1. BASICS OF PSYCHIATRY

DEFINITION OF PSYCHIATRY

00:01:50

- Psychiatry: Derived from Greek words Psyche (Mind) + Iatry (Healing/Cure)
- It is a branch of medicine dealing with problems of the mind and their treatment.
- The term "Psychiatry" was coined by Johann Christian Reil.

APPROACH TO A PSYCHIATRIC PATIENT

- History Taking: Collected from the patient and the informant
- Examination:
  - General Physical Examination
  - Systemic Examination
  - Mental Status Examination (MSE)
- Investigation:
  - Limited role in psychiatry
  - Used primarily to rule out organic causes (e.g., head injury)
  - Results are often normal in psychiatric disorders
- Diagnosis & Treatment

Reliability Of Informant

00:03:52

- Reliability is assessed using 5 C's + 1 I
  1. Consistent: Information remains the same across interviews
  2. Chronological: Can describe symptoms in the correct time order
  3. Coherent: Information is logically connected
  4. Closeness: Duration of stay/interaction with the patient (e.g., hostel friends vs. distant parents)
     → Hostel student → Friends more reliable than parents
  5. Concern: Genuine concern vs. vested interest (medicolegal cases)
  6. Intellectual & Observational abilities: Must be adequate
     → Low IQ / poor observation → Reliability decreases

MENTAL STATUS EXAMINATION (MSE)

00:05:44

A. Mood and Affect

- These terms relate to feelings or emotions

Difference Between Mood And Affect

Feature	Mood	Affect
Definition	A persistent and pervasive emotional state	Expression of emotions
Nature	Internal / Subjective experience (felt by the patient).	External / Objective observation (seen by doctor).
Duration	Long-term.	Cross-sectional (at that very moment)

ABNORMALITIES OF AFFECT

1. Flat Affect (Blunt Affect)	• Definition: No change in emotion regardless of positive or negative stimuli • Observation: Emotions appear "dead" (like a flat-line ECG) • Example: Patient discusses death or promotion with the same unchanging facial expression • Seen in: Schizophrenia (specifically a Negative symptom)

2. Labile Affect	• Definition: Rapid and abrupt changes in emotion.
	• Observation: Patient switches quickly between laughing and crying without distinct stimuli
	• Seen in:
	  ○ Mania (Bipolar disorder)
	  ○ Organic Mental Disorders.

3. Inappropriate Affect	• Definition: Affect does not match the situation • Example: Laughing at a funeral • Seen in: Schizophrenia.
4. Incongruent Affect	• Definition: Affect does not match the patient's internal mood or thoughts • Example: Patient says "I am very sad" while laughing/smiling • Seen in: Schizophrenia

Other Emotional Terms

00:12:36

ANHEDONIA	• Definition: Decreased interest in previously pleasurable activities (e.g., hobbies, work, shopping)
	• Seen in:
	  ○ Depression (Core criteria).
	  ○ Schizophrenia (Negative symptom)

ALEXITHYMIA	• Definition: Inability to express or understand one's own emotions

Structures Associated With Emotions

Generation of Emotions

- Emotions are generated in the Limbic System.

Regulation of Emotions

- Emotions are regulated/controlled by the Frontal Lobe
- Frontal Lobe Damage:
  - Leads to Personality Changes: E.g., a person urinating in public without guilt
  - Disinhibitory behaviour (loss of social inhibition): If a patient shows disinhibited behavior or personality changes after head injury → Frontal Lobe is affected

2. DISORDERS OF THOUGHT – MENTAL STATUS EXAMINATION (MSE)

In MSE, thought assessment tells us what the patient is thinking and how the thoughts are occurring.

Domain(Disorder of)	What is abnormal?
Flow / Stream	Speed & continuity of thoughts
Content	What the patient is thinking
Form	Organisation/structure of thoughts
Possession	Sense of ownership or control of thoughts

Disorders of flow / stream of thought

00:00:40

- Flow of thought refers to the speed, tempo, and continuity of thoughts

FMGE 2019, 2020, 2021
NEET PG 2019

Abnormality of Speed

Disorder	Key Features	Goal Reached	Seen in

Flight of ideas	• Thoughts follow each other rapidly
	• Thoughts connected
	  ○ By chance factor
	  ○ Clang association(Rhyming words)
		No	• Mania (Schizophrenia)
			• OMD

Prolixity	Ordered flight of ideas	Yes	Hypomania
Retardation	Slow thinking & speech a/w Low energy	Yes	Depression
Circumstantiality	• Thinking proceeds slowly • Unnecessary/trivial details	Yes	Schizophrenia

Abnormality of Continuity

00:05:55

PERSEVERATION :

- **Thought persist beyond** point of relevance
- Seen in: Organic mental disorders , schizophrenia

Type	Description
Palilalia	Repetition of word with increasing frequency
Logoclonia	Repetition of last syllable of a word

THOUGHT BLOCK :

- Sudden arrest/pause of thought
- Begin with entirely new thought
- Seen in: Schizophrenia

Disorders of content of thought

00:08:35

Delusion

- A false, fixed, firm idea/ belief
- Held with extraordinary conviction
- Unexplained by socio-cultural background (Differentiates from superstition)

TYPES OF DELUSIONS

INI CET 2023, FMGE 2021, INICET 2025, FMGE 2025 00:10:30

DELUSION	CORE BELIEF	IMPORTANT POINTS
Persecution	• Others want to harm / cheat / Kill • **Delusion of influence** ○ Thoughts/feelings influenced by others	MC delusion
Reference	Patient believes someone is talking about him or spying on him	
Nihilism	Patient denies existence of everything , (self, body, family / world)	• Seen in Cotard syndrome ○ Depression + delusion of nihilism • severe depression a/w psychosis
Grandiosity	False exaggerated belief of power, knowledge , wealth, self-importance	Seen in Mania, schizophrenia
Infidelity(Othello syndrome)	Patient believes partner is cheating, Morbid jealousy	Seen in substance use: Alcohol
Love(Erotomania/ De Clerambault syndrome)	Believes someone else /famous is in love with the patient	

DELUSIONAL MISIDENTIFICATION SYNDROMES

SYNDROME	BELIEF	APPEARANCE	SEEN IN
Capgras	• Closely related person replaced by exact double (Stranger) • Appearance looks same, identity believed different • Fights with close person	Same	Lewy body dementia, Schizophrenia

Fregoli	• Familiar person is imposing as stranger and can take multiple appearances • Same person appears in different forms • Patient is fighting with a stranger	Different	Schizophrenia  Physical Apperance

Disorders of form of thought

00:20:20

- Formal thought disorder → Disorganization (Schizophrenia)
- Goals are not reached
- Normal thought
  - A- B - C -D - E → I will book a cab → Reach cafe → Order coffee→Drink → Come back

DISORDER	DESCRIPTION	KEY FEATURES	D/D	SEEN IN
Loosening of Association	Break in logical connection between thoughts	Words make sense not sentences (C-A-D-B-E)	Vs Flight of ideas → connection present	Schizophrenia

Derailment (Knight's Move Thinking)
 
 
	Jump off the track, move to a different new topic	• Starts on one topic
		  ○ Abrupt shift to unrelated topic
		  ○ No pause (A-B-C-L-M-N)
			Vs Thought block→ Pause present	

Tangentiality	Patient briefly touches the topic and moves away	Reply is oblique/ tangential Goal is not reached	Vs • Circumstantiality → goal reached • Tangentiality → goal not reached	
Neologism	Creation of new word/ phrase(derivation cannot be understood)	Words are newly invented Not found in dictionary		Schizophrenia
Verbigeration	Senseless repetition of words or phrases	Repetitive Meaningless	Severe form → Word salad	

Yourwish

Talking Past the Point(Vorbeireden)	Patient understands the question but gives an incorrect related answer	Understanding is intact Answer is related but wrong		Ganser syndrome (In prisoners / others)

Disorders of possession of thought

00:29:00

- Loss of control / loss of sense of possession of thinking

Obsession

- Repetitive thoughts/ images/ impulses(urges)

Thought Alienation (passivity Of Thought)

- Patient feels thoughts are under external control
- Thought insertion - thoughts put into mind
- Thought withdrawal - thoughts taken away
- Thought broadcasting - others can know my thoughts
  - Eg:TV broadcasting patient's thoughts
  - Vs TV sending message to patient → Delusion of reference

Q. A 25-year-old male patient while being interviewed starts laughing and then starts crying without any clear stimulus. Which of the following best describes this symptom?

A. Euphoria
B. Flat affect
C. Labile affect
D. Incongruent affect

Ans: **C**

Q. A 30-year-old male is admitted in a psychiatric ward for psychotic behavior over the past 8 months. The patient's mother says that his son is speaking things like he knows the USA President, and the patient is the one who is actually running the country. When he spoke, his sentences did not always seem to have any connection with each other. He is using terms like "Pratnitvitkitfitlo," which does not make any sense. He claims to be followed by the terrorist groups to kill him. Which of the following symptoms is not seen?

A. Neologism
B. Loosening of association
C. Delusion of grandiosity
D. Perseveration

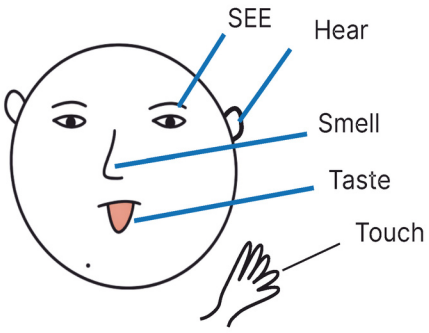
Ans: D

1. PERCEPTION, COGNITIVE FUNCTION, AND CLASSIFICATION OF PSYCHIATRIC DISORDERS

PERCEPTION

00:00:10

- What we perceive from our sensory organs in the external environment
- Characteristics of normal perception
  - Clear
  - Independent of the will
  - Occur in outer subjective space
- Abnormalities of perception
  - Illusion
  - Hallucination



Important Information

- Inner subjective space- E.g., Imagine the last hilly area you visited. The image is created in the inner subjective space (AKA mind's eye).

Illusion

00:00:46

- False perception with real object
  - Eg: A rope is perceived as a snake


Snake


Rope

Hallucination

- False perception without a real object
- Psychotic symptom
- Characteristics of hallucination
  - Clear/As vivid as real
  - Involuntary
  - Occur in outer subjective space
  - Eg: Patient tells that he can see another person sitting beside you wearing a white cap and with a moustache, but in real no such person exists beside you

Lage Raho
MUNNA BHA!

Hallucination	Pseudohallucination
• False perception without a real object • Clear / As vivid as real • Involuntary	
• Occurs in: OUTER OBJECTIVE SPACE	• Occurs in: INNER SUBJECTIVE SPACE

TYPES OF HALLUCINATIONS

Auditory (Hear)	• Most Common hallucination • Occurs in the temporal lobe disorders (temporal lobe epilepsy) • Pt can hear things not heard by others. E.g., mobile ringtone, dog barking, etc.
Visual (See)	• Rule out any Organic Mental Disorder • Visual hallucinations (VH) are the MC hallucinations in organic mental disorders (e.g., delirium, dementia) • Pt can see things not seen by others. E.g., flashes of light, objects, animals, humans, etc.
Tactile (Touch)	• Formication: The sensation of small insects crawling under or over the skin • Cocaine Bugs / Magnum Bugs: Specific to cocaine users • Often results in physical scratch marks as the individual tries to remove the bugs
Olfactory (Smell)	• Pt can smell things that are not smelled by others. E.g., a pungent smell in a room. • Commonly associated with Temporal Lobe Epilepsy
Gustatory (Taste)	• Occurs in the temporal lobe disorders (temporal lobe epilepsy) • Pt experiences a different taste of a food. E.g., metallic taste

Special Hallucinations

Functional Hallucination

- A real stimulus in one sensory modality triggers a hallucination in the same modality
  - Eg: Hearing a real sound (like a phone ringing) and simultaneously hearing a hallucinated voice

Reflex Hallucination

- Also known as Morbid Synesthesia
- A real stimulus in one sensory modality triggers a hallucination in a different modality.
  - Eg: Hearing a real sound (Auditory) and simultaneously seeing a person (Visual Hallucination)
- Associated Substance: LSD (Lysergic Acid Diethylamide)

Hallucination	Delusion
• False perception	• False belief
• Eg, I can hear the voice of my neighbours planning to kill me	• I know my neighbor wants to kill me

