagnosed with Alzheimer's disease is about 4 to 8 years.
2. Some individuals with Alzheimer's disease may live up to 20 years after the first signs of disease. The most common cause of death in Alzheimer's disease is pneumonia.

## CHAPTER 6

### SUBSTANCE USE DISORDERS (SUDS)/ ADDICTION

#### CASE VIGNETTES

##### CASE 1

Mr. R has been diagnosed with Tuberculosis and started on Directly Observed Treatment (DOT). He continues to be sputum positive at the end of 2 months of DOT treatment. He has come to you with complaints of persistent cough. On interaction with him and his family you realize Mr. R smokes lots of beedis and he is not heeding to previous advice to abstain from beedis. He has been having cough and breathing difficulty. He says he has tried to decrease but is unable to decrease or stop using beedis. He says he rather skips his meal, but not the beedis as he becomes very restless and irritable if he doesn't smoke. The first thing in the morning he needs to do is to smoke or else he can't even pass stools.

- i. What are the core symptoms of dependence syndrome in this patient?
- ii. How can one deal with craving for tobacco?
- iii. What are the harmful effects of tobacco use?

##### CASE 2

Mr. X is a 40-year-old man who runs a small business. He has often noted to be drinking alcohol and fighting with his wife and neighbours leading to frequent fights. Mr. X family has tried multiple times to get him to stop alcohol, taken him to local temples and performed numerous pujas to make him stop. He stopped using alcohol 2 days back after a visit to a temple, he has now been brought with complaints of shaking of hands and body and not sleeping since 1 day. How will you approach this case?

1. What are the features to look for during examination to assess for withdrawal?
2. What are the complications that can arise in a person with alcohol dependence?
3. How will you decide the treatment protocol for management of this patient?

## INTRODUCTION

In this module we will discuss the following substance use disorders:

1. Alcohol
2. Tobacco
3. Other psychotropic drugs

Substance Use Disorders (SUDs) includes persistent use of drugs (psychoactive substances) causing harm to the person and serious adverse consequences to the individual's personal and social life. A wide range of substances can lead to habit formation and addiction. Addiction is not often seen as an illness that needs medical attention and care. Also, general belief is that once a person develops addiction to a substance, he will remain addicted to the substance forever. Persons with addiction to substances face stigma and discrimination in the society. They are generally viewed as mentally 'weak' people. Further behavioural problems that arise during intoxicated state adds to the stigma experienced by them.

As per the National Mental Health Survey, 2015-2016 across India, the prevalence of Substance use disorder including alcohol use disorder, moderate to severe tobacco use disorder and other drugs (illicit and prescription drugs) is about 22.4% in people above 18 years of age.

## ETIOPATHOGENESIS OF ADDICTION

A person can start using a substance for various reasons in various situations such as:

- ▶ Out of curiosity to experience the effects of a psychoactive substance
- ▶ Due to peer pressure
- ▶ As a way of coping for stressful situations such as financial difficulty, marital issues etc.
- ▶ Due to underlying psychiatric illness such as depression, anxiety
- ▶ Cultural factors: for E.g. use of bhang during holi in some parts of the country
- ▶ A drug prescribed for physical ailment: for E.g. opioids for pain, benzodiazepines for insomnia

When a person starts using a substance it leads to changes in the neurotransmission in the brain.

- a. Reward pathway is the circuit in the brain which enables us to experience pleasure/happiness. Shown in figure 1.
- b. When a person consumes a psychoactive drug, changes in neurotransmission in the brain occur. Most of the substances stimulates the transmission of **Dopamine** from the Ventral tegmental area to the Nucleus accumbens and the pre frontal cortex, involving the activation of the 'reward pathway', illustrated in the figure.
- c. This reward pathway is hijacked by the substances to release of excess **Dopamine** (Kick giving neurochemicals in brain) which makes an individual addicted to a substance.

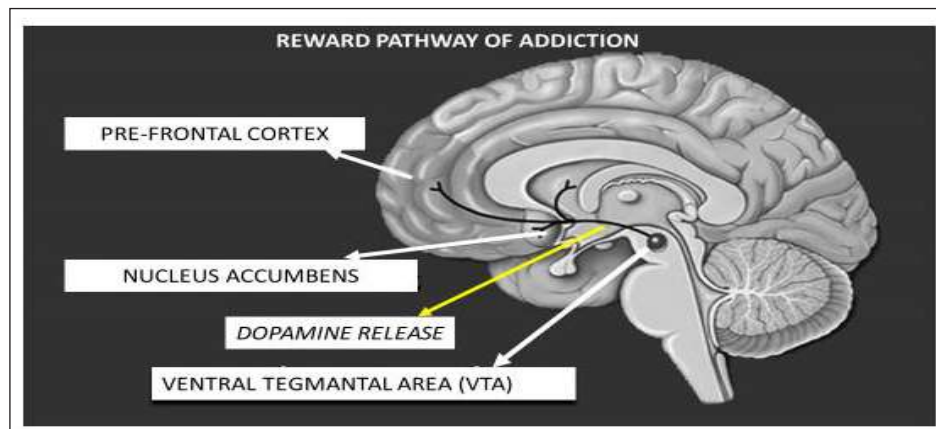


Fig. 1: Reward Pathway

When a person uses a substance it can have various effects such as:

**Acute Intoxication:** A transient condition following the use of alcohol or other psychoactive substances resulting in alteration in level of consciousness, perception, mental functions, behaviour and other physiological functioning. The level of alteration depends on the quantity of substance used and blood levels of the substance.

**Harmful Use:** A pattern of psychoactive substance use that is causing damage to health. The damage can be in the form of physical damage (e.g: alcohol liver disease) or psychological (eg: episodes of depression secondary to alcohol consumption)

**Addiction/ Dependence Syndrome:** A definitive diagnosis of dependence can be made only the following symptoms were present together at some point in the last one year:

- ▶ Regular pattern of substance use, especially early morning usage is present
- ▶ Experience of withdrawal symptoms when he/she does not use or reduce substance amount

### General Approach to Substance Use Disorder

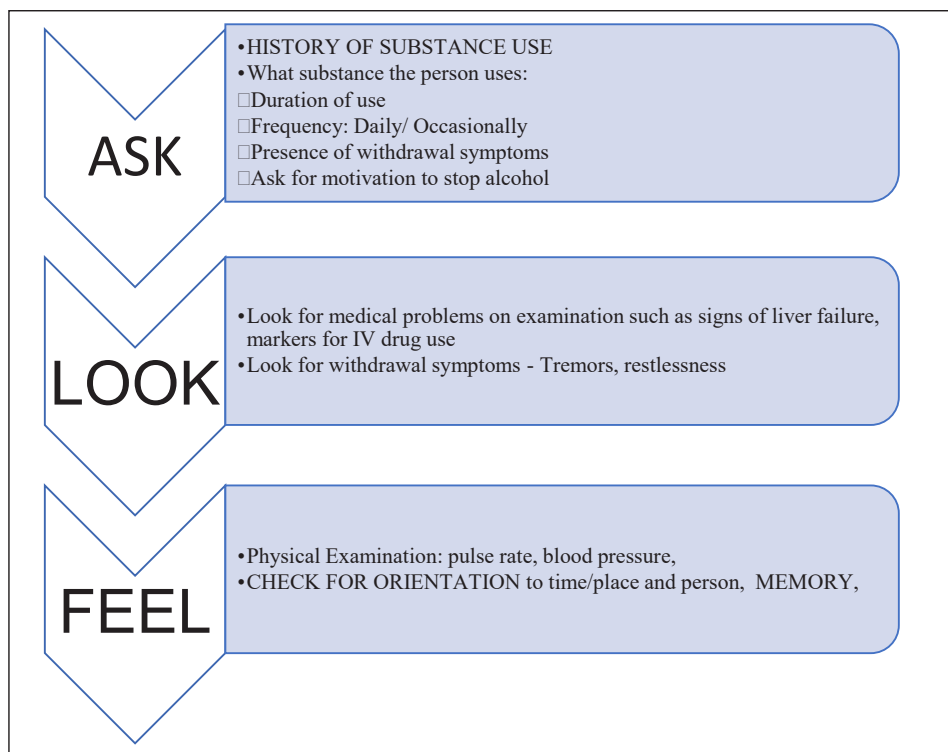
## A. TOBACCO ADDICTION

Tobacco use is the commonest substance use disorder among men and women across the world.

### TYPES OF TOBACCO USED

- a. Tobacco is used in wide variety of ways such as smoking, chewing, sucking and gargling.
- b. Beedi smoking is the most popular form of smoking while cigarettes form the second most popular form.
- c. Chewing paan (betel leaf) with tobacco is the major form of smokeless tobacco use.
- d. Paan masala, gutka and mawa are dry tobacco preparations with areca nut, which are popular and highly addictive.





## HARMFUL EFFECTS OF TOBACCO USE

- Increased Risk of Cardiovascular Illnesses such as Coronary Artery Disease, Stroke and Peripheral Vascular Disease
- Respiratory Illnesses: Tobacco smoking is responsible for 82% of COPDs. Passive smoking is an important cause of respiratory infection, worsening of asthma and poor lung functions.
- Cancer: Tobacco is known risk factors for various pre-cancerous lesions and cancers
- Sexual and Reproductive Health: Men with Tobacco addiction have a lower sperm count and quality. Maternal use during pregnancy leads to decreased fetal growth, abortions, pre term delivery and lower infant birth weight.

## DIAGNOSIS OF TOBACCO ADDICTION/ DEPENDENCE

The criteria mentioned in the general overview can be used to make a diagnosis of tobacco dependence syndrome. Also, Fagerstrom Test for Nicotine Dependence can be applied to arrive at a diagnosis (refer **Annexure 4**).

## B. ALCOHOL USE DISORDERS

Alcohol use disorder is widely prevalent in every part of the country.

## TYPES OF ALCOHOL

Country liquor or 'desi sharab' (30%) and spirits or Indian made foreign liquor (about 30%) are the most commonly consumed form of alcohol. The other forms of alcohol consumed include beer, home brewed liquor, wine and other illicit liquors.

## Types of Alcohol Use Disorders

1. **Harmful Use:** Here the person does not take alcohol regularly but heavy alcohol use which leads to Health Problems or Social Problems (Domestic Violence, Loss of Job, Road traffic accidents etc.) .
2. **Alcohol Addiction/ Dependence:**
  - ▶ Regular use of Alcohol, especially early morning drinking is present
  - ▶ An experience of withdrawal symptoms when he/she does not use or reduce alcohol amount (two types mentioned below)

Person has to fulfil above both criteria to make diagnosis of alcohol addiction.

## Alcohol Withdrawal Symptoms

- a. **Simple Withdrawal:** Tremors, sleep disturbance, craving, sweating, palpitations, some may experience hallucinations.
- b. **Complicated Withdrawal:** Seizures (which is generalised tonic clonic seizures occurring in cluster pattern), *Delirium tremens*—Confusion with tremors. These are emergency conditions that needs to be identified and treated immediately, or need referral to higher centre.

## HARMFUL EFFECTS OF ALCOHOL USE

- a. Gastrointestinal system: fatty liver, alcoholic hepatitis, cirrhosis, esophagitis, acute gastritis, pancreatitis and malabsorption
- b. Nutritional deficiencies: thiamine, pyridoxine, vitamin A, folic acid, ascorbic acid
- c. Haematological deficiencies: Anaemia, leukopenia, thrombocytopenia
- d. Cardiovascular system: Cardiomyopathy, hypertension
- e. Central nervous system: Wernicke-Korsakoff's syndrome, dementia, cerebellar degeneration, peripheral neuropathy, myopathy
- f. Metabolic disorders: ketoacidosis, hypoglycaemia, hypocalcemia, hypomagnesmia
- g. Cancers: Oral, oesophageal, colon, hepatocellular and breast
- h. Others: Fetal alcohol syndrome (teratogenic effect of alcohol), osteoporosis,
- i. Increased road traffic accidents and domestic violence.
- j. Another important complication of alcohol addiction is Wernicke's Encephalopathy- Clinical features are: confusion, ophthalmoplegia and ataxia which is due to severe Thiamine Deficiency (Vitamin B1).

## Diagnosis of Alcohol Addiction/ Dependence

The two criteria mentioned above in the general overview can be used to make a diagnosis of alcohol addiction/ dependence. Also, Alcohol Use Disorder Identification Test (AUDIT) can be applied to arrive at a diagnosis (refer **Annexure 5**).

## C. OPIOID ADDICTION

### TYPES OF OPIOID SUBSTANCES USED

Opioid Preparation	Street Names and Trade Names of the Opioid Drugs
Heroin	Smack, brown sugar, white sugar, chitta, saaman, pudiya
Buprenorphine Injections	Norphine, lupi
Pentazocine injection	Fortwin
Codeine	Corex, phensydyl
Dextropropoxyphene	Proxylon, spasmo, spasmoproxyvon
Tramadol	Spasmo plus
Opium	Afeem, doda, bhuki

### Opioid Use Disorder: Types and Clinical Features

#### 1. Opioid Harmful Use

Use of opioids leading on to some physical or psychological problem, even if not used regularly

#### 2. Opioid Addiction

- Regular use of opioids, almost every day
- Experience of withdrawal symptoms whenever opioid use is stopped or reduced

### Opioid Withdrawal

- Symptoms:** Sweating, palpitations, diarrhoea, vomiting, restlessness, muscle cramps and aches, Sleep disturbances, excessive Yawning
- Signs (On Examination):** Tachycardia, Tachypnoea, Raised Blood Pressure, Dilated Pupils

## D. CANNABIS USE DISORDERS

Bhang is not illegal to consume which is an extract from the leaves of the cannabis plant. Cannabis use disorders mostly present with co-morbidity such as psychosis, unlike alcohol and opioid where withdrawal is a common presenting complaint. The treatment would be in lines with psychiatric presentation. Eg: If patient has psychotic symptoms then initiate antipsychotics and discuss about stopping the cannabis use.

## TREATMENT GUIDELINES FOR SUBSTANCE USE DISORDERS

General component of treatment of Substance use disorders includes:

- ▶ Pharmacological management: Detoxification, Treating any medical complications due to substance use and Anti-craving medications
- ▶ Non-pharmacological Management: Non-Pharmacological management is an important component of treatment of Addiction.