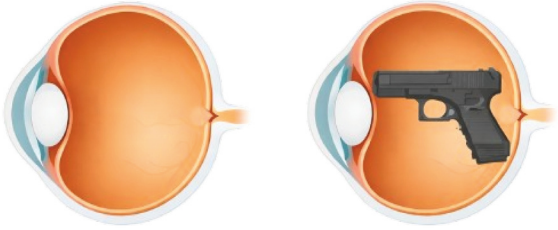
COGNITIVE FUNCTIONS

00:15:00

- Organic mental disorder, no called as Neurocognitive disorders

Orientation	• Awareness of Self & surroundings w.r.t Time / Place / Person • Disorientation is seen in delirium

<table>
<tr><td>Attention</td><td colspan="3">• Ability to attend to a specific stimulus without getting distracted
TEST: Digit Span / Repetition test
• Digit Forward test:
○ Pt is asked to repeat the number in the forward direction. E.g. 2, 7 →2, 7; 3, 8, 5 →3, 8, 5
○ Normally, 5-7 digits are repeated
• Digit Backward test
○ Pt is asked to repeat the number in the backward direction. E.g. 5, 8→ 8, 5
○ Normally, 3-5 digits are repeated</td></tr>
<tr><td>Concentration</td><td colspan="3">• Sustained Attention
TEST: Serial 7 subtraction test (AKA 100 - 7 test)
• Pt is asked to subtract 7 in series from 100
• E.g. 93, 86, 79, 72, 65...
• Normally, a person can subtract 5 times</td></tr>
<tr><td rowspan="3">Memory</td><td>Immediate / Short-term Memory</td><td>Seconds</td><td>• Test of Attention & Concentration
○ Digit Forward Test (specifically)</td></tr>
<tr><td>Recent Memory</td><td>Minutes / Hours / Days</td><td>• Test: 24-Hour Recall Method
○ Eg: Asking about the "Last meal?"</td></tr>
<tr><td>Remote Memory</td><td>Months - Years</td><td>• Test: Personal Information or Historical Events
○ Personal: Questions about school or friends
○ Historical: Questions about the Prime Minister (PM) or World Cup (WC)</td></tr>
<tr><td>Abstract Thinking</td><td colspan="3">• Ability to understand hidden meaning/form concepts
• When abstract thinking is impaired, it leads to concrete thinking
Tests
• Proverb Testing
○ Example: "PEN IS MIGHTIER THAN SWORD"
• Similarity Testing
○ This test compares two items, such as a CAR and a PLANE, to determine the level of thinking based on the similarities identified.
→ Functional Similarity (Abstract thinking present)- Focusing on the purpose or category. Example: "Means of transportation."
→ Structural Similarity (Abstract thinking absent)- Focusing on literal, physical attributes. Example: "Both have tyres" or "Made of metal."

Normal Eyes VS Raveena Tandon's Eyes
  </td></tr>
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Yourwish

Judgement	• Making the right decision after analyzing choices
	• Impaired Judgement is seen in Psychosis
	• Types
	  ○ Test judgement
	  → Given an imaginary situation, and asked what the patient's action would be
	• Eg: What will he do if something is on fire
	  ○ Social judgement
	  → Social behaviour is observed

INSIGHT

00:30:24

- Awareness of illness
- Grades
  - Complete denial
    → The individual completely denies having any illness
  - Slight awareness, but denying at the same time
    → There is a flicker of awareness that something is wrong, but it is coupled with immediate denial
  - Awareness, attributing to some factor
    → The individual acknowledges an illness but attributes it to external, physical, medical, or unknown factors rather than a psychological one
  - Intellectual insight
    → Awareness that the illness is due to one's own irrational feelings or emotions. However, the individual does not apply this knowledge to change their behavior
  - True emotional insight
    → Awareness that the illness is due to one's own irrational feelings or emotions. The individual actively applies this knowledge to change their behavior

CLASSIFICATION IN PSYCHIATRY

00:33:11

- ICD-11 (International Statistical Classification of Diseases, 11th Revision)
  - By WHO (World Health Organization)
- DSM-5 (Diagnostic & Statistical Manual of Mental Disorders, 5th Edition)
  - By APA (American Psychiatric Association
  - Based on Symptoms

PSYCHIATRIC DISORDER CLASSIFICATION (OLDER)

- Organic Disorders
  - These are defined by having a visible cause (physical or physiological) like head injury, encephalitis, and low sodium
    → Examples: Delirium, Dementia, Amnestic Disorder
  - Functional Disorders
    - These are defined as having No Visible Cause (no immediate physical lesion or systemic disease).
    - These are further divided into Neurosis and Psychosis.

Neurosis		Psychosis
Absent	**Delusions & Hallucinations**	Present

Present	**Judgment**	Absent
Present	**Reality Testing**	Absent
Present	**Insight**	Absent
Preserved	**Personality**	Disorganized/Affected
• Anxiety disorders • OCD • Somatoform & related disorders • Depression	**Examples**	• Schizophrenia • Acute Psychosis • Delusional Disorder • Bipolar Disorder

- DJ-RIP: A mnemonic (Delusions, Judgment, Reality Testing, Insight, Personality)

DISORDER CRITERIA

- Fulfill symptom criteria
- Fulfill duration criteria
- Impairment of functioning
  - Occupational
  - Social
  - Personal

MCQs

00:41:38

Q. Which of the following differentiates Pseudohallucination from hallucination?

A. Disorder of perception
B. Absence of real stimulus
C. External objective space
D. Involuntary

Ans: **C**

Q. A 20-year-old patient admitted in hospital for routine surgery shouts in the middle of the night, seeing someone standing outside the window. A hospital nurse came rushing and switched on the light, and the patient found that it was the curtains moving because of the strong wind outside. What is the phenomenon experienced by the patient?

A. Hallucination
B. Pseudohallucination
C. Illusion
D. Delusion

Ans: **C**

Q. A psychiatrist is performing a 100-7 test. Which of the following is being assessed?

A. Orientation
B. Attention

C. Concentration
D. Judgement

Ans: **C**

Q. While interviewing, a second-year psychiatry resident asks a patient admitted to the ward, "What will he do if he sees his neighbor's house on fire?". What is the test being conducted by the resident?

A. Test judgement
B. Insight
C. Abstract thinking
D. Social judgement

Ans: **A**

4. NEUROCOGNITIVE DISORDERS

ORGANIC MENTAL DISORDERS:

00:00:05

- Neurological cause causing cognitive impairment.

	Delirium	Dementia	Amnestic disorder
Consciousness	Impaired	Intact	Intact
Cognition	Impaired	Impaired, • Memory	Memory is impaired

DELIRIUM:

00:01:24

- MC organic mental disorder
- Acute in onset within hours to days
- Fluctuating course
- Sundowning: worsening of symptoms in the evening/night.

Predisposing/risk factors:

- Elderly
- Medical illness
- Surgical illness
  - Postoperative periods after
    - → CABG
    - → Femur fracture
    - → Emergency procedures (e.g., appendectomy)
    - → Road traffic accidents
- Substance use: Alcohol withdrawal (delirium tremens)

Diagnosis

mnemonic: check consciousness at mse

- Check cognitive impairment.
  - Memory (recent and immediate memory)
  - Language
  - Perception: illusion, visual hallucination)
- Consciousness is impaired
  - Altered sensorium
  - Coulding of consciousness
  - Disoriented to time, place, and person
  - Confusion
- Attention impaired
  - Reduced ability to focus, sustain, or shift attention
- Motor disturbances:

  - Increased: hyperactive (removing cannulas and catheters)
  - Decreases: low GCS
- Sleep: hypersomnia or insomnia, reversal of the sleep-wake cycle
- Emotional disturbances

Assessment:

Confusion assessment method (cam):

- Diagnostic tool to identify delirium

EEG (electroencephalogram)

- Diffuse slowing of background cortical activity
- Delirium caused by alcohol or sedative-hypnotic withdrawal have low-voltage fast activity

Treatment:

- Medical emergency
- Reversible
- Treat the underlying cause
- Pharmacotherapy:
  - Anti-psychotics: DOC
    → Drugs: Haloperidol (M/c), olanzapine
    → Management of delusions, hallucinations, and agitations
  - Benzodiazepines:
    → For treating insomnia and agitation
    → Preferred drugs of treatment for alcohol withdrawal delirium (delirium tremens)

DEMENTIA

00:12:03

- Progressive cognitive impairment
- In clear consciousness

Symptoms:

- Cognitive impairment
- Memory: amnesia
- Language: aphasia
- Attention (complex)
- Perceptual motor,
  - Apraxia: a problem with fine motor skills
  - Agnosia: if faces (prosopagnosia)
- Social cognition
- Executive function
- Neuropsychiatric symptoms,
  - Personality changes
  - Delusions, hallucinations, agitation, aggression
  - Depression, anxiety symptoms

Causes

- MC causes Alzheimer's disease (70-80%), presents alone or in combination with other etiologies
- 2nd MC cause: Lewy body disease (15-35%)
- 3rd MC cause: Vascular dementia (5-20%)

Early-onset dementia:

- Onset before 65 years of age
- MCC Alzheimer's disease
- 2nd MC: pick disease (frontotemporal dementia)

Types:

- 10-15% cause are reversible
- Neurosurgical: SDH, Intracranial tumors/abscess/NPH (normal pressure hydrocephalus)
  - NPH: Hakim's/Adam's triad is,
    → Gait abnormalities: magnetic gait
    → Urinary incontinence
    → Cognitive impairment
    → Treatment is ventricular shunting
- Dementia due to infections: encephalitis, meningitis
- Metabolic causes:
  - Deficiency of Vit B12/Folate/niacin, thiamine
  - Hypothyroidism/hyperthyroidism
  - Hypo/hyperparathyroidism
- Others: alcohol, toxins, drugs

Types Based on Site of Lesion

	Cortical dementia	Subcortical dementia
Site of lesion	• Early involvement of cortical structures	• Early involvement of subcortical structures like the basal ganglia, brainstem nuclei, and cerebellum
Examples	• Alzheimer's disease, • Pick's disease	• Parkinson's disease • Huntington's disease • Multiple sclerosis • Progressive supranuclear palsy • Wilson's disease
Motor system	• Normal	• Abnormal

Mixed dementia: vascular dementia and Lewy body dementia

Alzheimer's Disease:

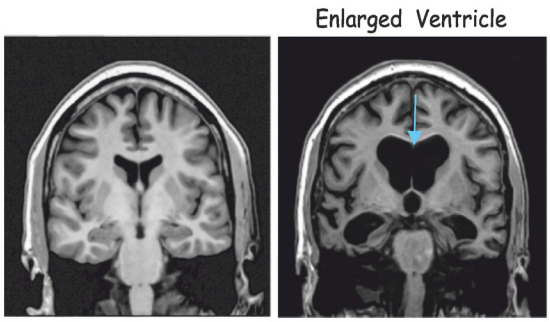
00:23:41

- M/c type of dementia
- Gradual and insidious onset of symptoms
- Females > Males
- Most common presentation: memory deficits
- Language disturbance may also be seen

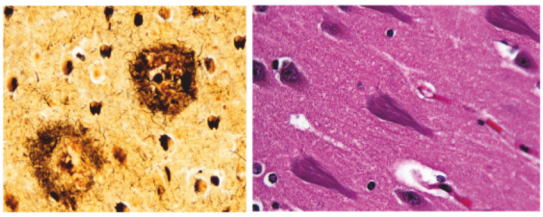
- Gradually, cognitive domains may be affected
- Causing agnosia and apraxia

Pathology:

- Macroscopic finding: diffuse atrophy of the parietal and temporal lobes
- Microscopic findings:



  - Amyloid plaques/neuritic (senile) plaques: Abeta deposits
  - Neurofibrillary tangles (NFTs): hyperphosphorylated tau proteins
- Neurochemistry:
  - Acetylcholine: reduced
  - Glutamate: increased in the beginning



Lewy body disease: 00:26:51

Core features: (cv mr)

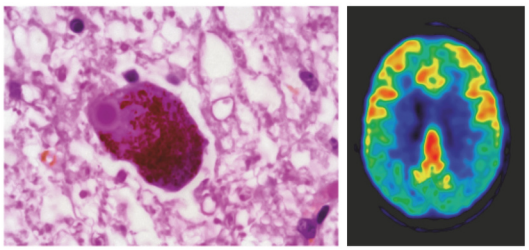
- Fluctuating Cognition: variation in attention and alertness
- Visual hallucinations
- Motor features of Parkinsonism: tremors, rigidity, bradykinesia
- REM sleep behavior disorder:
  - Normally, atonia is present, but here it is absent.