For most of the patients visiting a primary care physician, interventions done at OPD for few minutes will help them to stop using the substance.

The steps for brief interventions are (FRAMES):

- ▶ Feedback of personal risk: Be clear in informing the person about how substance use is going to worsen his condition further.
- ▶ Responsibility: emphasise the decision to quit is the patient's responsibility and choice, no one else can decide for them.
- ▶ Advice: give a clear advice as a doctor about the disadvantages of substance use.
- ▶ Menu: Discuss variety of strategies for the patient to choose to achieve the goal such as keeping a diary, recognizing and avoiding trigger situations.
- ▶ Self-efficacy: Patient has to be encouraged to be optimistic and to bring the changes in behaviour.

### *Non-pharmacological Management of Craving for Substances*

The following practical and simple strategies will help an individual with addiction to deal with craving for substances, can be applied for any substance: Remember the 5Ds

- ▶ Delay: Delay the use of the substance when craving starts
- ▶ Drink water: Drinking water when experiencing craving will help curb it
- ▶ Distract: involving in other activities/ hobbies is useful way to take mind away from the substance
- ▶ Discuss: talking about the craving with family/friends/ doctors/health workers helps to prevent relapse
- ▶ Deep breathing exercises: relaxing exercises such as deep breathing will help decreasing anxiety and distress which in turn decrease the risk of relapse

### **Points to Remember**

- ▶ Relapse is a rule in addiction treatment.
- ▶ Avoid being judgemental and avoid confrontations.
- ▶ Suggestions and offer of help will be more readily be accepted if it is given in the spirit of concern for health and family well-being.
- ▶ Remember to follow-up the patient regularly to review the progress.

- ▶ When patient is resistant to quitting, harm reduction strategies and even reducing the amount of use is good.
- ▶ Arrange for follow-ups and support by the CHO and other health workers.

### ***Treatment of Tobacco Addiction/ Use Disorder***

The basic Principle of treatment of tobacco use disorder is replacement of cigarette/ beedi/ chewable tobacco with pure nicotine in the form of patch/ chewing gum thereby avoiding exposure to toxic carcinogens that are present in cigarette/ beedi

Pure nicotine is available in the form of either patch or chewing gum. Eventually to focus complete abstinence.

#### **Nicotine Transdermal Patch**

- ▶ Nicotine transdermal patch to apply on clean, dry, non-hairy area of skin (typically upper arm or shoulder), and it should remain in place throughout the day.
- ▶ The patch is available in 7 mg, 14 mg and 21 mg.
- ▶ The initial dosage depends upon the number of cigarettes per day.
- ▶ For daily consumption of more than 20 cigarettes, initial dosage of patch should be 21 mg.
- ▶ For daily consumption of 10-20 cigarettes, initial dosage of patch should be 14 mg.
- ▶ For daily consumption of less than 10 cigarettes, initial dosage of patch should be 7 mg.
- ▶ Initial dosage of the patch should be given for 6 weeks and then tapering should be done for every two weeks. For eg if the initial dosage is 21 mg patch then 21 mg patch OD for 6 weeks, then 14 mg patch OD for 2 weeks & then 7 mg patch OD for 2 weeks).
- ▶ For intermittent craving that the patient experience Nicotine gums of 2 mg can be used on SOS basis.

#### **Nicotine Gum**

- ▶ Nicotine gum to be used in chew and park technique (2 & 4 mg: Max 16 mg/day, to be used hourly for first 2 weeks then gradual taper and stop in 3 months).
- ▶ Please be aware that nicotine gum has poor acceptability and unpredictable effects, i.e., may not get desired effects

### ***Treatment of Alcohol Use Disorder***

Treatment of alcohol use disorder has two parts. One is treatment of alcohol withdrawal symptoms (detoxification) and other is management of addiction per se.

- a. Detoxification to control withdrawal symptoms is done using short-term and tapering doses of benzodiazepines (Diazepam), as a replacement.
- b. All patients of alcohol use disorder suffer from deficiency of thiamine, so should be given high dose of thiamine supplementation.
- c. Craving is managed by using anti-craving medications (treatment for addiction per se).

## Pharmacological Management

### Detoxification Treatment

- ▶ The basic principle of detoxification is to substitute alcohol with a molecule that acts in similar way as alcohol in the brain, and then we gradually decrease it, so that the neurochemical change in brain gets reversed slowly (to prevent complicated withdrawal-seizures and delirium tremens).
- ▶ Benzodiazepines act on GABA receptor, which is where the alcohol too acts.
- ▶ In patients with alcohol use disorder, after prolonged consumption of alcohol (which is a CNS depressant), the stimulating neurochemicals increase, so as to keep the brain functioning happening at normal levels.
- ▶ When alcohol is stopped suddenly, there is relative excess of stimulants, leading to appearance of withdrawal symptoms.
  - Such patients having withdrawal symptoms should be started on benzodiazepine, preferably diazepam 40 mg in divided doses (10 mg-10 mg-20 mg), and gradually it can be tapered down 10 mg every day starting with morning dose. Night dose of diazepam should be stopped at the end.
- ▶ If patient has visible icterus, it means the liver functions are deranged and for such patients Lorazepam is preferred; as Diazepam is metabolized through liver, but not Lorazepam.

Lorazepam can be started at 8 mg/day in divided doses (2 mg-2 mg-4 mg) and decreased 2 mg every 2<sup>nd</sup> day starting with morning dosage.

### Craving Management

- ▶ Craving should be managed by using anti-craving medications which can be started concurrently from 1<sup>st</sup> day of detoxification.
- ▶ Anti-craving medications include T. Acamprosate, T. Naltrexone, T. Baclofen or T. Topiramate.
- ▶ Operational guidelines for Mental, Neurological and Substance Use Disorders at health and wellness centers makes provision of Naltrexone and National Essential Drug List makes provision of Baclofen at PHCs.

**Table**

S. No.	Medication	Adult Dose (mg/day)		Side Effects
		Acute dose	Maintenance dose	
1	Naltrexone	50mg/day.	Same as acute dose	Hepatotoxicity occurs at dosages of more than 300mg /day.
2	Baclofen	30-60mg/day (in divided doses)	Same as acute dose	Drowsiness, feeling of weakness and backache

► Naltrexone

- Works by blocking Opioid receptor in brain, thereby reducing the positive pleasure and craving for alcohol.
- Recommended dosage is 50 mg/day.
- Can be started along with treatment of detoxification
- Hepatotoxicity occurs at dosages of more than 300 mg/day.

► Baclofen

- It is a GABA Agonist
- Should be given in divided doses till 30-60 mg/day (10 mg-10 mg-10 mg)
- Effective in reducing the craving for alcohol.
- Should be started at 10 mg/day and gradually increased with 10 mg increments per day, till the total daily dosage reaches 60 mg.

### ***Treatment of Opioid Use Disorder***

- There are two important components in treatment of Opioid use Disorder, one is treating opioid intoxication and other is Opioid substitution therapy (so that patient does not relapse back into consuming opioid)
- Commonly used opioids are heroin followed by pharmaceutical opioids (pentazocine and dextro-propoxyphene)

### **Managing Opioid Intoxication**

- Opioid intoxication is characterized by pupillary dilatation, drowsiness, slurred speech, impaired attention
- Naloxone is the treatment of choice in case of opioid intoxication
- It has very short half-life of 60-90 min.
- Should be administered intravenously at dosage of 0.8 mg, the dosage needs to be repeated with gradual hike in dosage till the signs of opioid intoxication get reversed.

### **Opioid Substitution Therapy**

- It should start only after opioid withdrawal symptoms have appeared, which is generally after 2-3 days of stopping opioids.
- Patient can be initially started on 2 mg/day of Buprenorphine (sublingual), which can be increased as per control of withdrawal symptoms.
- Generally, patients will require 2-6 mg Buprenorphine per day for adequate control of withdrawal symptoms.

# CHAPTER 7

## SUICIDE IDEATION/ BEHAVIOURS

### CASE VIGNETTE

#### CASE 1

Rajesh is a 25-year-old gentleman searching for a job in an MNC from last 2 years. He lives in an apartment with his friends. He had a recent break up in a relationship and seems quite agitated. A roommate has noticed him taking some pills at night and stays alone. The roommate is worried about him as he is tearful and stays alone most of the day and hence brings the client to you. On inquiry, Rajesh tells you that he feels life is not worth living anymore. On further conversation he breaks down and tells you that he had planned to end his life with sleeping pills overdose the next time he's alone in the flat.

- i. Assess the risk in this individual. What further information would you like to ask the client?
- ii. What are the immediate interventions will you plan?
- iii. What will be included in the crisis plan?
- iv. What will be your further management plan?

### INTRODUCTION

Suicide is defined as an “act of deliberately killing oneself”, while suicidal behaviour refers to “behaviours ranging from thinking about suicide, planning for suicide, attempting suicide and suicide itself”. Suicide is preventable. However, suicide rates continue to increase and is a cause for worry.

One suicide occurs every 20 seconds and hence suicide is a critical public health issue worldwide and more so in India as per the World Health Organization (WHO). Additionally, 10-20 suicide attempts occur for each suicide death and affect approximately 6 individuals directly, highlighting the magnitude and impact of suicide.

India is amongst the countries with the highest number of suicides. Worldwide, every third female suicide and every fourth male suicide occurs in India. Importantly, unlike the western countries, the highest rates of suicide in India occur in the 15-39 age group, and almost equal



rates noted in both males and females. This is even more concerning as the younger, more productive part of the population is prematurely dying due to suicide thus impacting wellbeing at both the local level as well as the country level.

## ETIOLOGY

Suicide, listed as a Non-Communicable Disease (NCD), has multifactorial causes as do most other NCDs. Critical to suicide prevention is to have an understanding of various aspects related to suicide.

A common misconception is that suicide occurs only in mental illness or is a sign of mental illness. Suicide in India has many causes other than mental illness. These include financial stress (debt, loss of jobs/ business failure or agricultural losses) relationship stress (among family members/ husband-wife/in laws/ parents-children/ childhood abuse or trauma and relationship failures), academic (exam failure/ bullying/ childhood abuse/ school dropout or inability to get education) and physical illness or disability (chronic illness/ pain/ cancer/ cost of treatment/ lack of treatment/ stigma due to illness like T.B). Depression and alcohol use are the commonest mental health related issues associated with suicide in India.

Additionally, social stigma, discrimination by others, fear of legal implications and misconceptions related to suicide, prevent people from seeking help in a timely manner leading to increased suicides. Not disclosing their suicide related thought to family and friends, lack of information about how or where to seek help, also makes it difficult for people struggling with suicidal thinking, resulting in suicide deaths that could have been prevented.

Timely identification, assessment and intervention are the key to preventing suicide. Integral to same are increasing access to help, strengthening protective factors, removing barriers to care especially for those at more likely to attempt suicide. Health care providers at the community level are ideally placed to prevent suicides by identifying those vulnerable, coordinating supportive care for them as well as, where needed, transferring those at high-risk for further care to District Hospitals. Given that people routinely seek general health care, people would not hesitate or fear stigma in going to the PHC/CHC, thereby allowing better access to those thinking of suicide. Also, a large number of people already seeking PHC/CHC services may be suicidal.

## SUICIDE RISK ASSESSMENT

A commonly held belief is that it is hard to know when someone is thinking about suicide.

However, people thinking about suicide frequently show warning signs for many days, weeks and even months that can be easily identified. Warning signs are often not directly associated with suicidal thinking and hence can be missed. By knowing what these warning signs are, they can be easily identified in a person showing them.

The first step of suicide risk assessment involves identifying such warning signs.

Once noted, such persons can be approached to confirm the presence of suicidal thinking and identify factors that increase (risk factors) or decrease (protective factors) risk for suicide.

### WHAT ARE THE WARNING SIGNS FOR SUICIDE?

There are a number of warning signs which can suggest a risk of suicide.

Warning signs can be verbal or behavioural in nature. Both are particularly important when they represent a change from the person's usual behaviour. These include:

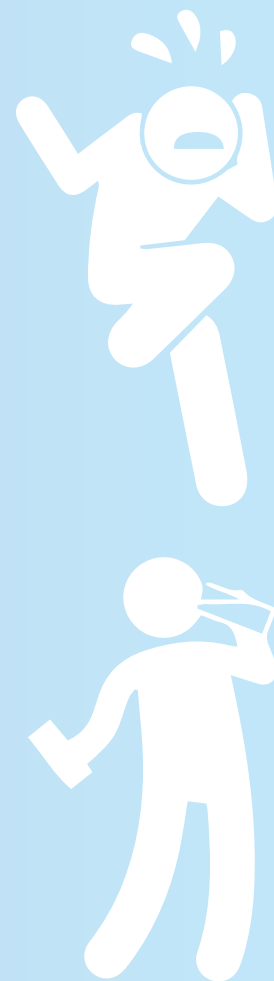
#### VERBAL SIGNS

- ▶ Talking about ending life - "Sometimes I feel like I just want to die"
- ▶ Talking about feeling guilty or having committed a sin
- ▶ Talking about feeling hopeless or having no reason to live
- ▶ Talking about feeling trapped or in unbearable pain
- ▶ Talking about being a burden to others

#### BEHAVIORAL SIGNS

- ▶ Suddenly starting alcohol use or Drinking more alcohol than usual or using other substances
- ▶ Being restless, agitated (getting angry easily), anxious (very worried/ fearful)
- ▶ Feeling sad and dejected
- ▶ Sleeping too little or too much
- ▶ Withdrawing or feeling isolated (Outgoing or social persons interaction with family/friends decreases or stops completely)
- ▶ Showing extreme rage or talking about seeking revenge
- ▶ Displaying extreme mood swings (suddenly crying/ reckless/ hyperactive)
- ▶ Preparatory behaviours (giving away belongings, collecting medicines or pesticides)

*Remember: Each warning sign is equally important and should be taken seriously.*



## What are the Risk Factors for Suicide?

According to the WHO, a risk factor is any attribute, characteristic or exposure of an individual that increases the likelihood of developing a disease or injury. THERE IS NO SINGLE CAUSE FOR SUICIDE. Suicide results from combination of community, individual, societal and relationship factors that contribute to risk. WHO has grouped these factors into areas that span across systemic, societal, community, relationship and individual risk factors.