Suggestive Features

- Sensitivity to neuroleptics: high risk of developing EPS with antipsychotic
- Repeated falls, syncope, transient loss of consciousness
- Severe autonomic dysfunction
- Systematized delusions: delusion of persecution, CAPGRAS syndrome
- Hallucination in other modalities

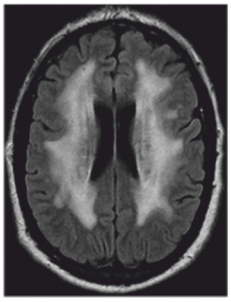
Pathological

- Lewy Bodies
  - Spherical intracytoplasmic eosinophilic inclusion bodies
  - Fibrillar deposits of alpha-synuclein
- Lewy body can also be seen in Parkinson's disease
  - Motor symptoms occur first, and cognitive symptoms a year later, differentiating it from Lewy body dementia.
- FDG-PET: posterior cingulate island sign



Vascular Dementia:

00:31:42



- AKA multi-infarct dementia
- Males > Females
- Step-ladder pattern:
  - Step-wise deterioration of symptoms due to acute exacerbations corresponding to new areas of stroke.

Frontotemporal Dementia (Pick Disease):

00:33:04

- Atrophy of the frontal and temporal lobes
- Pick bodies (masses of cytoskeletal elements)

2 variants	
Behavioural variant	**Language**

• Frontal lobe involvement
  ○ Disinhibitory behaviours
  ○ Apathy
  ○ Stereotypy
  ○ Hyperorality
  ○ Personality changes
  ○ Emotional disturbances
	• Temporal lobe involvement
	  ○ Language impairment

Assessment:

00:34:59

- Mini-Mental Status Examination (MMSE)
  - Screening tool
  - A score of <24 (out of a total of 30): suggestive of dementia
  - Given by Folstein et al

Treatment

- Treat the cause
- Pharmacotherapy:
  - Cholinesterase inhibitors: reversible inhibitors of the enzyme acetylcholinesterase
    - → Tacrine: not used due to hepatotoxicity
    - → Donepizil
    - → Rivastigmine (patch)
    - → Galantamine
    - → Benz-galantamine: an oral drug with fewer GI ARDs.
  - Memantine: NMDA antagonist (non-competitive)
    - → Used in moderate to severe cases
    - → Used as monotherapy or in combination with donepezil
  - Monoclonal antibody:
    - → Bind to A-beta deposits and help clear them
    - → Used in Alzheimer's disease, FDA-approved for mild cognitive impairment or mild dementia stage of Alzheimer's
    - → Aducanumab: humanized IgG1 monoclonal antibody
    - → Lecanemab: humanized IgG1 monoclonal mouse antibody

→ Donanemab: a humanized IgG1 monoclonal mouse antibody
→ Given by IV infusion
→ M/c side effects
- Headache
- Infusion-related reactions
- ARIA (amyloid-related imaging abnormalities)

Treatment of Neuropsychiatric Symptoms

- Antidepressants: SSRI for depression and anxiety
- Antipsychotics: for agitation, delusions, and hallucinations.
  - 2nd gen: risperidone, olanzapine
  - Clozapine has been used to treat psychotic symptoms in Parkinson's disease and DLE due to a lack of extrapyramidal symptoms
- Pimavanserin: 5-HT2A inverse serotonin agonist, FDA-approved for psychosis in PD
- Brexpiprazole: a partial D_2 agonist, an FDA-approved drug (2023) for the treatment of agitation associated with dementia due to Alzheimer's disease.
- Benzodiazepines: for agitation and insomnia

AMNESTIC DISORDERS: 00:43:00

- Memory impairment
  - Recent memory: anterograde amnesia, inability to learn new information
  - Remote memory: retrograde amnesia, reduced ability to recall past events
- Intact
  - Immediate memory
  - Consciousness
  - Global intellectual decline

Causes

CNS	Systemic
• Seizures • Head trauma • Tumors	• Thiamine deficiency (Korsakoff syndrome)

MCQs 00:44:16

Q. Which of the following are reversible causes of dementia?
a. NPH
b. Hypothyroidism
c. Lewy body dementia
d. Vitamin B12 deficiency
A. a, b
B. a, b, c
C. a, b, c, d
D. a, b, d

Answer: A, B, D

Q. A 75-year-old woman is brought to the psychiatry OPD with complaints of difficulty in activities of daily routine, staring at the wall, and talking to someone, although no one else is around. She also has bradykinesia and rigidity. What is the diagnosis?

A. Prion disease
B. Huntington disease
C. Parkinson's disease
D. Alzheimer's disease

Answer: C

Q. An elderly woman is brought to the psychiatry OPD by her daughter with complaints of progressive forgetfulness. For the past year, she has been seeing people and animals in the nearby house that has been unoccupied during this period, and also developed rigidity and tremors. What is the most likely type of dementia?

A. Frontotemporal dementia
B. Lewy body dementia
C. Parkinson's disease
D. Vascular dementia

Answer: B

Q. An elderly patient diagnosed with dementia is on the drug memantine. What is the mechanism of action?

A. NMDA blocker, glutamate receptor
B. Cholinesterase inhibitor
C. Inhibit amyloid plaque
D. Inhibit formation of alpha synuclein

Answer: A

5. SCHIZOPHRENIA & OTHER PSYCHOTIC DISORDERS

SCHIZOPHERNIA

00:00:12

HISTORY

- Benedict Morel: Coined the term Démence Précoce.
- Emil Kraepelin: Coined the term Dementia Praecox.
- Eugen Bleuler: Coined the term Schizophrenia
  - "Schizo" means split, and "phrenia" means mind
- Kurt Schneider: Schneider's first rank symptoms

BLEULER'S FOUR A's

1. Association disturbances: Such as loosening of associations (formal thought disorders)
2. Affective flattening: Flat affect; no change in emotion.
3. Autism: Fantasy thinking.
   - The patient is engrossed in their own thinking with illogical thoughts in their mind.
4. Ambivalence:
   - The inability to take a decision
   - E.g., staring at a pen for hours, unable to decide whether to pick it up or not

SCHNEIDER'S FIRST RANK SYMPTOMS (SFRS)

FMGE 2018, 2019, 2023, NEET PG 2025

AUDITORY HALLUCINATIONS	1. Audible thoughts / Thought echo: The patient can hear their own thoughts (1st person) 2. Voices arguing or discussing about the patient (3rd person) 3. Voices commenting on the patient's actions / running commentary
THOUGHT ALIENATION	4. Thought insertion 5. Thought withdrawal 6. Thought broadcast/ diffusion
MADE PHENOMENA	7. Made impulses (Urges): Experiencing urges influenced by someone else 8. Made feelings: ○ Feelings are made/influenced by an external agency ○ E.g., crying but stating the feeling isn't theirs 9. Made acts: ○ Actions controlled by someone else ○ E.g., slapping someone and claiming an external force made them do it
OTHER SFRS	10. Somatic passivity: ○ Experiencing bodily sensations believed to be imposed by an external agency ○ E.g., abdominal pain blamed on alien radio waves

	11. Delusional perception: ○ Giving a delusional meaning to a normal perception ○ E.g., seeing their wife in a red sari and concluding it means she wants to kill them

EPIDEMIOLOGY

- Lifetime prevalence: 0.7%
- Equally prevalent in males and females
- Peak age of onset
  - Males: 10-25 years
  - Female: Bimodal
    → The first peak is 25 to 35 years
    → Another peak occurs after 40 years
- Prognosis
  - Males→ bad prognosis
  - Female → good prognosis

LATE ONSET SCHIZOPHRENIA

- Developing after 45 years of age for first time
- Good prognosis

ETIOLOGY

GENTEIC FACTORS	• Concordance rate is higher in monozygotic (identical) twins compared to dizygotic twins • Higher risk in family members of patients with schizophrenia and bipolar disorder (overlapping genes) • Chromosome 22q11.2 deletion syndrome (DiGeorge / Velocardiofacial syndrome): ○ Nearly 25% of these cases develop psychotic illnesses like schizophrenia.
NEUROTRANSMITTERS	• Dopamine ○ Old Dopamine Hypothesis: Antipsychotics act as dopamine antagonists ○ Mesolimbic pathway → ↑ Dopamine → Positive (psychotic) symptoms ○ Mesocortical pathway → ↓ Dopamine → Negative symptoms • Serotonin ○ ↑ Serotonin → contributes to both positive and negative symptoms • Other Neurotransmitters ○ ↓GABA, ↓ Norepinephrine, ↓ Acetylcholine ○ Glutamate → both ↑ or ↓ activity may contribute.

RISK FACTORS

- Advanced paternal age >60 years
- Maternal / Obstetric Factors
  - Preeclampsia

- Bleeding during pregnancy
- Low birth weight
- Fetal hypoxia
- Maternal infections during pregnancy (e.g., influenza)

- Substance Use
  - Cannabis use in childhood or adolescence → ↑ risk of schizophrenia

SYMPTOMS OF SCHITZOPHRENIA

00:14:36

FMGE 2022

POSITIVE SYMPTOMS / PSYCHOTIC SYMPTOMS

- Respond well to medications → Good prognosis
- Delusions
  - Any type can occur
  - Most common → Delusion of persecution
- Hallucinations
  - Any type can occur
  - Most common → Auditory hallucinations

NEGATIVE SYMPTOMS

- Symptoms represent reduction or loss of normal functions
- Poor response to treatment → Worse prognosis
- Symptoms Include
  - Anhedonia → ↓ pleasure in previously enjoyed activities (most common negative symptom)
  - Avolition → ↓ motivation or drive (sitting idle all day)
  - Affective flattening → ↓ emotional expression
  - Asociality → ↓ social interaction
  - Alogia → ↓ verbal output

DISORGANIZED SYMPTOMS

- Disorganized Speech
  - Formal thought disorder
  - Examples → Loosening of associations, neologisms
- Disorganized Behavior
- Inappropriate Affect
  - Emotional expression not matching situation (e.g., laughing at a funeral)

CATATONIC SYMPTOMS/MOTOR SYMPTOMS

- Not specific to schizophrenia
  - More common in mood disorders
- Symptoms include
  - Stupor: Markedly ↓ psychomotor activity, akinetic mutism
  - Excitement: ↑ non-goal-directed psychomotor activity
  - Mutism: Minimal verbal response
  - Catalepsy (Passive):
    → Examiner places patient in posture → patient maintains it
  - Posturing (Active)

→ Patient voluntarily assumes abnormal posture
- Waxy Flexibility
  → Initial resistance → limb bends smoothly like wax
- Negativism: Opposes instructions or gives no response to instructions
- Automatic Obedience: Excessively cooperative behavior
- Mannerisms: Repetitive purposeful odd movements
- Stereotypy: Repetitive non-purposeful movements
- Echolalia: Repeating examiner's words
- Echopraxia: Repeating examiner's actions
- Grimacing: maintenance of odd facial expressions
- Ambitendency: inability to decide a motor movement

- Diagnosis requires ≥3 symptoms

DIAGNOSIS

- In DSM-5, five key symptoms are listed in the criteria.
  1. D - Delusions
  2. H - Hallucinations
  3. D - Disorganized Speech
  4. C - Catatonic or grossly Disorganized behavior
  5. N - Negative symptoms
- ≥2 of the following 5 symptoms must be present:
- At least one symptom must be from the first three:
  1. Delusions
  2. Hallucinations
  3. Disorganized speech
- Active symptoms duration ≥1 month
- Total illness duration ≥6 months (includes prodromal or residual phases)
- Note: ICD-11 only requires a duration of 1 month

SUBTYPES OF SCHITZOPHRENIA

- Older Classification (ICD-10, DSM-IV)
  - Schizophrenia classified based on predominant symptoms
- Current Classification (DSM-5, ICD-11)
  - Subtypes removed
  - Diagnosis simply labeled as Schizophrenia

CLASSIFICATION BASED ON COURSE OF ILLNESS

- Schizophrenia, First Episode
  - Patient experiencing first episode of schizophrenia
- Schizophrenia, Multiple Episodes
  - Recurrent episodes with remission periods
- Schizophrenia, Continuous Course
  - Persistent symptoms ≥1 year

Important Information

- ICD-11 → separate diagnostic category
- Treatment of Catatonic Symptoms
  - Predominant catatonic symptoms
    → First line → IV Lorazepam
    → Best treatment → ECT