• Society	<ul style="list-style-type: none"> <li>• Access to means</li> <li>• Inappropriate media reporting</li> <li>• Stigma associated with help seeking behaviour</li> </ul>
• Community	<ul style="list-style-type: none"> <li>• Disaster, war and conflict</li> <li>• Stresses of acculturation and dislocation</li> <li>• Discrimination</li> <li>• Trauma or abuse</li> </ul>
• Relationships	<ul style="list-style-type: none"> <li>• Sense of isolation and lack of social support</li> <li>• Relationship conflict, discord or loss</li> </ul>
• Individual	<ul style="list-style-type: none"> <li>• Previous suicide attempt</li> <li>• Mental disorder</li> <li>• Harmful use of alcohol</li> <li>• Job or financial loss</li> <li>• Hopelessness</li> <li>• Chronic pain</li> <li>• Family history of suicide</li> <li>• Genetic or biological factors</li> </ul>

These risk factors can contribute directly to suicidal behavior and some factors may indirectly contribute to suicidality and these risk factors are intertwined with each other. These risk factors should be assessed according to the context which should include individual characteristic, societal norms, cultural and religious belief.

## What are the Protective Factors for Suicide?

Protective factors are those that can reduce or decrease the risk of suicide in an individual. Protective factors can help prevent the person from attempting suicide and thereby decreasing the risk:

- ▶ Having a good support from family, friends, and colleagues
- ▶ Easy local availability of help providing hospitals
- ▶ Support from counsellors and doctors
- ▶ Ability to resolve problems and difficulties in relationships
- ▶ Cultural and religious beliefs that discourage suicide



**NOTE:** The Greater the number of risk factors and the fewer the protective factors, the higher the immediate risk for suicide.

Suicidal risk is assessed by balancing the individual's risk factors against their protective factors. The balance of risk factors and protective factors can be affected by significant events in the person's life, and so risk may change. Suicidal ideas and acts may appear to be unpredictable but warning signs can often be identified before the person acts. Effective assessments can reduce the risk of suicide in the community by enabling early interventions.

Suicides in the community do not occur because of mental health issues alone. Reducing suicide requires a mix of effective mental health interventions, public policies, and community participation by targeting social, political, and economic issues that impact suicide rates. However, by being aware of the risk factors, protective factors and the individual's predisposition, a health worker could have a reasonable suspicion and inform the concerned family members and health authority about the risk.

### INTERVENTION AND MANAGEMENT

Once you have identified the warning signs, risk factors and protective factors in an individual, categorize the individual into low, moderate and high risk.

It is important to remember the ***risk categorization is done basically on equating the number of risk factors and protective factors present in an individual.***

The main aim of the intervention plan includes following things.

- A. Crisis intervention
- B. Make a safety plan
- C. Refer the individual at risk to trained personnel

First and foremost, try to help the client to express their suicidal thoughts freely by:

- ▶ **Being a Good Listener:** Giving adequate time to the person at risk, letting the person speak without interruption, and listening to their problems attentively to understand the person and their problems.
- ▶ **Being Non-Judgmental** is critical for intervention. It means to ensure not to judge the person using their own principles/opinions, but understand the person's viewpoint and circumstances. It is an important principle, as it allows people to discuss feelings and thoughts, which they may have no one else to share with.
- ▶ **Being Supportive** and instilling hope by letting the individual at risk understand that problems can be resolved, even if resolution takes some time.
- ▶ **Building a Contract** by asking 'Will you promise me not to do anything harmful till I find help for you?'

## A. CRISIS INTERVENTION

As a part of intervention, a crisis plan has to be devised. This might differ from individual to individual based on the issues they are going through and the help available to them. Few basic strategies that could be included in the crisis plans are as follows:

- ▶ Distract yourself from the suicidal thoughts by involving yourself in activities that are pleasurable or hold personal meaning. Examples are painting, drawing, shopping, cooking, talking to friends, etc.
- ▶ Physical activities such as walking or exercising can improve mood
- ▶ Write down your thoughts in a diary
- ▶ Repeat to yourself 'I have promised not to hurt myself'
- ▶ Call your confidante to talk about your problems
- ▶ Call and talk to a counselor. I can arrange for you to contact one if you'd like
- ▶ Call a suicide or a crisis helpline

## B. SAFETY PLAN

Safety plan helps in reducing the risk of an individual at risk and keeps him / her in a protected environment.

- ▶ **Reduce Access to Lethal Means:** Negotiate with the person at risk to hand over any possible poisons/tablets they may have.
- ▶ **Identify a Confidante:** Try to identify any important link who they have (e.g. friend/relative to whom they can discuss that they have been thinking about suicide or reach out to speak to reduce their distress). This may require a negotiation with the person about how much should be disclosed and to whom, keeping in mind the need to assure safety. All details should not be shared with the confidante, and all details shared should be done with the consent of the client.
- ▶ **Accessibility:** Provide numbers of suicide help lines or other crisis help lines and if possible, of health care workers whom they can contact if in need. Assure your availability, and discuss an alternative for times you are not available.
- ▶ **Follow Up:** Ensure that the person at risk has reached hospital or referral center or home and is under observation.

## C. MAKING APPROPRIATE DECISIONS ABOUT REFERRAL

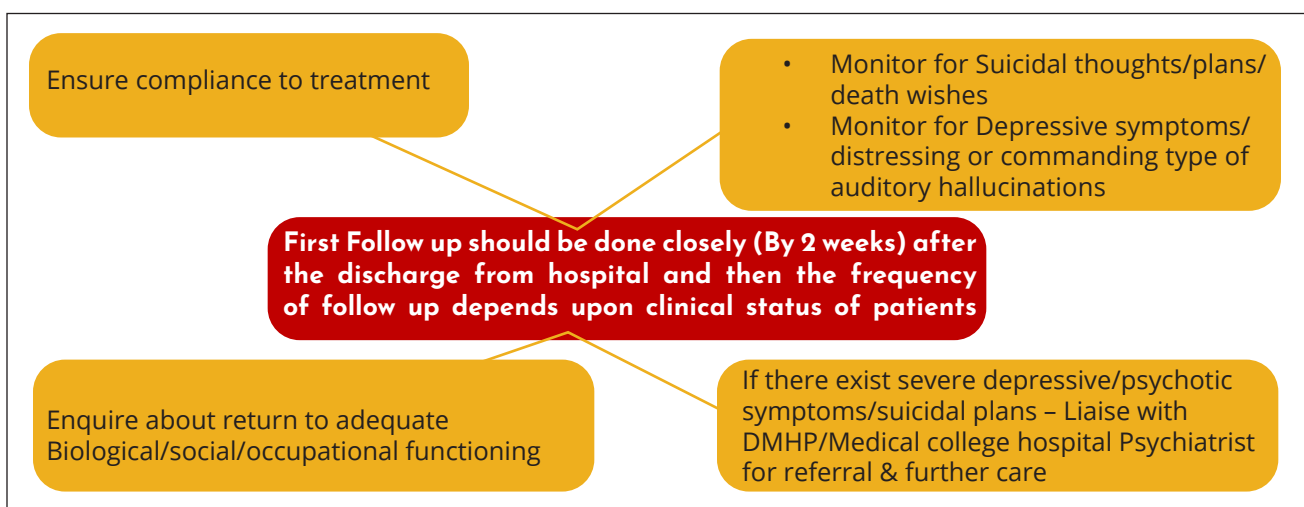
The following table will give you an idea how to categorize the risk and possible interventions during the same.

Risk Level	Risk	Suicidality	Possible Interventions
High	<ul style="list-style-type: none"> <li>Depression or other psychiatric illnesses</li> <li>Triggering event</li> <li>Absence of protective factors</li> </ul>	<ul style="list-style-type: none"> <li>Has made a Lethal attempt</li> <li>Recent suicidal attempts</li> <li>Recurring thoughts about suicide</li> </ul>	<ul style="list-style-type: none"> <li>Admission to a psychiatric set up is recommended</li> <li>Removal of access to methods</li> <li>Close supervision by a confidante</li> </ul>
Moderate	<ul style="list-style-type: none"> <li>Multiple risk factors</li> <li>Few protective factors</li> </ul>	<ul style="list-style-type: none"> <li>Ideation with plan</li> </ul>	<ul style="list-style-type: none"> <li>Admission may be necessary.</li> <li>Develop crisis plan</li> <li>Frequent check-ins by a confidante</li> </ul>
Low	<ul style="list-style-type: none"> <li>Few risk factors</li> <li>Strong protective factors</li> </ul>	<ul style="list-style-type: none"> <li>Thoughts of death,</li> <li>No plan, intent, or behaviour</li> </ul>	<ul style="list-style-type: none"> <li>Outpatient referral to a counselor or mental health professional recommended</li> </ul>

### HOW TO REFER

- ▶ Explain the need for referral and try to get permission for the same from the individual at risk.
- ▶ Make use of available resources like family, friends, relatives, colleagues, or other health care professionals.
- ▶ Arrange for an appointment and inform the hospital or Psychiatrist about the person at risk.
- ▶ Ensure that the person has reached the referral hospital.
- ▶ Contact the person after consultation.
- ▶ Try to maintain periodic contact.

Follow up care, frequency and follow up assessment at primary care level:



## CHAPTER 8

### MENTAL HEALTH PROMOTION

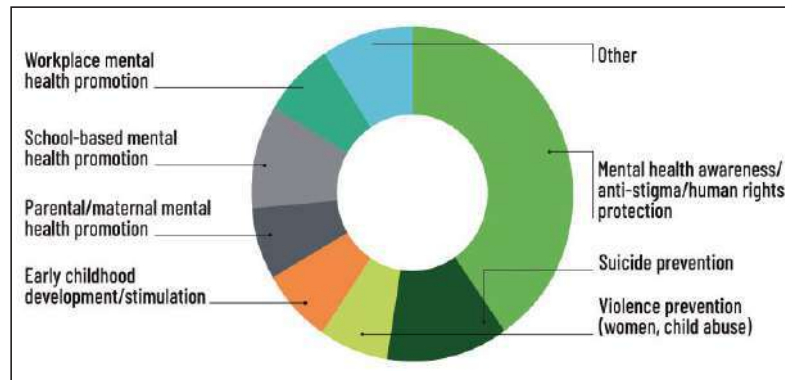
Health promotion is the process of enabling people to increase control over and improve their health. Such activities are geared toward promoting health in the population as a whole. Health promotion is not just the responsibility of health workers, it is a coordinated action that involves and benefits the whole community.

Mental health promotion is a positive, effective approach involving any practice that enhances capacity for good mental health for the whole population through action at the individual, community and societal levels following an integrated approach. Mental health promotion focuses on personal and social development and on life skills such as coping strategies, adaptability, help-seeking or communication skills, self-efficacy, resiliency, parenting, etc. Individual-level interventions work to reduce risk factors and increase protective factors, improving mental health and behavioural outcomes. Communities are also crucial for the implementation of mental health promotion because they foster social connection and integration which are key social determinants of mental health.

#### WHAT IS INCLUDED IN MENTAL HEALTH PROMOTION?

- ▶ Promoting harmony in the community through social networking
- ▶ Reducing levels of violence in the community
- ▶ Ensuring people are free from stigma and discrimination
- ▶ Promoting the rights of people with a mental health disorder
- ▶ Engaging in improving the facilities available for the treatment of mental health disorders in the community
- ▶ Educating people and increasing the knowledge of the community about mental health disorders

### Main types of programmes under Mental Health Promotion



(Adapted from WHO Mental Health Atlas, 2017)

It is very important that mental health promotion strategies and programs be adapted to the local needs of the members and the communities by taking into account differing social, cultural and economic systems.

### DIFFERENT METHODS FOR MENTAL HEALTH PROMOTION IN THE COMMUNITY

1. **Mental Health Education:** Mental Health education can be done through awareness campaigns on the occasion of World Mental Health day, World Suicide Prevention day etc. It is the most cost-effective intervention in raising awareness and minimising stigma. The target groups include general public, patients, priority groups, leaders and decision makers.
2. **Environmental Modifications:** Availability and provision for playgrounds, parks, healthy school environment, healthy environment at work place etc.
3. **Life Skills Education:** It is a method of health promotion that seeks to teach adolescents to deal effectively with the demands and challenges of everyday life (WHO 1997). Life skills include decision-making, problem-solving, creative and critical thinking, effective communication and inter- personal skills, self-awareness, and coping with emotions and stress.
4. **Nutritional Interventions:** Adequate provision for maternal and child nutrition, to prevent substance abuse and also for better mental wellbeing.
5. **Lifestyle and Behavioural Modifications:** It is very important for the individuals to stay away from substance abuse, violence and to practice healthy lifestyle which includes yoga, meditation and physical activity for a positive mental well-being.

### STIGMA & DISCRIMINATION

A person suffering from a mental health disorder faces innumerable challenges. On one hand, they struggle with the symptoms and disabilities that result from the disease that they are suffering from. On the other, they are challenged by the stereotypes and prejudice that result from misconceptions about mental illness by the community members and within themselves too.



As an impact of this, they are deprived of opportunities that can help result of both, people with mental illness are robbed of the opportunities that define their quality life like getting jobs, housing, access for medical care, support, marriage to name a few.

## How Does STIGMA ARISE?

Stigma arises when someone sees you in a negative way because of a particular characteristic or attribute that they associate when they come to know that you have a mental health issue. E.g., the image they have created in their mind due to the false depictions shown in movies about persons suffering from mental disorder. When someone treats you in a negative way because of your mental illness, this is discrimination. E.g., talking to you rudely or in a harsh manner or depriving you of a job though you are qualified and capable can be an act of discrimination because of the stigma.

For people with mental health issues, the social stigma and discrimination they experience can make their problems worse and can predispose them to frequent relapses and turning their illness chronic.

Although stigmatizing attitudes are not limited to mental illness, the community seems to discriminate persons with psychiatric illnesses more than other physical illness

The impact of stigma is twofold, as outlined in the table below. Public stigma is the reaction that the general population has to people with mental illness. Self-stigma is the prejudice which people with mental illness turn against themselves. Both public and self-stigma may be understood in terms of three components: stereotypes, prejudice, and discrimination.