SUICIDE

00:30:00

- MC cause of premature death inpatient with schizophrenia
- Rate od suicide
  - 5%-6% earlier studies
  - -20% attempts to suicide
  - Reduction in life expectancy -20%

PROGNOSTIC FACTORS

GOOD PROGNOSTIC FACTORS	BAD PROGNOSTIC FACTORS

• Acute (<2 weeks) or abrupt (<2 days) onset
• Late age of onset
• Subtypes
  ○ Catatonic schizophrenia → best prognosis
  ○ Paranoid schizophrenia (m/c subtype)
• Females
• Predominant positive symptoms
• Presence of mood symptoms
• Family history of mood disorder
• Married
• Good social support
• Good premorbid functioning
• Employment
• Precipitating factor present
	• Insidious onset
	  ○ Months -years
	• Early age of onset
	• Subtype
	  ○ Simple: Predominant negative symptoms, worst prognosis
	  ○ Hebephrenic/disorganized schizophrenia
	• Males
	• Prominent negative symptoms
	• Absence of mood symptoms
	• Family history of schizophrenia
	• Unmarried/divorce/separated
	• Poor social support
	• Poor premorbid functioning
	• Unemployed
	• Absent precipitating factor

TREATMENT OF SCHITZOPHRENIA

00:36:35

ANTIPSYCHOTICS

	Typical / First Generation Antipsychotics	Atypical / Second Generation Antipsychotics
MOA	D_2 Antagonist	D_2 & 5-HT_2A Antagonist
Symptoms	Positive symptoms	Positive and negative symptoms
EPS	More	Less
Metabolic syndrome	Less	More

SIDE EFFECTS OF ANTIPSYCHOTICS

INICET 2022

1. Movement Disorders/Extrapyramidal Symptoms(EPS)

- Blockade of D2 receptor in nigrostriatal pathway
- More with
  - → Typical antipsychotic > atypical
  - → Especially high potency drugs like haloperidol
- EPS includes
  - → D – Acute Dystonia
  - → P – Drug-Induced Parkinsonism
  - → A – Akathisia
  - → T – Tardive Dyskinesia
  - → N – Neuroleptic Malignant Syndrome (NMS)

Acute Dystonia	• Earliest EPS → hours to days
	• Symptoms
	  ○ Sudden sustained muscle contractions
	  → Oculogyric crisis → upward eye deviation
	  → Torticollis → neck twisting
	  → Trismus → jaw clenching
	  → Laryngospasm
	• Treatment
	  ○ DOC: Anticholinergics
	  → Benztropine
	  → Promethazine
	  ○ Mechanism → M1 antagonism ↓ Acetylcholine → restores dopamine-acetylcholine balance in nigrostriatal pathway

Drug-Induced Parkinsonism	• Onset: Days to weeks
	• Symptoms
	  ○ Tremor
	  ○ Rigidity
	  ○ Bradykinesia
	• Late feature → Rabbit syndrome (perioral tremors)
	• Treatment
	  ○ Anticholinergics
	  → Trihexyphenidyl
	  → Benztropine
	  → Diphenhydramine

Akathisia	• Onset: Days to weeks
	• Most common EPS
	• Symptoms
	  ○ Subjective feeling (Inner restlessness) & Objective restlessness
	  ○ Foot stamping when seated
	  ○ Crossing / uncrossing legs

	○ Rocking motion while sitting ○ Constantly pacing around • Treatment ○ Drug of choice → Propranolol (β-blocker)
Tardive Dyskinesia	• Onset: Late onset → months to years • Mechanism ○ Up-regulation / supersensitization of D_2 receptors • Symptoms ○ Involuntary movements → Lip smacking / chewing → Tongue protrusion (Fly catching) → Choreiform hand movements (Piano playing) → Pelvic thrusting • Treatment: ○ VMAT-2 inhibitors → Valbenazine → Deutetrabenazine ○ Also: → Reduce antipsychotic dose → Switch to Clozapine
Neuroleptic malignant syndrome (NMS)	• Life threatening complication of antipsychotics • Symptoms ○ Fever, increase CPK (creatinine phosphokinase), Muscle rigidity ○ Tachycardia, Sweating, leukocytosis, ○ Altered consciousness ○ Increase levels of liver enzymes • Treatment ○ First step: Stop offending drug immediately ○ Drugs → Dantrolene (drug of choice) → Dopamine agonists: Bromocriptine, Amantadine

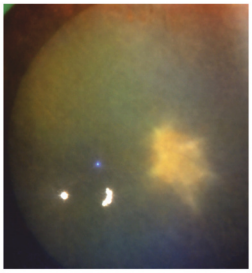
2. Endocrinal Side Effects

- D_2 blockade in the tuberoinfundibular pathway
- Dopamine normally inhibits prolactin release
- Blocking dopamine → ↑ Prolactin
- Hyperprolactinemia leads to
  - ↓ Libido in males
  - Galactorrhea → breast milk secretion
  - Amenorrhea → cessation of menses

TYPICAL FIRST GENERATION ANTIPSYCHOTICS

- D2 blockades leads to Endocrinal and Extrapyramidal side effect

- M1 (Muscarinic) Blockade:
  - Anticholinergic effects (dry mouth, blurred vision, urinary retention, constipation).
- Alpha-1 Blockade: Orthostatic hypotension.
- H1 (Histamine) Blockade: Sedation and weight gain

CHLORPROMAZINE	• Corneal and lenticular deposits on Posterior cornea & Anterior part of lens • Color changes ○ Blue-grey pigmentation on sun-exposed skin • Cholestatic jaundice • M1 blockade → Anticholinergic effects • Alpha-1 blockade → Orthostatic hypotension • H1 blockade → Sedation • Moderate risk of weight gain 
HALOPERIDOL	• Higher D2 potency → Maximum EPS
THIORIDAZINE	• Retinal pigmentation (irreversible) • Cardiac arrhythmias • Retrograde ejaculation • Least EPS (typical)
PENFLURIDOL	• Longest acting antipsychotic

ATYPICAL/SECOND GENERATION ANTIPSYCHOTICS

OLANZAPINE

- Weight gain

RISPERIDONE

- Increase EPS
- Hyperprolactinemia

ARIPIPRAZOLE

- Partial D2 agonist
- Antagonist D2 ,5HT2A
- Risk of Akathisia
- Low risk of Weight gain and Hyperprolactinemia

ZIPRASIDONE

- Increased QTc interval

CLOZAPINE

- Antagonist D4>D2
- Least EPS
- Only antipsychotic with antisuicidal property
- Used for treatment resistant schizophrenia
  - No response to at least 2 antipsychotics

- Side effects
  - Sedation
  - Weight gain (max)
  - Sialorrhea
  - Constipation
- Serious side effects
  - Seizure>600mg/day (Rx antiepileptic drug)
  - Agranulocytosis
    → Weekly monitor WBC,neutrophils count for 1st 6 months
    → Every 2 weeks for next 6 months
    → Monthly thereafter
    → Stop drug if WBC < 3000, ANC < 1500
  - Myocarditis (Idiosyncratic)
- Contraindications
  - WBC count<3500/mm3
  - Previous bone marrow disorder
  - H/O agranulocytosis during clozapine treatment
  - Use of another bone marrow suppressant like carbamazepine

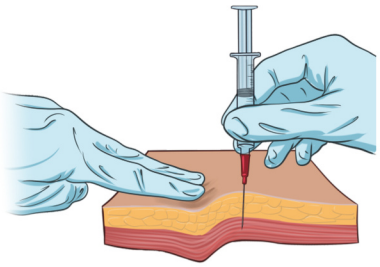
NEWER ANTIPSYCHOTIC

XANOMELINE/ TROSPIUM CHLORIDE

- M1 M4 Ach receptor agonist
- Trospium Chloride
  - Muscuranic receptor antagonist primarily in peripheral tissues
  - Added together with xanomeline
- C/I moderate /severe liver transplant

LONG ACTING INJECTABLES (LAI) ANTIPSYCHOTICS (DEOT ANTIPSYCHOTICS)

- Intramuscular injections (usually given once a 2 week/month/even longer)
- Can be used for patients who have poor compliance to oral medications
- Z track technique:
  - To prevent tracking/leaking drugs from muscles to other tissues



DURATION OF TREATMENT

- First Episode of Schizophrenia
  - Continue treatment 1-2 years after symptom resolution
- Multiple Episodes
  - Continue treatment ≥5 years or indefinitely
- Important
  - Do not stop treatment immediately after symptom improvement
  - High risk of relapse

OTHER PSYCHOTIC DISORDERS

00:59:29
FMGE 2020

ACUTE PSYCHOTIC DISORDER

- Presentation

  - Symptoms similar to schizophrenia: Delusions, Hallucinations, Disorganized speech
  - But don't meet the duration criteria
- Abrupt onset, often resolve completely
- Maybe preceded by stressor
  - Life event
  - H/o Fever
    → E.g., a patient came with 5 days H/O fever, delusion/hallucination/abnormal behaviour then differential diagnosis are
    - Acute psychosis
    - Delirium → Impairment of consciousness
- ICD-11
  - <1month
  - Acute and transient psychotic disorder
- DSM-5
  - <1month: Brief psychotic disorder
  - Presence for >1month,<6 month: Schizophreniform disorder
- Rx:antipsychotics

SCHOTZOAFFECTIVE DISORDER

- Presence of symptoms of schizophrenia and mood disorder for majority of time during the illness

DSM-5:

- At least 2 week period of delusion/hallucination during lifetime duration of illness

SUBTYPES

- Bipolar type: manic episodes
  - Mood stabilizers ± antipsychotics
- Depression type: Depressive episode
  - Antipsychotic + antidepressant

DELUSIONAL DISORDER

01:04:57

- 1 or >delusions (usually related), persistent
- Hallucinations usually absent (if present,not prominent,short duration)

RISK FACTORS

- Advanced age

DURATION

- DSM-5: 1month
- ICD-11: 3 months

DELUSINAL DISORER V/S SCHITZOPHRENIA

DELUSINAL DISORDER	SCHIZOPHRENIA
• Only delusion	• 2 or more symptoms

• Functional impairment is less
• Function normal in areas unaffected by delusion
• Treatment
  ○ Maybe resistant
  ○ Antipsychotics(2nd generation >1st generation)
	• Functional impairment is more
	  ○ All areas of life affected
	• Treatment
	  ○ Maybe resistant
	  ○ Antipsychotics(2nd generation >1st generation)

MCQs

01:07:54

Q. A patient with schizophrenia say "Lord Hanuman was a celibate, I am a celibate too, therefore I am Lord Hanuman". This is an example of? INICET June 2025

A. Loosening of association
B. Verbigeration
C. Neologism
D. Autistic thinking

Answer: D

Q. A patient with diagnosis of schizophrenia, not responding to haloperidol and thioridazine. Started on another medication, Drug A with side effect of sialorrhea, dyslipidemia, hyperglycemia. What is the drug which is started? NEETPG 2023

A. Clozapine
B. Risperidone
C. Aripiprazole
D. Ziprasidone

Answer: A

Q. A patient with schizophrenia is responding well on Haloperidol for 2 years. now has presented with orofacial dyskinesia, choreiform, tick- like movements. What is the likely diagnosis and treatment of this condition? NEETPG 2025

A. Akathisia- Propranolol
B. Acute Dystonia- Ropinirole
C. Tardive dyskinesia- Valbenazine
D. Oral tremor- Amantadine

Answer: C

Q. A patient presents with symptoms shown in the image (rabbit-like perioral movements) on long term treatment. It is caused by which of the following drugs? (FMGE Jan 2026)

A. Risperidone
B. Clozapine
C. Ziprasidone
D. Fluoxetine

Answer: A

6. DEPRESSIVE DISORDERS

INTRODUCTION

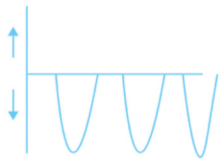
00:00:05

- Depressive disorders fall under the category of mood disorders, also known as affective disorders
- The key feature is abnormality of mood, which can manifest in two extremes:
  - Sadness - Patient feeling very sad, very low
  - Elation - Person very happy without any reason Or Irritability - Getting angry on small issues

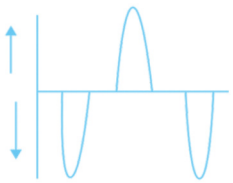
DEPRESSION vs BIPOLAR DISORDER

00:00:40

- Depression
  - Mood consistently Sad throughout all episodes
  - Patient may have:
    → One episode, OR Multiple episodes
    - All episodes show sad mood only
    - Also called Unipolar Depression (symptoms seen only at one pole)