**Table**

S. No.	Public Stigma	
1	Stereotype	Negative belief about a group (e.g., dangerousness, incompetence, character weakness)
2	Prejudice	Agreement with belief and / or negative emotional reaction (e.g., anger, fear)
3	Discrimination	Behaviour response to prejudice (e.g., avoidance, withhold employment and housing opportunities, withhold help)
4	Self-stigma	
5	Stereotype	Negative belief about the self (e.g., character weakness, Incompetence)
6	Prejudice	Agreement with belief, negative emotional reaction (e.g., low self-esteem, low self-efficacy)
7	Discrimination	Behaviour response to prejudice (e.g., fails to pursue work and housing opportunities)

## HOW CAN YOU MINIMIZE STIGMA AND DISCRIMINATION?

- a. **Educate the Person with Mental Illness and their Caregivers:** Provide adequate education to the person who is coming to get treated for mental health issues and for his or her family members. Ensure that they take medications regularly. Staying mentally fit can empower the person and help him or her lead a good quality of life.
- b. **Be Non-Judgemental:** As a physician, avoid being judgemental towards the person taking treatment and his family members. The support and care that we show to them will ensure them to come regularly for treatment and follow ups. Highlight the positive milestones that the patient has reached in his or her efforts to get better.
- c. **Educate Public to Stop Believing Negative News about Stigma:** A change in public attitude towards the persons with mental illness is the key to bringing down stigma. Educating the public about the myths and misconceptions, negative bias and stereotypes that they hold will make the community be more informed about how they treat persons with mental illness.
- d. **Connect with Media:** Educating the media at any given opportunity also helps in bringing down the negative reporting that are prevalent in print, audio visual media and on social media platforms as the reach is far. Consider expressing your opinions as it can help instil courage in others facing similar challenges and educate the public about mental illness.
- e. **Support Groups:** Identify support groups that you can refer persons affected with mental health disorders and their caregivers. This will help them in updating themselves on coping, treatment, skills training, benefits and their approaches if any.
- f. **Upgrade the Knowledge:** Upgrade yourself with what's happening around the globe like any campaigns, treatments, research in the area of mental health. It can help you in being a vocal advocate for reducing the stigma

## MYTHS AND MISCONCEPTIONS

Mental illnesses affect everyone in some way. We all likely know someone who has experienced a mental illness at some point. Experiencing mental health problems, particularly in the initial stages, is often upsetting, confusing, and frightening. In many ways, mental health issues are just like physical health problems that anyone can have and need to take care of. Of late, mental health is being addressed on a larger scale. But due to the stigma associated with mental illness, a lack of awareness, and limited access to professional help, only 10-12% of patients will seek help given the many myths surrounding mental illness.

There is a lot of misinformation surrounding *mental illness* still present within our society. Myths, misunderstandings, and negative stereotypes and attitudes surround mental illness. These result in stigma, discrimination, and isolation of people with mental illness, as well as their families and careers. Persons suffering from mental health disorders are faced with stigma because of the prevailing myths and misconceptions in the society. They contribute strongly to stigma against people who have a mental illness. One way to help decrease stigma is to challenge myths with scientific /medical knowledge. Another way in which we can help people with mental health issues is, to create a society free of stigma. To do this we must empower

ourselves with the right knowledge about mental health, practice empathy, and create spaces where people can open up about their mental health issues, and not be judged for seeking help or wanting to.

**Table**

S. No.	Myths	Facts
1	Mental illnesses are caused by witchcraft, spells or possession by demons and are the result of punishment by a “Higher Power” (such as God or Karma)	Mental illnesses are the result of disturbances in usual brain function that lead to difficulties with the control of feelings, thinking and behaviours
2	Mental illnesses are the result of a “moral failure” or laziness	Mental illnesses are not caused by a “moral failing” or laziness. Sometimes people with a mental illness experience severe fatigue or lack of interest as part of the illness, not as its cause.
3	Mental illnesses are caused by the usual stresses of everyday life	Everyday life stresses are normal and necessary for learning and developing life skills. They do not cause mental illnesses. For some people, severe and persistent stress, increases the risk for developing a mental illness.
4	People with a mental illness are violent	A mental illness rarely leads to violence. Most violence is not due to mental illness. People with mental illness are more likely to be victims of violence (including bullying).
5	People with a mental illness cannot achieve anything	Sometimes a mental illness can make it difficult for a person to work (same as a physical illness), but with proper treatment a person with a mental illness can work very well. Some of the world’s greatest achievers have had a mental illness.
6	People with mental illness could snap out of it if they wanted to	People with mental illness will get better if they are appropriately treated.
7	People with a mental illness will never get better	Most people with a mental illness will get well and stay well with the right treatment. Sometimes treatments will not be effective (just the same as with physical illnesses).
8	Mental illnesses are too difficult to treat	Mental illnesses, because they affect how the brain functions, sometimes need more complex treatments. But this does not mean that they are too difficult to treat.

As a Medical Officer, you are expected to help the community in improving their knowledge and attitude towards persons affected with mental health problems by addressing the myths and misconceptions that they have. To begin with, you should counsel and convince the community to change their stance and educate that mental illness needs to be treated just like any other physical illness. You could make a start by:

- a. **Be Non-Judgemental:** As a doctor, avoid being judgemental towards the person taking treatment and his family members. The support and care that we show to them will ensure them to come regularly for treatment and follow ups and can remove the misconceptions that people hold about them.
- b. **Educate Public to Stop Believing Negative News About Mental Illness:** A change in public attitude towards the persons with mental illness is the key to bringing down stigma and increasing awareness. Educating the public about the myths and misconceptions, negative bias and stereotypes that they hold will make the community be more informed about how they treat Persons with mental illness.
- c. **Connect with Masses:** Given any opportunity, be a key stakeholder on talking of the issues surrounding mental illness whether its in print, audio visual or on social media.
- d. **Campaigns:** Initiate unique campaigns in your neighbourhood that will bring community participation and support. Identify key stakeholders or influential persons who can play a crucial role in eradicating stigma towards persons with mental health disorders

### HOW CAN ONE LIVE WELL WITH MENTAL ILLNESS?

Once somebody has any kind of mental illness, both mental illness and pharmacological treatment cause significant distress to the body and mind. Some people can go forward, in life easily with mental illness, and some have to struggle a lot going forward in life with mental illness and many people give up. The medicine and therapies are some support to take the life forward.

Functioning and disability are complementary to mental illness. In general, people tend to focus more on disability caused by mental illness than on functioning of individuals. Functioning is an umbrella term encompassing 'activities and participation of individuals in daily life situations' (WHO, 2001), thus by improving functioning of the individuals, we can reduce disability and live a better life with higher wellbeing.

### STRATEGIES TO IMPROVE FUNCTIONING (LIVING WELL WITH MENTAL ILLNESS)

1. **Having Systematic Routine:** due to disability associated with mental illness, people do not engage themselves in activities of daily live and participates in life events. Their work output reduces gradually and end up being lazy throughout the day.

Having a systematic routine help the individual to add activities to his days and helps him to be engaged rather being idle. The activities can be anything ranging from engaging in hobbies, helping the family members in house hold chores, or even going for employment.

2. **Take Advantage of the Things You Can Do:** there are a lot of activities an individual can do, but mostly the families or by the individual themselves avoid doing those activities in view of making mistakes or doing thing incorrectly.

3. **Develop New Hobbies and Activities that Make You Happy:** A disability can make it more difficult and impossible to enjoy the activities. But staying engaged will make a big difference in the mental health of the individuals. Looking for creative ways to participate differently in old favourites, or taking this opportunity to develop new interests will help the individuals to live well with mental illness.

Some examples can be, playing games (indoors and outdoors, walking, jogging etc.)

4. **Accepting Help Doesn't Make You Weak:** To make better out of the state of disability caused by mental illness, individuals can seek help from others (not just the mental health professionals). Because most of the time, individuals may not be able to help themselves and they will not be sure and confident about their own decisions and choices. So thus, to live well with mental illness, they should be encouraged to seek help for others rather striving hard to solve themselves.
5. **Joining a Disability Support Group:** Joining a self-help group will help an individual in lot of ways, including sharing and knowing similar issues faced by others. This also helps the individuals to find out and use methods and measures used by other individuals in resolving their problems. For example managing of anger etc.

The support group also offers, leisure and relaxations activities. Most of the time the acceptance and acknowledgements provided by the group help the individuals in boosting self-worth and self-esteem.

6. **Nurture the Important Relationships in Your Life:** Often when one person become mentally or having disability due to mental illness, expressed emotions are common such as 'criticality, hostility, over-involvement, warmth and positive regards'. Criticality and hostility can cause serious impact on functioning of the individuals. Managing the negative expressed emotions help the family and individuals to live well with mental illness.

Based on the rooted family culture in Indian context, the mental disability effects the family with equally impact, as the individual. To reduce family burden, individual needs to nurture the family relationship along with other relatives and friends.

## CHAPTER 9

# LEGAL, ETHICAL AND DISABILITY ISSUES IN MENTAL HEALTH

Law refers to the rules formed by authority for regulating the behaviour of the members of community or country. Each state has their own law which regulates the care and treatment of the people who suffer from psychiatric illness. This law attempts to balance between protection of the mentally ill person's rights and the safety of the community. The Doctors should understand the basic legal aspects related to caring for person with mental illness, as legislation grow over time to meet society's needs.

### CIVIL LAW AND PSYCHIATRY

As per Indian law, a person with mental illness who is incapable of understanding what he/she is doing is right or wrong cannot enter into any contract e.g. writing a valid will, purchasing and selling, marriage, divorce so forth.

For assessing person in civil cases, there should be consent from the person otherwise a legal order is necessary.

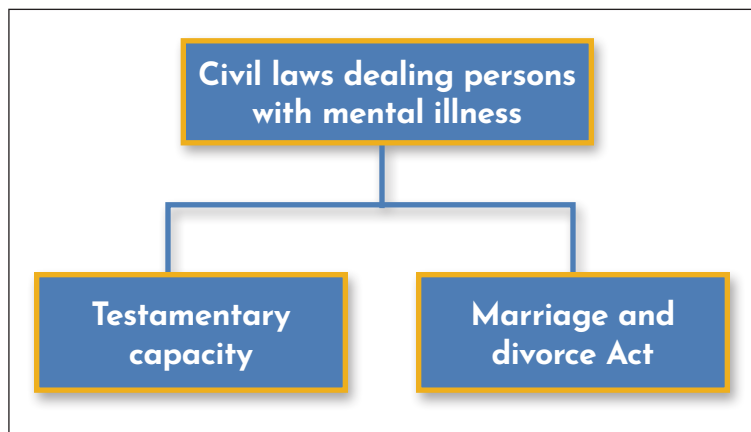


Fig. 1

### TESTAMENTARY CAPACITY

It is an individual's legal and mental ability to make or alter a valid will such as ability to understand and respond reasonably, the extent and value of their property, natural beneficiaries etc.

## MARRIAGE AND DIVORCE ACT

For Hindus, divorce can be sought only if an individual is suffering from mental illness to such extent that he is not able to fulfil the obligation of the marriage for two or more years. Further, reasonable attempts to treat the mental illness of an individual and the illness needs to be treatment resistant to grant for divorce.

### HINDU MARRIAGE ACT

- ▶ Marriage between two Hindus is solemnized only if at the time of the marriage.
  - a. Neither party is incapable of giving a valid consent to it in consequence of mental illness.
  - b. Though capable of giving consent, but has been suffering from mental illness of such a kind or extent by which individual is not fit for fulfilling obligation of the marriage.

### MUSLIM MARRIAGE ACT

- ▶ Marriage to be solemnized only when both parties are legally competent.
- ▶ Person can seek divorce on the ground that partner has been mentally ill for a period of 2 years.

### PARSI LAW

- ▶ Under this law mental illness is not a ground for nullity of the marriage but however for divorce it is similar to the Hindu marriage act.

## MENTAL HEALTH LEGISLATION IN INDIA

### ILA, 1912

- ▶ Custodial care of persons with mental illness

### MHA, 1987

- ▶ Treatment of persons with mental illness

### MHCA, 2017

- ▶ Protect human rights during treatment

ILA : Indian Lunacy Act

MHA : Mental Health Act, 1987

MHCA: Mental Healthcare Act

The shift of care has given a new view to the care of persons with mental illness and led to the review of mental health legislation.

1. The Mental Health Care Act, 2017 (MHCA, 2017)
2. Rights of Persons with Disabilities Act, 2016 (RPWD, 2016)

### THE MENTAL HEALTH CARE ACT, 2017 (MHCA)

**The Mental Health Care Act, 2017** and has been described as “an Act to provide for mental healthcare and services for persons with mental illness and to protect, promote and fulfil the rights of such persons...”.

**Important features** of this act are:

1. Protects rights of mentally ill.
2. In case of future care, individual can make advance directive.
3. Prescribes the minimum standards for establishing, registering and controlling mental health establishments for mentally ill persons.
4. Regulates the procedure of admission and discharge of mentally ill persons to mental health establishments either on voluntary basis or involuntary.
5. Provides every person right to access mental health services given or funded by Government.
6. Enables mentally ill persons by providing free legal aid services.
7. Restrict non-professionals to discharge function with punishment for not binding to the act.
8. Establish duties and responsibility for police in respect of persons with mental illness.
9. Provides provisions for ambulance services use and extent the quality as provided to persons with physical illness.
10. Prohibits certain procedures such as:
  - a. Sterilization of men or women, when meant as a treatment for mental illness.
  - b. Chaining a person in any manner or form whatsoever.
  - c. Seclusion of persons with mental illness.
  - d. Electro-Convulsion Therapy (ECT) without anesthesia (Un-modified ECT).

MHCA, 2017 enables individuals by decriminalizing the suicide attempt and clearly states that person who attempt suicide should be referred for evaluation and treatment (Section 115). Now, the State Government holds the responsibility to provide care to them.



## THE RIGHTS OF PERSONS WITH DISABILITIES ACT, 2016 (RPWD)

The application for assessment of disability shall be accompanied by: (a) proof of residence (b) two recent passport size photographs and (c) Aadhaar number. After receiving the application, the medical authority shall, verify the information as provided by the application and shall assess the disability and issue the certificate within one month of receipt of the application.

The disability legislation prescribes punishment for fraudulently availing any benefit meant for person with benchmark disabilities under Sec. 91.

## LEGAL ISSUES IN MENTAL HEALTH

Some legal issues occur frequently while providing medical care to the patient in mental health field. It is very essential for the doctor to understand these while practicing. Torts are wrongful act committed by one person against another. It may be physical harm, psychological harm or harm to reputation or livelihood. It is classified into:

- ▶ Intentional tort
- ▶ Unintentional tort

Table

Intentional Tort	Unintentional Tort
<b>Assault:</b> Assault is a threat or an attempt to do physical harm. Assault includes physical or verbal. E.g. Telling the patient that you are going to restrain him in bed. verbal abuse (Scolding the patient)	<b>Negligence:</b> Negligence is an act of doing something or not doing something which other health professionals would be doing or not doing in a particular situation. e.g. wrong dosage of Medication administration, wrong route of medication administration.
<b>Battery:</b> Battery is an act that results in the harmful or offensive physical contact. It is actually touching or wounding the person in an offensive manner. E.g. Punching, pushing, slapping a patient	
<b>False imprisonment:</b> It means the limiting of someone's freedom without the authority or right to do so. E.g. Application of restraint without need for so.	<b>Malpractice:</b> It is the failure of health professional to do his or her job with a reasonable degree of skill that results in injury or death of the client.
<b>Invasion of privacy:</b> The act of going into someone's personal life or becoming involved in a situation where one is not permitted. e.g. Taking a picture of patient and putting in media.	

## ETHICS IN MENTAL HEALTH

Ethics is about the rightness or wrongness of one's behaviour and about goodness or badness of the effects of these behaviours.

### Ethical Principles

#### ▶ **Autonomy**

- ▶ Respect for individual
- ▶ Not undermine their decision-making capacity
- ▶ Even they are disabled/prisoner of war/criminal
- ▶ Right to information and self determination
- ▶ Doctor cannot act like dictator, but can only be an advisor and facilitator
- ▶ Patient should have the freedom to choose
- ▶ Informed consent for tests/procedures

#### ▶ **Beneficence**

- ▶ Do only that which benefits patients
- ▶ Patients welfare must be the first consideration and not personal monetary gain.

#### ▶ **Non-maleficence**

- ▶ Attributed to Hippocratic Oath - "Above all do no Harm"
- ▶ Sanctity of life respected
- ▶ Risk-benefit ratio should help decide the need for intervention

#### ▶ **Justice**

- ▶ Fair distribution of benefits, risk and costs
- ▶ Patients in similar position should be treated similarly
- ▶ No discrimination-sex, race, color etc.
- ▶ Equitable distribution of resources at macro and micro levels

#### ▶ **Truthfulness and Honesty**

- ▶ Doctor should strive to be truthful and honest
- ▶ This needs to be depicted in informed consent
- ▶ No hidden agenda

# CHAPTER 10

## NATIONAL MENTAL HEALTH PROGRAMME

National Health Programs are one of the prominent measures taken by the nation primarily for the control of both communicable and Non-Communicable diseases. MNSUDs (Mental, Neurological & Substance Use Disorders) are a broad domain included under the NCDs. These are the disorders which currently addressed least in terms of community attention, identification & treatment which proportionally reflects as large mental health gap (mhGap).

India is one of the major countries to adopt a national program for mental health at the national level after the meeting of WHO mental health advisory group. The National Mental Health Programme (NMHP) was implemented all over the country in a phased manner.

### NMHP OBJECTIVES/ STRATEGIES/ SERVICE COMPONENT

#### THE NMHP WAS LAUNCHED WITH THE STATED OBJECTIVES:

1. To ensure the availability and accessibility of mental health care for all in the foreseeable future, particularly to the most vulnerable and underprivileged sections of the population
2. Encourage the application of mental health knowledge in general health care and social development
3. Promote community participation in mental health services development and stimulate efforts towards self-help in community

#### STRATEGIES

1. Integration of mental health with primary health care through the NMHP
2. Provision of tertiary care institutions for treatment of mental disorders
3. Eradicating stigmatization of mentally ill patients and protecting their rights through regulatory institutions like the Central Mental Health Authority (CMHA) and State Mental Health Authority (SMHA)

### LIMITATIONS OF NMHP

- ▶ Lack of steady administrative structure & lack of adequate funding
- ▶ Lack of periodical introspection, supervision, reporting & mentoring which lead the way for initiatives to slowly die over time, resulting in poor timely delivery of services
- ▶ The program gave more emphasis on curative components rather than promotive and preventive aspects
- ▶ Most importantly lack of manpower resource

### DISTRICT MENTAL HEALTH PROGRAMME (DMHP)

To overcome this limitation of NMHP, an initiative was taken where the district was considered to be the administrative and implementation unit of this program. The District Mental Health Program (DMHP) has been in existence since 2003, and provides basic mental health care services for a range of facility and community-based interventions. To assess the feasibility of DMHP, National Institute of Mental Health and Neurosciences (NIMHANS) undertook a pilot project (1985-1990) at the Bellary District of Karnataka. Till now, DMHP have been implemented in 655/724 districts in India. Out of this, 550 districts have operational DMHP.

#### PROMPT NOTE

Unlike NMHP, the services provided by DMHP incorporated not only curative, but, promotive and preventive activities for positive mental health



### COMPONENTS OF DMHP

1. **Service Provision:** Management of cases of mental disorders and counseling at different levels of district health care delivery system
2. **Capacity Building:** Manpower training and development for prevention, early identification and management of mental disorders
3. **Awareness** generation through Information Education Communication (IEC) activities

#### PROMPT NOTE

The DMHP team usually consists of a psychiatrist, a clinical psychologist, a psychiatric social worker, a psychiatric / community nurse, a program manager, a program/case registry assistant and a record keeper.

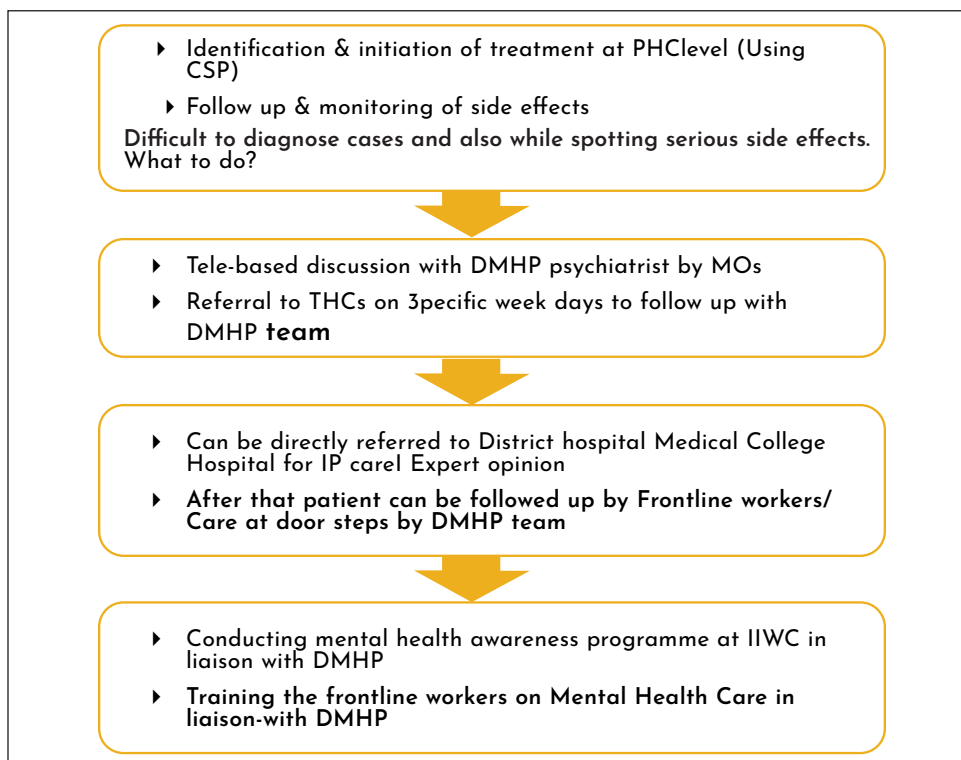
## OBJECTIVES OF DMHP

1. To provide sustainable basic mental health services in community and integration of these with other services
2. Early detection and treatment in community itself to ensure ease of care givers
3. To take pressure off mental hospitals
4. To reduce stigma, to rehabilitate patients within the community
5. To detect as well as manage and refer cases of epilepsy

## SERVICES PROVIDED UNDER DMHP

1. Clinical services, including the outreach services
2. Training all the ground level workers (Anganwadi workers, ASHA workers, ANMs) in identifying and referring patients with mental illness
3. Training of all the medical officers to identify and start first line treatment for mentally ill
4. IEC activities
5. Targeted interventions are being focused on life skills education and counselling in schools, college counselling services
6. Work place stress management and suicide prevention services

## CONSORT FOR REFERRAL & LIAISON BETWEEN PHC MOs & DMHP



# CHAPTER 11

## SERVICE DELIVERY FRAMEWORK FOR MNS DISORDERS

As part of expansion of services under Comprehensive Primary Health Care, care for mental, neurological and substance use disorders has been included in service package at HWCs.

Integration of mental health care in primary health care is enabled through following approaches:

- i. Community level Health Promotion interventions and improving mental health literacy that enables an understanding of mental health, common symptoms, risk factors/causes of disorders, treatment, reduction of stigma and discrimination, and of techniques such as psychological first aid, and self-care.
- ii. Early identification, referral to CHO for screening and home & community based follow up by frontline worker team and use of the Community Based Assessment Checklist (**Annexure 6**) by ASHA and Community Informant Decision Tool (CIDT) (**Annexure 7**) by MPW.
- iii. Screening by Community Health Officer (CHO) through the use of a standard screening tool, psychosocial management and enabling referral.
- iv. iDiagnosis and initiation of treatment by the Medical Officer at the HWC-PHC/UPHC levels or by specialists at secondary/tertiary care facilities.
- v. Reduction of treatment gap (psychosocial and pharmacological) by facilitating access to treatment by referral to higher level centres (PHC and other referral centres), initiation of treatment and ensuring regular supplies and treatment adherence at HWCs.

## SERVICE DELIVERY FRAMEWORK

The following table describes in brief the service delivery framework for MNS care.

Table

Care at Community Level	Care at SHC-HWC	Care at PHC-HWC	Care at Secondary/ Tertiary care facility
<b>IEC and Community mobilization (MPW, CHO and ASHAs)</b>	<b>Community Health Officer</b>	<b>Medical Officer (MBBS)</b>	<b>Specialists</b>
<ul style="list-style-type: none"> <li>Promotion of mental health- through family enrichment programs, school health programs, positive parenting, and physical activities initiative including yoga, balanced diet, exercise, sleep hygiene, and stress management. (CHO and MPWs)</li> </ul>	<ul style="list-style-type: none"> <li>Conducting individual level awareness and stigma reduction activities</li> </ul>	<ul style="list-style-type: none"> <li>Conduct individual level awareness and stigma reduction activities</li> </ul>	<ul style="list-style-type: none"> <li>Confirmed diagnosis of SMDs, SUDs and C&amp;AMHDs</li> </ul>
<ul style="list-style-type: none"> <li>Screening and Early Detection using Community Informant Decision Tool (CIDT) (CHO/MPW)</li> </ul>	<ul style="list-style-type: none"> <li>Delivering Psychosocial Interventions</li> </ul>	<ul style="list-style-type: none"> <li>Identification and screening for MNS conditions</li> </ul>	<ul style="list-style-type: none"> <li>Providing multidisciplinary care upon referral at the secondary level</li> </ul>
<ul style="list-style-type: none"> <li>Screening using Patient Health Questionnaires 2 (PHQ 2) as part of CBAC form administered by ASHAs</li> </ul>	<ul style="list-style-type: none"> <li>Identification/screening of MNS conditions</li> </ul>	<ul style="list-style-type: none"> <li>Identification/diagnosis, and developing management plan for CMDs, Epilepsy and Dementia</li> </ul>	<ul style="list-style-type: none"> <li>Clinical support and supervision for continued management by specialists</li> </ul>
<ul style="list-style-type: none"> <li>Follow up care at home: Ensuring treatment compliance, providing treatment adherence support and checking for side effects by ASHAs, MPW</li> </ul>	<ul style="list-style-type: none"> <li>Referral to PHC or higher facilities for diagnosis and treatment</li> </ul>	<ul style="list-style-type: none"> <li>Identification/diagnosis and referral for confirmed diagnosis and initiation of treatment for SMDs, SUDs and C&amp;AMHDs.</li> </ul>	
<ul style="list-style-type: none"> <li>Improving psychosocial competencies at individual and family level- Basic psychoeducation, psychological first aid, basic suicide risk assessment/ management by MPW, CHO</li> </ul>	<ul style="list-style-type: none"> <li>Administering Patient Health Questionnaire (PHQ) 9 for screening of depression. Tracking for improvement in PHQ 9 score during follow up care.</li> </ul>	<ul style="list-style-type: none"> <li>Suicide risk assessment and basic management</li> </ul>	

Table (Contd.)...

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	<ul style="list-style-type: none"> <li>Emergency care for seizure/status epilepticus</li> </ul>	<ul style="list-style-type: none"> <li>Initiation of pharmacological treatment for CMD, Epilepsy and Dementia</li> </ul>	
	<ul style="list-style-type: none"> <li>Developing and implementing comprehensive life plan for Persons with dementia.</li> </ul>	<ul style="list-style-type: none"> <li>Basic management of drug overdose/intoxication</li> </ul>	
	<ul style="list-style-type: none"> <li>Dispensation of medicines prescribed by PHC-MO and specialists</li> </ul>	<ul style="list-style-type: none"> <li>Emergency care for seizure/status epilepticus</li> </ul>	
	<ul style="list-style-type: none"> <li>Follow up care-checking for side effects and toxicities, for prescribed medications, monitoring for relapses and recurrences, checking for red flag signs, signs of abuse and neglect in patients with dementia</li> </ul>	<ul style="list-style-type: none"> <li>Emergency management of poisoning</li> </ul>	
	<ul style="list-style-type: none"> <li>Facilitating community-based rehabilitation, family-based interventions, organising meetings of self-help groups.</li> </ul>	<ul style="list-style-type: none"> <li>Follow up care and continuation of treatment initiated by specialists</li> </ul>	
	<ul style="list-style-type: none"> <li>Establish linkages with other programs, departments and NGOs for referral services</li> </ul>		

## ROLE OF ASHAS, ANM/MPW, AWW & CHO IN SERVICE DELIVERY PROCESSES FOR MNS DISORDERS

### ASHAs, ANMs, AWWs & MPWs (IN COMMUNITY)

Community level Health Promotion interventions and improving mental health literacy that enables an understanding of mental health. Awareness building, reduction of stigma and discrimination, community mobilization and IEC activities. They can also screen & identify cases in the community (during their routine house visits) and initiate appropriate referral. The ASHA uses the Community Based Assessment Checklist to screen for depression, dementia and epilepsy. The MPW uses the Community Informant Decision Tool to screen for depression, psychosis, epilepsy, alcohol use disorder and behavioral problems in children and adolescents.