- Bipolar Disorder
  - Symptoms seen at both poles
  - Patient alternates between:
    → Depressive episodes (sad mood)
    → Manic/Hypomanic episodes (very happy or irritable)
  - This is why called "Bipolar" - symptoms in both directions



DEPRESSION / MAJOR DEPRESSIVE DISORDER (MDD)

- Patient having Only depressive episodes → Unipolar Depression

Epidemiology

- Most common mental disorder in India (excluding tobacco use disorder)
- Most Common Mental Disorder in the World: Anxiety disorders (Specific phobia) > Depression
- Gender Distribution
  - More common in females than males (2:1)
  - In children: Equal prevalence in males and females
- Mean age of onset = 40 years
- More commonly seen in middle-aged females
- Depression has Maximum DALYs among all psychiatric disorders

Etiology

Neurotransmitter Hypothesis - Monoamine Hypothesis

- Two Most Important Neurotransmitters:
  - Serotonin
  - Norepinephrine

- Status in Depression:
  - Serotonin, norepinephrine and dopamine are Reduced
- Clinical Correlation:
  - Treatment involves drugs that increase these monoamine levels

Endocrine Disturbances

- Depression is linked to a chronic state of stress, results in elevated HPA (Hypothalamic-Pituitary-Adrenal) axis activity → Hypercortisolemia.
- Hypothyroidism
  - Frequently associated with depression.
  - Correcting hypothyroidism can improve depressive symptoms.
  - Thyroid hormone is sometimes used as an augmenting agent alongside antidepressants in patients without hypothyroidism
- PCOS (Polycystic Ovarian Syndrome) -
  - Women with PCOS should be screened for depression and anxiety at the time of diagnosis and at regular intervals

Psychological Theories

Cognitive Theory of Depression

- Patients develop cognitive distortions (negative and inaccurate patterns of thinking)
- Automatic Negative Thoughts:
  - Depressed patients experience negative thoughts that enter the mind spontaneously without reason.
- Cognitive Behavioral Therapy (CBT):
  - A psychotherapy based on identifying and correcting these distortions and dysfunctional thinking patterns.
- Cognitive Triad of Depression:
  - Worthlessness: Negative views about self ("I am a bad person/worthless").
  - Helplessness: Negative views about the environment ("People are harsh/nobody can help me")
  - Hopelessness: Negative views about the future ("The future is dark/bleak")

Symptoms of Depression

Mnemonic: SIGECAPSS

FMGE 2019, 2023, NEET PG 2018

- S: Sad/ depressed Mood
  - Persistent and pervasive sadness regardless of the situation
- I: Interest (Anhedonia)
  - ↓ interest in activities the person used to enjoy previously (e.g., shopping, social gatherings, work)
- G: Guilt or Worthlessness
  - Negative views about oneself.
- E: Energy
  - Low energy and easy fatigability (feeling tired even after sitting)
- C: Concentration
  - Sustained attention is ↓
  - Pseudo-dementia: Forgetfulness occurring due to ↓ concentration
    → Management: Treating depression improves forgetfulness.
- A: Appetite
  - Usually ↓ leading to weight loss

- Sometimes ↑ (emotional eating) leading to weight gain
  → Significant weight change: > 5% change in one month
- **P:** Psychomotor Activity
  - Usually ↓ (Psychomotor Retardation): Talking and walking very slowly
  - Sometimes ↑ (Psychomotor Agitation): Restlessness and inability to sit still
- **S:** Sleep
  - Insomnia: Most common.
    → Often presents as "Early Morning Insomnia" (waking up 2 hours before the usual time).
  - Sleep Architecture Changes:
    → ↓ NREM (specifically Stage 3).
    → ↑ REM sleep.
    → ↓ REM latency (entering the first REM stage faster than the normal 90 minutes)
  - Hypersomnia: Sleeping excessively, including during the daytime
- **S:** Suicidal Thoughts or Acts
  - Thoughts of self-harm or attempting suicide.

DSM-5 -diagnostic Criteria for Depression

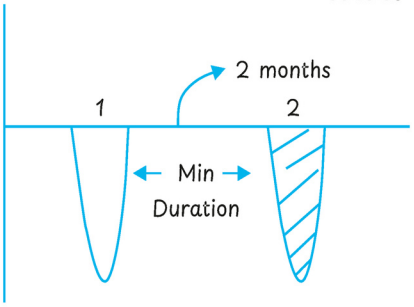
- Criteria for MDD:
  - Presence of 5 or more of the above symptoms
  - At least one symptom must be either Sad/ depressive mood or Anhedonia.
  - Duration: At least 2 weeks.
- Key Feature: Sad/ depressive mood > Anhedonia

FMGE 2024

00:13:06

Recurrent Depressive Disorder (RDD)

- Defined as having two or more episodes of depression
- The person must be normal for at least 2 months between episodes



- Clinical Scenario:
  - If a patient is treated, stays normal for only 1 month, and symptoms return, it is considered the same episode → MDD, not RDD

Specifiers of Depression

NEET PG 2020, AIIMS 2019, 2018

- Characteristic unique symptoms added to the diagnosis of MDD

Depression With Psychotic Symptoms (psychotic Depression)	• Depression accompanied by delusions or hallucinations
	• Categories of Psychotic Symptoms:
	  ○ Mood Congruent: Delusions/hallucinations match depressive themes (e.g., nihilism, intense guilt)
	  ○ Mood Incongruent: Symptoms do not match depressive themes (e.g., delusions of grandiosity).
	• Management:
	  ○ Combination of Antidepressants and Antipsychotics
	  ○ ECT also shows good results

Yourwish

With Melancholic Features	• Aka Involusional Melancholia / Melancholic depression
	• It is a severe form of depression more common in the elderly
	• Features:
	  ○ Loss of pleasure in nearly all activities
	  ○ Lack of reactivity to pleasurable stimuli
	  ○ Profound despondency, despair, or "empty mood."
	  ○ Early morning awakening.
	  ○ Mood is worst in the morning and improves as the day progresses.
	  ○ Anorexia and weight loss.
	  ○ Excessive guilt ("I am a sinner").
	  ○ Psychomotor disturbances.
	• ↑ suicide risk
	• Management: SNRIs often show good effect

With Atypical Features (atypical Depression)	• Symptoms differ from the "typical" presentation.
	• Mnemonic for features: **My Wil High.**
	  ○ **My:** Mood Reactivity:
	  → Mood brightens in response to positive events (unlike typical depression where mood stays sad).
	  ○ **W:** Weight gain / Appetite ↑: (Typical is ↓)
	  ○ **I:** Interpersonal Rejection Sensitivity
	  → Feeling easily hurt or rejected by others even in neutral events
	  ○ **L:** Leaden Paralysis:
	  → Limbs feel very heavy, making movement difficult
	  ○ **High:** Hypersomnia: (Typical is Insomnia).
	
	• Management:
	  ○ SSRIs, MAO inhibitors, and Bupropion show good response
	  ○ TCAs do not show much response

Depression With Catatonia	• Presence of catatonic symptoms (e.g., stupor, waxy flexibility, posturing) • Catatonia is m/c in mood disorders than in schizophrenia. • Management: Lorazepam, ECT, and Antidepressants
Depression With Postpartum Onset (postpartum Depression)	• ICD-11: Symptoms occurring within 6 weeks of delivery • DSM-5: Uses the term "Peripartum Onset" (symptoms during pregnancy or after delivery) • Risk factors: Physiological, hormonal, and socio-psychological changes following delivery

Depression With Seasonal Pattern	• Characterized by a regular temporal correlation between depressive episodes and a specific time of year
	• Most commonly occurs during the winter season
	• Diagnostic Criteria:
	  ○ At least two episodes in the past two years occurring in a particular season.
	• Exclusion: Does not include cases caused by seasonal psychosocial stressors (e.g., seasonal unemployment)
	• Management:
	  ○ Phototherapy (Light Therapy) shows good results
	  ○ Patient sits near a light box (1,500 to 10,000 lux or more) for 1–2 hours daily.

Severity Classification of Depression

- Based on: Symptoms, Intensity, and Functioning

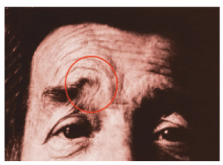
Severity	Symptoms	Intensity	Functioning
Mild	Only few (minimum required for diagnosis)	Distressing, but patient able to manage	Not much affected (e.g., going to office but not working properly)
Moderate	Somewhere between mild and severe	Between mild and severe	Between mild and severe
Severe	More than required for diagnosis	Seriously distressing and unmanageable	Marked impairment (e.g., may stop going to office completely)

Suicide in Depression

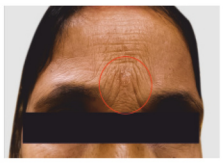
00:25:37

- Around 10-15% of patients with depression may commit suicide
- Depression = Most common psychiatric disorder associated with suicide

Physical Signs in Depression (Facial Signs)



- VERAGUTH'S FOLD
  - Triangular fold in nasal corner of upper eyelid
  - Occurs due to: Changes in tone of corrugator and zygomatic facial muscles



- OMEGA SIGN
  - Omega-shaped (Ω) sign on forehead at root of nose
  - Seen due to: Excessive use of corrugator muscle

Treatment of Depression

00:26:39

FMGE 2019

- Pharmacotherapy (Antidepressants)
- Psychotherapy

Pharmacotherapy - Antidepressants

- Onset of action: Theoretically 3-4 weeks; practically improvement can start within 1-2 weeks.
- Drug selection is based on the patient's side effect profile
- DOC: Selective Serotonin Reuptake Inhibitors (SSRIs)
  - Less Side-effects

SSRIs (Selective Serotonin Reuptake Inhibitors)

- Mechanism of Action
  - Depression → Serotonin reduces
  - SSRIs → Increase serotonin levels
- Drugs include
  - Sertraline
  - Fluoxetine
  - Paroxetine
  - Citalopram

- Escitalopram: Most serotonin-selective SSRI
- Vilazodone: Serotonin Partial Agonist and Reuptake Inhibitor
- Fluvoxamine: Used more for OCD

- Side Effects:
  - GIT: Nausea (most common), diarrhea, anorexia, dry mouth.
  - Paroxetine: Causes constipation due to anticholinergic properties.
  - CNS: Anxiety, insomnia, sedation, vivid dreams
  - Metabolic: Weight gain.
  - Sexual Dysfunction: Most common long-term side effect
    → Includes ↓ libido, delayed ejaculation (useful for tx of premature ejaculation), or inhibited orgasm
    → Sexual side effects are the most frequent cause of premature medication discontinuation.
  - Miscellaneous: Hyponatremia (specifically Escitalopram in elderly patients)

Vortioxetine

- Classified as a serotonin modulator and stimulator
- Mechanism:
  - Agonist at 5-HT1A
  - Partial agonist at 5-HT1B.
  - Antagonist at 5-HT1D, 5-HT3, and 5-HT7
  - Possesses serotonin reuptake inhibitor properties
- Note: Marketed as having fewer sexual side effects, though they still occur

'

SSRIs and Pregnancy

- Majority are not major teratogens and can be used based on risk-benefit analysis
- Paroxetine: Must be avoided in pregnancy due to teratogenic cardiovascular effects
- Late pregnancy risk:
  - Use of SSRIs/SNRIs can lead to Persistent Pulmonary Hypertension of the Newborn (PPHN)
- Sertraline:
  - Most commonly used SSRI in pregnancy.
  - Preferred during the postpartum period for breastfeeding mothers as it is minimally excreted in breast milk

SNRIs (Serotonin-norepinephrine Reuptake Inhibitors)

- Dual reuptake inhibitors increasing both Serotonin and Norepinephrine.
- Important Drugs:
  - Venlafaxine, Desvenlafaxine, Duloxetine, Levomilnacipran, Milnacipran.
- Specific Uses:
  - Venlafaxine, Desvenlafaxine, Duloxetine, Levomilnacipran are used for MDD
  - Milnacipran: Used for Fibromyalgia
  - Duloxetine: Used for diabetic neuropathic pain and stress urinary incontinence
- Side Effects: Similar to SSRIs
  - Hypertension: Associated specifically with higher doses of Venlafaxine

TCAs (Tricyclic And Tetracyclic Antidepressants) 00:33:00

- Mechanism: Block serotonin and norepinephrine transporters.
- Receptor Antagonism:

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- Muscarinic: Avoid in narrow-angle glaucoma.
- H1, Alpha-1, Alpha-2.
- Voltage-sensitive sodium channels: Causes cardiac side effects

- Important Drugs:

Tricyclic	Tetracyclics
• Mnemonic: CAT DID DNP ○ C - Clomipramine ○ A - Amitriptyline ○ T - Trimipramine ○ D - Doxepin ○ I - Imipramine ○ D - Dothiepin ○ D - Desipramine ○ N - Nortriptyline ○ P - Protriptylline	• Mnemonic: MAM ○ M - Mianserin ○ A - Amoxapine ○ M - Mianserin

- Specific Properties:
  - Clomipramine: Most serotonin-selective TCA; used for OCD.
  - Imipramine: Used for nocturnal enuresis (bed-wetting), though Desmopressin is the DOC
- TCA Toxicity
  - Signs and Symptoms:
    → CNS (3 C's): Confusion, Coma, Convulsions; Respiratory depression.
    → CVS: Hypotension, cardiac arrhythmias, ECG changes (QRS interval > 100 ms).
    → ANS: Dry mouth, blurred vision, urinary retention, hyperthermia, mydriasis.
    → Metabolic: Metabolic acidosis
  - Management:
    → DOC: Alkalization with IV Sodium Bicarbonate.
    → Activated charcoal for unabsorbed drug in the gut.
    → Convulsion control with Diazepam.
    → Continuous ECG monitoring.