They carry out home-based follow-up for MNSUD cases to ensure treatment adherence and continuity of care. They can also provide relevant community-based intervention packages (e.g. relaxation training, psychological first aid, adherence counselling, basic guidance on self-care etc).

### CHOs (IN HEALTH & WELLNESS CENTRE)

- a. For new cases, CHOs would be administering standard tools for screening & identification of MNSUDs
- b. Ensuring referral to the higher authorities (PHCs/Block level hospitals/District level hospitals)
- c. Dispensing the already prescribed medications against prescriptions of the MOs or Psychiatrists
- d. Suicide risk assessment, preliminary suicide management, referral and follow-up for suicidal ideation and behaviours.
- e. Involve the patients for community-based rehabilitation

### KEY ROLES AND RESPONSIBILITIES OF PHC/UPHC MEDICAL OFFICER

The Medical Officer PHC/UPHC will primarily play a clinical role in case detection, management, referral and follow-up of MNS disorders, along with some managerial and public health roles

The clinical roles of Medical Officer in MNS disorders are described below.

#### 1. For CMDs, the Medical Officer will:

- a. Make a diagnosis based on clinical history, examination and using relevant screening and diagnostic tools.
- b. Initiate appropriate pharmacological treatment as well as provide psychoeducation to the patient and caregiver/family as required.
- c. Follow-up the patient at regular intervals to assess the clinical course of the disease, any improvement in symptoms and determine the duration of pharmacotherapy.

#### 2. For SMDs, C&AMHDs, Neurological Disorders and SUDs, the Medical Officer will:

- a. Identify/diagnose the patient based on clinical history, examination and using relevant screening tools.
- b. Refer to the Psychiatrist/ Child Psychologist for confirmed diagnosis and initiation of treatment.
- c. Continue pharmacological management at the PHC-HWC (which has been initiated at the DH/MCH) in consultation with Specialists at DH/MCH as well as provide psychoeducation to the patient and caregiver/family as required.
- d. Follow-up the patient at regular intervals to assess the clinical course of the disease, any improvement in symptoms and refer to the treating physician in case of appearance of warning signs/relapse and recurrence of the patient.
- e. Provide psychoeducation to parents/ teachers as required in cases of C&AMHD.

## ROLES AND RESPONSIBILITIES OF MEDICAL OFFICER

### Clinical Roles:

1. Diagnosis/identification, psychosocial interventions, pharmacological management (when applicable), referral and follow-up of cases with CMDs, SMDs, C&AMHDs and SUDs.
2. Suicide risk assessment, basic suicide management, referral and follow-up.
3. Emergency care and referral for emergencies related to MNS disorders.
4. Counselling of patients for treatment adherence, possible side effects and warning signs for referral.
5. Counselling caregivers on care of mentally ill patient, counselling parents of children with C&AMHDs, psychoeducation of patient and family.
6. Help patients avail social security benefits and other entitlements.

### Public Health Roles:

7. Undertake mental health promotion activities- Plan and supervise conduct of individual and community level awareness and stigma reduction activities.
8. Create linkages with other programs, departments and NGOs for referral services.
9. Conduct awareness campaigns on MNS disorders and stigma reduction.

### Managerial Roles:

10. Capacity building and mentoring of PHC-HWC team in provision of care for MNS disorders.
11. Maintain relevant records
12. Logistic management

### 3. In Cases with Suicide Behaviour, the Medical Officer will:

- a. Identify suicide ideation and behaviour based on clinical history
- b. Undertake suicide risk assessments and conduct basic suicide management.
- c. Follow-up the patient at regular intervals and refer to the Psychiatrist at the DH/ MCH or counsellor or mental health specialist based on risk categorization.

### 4. Mental Health and Neurological Emergencies:

- a. In case of emergencies like status epilepticus, suicide attempt, delirium tremens, etc., the Medical Officer will undertake first aid measures to stabilize the patient before referral to DH/MCH for management.
- b. Follow-up the patient after he/she is referred back for treatment adherence and recovery.

5. **The Medical Officer will be responsible for maintaining upward referrals to** the Paediatrician/ Physician at CHCs and Psychiatrist/Neurologists at DH/MCH for management support and downward referrals to the CHO at SHC-HWC regarding patients and their follow up for drug refills or psychosocial support.
6. **Counselling:**
  - a. The Medical Officer will counsel the patient and the family/caregiver regarding the disease/disorder, pharmacological treatment, non-pharmacological measures for control and measures for mental health promotion.
  - b. It is important to help the patient understand that medicines usually take 4-6 weeks to work and to ensure that the patient continues to take the medicines regularly as prescribed.
  - c. The Medical Officer will inform the patient and caregiver/family regarding the possible side effects of the medication as well as warning signs for referral.
7. **Mental Health Patients** may be eligible for social security and other benefits. The Medical Officer will inform the patient's caregiver/family and the patient regarding these and assist in availing the same.

The Medical Officer will supervise the team at the PHC in carrying out the following public health activities related to MNS care.

1. **Undertake Activities for Mental Health Promotion:**
  - a. Raise awareness in the community about mental health disorders and dispel the myths and misconceptions.
  - b. Increase participation and voice of persons affected with mental health problems in all community level meetings.
  - c. Ensure that the persons affected with mental health problems and their caregivers are given due importance in the community and that they receive appropriate care.
  - d. Take collective action to stop physical or mental abuse of persons affected with mental health problems.
  - e. Support formation of Patient Support Groups and Caregiver Support Groups for mental health disorders.
2. **Create Linkages with:**
  - a. NGOs for support group meetings, health promotional activities.
  - b. Government departments, such as Department of Social Justice and Empowerment, Women and Child, District Legal Aid Authority, Panchayati Raj Institutions (PRIs), Urban Local Bodies (ULB) etc. to facilitate access to entitlements/ schemes/ programs for the benefit of persons with Mental disorders (eg. obtaining disability certificates under Disabilities Act).

- c. Referral linkages with faith healers to bring persons in the fold of government mental health related services.
- d. Referral and integrated/coordinated care linkages with other programs (school health program, elderly and palliative care, communicable diseases and NCDs program etc.).

### 3. **Conduct Awareness Campaigns on MNS Disorders and Stigma Reduction:**

- ▶ People with mental illnesses face greater discrimination in society as compared to physical ill health. The Medical Officer will plan, organize and supervise awareness campaigns undertaken by the PHC team, coordinate with linked SHC-HWCs and voluntary organizations with a focus to dispel myths and misconceptions related to mental health disorders and reduce stigma associated with mental illness.

As a team leader at the PHC-HWC, the Medical Officer will have the following managerial functions.

#### 1. **Capacity Building and Mentoring of PHC-HWC Team in Provision of Care for MNS Disorders:**

- ▶ Care for MNS disorders is a newer initiative at PHC-HWC level. The PHC team including Staff Nurse, MPWs and other health providers will be trained in their roles before the service delivery is initiated. However, there is need of continuous handholding as cases are identified, screened and follow up services are provided. You will guide and supervise the work undertaken by the PHC team.

#### 2. **Maintaining Records:**

- ▶ Records for OPD attendance, diagnosed cases, treatment and referral details of patients with MNS disorders would be maintained at the PHC-HWC.

#### 3. **Logistic Management:**

- ▶ The Medical Officer will ensure that required supply of medicines is maintained at the PHC-HWC for individuals diagnosed with mental health disorders.

## **MONITORING OF SERVICES RELATED TO CARE OF MNS DISORDERS**

The following measures/ indicators are to be documented and reported for audit and evaluation:

- ▶ Proportion of population reporting with Mental disorders
- ▶ Proportion of individuals screened for Mental disorders
- ▶ Proportion of diagnosed individuals who are undergoing treatment
- ▶ Proportion of individuals who need emergency care
- ▶ Proportion of individuals diagnosed with Common Mental Disorders (CMDs) out of total screened
- ▶ Proportion of individuals diagnosed with Severe Mental Disorders (SMDs) out of total screened

- ▶ Proportion of individuals diagnosed with Child and Adolescent Mental Health Disorders (C&AMHD) out of total screened
- ▶ Proportion of individuals with Substance Use Disorder (SUDs) out of total screened
- ▶ Proportion of individuals visited PHC/UPHC out of those referred by Community Health Officer
- ▶ Number of psychoeducation sessions conducted at the HWC
- ▶ Monitoring Stock Register of Essential Psychotropic medications that shall include drug supply, intend and expenditure
- ▶ Monitor community awareness programs done by the CHW and Register for the same
- ▶ Attend training programs and review meetings/audit under DMHP as a part of CME and evaluation

### Note

- ▶ The general principles of managing CMD, SMD, and SUDs in adolescents and older adults will remain the same, but with modifications needed to cater to the unique requirements of these discrete age groups.
- ▶ Similarly, the principles for managing CMD can be applied to management of post-partum/ maternal depression. However, if in doubt, refer to a specialist at DMHP/STC.
- ▶ Specialists (psychiatrist, neurologist, paediatrician, clinical psychologist, psychiatric social worker) will provide multidisciplinary care upon referral at the secondary level.
- ▶ Specialists will provide ongoing clinical support and supervision for continued management of persons with Mental Disorders at the CHC/PHC/UPHC/HWC levels, in an integrated and coordinated manner.

## ANNEXURES

### Annexure 1: Patient Health Questionnaire-9

#### Patient Health Questionnaire (PHQ-9)

Patient Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
a. Little interest or pleasure in doing things.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. Feeling down, depressed, or hopeless.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
c. Trouble falling/stay in gas leep, sleeping too much.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
d. Feeling tired or having little energy.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
e. Poor appetite or overeating.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
f. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
g. Trouble concentrating on things, such as reading the newspaper or watching TV.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
h. Moving or speaking so slowly that other people could have noticed. Or the opposite; being so fidgety or restless that you have been moving around more than usual.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
i. Thoughts that you would be better off dead or of hurting yourself in someway.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

2. If you checked off any problem on this questionnaires of **ar**, how difficult have these problems made it for you today our work, take care of things at home, or get along with other people?

Not Difficult at all

Somewhat difficult

Very difficult

Extremely difficult

**TOTAL SCORE -----**

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Score	Recommended actions
0-4	Normal range or full remission. The score suggests the patient may not need depression treatment.
5-9	Minimal depressive symptoms. Support, educate, call if worse, return in 1 month.
10-14	Major depression, mild severity. Use clinical judgment about treatment, based on patient's duration of symptoms and functional impairment. Treat with antidepressant or psychotherapy.
15-19	Major depression, moderate severity. Warrants treatment for depression, using antidepressant, psychotherapy or a combination of treatment.
20 or higher	Major depression, severe severity. Warrants treatment with antidepressant and psychotherapy, especially if not improved on immunotherapy; follow frequently.

## Annexure 2: Indian Disability Evaluation and Assessment Scale

### Indian Disability Evaluation And Assessment Scale

A scale for measuring and quantifying disability in mental disorders.

#### ITEMS:

- I. Self Care: Includes taking care of body hygiene, grooming, health including bathing, toileting, dressing, eating, taking care of one's health.
- II. Interpersonal Activities (Social Relationships): Includes initiating and maintaining interactions with others in contextual and social appropriate manner.
- III. Communication and Understanding: Includes communication and conversation with others by producing and comprehending spoken/written/non-verbal messages.
- IV. Work: Three areas are Employment/Housework/ Education Measures on any aspect.
  1. Performing in Work/Job: Performing in work/employment (paid) employment/ selfemployment/ family concern or otherwise. Measure ability to perform tasks at employment completely and efficiently and in proper time. Includes seeking employment.
  2. Performing in Housework: Maintaining household including cooking, caring for other people at home, taking care of belongings etc. Measures ability to take responsibility for and perform household tasks completely and efficiently and in proper time.
  3. Performing in school/college: Measures performance education related tasks.

0 -	NO disability (none, absent, negligible)
1 -	MILD disability (slight, low)
2 -	MODERATE disability (medium, fair)
3 -	SEVERE disability (high, extreme)
4 -	PROFOUND disability (total cannot do)

**TOTAL SCORE:** Add scores of the 4 items and obtain a total score  
**Weight age for Duration of illness (DOI):**

#### DOI:

< 2 years: score to be added is 1
2-5 years: add 2
6-10 years: add 3
>10 years: add 4

#### GLOBAL DISABILITY:

Total Disability score + DOI score = Global Disability Score Percentages:

0: No Disability = 0%

1-6: Mild Disability = < 40%

7-13: Moderate Disability = 40% - 70%

14-19: Severe Disability = 71% - 99%

20: Profound Disability = 100% Cut off for welfare measures = 40%



### Annexure 3: Conner's Scale

## Conners' Parent Rating Scale–Revised (S)

by C. Keith Conners, Ph.D.

Child's ID: \_\_\_\_\_ Gender: **M** **F**  
(Circle One)

Birthdate: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Age: \_\_\_\_ School Grade: \_\_\_\_  
Month Day Year

Parent's ID: \_\_\_\_\_ Today's Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
Month Day Year

**Instructions:** Below are a number of common problems that children have. Please rate each item according to your child's behavior in the last month. For each item, ask yourself, "How much of a problem has this been in the last month?", and circle the best answer for each one. If none, not at all, seldom, or very infrequently, you would circle 0. If very much true, or it occurs very often or frequently, you would circle 3. You would circle 1 or 2 for ratings in between. Please respond to each item.