Q. Least useful in TCA toxicity management?
A. Diazepam
B. $NaHCO_3$
C. Lidocaine
D. Hemodialysis

Ans: D

Mao Inhibitors (Monoamine Oxidase Inhibitors) 00:35:52

FMGE 2023

- First class of approved antidepressants
- Mechanism: Inhibit metabolism of dopamine, serotonin, and norepinephrine.
- Classification:
  - Non-selective: Tranylcypromine, Isocarboxazid, Phenelzine
  - RIMA (Reversible Inhibitor of MAO-A): Moclobemide.
  - Selective MAO-B inhibitors: Selegiline, Rasagiline (Selegiline available as a transdermal patch).

Yourwish

- Cheese Reaction (Tyramine-induced Hypertensive Crisis):
  - Occurs when patients on MAOIs consume tyramine-rich foods (cheese, red wine)
  - Tyramine is not metabolized in the gut and enters circulation
  - Acts as a sympathomimetic agent causing hypertensive crisis
  - Management: Alpha-1 antagonist (Phentolamine)

Atypical Antidepressants 00:37:46

SARIs (Serotonin Antagonist And Reuptake Inhibitors)	• Trazodone:
	  ○ Causes sedation; often used to treat insomnia.
	  ○ Side effect: Priapism (painful prolonged erection).
	• Nefazodone: Rarely used due to hepatotoxicity

NASSA (noradrenergic and Specific Serotonergic Antidepressant)	• Mirtazapine:
	  ○ Common side effects: Sedation and weight gain
	  ○ Significant benefit: Low risk of sexual side effects

NDRI (Norepinephrine-dopamine Reuptake Inhibitor)	• Bupropion:
	  ○ Significant benefit: Low risk of sexual dysfunction, sedation, and weight gain (may cause modest weight loss).
	  ○ Side effect: Risk of seizures, especially at high doses.
	  ○ Contraindications: Bulimia nervosa and Anorexia nervosa (electrolyte imbalances ↑ seizure risk)
	  ○ Other Uses:
	  → Smoking cessation
	  → Prevention of Seasonal Affective Disorder
	  → Combined with Naltrexone for obesity treatment
	  → Combined with Dextromethorphan for fast-acting MDD treatment (action within 1 week)

Novel/New Antidepressant Agents

Esketamine	• Esketamine: S-enantiomer of Ketamine
	  ○ Ketamine → rapid onset of action
	  ○ Both ketamine and esketamine has antisuicidal property
	• Mechanism: NMDA (Glutamate) receptor antagonist
	• Esketamine is available as a nasal spray
	• FDA Approved for:
	  ○ Treatment-resistant depression.
	  ○ MDD with acute suicidal ideation/behavior

Gepirone	• Mechanism: 5-HT1A agonist/partial agonist.
	• Contraindication:
	  ○ Prolonged QTc interval (> 450 ms).
	  ○ Congenital long QT syndrome.
	• Monitoring: Requires baseline ECG and continued monitoring during dose increases

Important Phenomena with Antidepressants

00:42:50

Serotonin Syndrome	• Caused by excessive serotonin levels, usually due to drug combinations (e.g., SSRIs + MAOIs, Lithium, or L-tryptophan)
	• Clinical Features:
	  ○ Diarrhea (very important).
	  ○ Restlessness, agitation, hyperreflexia, myoclonus
	  ○ Autonomic instability, seizures, hyperthermia, rigidity
	  ○ Severe cases: Delirium, coma, cardiovascular collapse, and death
	• Management:
	  ○ Supportive care and cooling for hyperthermia.
	  ○ Drug treatment: 5-HT2 antagonist (Cyproheptadine).

Discontinuation Syndrome	• Occurs following sudden withdrawal of antidepressants. • Symptoms: Flu-like symptoms, insomnia, nausea, irritability. • More common with short-acting drugs (Venlafaxine, Fluvoxamine, Paroxetine) • Least common with long-acting drugs (Fluoxetine)

Psychotherapy for Depression

00:44:55

FMGE 2021

- Treatment using Psychological methods

Cognitive Behavior Therapy (CBT)

- Best evidence
- Identify cognitive distortions and maladaptive behaviours and correct them
- FDA has approved Rejoyn CT-152
  - First prescription digital therapeutic to treat MDD
  - Adjunct to outpatients taking antidepressants
  - Patients ≥ 22 years or above
  - It has Brief therapy lessons and Training exercises

Treatment of Choice

- Treatment of Choice: Combination (Pharmacotherapy + Psychotherapy)
- Single therapy alone is sufficient for most patients
- Treatment of Choice for MILD Depression: CBT
- Treatment for Moderate/Severe Depression: Combination preferred (Drugs > Psychotherapy)

Other Somatic Modalities

ECT (Electroconvulsive Therapy)

- Depression is the most common indication for ECT in psychiatric disorders
- Depression + Suicidal Risk → ECT is preferred treatment
  - Preferred Treatment: ECT
- Pregnancy with Depression + Suicidal Thoughts → ECT
  - Pregnancy is Not a contraindication for ECT
- Other Indications for ECT
  - Severe depression with stupor
  - Catatonic symptoms (ECT can be used)
  - Psychotic symptoms (ECT has good response)

MCQ

00:47:42

Q. A patient on SSRI Sertraline was also added amitriptyline, develops serotonin toxicity. What is the likely treatment for serotonin toxicity?

A. Flumazenil
B. Cyproheptadine
C. L-carnitine
D. Naltrexone

Ans: B

Q. A 29-year-old female has persistently low mood, doesn't feel like doing anything, sleep 15 hours a day, limbs feel heavy, eats a lot for 2 months. She feels happy when she hears her mother is coming to visit her in 2 weeks. Likely diagnosis?

A. Mania
B. MDD – Atypical features
C. Adjustment disorder
D. Anxiety disorder

Ans: B

Q. Which of the following new psychoactive substance has a rapid acting antidepressant action?

A. Ketamine
B. Cannabinoids
C. Bupropion
D. Mephedrone

Ans: A

Q. A 25-year-old patient is diagnosed with MDD and is started on an antidepressant. Which of the following is an incorrect statement?

A. SSRI, SNRI can cause sexual dysfunction, Bupropion is less associated with sexual dysfunction
B. MAOI with red wine can cause cheese reaction
C. TCA toxicity is treated with $NaHCO_3$
D. Bupropion is preferred in bulimia nervosa
E. Paroxetine is avoided in pregnancy

Ans: D

2. BIPOLAR DISORDERS

BIPOLAR DISORDER

00:00:04

- Episodes of Mania, Depression, Hypomania and mixed episodes

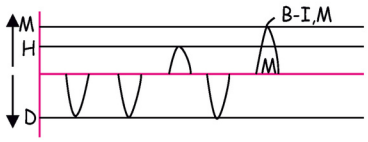
Types

INICET 2022

- Bipolar I Disorder
  - One episode of Mania + Depression
  - Single episode of mania
- Bipolar II Disorder
  - Hypomania + Depression
- Cyclothymia

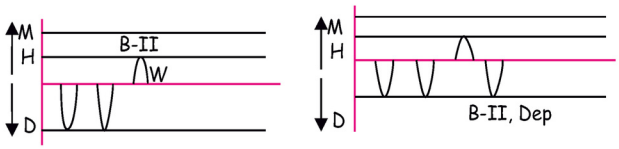
Epidemiology

Bipolar I Disorder



- Prevalence is 1%
- Males and females are equally affected
- Mean age of onset is 30 years

Bipolar Ii Disorder



- Females are affected more than males
- Mean age of onset is seen higher age

Etiology

- Genetic
  - Strongest association with chr 18q and 22q
  - Also associated with 21q
- Neurotransmitter
  - Increased dopamine

Symptoms

NEET PG 2021

Mania

- Mood → Euphoric / Irritable (Dysphoric)
- Energy → level of energy is increased
- Distractibility
- Impulsivity → Doing things without knowing the consequences
  - Overspending
  - Oversocialization
  - Over religious
  - Hypersexuality
- Grandiosity → Inflated self esteem

Yourwish

- Flight of ideas
- Activity less is increased
- Sleep → Decreased need for sleep
- Talkativeness
- Diagnostic criteria
  - According to DSM -5 → first and 2nd symptom should be present along with 3 or more of other symptoms should be present for > 1 week
- Mania with Psychotic symptoms
  - Mania + Delusion
    → Mania congruent → Mania + Delusion of grandiosity
    → Mania incongruent → Mania + Delusion of nihilism
  - Mania + Hallucination
- Bipolar disorder with Catatonia
- Bipolar disorder with seasonal pattern
- Bipolar disorder with peripartum onset

Hypomania

- Symptoms are similar to mania, not severe enough to cause marked impairment of social & occupational functioning
- Duration → 4 days
- Person does not have psychotic symptoms, not have flight of ideas
- Person does not require hospitalization

Mixed Episodes

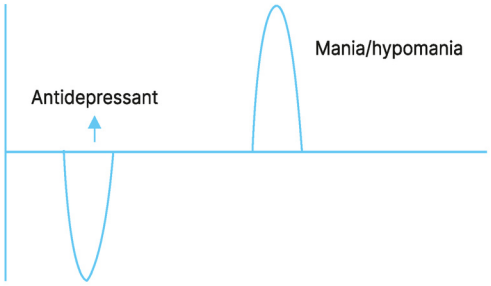
- Presence of both Mania and Depressive symptoms
- Duration → 7 days

Treatment

- Depends on phase of illness
  - Acute phase → Manic / Hypomanic / Depressive / Mixed episodes
  - Maintenance phase → Prophylaxis

Acute Mania / Hypomanic Episode

- Stop antidepressants
- Antipsychotic
- Mood stabilizers → Lithium , Valproate
- Benzodiazepines



Antipsychotics

- Drugs
  - Ola → Olanzapine
  - Uber → Quetiapine
  - C → Cariprazine
  - A → Aripiprazole , Asenapine
  - R → Risperidone

- Z → Ziprasidone
- I → Iloperidone
- P → Paliperidone

- Used especially if psychotic symptoms are present
- Drug of choice and also used in severe cases of mania
- Use in pregnancy
  - Safest drug

Lithium

- Onset of action → 1 to 3 weeks
- Used in Euphoric mania
- Use in pregnancy
  - Teratogenic effect
    → Ebstein anomaly affect Tricuspid valve → risk is low (1 : 1000)
    → Monitored using USG & Fetal Echocardiogram
  - Maternal lithium toxicity
    → At end of pregnancy dose of lithium is decreased / stopped and started 12 hrs after delivery
  - Lithium taken with adequate hydration

Valproate

- Surpassed lithium in acute mania
- Advantages
  - Has rapid onset of action
  - Better tolerability
- Used in Dysphoric mania
- Avoided in female of reproductive age with PCOD and patient with hepatic disease
- Use in pregnancy: Should be avoided d/t Teratogenic effect
  - Neural tube defect → 1-4%
    → Folate supplementation at least 1 month before conception
  - Impaired cognitive development
  - Low Iqs