NOT TRUE AT ALL (Never, Seldom)    JUST A LITTLE TRUE (Occasionally)    PRETTY MUCH TRUE (Often, Quite a Bit)    VERY MUCH TRUE (Very Often, Very Frequent)

1. Inattentive, easily distracted .....	0	1	2	3
2. Angry and resentful .....	0	1	2	3
3. Difficulty doing or completing homework .....	0	1	2	3
4. Is always "on the go" or acts as if driven by a motor .....	0	1	2	3
5. Short attention span .....	0	1	2	3
6. Argues with adults .....	0	1	2	3
7. Fidgets with hands or feet or squirms in seat .....	0	1	2	3
8. Fails to complete assignments .....	0	1	2	3
9. Hard to control in malls or while grocery shopping .....	0	1	2	3
10. Messy or disorganized at home or school .....	0	1	2	3
11. Loses temper .....	0	1	2	3
12. Needs close supervision to get through assignments .....	0	1	2	3
13. Only attends if it is something he/she is very interested in .....	0	1	2	3
14. Runs about or climbs excessively in situations where it is inappropriate ..	0	1	2	3
15. Distractibility or attention span a problem .....	0	1	2	3
16. Irritable .....	0	1	2	3
17. Avoids, expresses reluctance about, or has difficulties engaging in tasks that require sustained mental effort (such as schoolwork or homework) .	0	1	2	3
18. Restless in the "squirmy" sense .....	0	1	2	3
19. Gets distracted when given instructions to do something .....	0	1	2	3
20. Actively defies or refuses to comply with adults' requests .....	0	1	2	3
21. Has trouble concentrating in class .....	0	1	2	3
22. Has difficulty waiting in lines or awaiting turn in games or group situations	0	1	2	3
23. Leaves seat in classroom or in other situations in which remaining seated is expected .....	0	1	2	3
24. Deliberately does things that annoy other people .....	0	1	2	3
25. Does not follow through on instructions and fails to finish schoolwork, chores or duties in the workplace (not due to oppositional behavior or failure to understand instructions) .....	0	1	2	3
26. Has difficulty playing or engaging in leisure activities quietly .....	0	1	2	3
27. Easily frustrated in efforts .....	0	1	2	3

**Annexure 4: Fagerstrom Test****Fagerstrom Test for Nicotine Dependence (FND)**

Segment: \_ \_

Visit Number: \_ \_

Date of Assessment: (mm/dd/yyyy) \_ \_ / \_ \_ / \_ \_ \_ \_

**Do you currently smoke cigarettes?**☐ No☐ Yes

If "yes," read each question below. For each question, enter the answer choice which best describes your response.

**1. How soon after you wake up do you smoke your first cigarette?**☐ Within 5 minutes☐ 31 to 60 minutes☐ 6 to 30 minutes☐ After 60 minutes**2. Do you find it difficult to refrain from smoking in places where it is forbidden (e.g., in church, at the library, in the cinema)?**☐ No☐ Yes**3. Which cigarette would you hate most to give up?**☐ The first one in the morning☐ Any other**4. How many cigarettes per day do you smoke?**☐ 10 or less☐ 21 to 30☐ 11 to 20☐ 31 or more**5. Do you smoke more frequently during the first hours after waking than during the rest of the day?**☐ No☐ Yes**6. Do you smoke when you are so ill that you are in bed most of the day?**☐ No☐ Yes

0 to 2 – Very low dependence

3 to 4 – Low dependence

5 – Medium dependence

6 to 7 – High dependence

8 to 10 – Very high dependence

## Annexure 5: Alcohol Use Disorders Identification Test

**Audit Questions:** Please tick the response that best fits your drinking.

	Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week
1. How often do you have a drink containing alcohol? <small>Go to Qs 9 &amp; 10</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. How many standard drinks do you have on a typical day when you are drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
3. How often do you have six or more standard drinks on one occasion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. How often during the last year have you found that you were not able to stop drinking once you had started?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	No	Yes, but not in the last year	Yes, during the last year		
9. Have you or someone else been injured because of your drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10. Has a relative, friend, doctor or other health care worker been concerned about your drinking or suggested you cut down?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Supplementary Questions</b>	No	Probably Not	Unsure	Possibly	Definitely
i. Do you think you presently have a problem with drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Very easy	Fairly easy	Neither difficult nor easy	Fairly difficult	Very Difficult
ii. In the next 3 months, how difficult would you find it to cut down or stop drinking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Responses to questions 1 to 8 are scored 0, 1, 2, 3 or 4. Questions 9 and 10 have possible responses of 0, 2 and 4. The range of possible scores is from 0 to 40, which is interpreted as follows:

- ▶ 0: abstinent and never had any problems from alcohol use
- ▶ 1 to 7: Low-risk alcohol use
- ▶ 8 to 14: Harmful alcohol use
- ▶ 15 or more: Alcohol dependence

## Annexure 6: Community Based Assessment Checklist

### Community Based Assessment Checklist (CBAC)

revised draft 6<sup>th</sup> October 2020 V.5

General Information	
Name of ASHA:	Village/Ward:
Name of MPW/ANM:	Sub Centre:
	PHC/UPHC:
Personal Details	
Name:	Any Identifier (Aadhar Card/ any other UID-Voter ID etc.):
Age:	State Health Insurance Schemes: Yes/No
If yes, specify:	
Sex:	Telephone No. (self/ family member/ other-specify details):
Address:	
Does this person have any of the following: visible defect /known disability/Bed ridden/ require support for Activities of Daily Living	If yes, Please specify

Part A: Risk Assessment				
Question	Range		Circle Any	Write Score
1. What is your age	0-29 years			
	30-39 years		1	
	40-49 years		2	
	50-59 years		3	
	≥ 60 years		4	
2. Do you smoke or consume smokeless products such as gutka or khaini?	Never		0	
	Used to consume in the past/ Sometimes now		1	
	Daily		2	
3. Do you consume alcohol daily	No		0	
	Yes		1	
4. Measurement of waist (in cm)	Female	Male		
	80 cm or less	90 cm or less	0	
	81-90 cm	91-100 cm	1	
	More than 90 cm	More than 100 cm	2	
5. Do you undertake any physical activities for minimum of 150 minutes in a week? (Daily minimum 30 minutes per day – Five days a week)	At least 150 minutes in a week		0	
	Less than 150 minutes in a week		1	
6. Do you have a family history (any one of your parents or siblings) of high blood pressure, diabetes and heart disease?	No		0	
	Yes		2	

#### Total Score

Every individual needs to be screened irrespective of their scores.

A score above 4 indicates that the person may be at higher risk of NCDs and needs to be prioritized for attending the weekly screening day

Annexure 6 (Contd.)...

## Training Manual on Mental, Neurological and Substance Use (MNS) Disorders Care for Medical Officer at Ayushman Bharat – Health and Wellness Centres

...Annexure 6 (Contd.)

### Part B: Early Detection: Ask if Patient has any of these Symptoms

B1: Women and Men	Y/N	Y/N
Shortness of breath (difficulty in breathing)		History of fits
Coughing more than 2 weeks*		Difficulty in opening mouth
Blood in sputum*		Any ulcers in mouth that has not healed in two weeks
Fever for > 2 weeks*		Any growth in mouth that has not healed in two weeks
Loss of weight*		Any white or red patch in mouth that has not healed in two weeks
Night Sweats*		Pain while chewing
Are you currently taking anti-TB drugs**		Any change in the tone of your voice
Anyone in family currently suffering from TB**		Any hypopigmented patch(es) or discolored lesion(s) with loss of sensation
History of TB *		Any thickened skin
Recurrent ulceration on palm or sole		Any nodules on skin
Recurrent tingling on palm(s) or sole(s)		Recurrent numbness on palm(s) or sole(s)
Cloudy or blurred vision		Clawing of fingers in hands and/or feet
Difficulty in reading		Tingling and numbness in hands and/or feet
Pain in eyes lasting for more than a week		Inability to close eyelid
Redness in eyes lasting for more than a week		Difficulty in holding objects with hands/ fingers
Difficulty in hearing		Weakness in feet that causes difficulty in walking

B2: Women only	Y/N	Y/N
Lump in the breast		Bleeding after menopause
Blood stained discharge from the nipple		Bleeding after intercourse
Change in shape and size of breast		Foul smelling vaginal discharge
Bleeding between periods		

B3: Elderly Specific (60 years and above)	Y/N	Y/N
Feeling unsteady while standing or walking		Needing help from others to perform everyday activities such as eating, getting dressed, grooming, bathing, walking, or using the toilet
Suffering from any physical disability that restricts movement		Forgetting names of your near ones or your own home address

In case of individual answers Yes to any one of the above-mentioned symptoms, refer the patient immediately to the nearest facility where a Medical Officer is available

\*If the response is Yes- action suggested: Sputum sample collection and transport to nearest TB testing center

\*\* If the answer is yes, tracing of all family members to be done by ANM/MPW

### Part C: Risk factors for COPD

#### Circle all that Apply

Type of Fuel used for cooking – Firewood / Crop Residue / Cow dung cake / Coal / Kerosene / LPG

Occupational exposure – Crop residue burning/burning of garbage – leaves/working in industries with smoke, gas and dust exposure such as brick kilns and glass factories etc.

### Part D: PHQ 2

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things?	0	+1	+2	+3
2. Feeling down, depressed or hopeless?	0	+1	+2	+3

#### Total Score

Anyone with total score greater than 3 should be referred to CHO/ MO (PHC/UPHC)



## Annexure 7: Community Informant Decision Tool

Community Informant Decision Tool (Sample screening and diagnostic tools for adoption/adaptation by states)

### DEPRESSION

Since the last Dashain festival Ram Bahadur looks really down and sad. It seemed to have started when his wife died. Nowadays, along with the loss of interest in his work he doesn't feel like doing anything, not even taking care of his baby son. These days, as he cannot fall asleep at night and has difficulty sleeping, he feels weak and fatigue. He has stalled to get angry and irritated with his family and friends even about trivial matters. As he feels easily tired and weak, he has started thinking that he cannot do anything in his life. Since past few days, he has started feeling that his future is dark because of which he does not want to live or feels that his life is useless. For 5 months he has hardly worked on the field anymore, he just sits at home all day.

Referred by (Name): \_\_\_\_\_

☐ Teacher ☐ Mother's Group ☐ Traditional Healer ☐ FCHV

### OBSERVATION



### QUESTION

A1. Does this narrative apply to the person you are talking to now?

- No match (description does not apply) 1 } Finished
- Moderate match (person has significant features of this descriptions) 2
- Good match (description apply Well) 3 } Go to A2/A3
- Very good match (person exemplifies description, prototypical case) 4



A2 Do the problems have a negative impact on daily functioning?

- No ..... 1
- Yes ..... 2



A3 Does this person want support in dealing with these problems?

- No ..... 1
- No ..... 2

## Training Manual on Mental, Neurological and Substance Use (MNS) Disorders Care for Medical Officer at Ayushman Bharat – Health and Wellness Centres

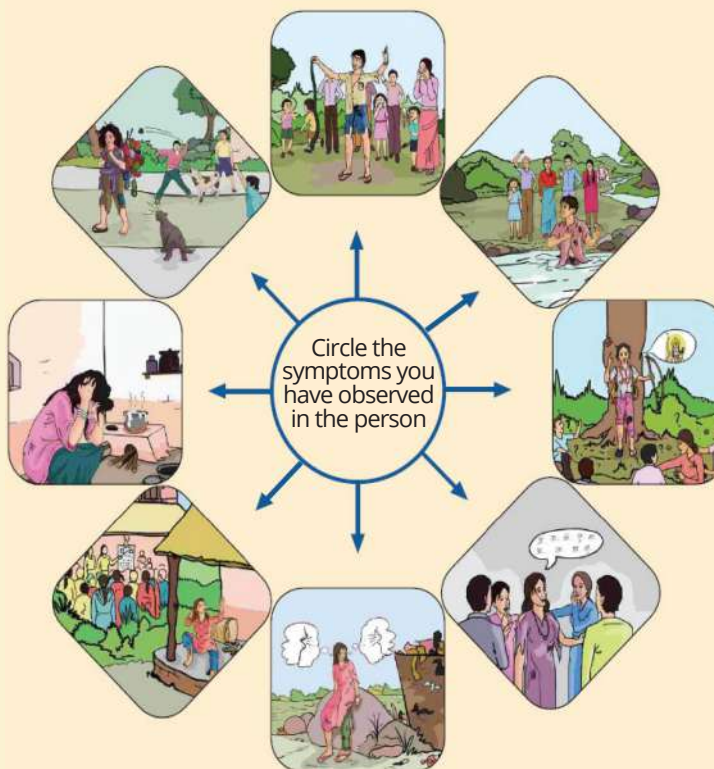
### PSYCHOSIS

Since a few months, some changes can be seen in Prakash's behavior. He thinks of himself as a very powerful and superior being. He tells everyone that he can do things that others cannot do. He keeps talking weird things and monotonously and during such times, even if his family members or neighbors ask him to stop, he doesn't stop. He says that while he is sitting alone or when there is no one around him, he hears voices that are talking or calling to him. He has slowly stopped showing interest in the household and community activities that he is supposed to do. Due to such behavior, he had to stop the work he was doing. Often he just wanders around the town, not washed and looking very dirty. Prakash seems like a different person now.

Referred by (Name): \_\_\_\_\_

☐ Teacher ☐ Mother's Group ☐ Traditional Healer ☐ FCHV

### OBSERVATION



### QUESTION

A1. Does this narrative apply to the person you are talking to now?

- No match (description does not apply) 1 } Finished
- Moderate match (person has significant features of this descriptions) 2 }
- Good match (description apply Well) 3 } Go to A2/A3
- Very good match (person exemplifies description, prototypical case) 4 }



A2 Do the problems have a negative impact on daily functioning?

- No ..... 1
- Yes ..... 2



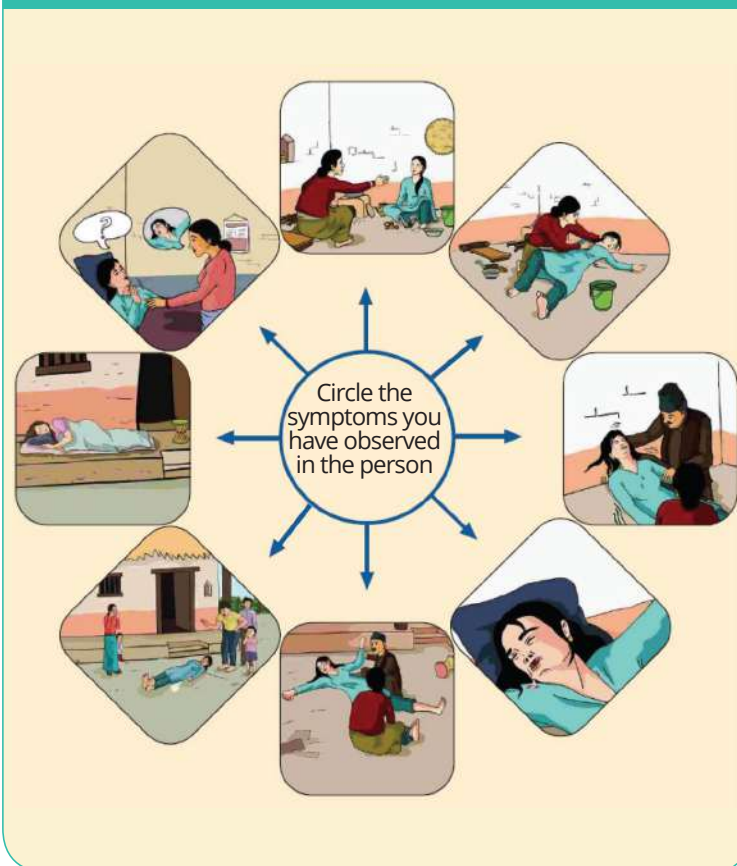
A3 Does this person want support in dealing with these problems?

- No ..... 1
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**EPILEPSY**

One day when Rita was helping her mother in the kitchen, she suddenly got fits and fell off on the floor. Her whole body started to tremble. Since then this happens once in a while. In the same way, her body limbs starts making jerky movements and her mouth gets frothy and sometimes small blood drops starts coming out from her mouth. In few minutes, everything stops and she opens her eyes and feels tired so she sleeps for a very long time. After she wakes up, her mother asks her what had happened to her but in reply she says that she is completely unaware of what happened. She had this same problem three times last year. Once when she had fits, she urinated in her clothes. Because of her problem Rita finds it very difficult to go outside of her home.

Referred by (Name): \_\_\_\_\_

☐ Teacher   ☐ Mother's Group   ☐ Traditional Healer   ☐ FCHV
**OBSERVATION****QUESTION**

A1. Does this narrative apply to the person you are talking to now?

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- Moderate match (person has significant features of this descriptions)
- Good match (description apply Well)
- Very good match (person exemplifies description, prototypical case)

1 } Finished

2

3 } Go to A2/A3

4



A2 Do the problems have a negative impact on daily functioning?

- No ..... 1
- Yes ..... 2



A3 Does this person want support in dealing with these problems?

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- No ..... 2



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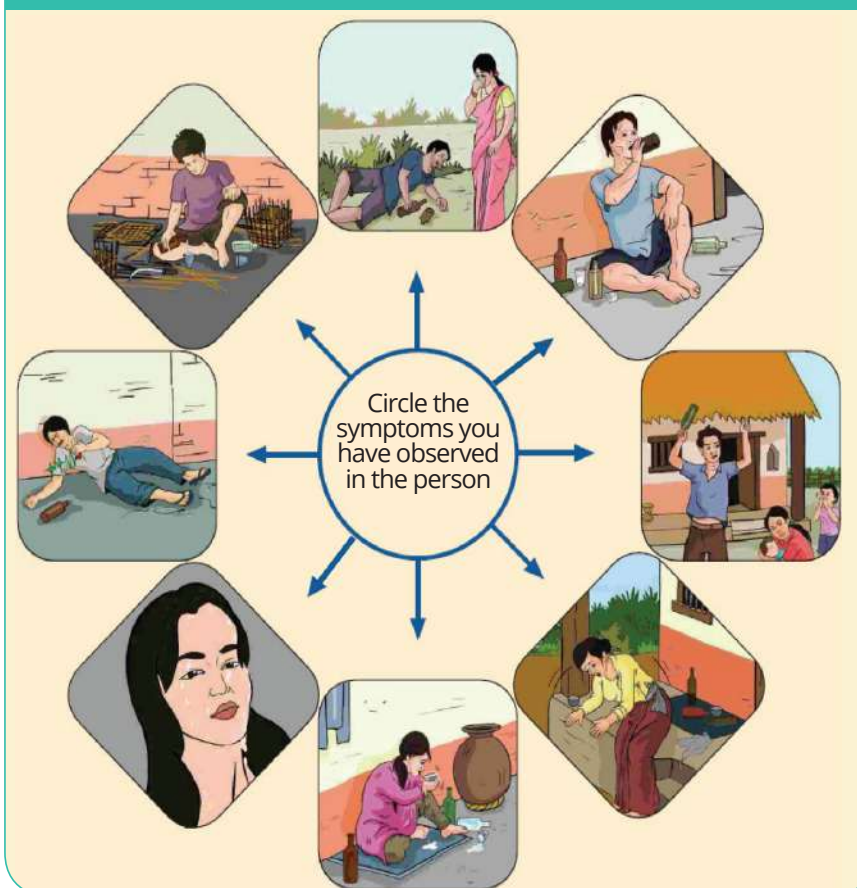
### ALCOHOL USE DISORDER

Rajan drinks alcohol all the time, due to which, whenever someone goes near him, one can smell the strong stench of alcohol emanating from him. Because he always drinks alcohol, his speech is slurred and others find it very difficult to understand him. As he craves for alcohol everyday, he keeps consuming alcohol. After drinking alcohol, he cannot control himself and he always ends up drinking a lot. Due to heavy drinking, he has trembling limbs, sweats profusely, feels restless, and has increased palpitation. These days he no longer finds pleasure in activities he used to enjoy earlier, instead he has started to become engrossed in drinking alcohol. Due to such behavior, he is not able to complete his daily activities.

Referred by (Name): \_\_\_\_\_

☐ Teacher ☐ Mother's Group ☐ Traditional Healer ☐ FCHV

### OBSERVATION



### QUESTION

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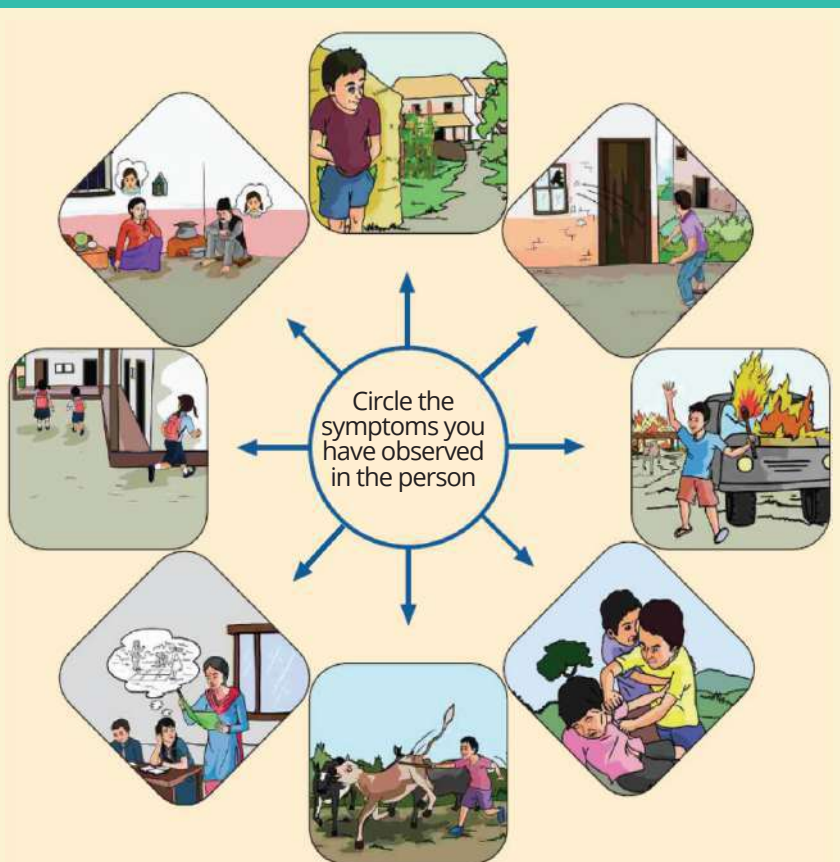
## BEHAVIORAL PROBLEM

Hari, an eleven year old boy currently studying in class five, is obstinate and does not obey his parents. He has always been a difficult boy. Not only does he vandalize his family's and neighbor's possessions, he also steals things and set fire to a barn before. He gets angry with his friends without any apparent reason, and is involved in physical fights with his peers. Often when he sees cattle, he chases them and beats them. He cannot concentrate on his studies and while going to school, he runs away and goes elsewhere. He often lies to his family and strolls around the village. At times he runs away and doesn't even return home all night or for a very long time. As a result of this, Hari is doing very badly in school and has no friends.

Referred by (Name): \_\_\_\_\_

☐ Teacher ☐ Mother's Group ☐ Traditional Healer ☐ FCHV

## OBSERVATION



## QUESTION

A1. Does this narrative apply to the person you are talking to now?

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A2 Do the problems have a negative impact on daily functioning?

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## Annexure 8: Miscellaneous Tools for Use

### A. Everyday Abilities Scale of India to Screen for Dementia

#### ANNEXURE H: Detection/ Screening Tool for Dementia to be used by MPW/CHO

##### Everyday Abilities Scale for India

1. Does he/she ever forget that he/she has just eaten and ask for food again after he/she has just eaten?
2. Does he/she urinate in an appropriate place?
3. Do his/her clothes ever get dirty from urine or stools?

Tell me the following about his clothes:

4. Is his/her shirt buttoned properly?
5. Is his/her dhoti/petticoat tied properly?
6. Is he/she able to work as a member of a team i.e. in a group activity which requires different roles from people will he/she be able to participate?
7. Does he/she express his/her opinion on important family matters, e.g., marriage?
8. If he/she is assigned or himself/herself decides to undertake an important task can he/she follow it through to completion?
9. Is he/she able to remember important festivals such as Holi, Diwali?
10. If he/she is asked to deliver a message does he/she remember to do so?
11. Does he/she discuss local/regional events such as marriages, disasters, politics appropriately?
12. Does he/she ever lose his/her way in the village?
13. Are they able to handle calculations and money?
14. Is there a change in behaviour or personality?
15. Is there new onset depression?

*All questions are in Yes/No format. No is given 1-point scores >4 are to be evaluated further.*

##### Points to keep in mind:


- All these should be a new symptom or appearance not present in the individual few months or years before.
- History to be taken from a close caregiver, staying with person for longer than duration of appearance of symptoms.

## B. Mini Mental Status Examination for Cognitive Assessment

### Mini-Mental State Examination (MMSE)

Patient's Name:-----

*Instructions: Ask the question in the order listed. Score one point for each correct response within each question or activity.*

Maximum Score	Patient's Score	Questions
5		"What is the year? Season? Date? Day of the week? Month?"
5		"Where are we now: State? Country? Town/city? Hospital? Floor?"
3		The examiner names three unrelated objects clearly and slowly, then asks the patient the name all three of them. The patient's response is used for scoring. The examiner repeats them until patient learns all of them, if possible. Number of trials: -----
5		"I would like you to count backward from 100 by sevens." (93, 86, 79, 72, 65, ...) Stop after WORLD backwards." (D-L-R-O-W)
3		"Earlier I told you the names of three things. Can you tell me what those were?"
2		Show the patient two simple objects, such as a wristwatch and a pencil, and ask the patient to name them.
1		"Repeat the phrase: 'No ifs, ands, or buts.'"
3		"Take the paper in your right hand, fold it in half, and put it on the floor." (The examiner gives the patient a piece of blank paper.)
1		"Please read this and do what it says." (Written instruction is "Close your eyes.")
1		"Make up and write and sentence about anything." (This sentence must contain a noun and a verb.)
1		"Please copy this picture." (The examiner gives the patient a blank piece of paper and asks him/her to draw the symbol below. All 10 angles must be present and two must intersect.)
		
30		TOTAL

If value < 24 refer the individual to PHC-MO, if the individual has studied above 8<sup>th</sup> Class

If value < 21 refer the individual to PHC-MO, if the individual has studied above 8<sup>th</sup> Class

### **C. Self Reporting Questionnaire-20 to screen for CMDs**

#### **Self-Reporting Questionnaire 20 - English version [30-day recall period]**

1. Do you often have headaches? Yes/No
2. Is your appetite poor? Yes/No
3. Do you sleep badly? Yes/No
4. Are you easily frightened? Yes/No
5. Do your hands shake? Yes/No
6. Do you feel nervous, tense or worried? Yes/No
7. Is your digestion poor? Yes/No
8. Do you have trouble thinking clearly? Yes/No
9. Do you feel unhappy? Yes/No
10. Do you cry more than usual? Yes/No
11. Do you find it difficult to enjoy your daily activities? Yes/No
12. Do you find it difficult to make decisions? Yes/No
13. Is your daily work suffering? Yes/No
14. Are you unable to play a useful part in life? Yes/No
15. Have you lost interest in things? Yes/No
16. Do you feel that you are a worthless person? Yes/No
17. Has the thought of ending your life been on your mind? Yes/No
18. Do you feel tired all the time? Yes/No
19. Do you have uncomfortable feelings in your stomach? Yes/No
20. Are you easily tired? Yes/No



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### **Namaste!**

You are a valuable member of the Ayushman Bharat-Health and Wellness Centre (AB-HWC) team committed to delivering quality comprehensive primary healthcare services to the people of the country.

To reach out to community members about the services at AB-HWCs, do connect to the following social media handles:

-  <https://instagram.com/ayushmanhwcs>
-  <https://twitter.com/AyushmanHWCs>
-  <https://www.facebook.com/AyushmanHWCs>
-  [https://www.youtube.com/c/NHSRC\\_MoHFW](https://www.youtube.com/c/NHSRC_MoHFW)



National Health Systems Resource Centre