Mood Stabilizers In Pregnancy

- Mood stabilizers → Carbamazepine, Lamotrigine
- Carbamazepine
  - Associated with neural tube defects , risk is lower than valproate
  - Supplemented with folate
  - Other effect → Cleft palate , finger nail hypoplasia
  - Vitamin K should be given to mother and infant after delivery to prevent hemorrhagic disease
- Lamotrigine
  - Safer than Lithium, Carbamazepine , Valproate

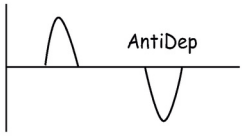
Important Information

- Safer drug in pregnancy: Lamotrigine > Oxcarbamazepine > Lithium > Carbamazepine > Valproate

Acute Mania With Severe Symptoms

- Severe symptoms → Combination therapy
  - Lithium + Antipsychotics
  - Valproate + Antipsychotics
- ECT may be used in failed trials with severe drugs , delirious mania

Acute Depression (Bipolar Depression)



- Antidepressants along with Mood stabilizers (Lithium, Valproate, Lamotrigine)
- Mood stabilizer → Lithium , Lamotrigine (Dep > Mania)
- Antipsychotics → Quetiapine , Lurasidone , Cariprazine , Lumateperone
- Second generation psychotics + SSRIs
  - Olanzapine + Fluoxetine

Prophylaxis (Maintenance)

- 2 or more episodes or after a single episode of mania which is associated with significant risk
- Treatment
  - Lithium, Valproate
  - Duration → 2 years

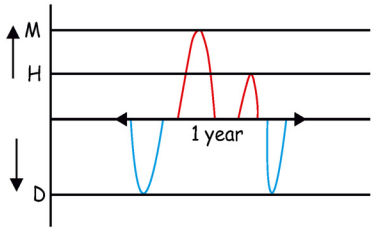
RAPID CYCLING BIPOLAR DISORDER

00:19:22

- Patient with Bipolar disorder having 4 or more episode of mania, hypomania, depression in 1 year

FMGE 2020

Predisposing Factors



- Female
- Borderline hypothyroidism
- Menopause
- Temporal lobe dysrhythmias
- Substance abuse → Alcohol, Minor Tranquilizer, stimulant or caffeine
- Long term aggressive use of antidepressant

Treatment

FMGE 2020, FMGE 2022

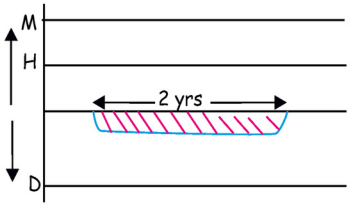
- Valproate
- Lamotrigine

OTHER MOOD DISORDER

00:20:29

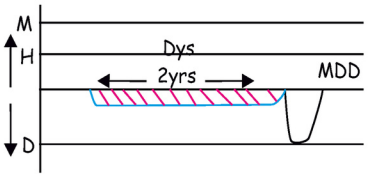
- Persistent mood disorder

Dysthymic Disorder



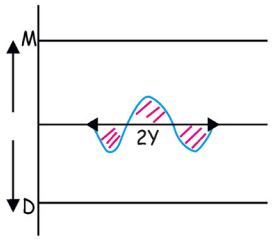
- A/k/a Dysthymia
- Presence of mild depressive symptoms which are not enough to diagnose a Depressive episode
- Duration → 2 years in adults, 1 years in children
- Functional impairment is not severe
- In DSM 5, it is now included under Persistent Depressive Disorder → Chronic Depression > 2years and Dysthymic disorder

- Double depression → Dysthymia followed by Depression
- Treatment
  - Antidepressant
  - CBT



Cyclothymia

- Milder form of Bipolar disorder
- Manic and Depressive symptoms occur but not severe enough to make diagnosis of mania / hypomania or depressive episode
- Duration → 2 years in adults, 1 years in children
- Functional impairment is not severe
- Treatment
  - Antipsychotic
  - Mood stabilizers



PSYCHIATRIC ASPECTS OF PREGNANCY

00:23:55

Perinatal Psychiatric Disorder

	Postpartum Blues (baby blues)	Postpartum Depression	Postpartum psychosis
Prevalence	• Up to 80% after delivery	• 10 - 15%	• 1-2 / 1000 childbirth
Onset	• Onset 3 - 5 days • Lasts days to weeks	• Onset within 6 weeks after delivery	• Onset within 2 -3 weeks

Clinical features	• Transient mood disturbance -sadness, tearfulness, irritability, sleep disturbance	• Symptoms includes
		  ○ Guilts
		  ○ Anhedonia
		  ○ Suicidal thoughts
		• Increased risk of developing BPD in future
			• Irritability , sleep problems and anger then develops delusion & hallucination
			  ○ Baby dead
			  ○ Baby is not her
			  ○ Hearing voices to kill baby

Treatment	• Supportive care	• SSRI • CBT • Newer drugs → Brexanolone, Zuranolone	• Lithium • Antipsychotics

Gaba Modulators

- GABA -A receptor positive allosteric modulator
- Synthetic analogue of neuroactive steroid Allopregnanolone
- Allopregnanolone decreases after child birth
- Drugs
  - Brexanolone → IV infusion (continues over 60 hours)
  - Zuranolone → Oral
- Approved for postpartum depression

Yourwish

SUICIDE

00:27:39

- Rate of suicide in India → 12.3 / 1 lakh population according to NCRB 2023
- Most common mode / method → Hanging > Poisoning
- 5HIAA concentration in CSF → Low level associated with higher suicide risk
- Psychiatric disorder with highest risk of suicide → Depression

Risk Factors

- Most important risk factor → Previous suicide attempt, Hopelessness
- Family history of suicide
- Other risk factors
  - S → Male sex
  - A → Age > 45 years
  - D → Depression
  - P → Previous suicide attempt
  - E → Excess alcohol or substance use
  - R → Rational thinking loss (Delusion / Hallucination)
  - S → Social support is lacking
  - O → Organized plan
  - N → No spouse, No job
  - S → Sickness (chronic illness)

Other Terms

- Paradoxical suicide
  - After initial stage of treatment / recovery → gain of energy → patient may attempt suicide
- Copycat suicide
  - Mimicking method of suicide
  - Person attempting suicide knows by local knowledge / media
  - MC in adolescents > children
- Parasuicide
  - Self injurious behavior
  - No intention to kill self
  - Seen in Borderline personality disorder

MCQ

00:31:54

Q. Which of the following drugs are used for treatment of acute mania ?

1. Haloperidol
2. Valproate
3. Lithium
4. Amitriptyline

a. 1,2,3
b. 1,2,3,4
c. 2,3
d. 1,4

Ans: a

Q. A 40 year old woman with Bipolar disorder is planning a pregnancy. Which of the following drugs must be avoided due to possibility of neural tube defects ?

a. Valproate
b. Oxcarbazepine
c. Lamotrigine
d. Levetiracetam

Ans: a

Q. A 20 year old female patient with a diagnosis of depression was started on Imipramine, the treatment was given for 2 weeks. After that the relatives noticed that the patient developed new symptoms like being excessively cheerful, increased excitement, wearing colourful clothes and increased talking. What is the most appropriate next step in treatment ?

a. Continue Imipramine and add antipsychotic
b. Continue Imipramine and add benzodiazepines
c. Stop Imipramine and add antipsychotic
d. Stop Imipramine and add sodium valproate

Ans: c

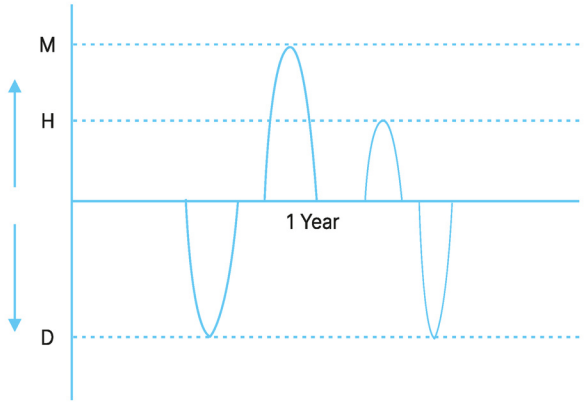
Q. A 30 year old female is very talkative, hyperactive, doesn't sleep and spends a lot of money for shopping for the past 2 weeks . When asked questions, she becomes irritable and angry . What is the likely diagnosis ?

a. OCD
b. Bipolar I disorder with manic episode
c. Bipolar II disorder with hypomania
d. Cyclothymia

Ans: b

Q. A 35 year old female presents with an illness as represented in the image below.Which of the following is not true about the condition ?

a. Occurs more commonly in men than women
b. Associated with concomitant hypothyroidism, aggressive use of antidepressant
c. Rapid cycling bipolar disorder
d. More common with Bipolar II disorder



Ans: b

8. ANXIETY DISORDERS

ANXIETY

00:00:23

- Diffuse, unpleasant sense of apprehension (nervousness)
- Physiological symptoms: Sweating, tachycardia, tremors, restlessness, chest pain, cold, clammy skin, headache
- Anxiety disorder: Clinically significant distress or impairment in functioning

1. Panic disorder Duration: 1 month	Phobias (situational anxiety) Duration: 6 months	5. Generalized anxiety disorder (GAD), Duration: 6 months
Sudden anxiety (short duration)	2. Agarophobia 3. Specific phobia 4. Social phobia	Persistent anxiety

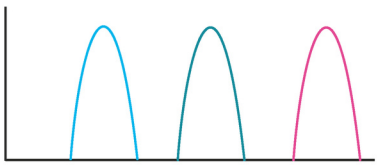
EPIDEMIOLOGY

- MC psychiatric illness in the world: Anxiety disorder
- MC individual disorder: Specific phobias
- All anxiety disorders: F > M
  - Exception: Social anxiety disorder: F = M

PANIC DISORDER

00:02:32

- Acute panic attack of intense anxiety:
  - Palpitations
  - Sweating
  - Tremors
  - Shortness of breath
  - Chest pain
  - Depersonalisation (detachment of self)
  - Derealization (detachment of surroundings)
  - Feeling of impending doom/fear of dying/losing control/going crazy
- Usually last for 20-30 mins, rarely >1 hr
- Occurs in unexpected situations, not restricted to any particular situation



- Panic disorder is characterized by recurrent panic attacks
  - >2 panic attacks in a month
  - Between attacks, the patient is free from anxiety symptoms
  - May have anticipatory anxiety: Fear that the next panic attack can occur anytime
- Differentials: D/t the presence of somatic symptoms, must be differentiated from physical disorders
  - Myocardial infarction
  - Angina
  - MVP
  - Anemia
  - HTN

- Seizure disorder
- Migraine
- Asthma
- Pulmonary embolism
- Hypothyroidism
- Pheochromocytoma
- Hypoglycemia

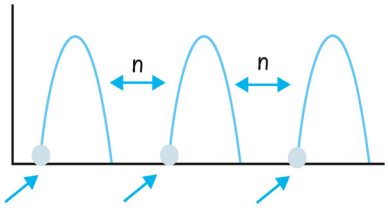
TREATMENT

- Pharmacotherapy
  - SSRI (DOC) + BZD (short course)
  - In an acute attack, DOC is a BZD
  - SNRIs like Venlafaxine are also used
- Psychotherapy: CBT
- Treatment of choice: Combination of pharmacotherapy + psychotherapy

Phobias

00:07:22

- Situational anxiety



Agoraphobia

- Fear in 2 or more of the following situations:
  - Using public transportation
  - Open spaces
  - Closed spaces
  - In crowded places/standing in line
  - Alone out of the home
- Fear or anxiety in places from which escape might be difficult
- MC comorbid psychiatric disorder with agoraphobia: Panic disorder

Specific Phobia

- Strong, persistent, irrational fear of an object/situation

Specific phobia	Fear of
Acrophobia	Heights
Ailurophobia	Cats
Cynophobia	Dogs
Claustrophobia	Closed spaces
Mysophobia	Dirt & germs
Hydrophobia	Water
Thanatophobia	Death
Nyctophobia	Dark
Xenophobia	Strangers
Pyrophobia	Fire
Aracnophobia	Spiders
Nomophobia	No mobile phone

Treatment

- Psychotherapy
  - Behavioural therapy: Systematic desensitization given by Joseph Wolfe
  - Steps in systematic desensitization
    → Relaxation techniques (Jacobson progressive muscle relaxation)
    → Hierarchy (from least anxiety to maximum anxiety-provoking situation)
    → A patient moves up to the next step once they master relaxation in the previous situation
  - Therapeutic graded exposure/in-vivo exposure (exposure and response prevention)
    → Similar to systematic desensitization (with no relaxation techniques used)
    → The patient learns to get habituated to anxiety
  - Flooding (implosion)
    → Patient is exposed to supramaximal stimulus
    → Patient experiences intense anxiety, which gradually decreases
- Pharmacotherapy: SSRIs ± BZDs

Social Anxiety Disorder (Social Phobia)

- Fear of social situations, including situations that involve contact with strangers
- Fear of embarrassing oneself in front of others, fear of embarrassment that may occur in the situation, not of the situation itself
- DSM-5 specifier: Performance anxiety
  - Fear is limited to public speaking or performances

Treatment

- Psychotherapy: CBT
- Pharmacotherapy:
  - SSRIs ± BZDs (short-term)
  - SNRIs- Venlafaxine
  - Beta blockers: Propranolol (for performance anxiety)

Generalized Anxiety Disorder

00:18:00

Excessive anxiety	Excessive worries
• Generalised and persistent • Not restricted to any particular situation • Free-floating anxiety	• May involve simple daily activities, timelines, and health

- Also associated with physical symptoms
  - Restlessness
  - Fatigue
  - Poor concentration
  - Irritability
  - Muscle tension
  - Insomnia

Treatment

- Pharmacotherapy: SSRIs ± BZD (short term), SNRI (Venlafaxine)
- Psychotherapy: CBT

MCQs

00:20:11

Q. A 45-year-old female comes to the OPD with complaints of "feeling tense" and having stomach upset with heartburn and diarrhea. She has reported having symptoms for many years. She reports her family members usually feel tense and nervous. Which of the following symptoms is likely to be seen in the patient?

a. Ideas of reference
b. Tingling of extremities
c. Hallucinations
d. Neologism

Ans: b

Q. A 25-year-old female patient is brought in with symptoms of anxiety, palpitations, sweating, breathlessness, chest pain, and feeling she might have a heart attack/feeling of impending doom. Patient had 5-6 episodes per month, each lasting 30 minutes, for 6 months. On investigations, all findings are within normal limits. What is the likely diagnosis?

a. Depression
b. Panic disorder
c. GAD
d. Agoraphobia

Ans: b

Q. A patient is afraid of tall buildings/heights. What is the likely diagnosis?
a. Agoraphobia
b. Acrophobia
c. Claustrophobia
d. Nomophobia

Ans: b

Q. A patient has a fear of using a lift and avoids it, and uses stairs instead. What is the likely diagnosis?
a. Agoraphobia
b. GAD
c. Specific phobia
d. Panic disorder

Ans: c

9. OBSESSIVE-COMPULSIVE AND RELATED DISORDERS

Introduction

- New term introduced in DSM-5 and ICD-11
- Similar disorders grouped under one category
- Includes
  - Obsessive-compulsive disorder (OCD)
  - Body dysmorphic disorder
  - Hoarding disorder
  - Trichotillomania
  - Excoriation disorder

OBSESSIVE-COMPULSIVE DISORDER (OCD)

00:00:41

- Patient has recurrent obsessions and compulsions
- OCD is a disorder of possession of thought

Obsession

- Characteristics remembered by ROSI pnemonics
  - R - Recurrent
    - → Recurrent intrusive thoughts
    - → Recurrent images
    - → Recurrent impulses/urges
    - → Not pleasurable for the patient
  - O - Own thoughts
    - → Patient knows these are his own thoughts
    - → Not imposed by others
    - → Not like thought insertion
  - S - Senseless
    - → Patient knows these are wrong/irrational
    - → Helps differentiate from delusion
  - I - Irresistible
    - → Patient tries to resist
    - → Not able to stop them
- Example
  - Obsession of contamination
    - → Patient says hands are dirty again and again
    - → Knows it is its own thought
    - → Knows it is senseless
    - → Tries to resist but cannot

Compulsion

- Patient is compelled to do something
- Maybe repetitive behaviours
  - Washing
  - Checking
- Maybe mental acts
  - Counting in mind
  - Reading the mantra in mind
- Done in response to the obsession or in a rigid, rule-bound way
- Performed to reduce anxiety
- Anxiety may come back again
- Obsessions/compulsions are time-consuming
- Cause
  - Clinically significant distress
  - Significant impairment of functioning

Important Term

- OCD symptoms are ego-dystonic
- Also called ego-alien
- Thoughts are unacceptable to the patient's mind

Clinical Pattern

- The patient may have
  - Only obsessions
  - Only compulsions
- Most common
  - Both obsessions and compulsions

Insight

- Usually patient has
  - Good insight
  - Fair insight
- Sometimes a patient may have
  - Poor insight
  - Absent insight
  - Thoughts may be up to a delusional level
- Poor insight
  - Associated with poor long-term prognosis/outcome

Epidemiology

- Lifetime prevalence- 2-3%
- In a clinical setting slightly more common in females
- In adolescence, more common in males
- Most common comorbidity- Depression

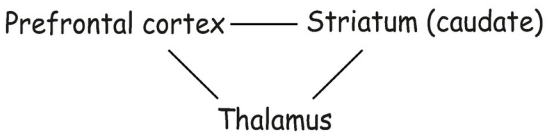
Etiology

Neurotransmitter

- Serotonin
- Serotonin dysregulation is implicated

Neuroanatomical Model

- Dysfunction in the corticostriatal thalamic cortical circuit
- The circuit goes from
  - Cortex
  - Prefrontal/orbitofrontal cortex
  - Striatum
  - Caudate
  - Thalamus
  - Back to cortex
- Patients may have bilaterally smaller caudate



Pandas

- Seen especially in children
- OCD may develop after group A beta-hemolytic streptococcal infection
- History may include a sore throat
- Infection may cause autoimmune antibodies targeting the basal ganglia
- Can lead to OCD, Tics
- PANDAS
  - P - Pediatric
  - A - Autoimmune
  - N - Neuropsychiatric disorders
  - Associated with streptococcal infection

Most Common Obsessions

- Most common obsession- Obsession of contamination
- Second most common obsession- Pathological doubt
  - Doubt whether the light was switched off
  - Doubt whether the gas knob was turned off
- Somatic obsessions
  - Thoughts related to body processes, like blinking, breathing
- Need for symmetry- Things should be arranged symmetrically
- Aggressive obsession- Thoughts of slapping a person
- Sexual obsession- Thoughts of touching the opposite gender inappropriately
- In sexual obsession
  - Patient knows these are senseless thoughts
  - Helps differentiate from paraphilias
- The patient may have multiple obsessions

Most Common Compulsions

- Most common compulsion- Checking

- Second most common compulsion- Washing
- Counting
  - Doing things in counts
  - Counting again and again
- Need to confess or ask- Compulsive need to ask/confess something
- Symmetry and precision
  - Arranging things symmetrically
  - Example: Cutting food into equal pieces
  - Example: Shaving the beard very symmetrically and taking a longer time
- The patient may have multiple compulsions

Most Common Pattern Of Ocd

- Contamination and cleansing/washing

Treatment

00:11:00

Pharmacotherapy

- First-line drugs
  - SSRIs
    - → Fluoxetine
    - → Sertraline
    - → Fluvoxamine
  - Clomipramine
    - → Only TCA is approved for OCD
    - → Most serotonin-selective TCA
- Drug of choice / preferred drug
  - SSRI
  - Preferred because of better side effect profile

Augmenting Agents

- Used when the response to first-line drugs is partial
- Antipsychotics
  - Risperidone
  - Aripiprazole
- Used as augmenting agents

Psychotherapy

- CBT
- Mainly uses ERP – Exposure and Response Prevention
  - Exposure may be
    - → In vivo
    - → Imaginal
  - Example
    - → A patient with contamination OCD is exposed to dirt
    - → The patient is prevented from washing
- Between CBT and ERP, the better answer is ERP

Treatment Of Choice

- Combination of drug and therapy
- Some guidelines allow starting with either one
- If the question says
  - Young patient / milder symptoms → Therapy
  - Severe symptoms / comorbid depression → Pharmacotherapy

Other Somatic Therapies

- Deep brain stimulation
  - Targets implicated brain areas
  - FDA-approved targeting Ventral striatum & Ventral capsule
- TMS – Transcranial magnetic stimulation
  - Uses magnetic fields
  - Does not produce convulsions
- Deep TMS + CBT
  - Approved by the FDA for treatment-resistant OCD

Psychosurgery

- Used in extreme treatment-resistant OCD
- Small, specific brain areas are targeted

1. Subcaudate tractotomy- Target is below the head of the caudate
2. Anterior cingulotomy- Targets the anterior cingulate cortex.
3. Limbic leucotomy- Subcaudate tractotomy + Anterior cingulotomy
4. Anterior capsulotomy / Gamma knife capsulotomy- Targets the anterior limb of the internal capsule

BODY DYSMORPHIC DISORDER (BDD)

00:15:25

- Patient has a preoccupation with perceived defects or flaws in physical appearance
- Examples
  - The nose is large or small
  - Ears are large or small

Most Common Sites

- Face and head
- Hair
- Nose
- Skin
- This is a preoccupation
- Usually, the patient may get reassured for some time
- In around one-third of patients, belief may be up to a delusional level
- Most common comorbidity- Depression

Treatment

- Drug
  - SSRI

  - Effective even when belief is at a delusional level
- Therapy- CBT

HOARDING DISORDER

00:16:45

- Hoarding means to keep on collecting
- Acquiring and difficulty in discarding things of little or no value

Examples

- Collecting
  - Newspapers
  - Old magazines
  - Books
- Leads to a lot of clutter in the room/house
- Fear of losing something important
- Distorted emotional attachment to the item
- Significant distress
- Impairment in functioning
- Patient may not be able to
  - Eat properly
  - Sleep properly
- Safety concerns may be present

Treatment

- CBT is most effective
- Sometimes, even with CBT, results may not be very good

TRICHOTILLOMANIA

00:17:50

- Hair-pulling disorder
- Recurrent pulling out of one's own hair
- Results in
  - Patch of alopecia
  - Hair loss
- Accompanied by unsuccessful attempts to stop/decrease the behavior
- Most common site is the scalp
- Patient presenting with alopecia due to trichotillomania should be referred to a psychiatrist

Dermatological Hair Loss

- Irregular margins
- Unequal hair length

Trichophagia

- Some patients may swallow the hair

Complications

- Trichobezoar
- Malnutrition
- Intestinal obstruction

Treatment

- Drugs
  - N-acetylcysteine
    → Glutamatergic modulator
    → Effective, especially in adults
  - SSRIs
- Psychotherapy- Habit reversal therapy (HRT)

EXCORIATION DISORDER

00:20:05

- Skin picking disorder
- Recurrent picking of one's own skin
- Results in skin lesions
- Accompanied by unsuccessful attempts to decrease or stop the behavior
- Most common site of the face
- Patient should be referred to a psychiatrist

Treatment

- Drugs- SSRIs
- Psychotherapy- Habit reversal therapy (HRT)

DSM-5	ICD-11

• OCD
• BDD
• Hoarding disorder
• Trichotillomania
• Excoriation disorder
	• **OCD, BDD, and hoarding disorder** are included
	• Body-focused repetitive behavior disorder (includes Trichotillomania, Excoriation disorder)
	• Olfactory reference syndrome
	  ○ Preoccupation that the body is emitting a foul smell
	  ○ Smell may be unnoticeable or slightly noticeable to others
	  ○ The patient is not actually smelling it
	  ○ If the patient actually smells it, think of olfactory hallucination
	• Hypochondriasis
	• Tourette syndrome

PYQs

00:22:10

Q. A 40-year-old female, who has visited multiple plastic surgeons requesting correction of face deformity, was referred to a psychiatrist. The patient repeatedly checks her face, insists that her face is deformed and needs surgery, despite no such evidence on examination. The patient persists with her demand despite reassurances by family members and doctors. What is the appropriate management?

a. Behavior therapy
b. SSRI
c. Atypical Antipsychotics
d. Allow her to undergo surgery

Ans: b

Q. A 40-year-old male patient comes to the psychiatry OPD with complaints of having repetitive thoughts that he always feels his hands are dirty, though they are not. He knows that these are his own thoughts. This gives him discomfort, and he washes them again and has angina. This disorder of thought is of?
a. Flow
b. Content
c. Form
d. Possession

Ans: d

Q. A patient underwent surgery, and a mass of hair was found in her stomach, as shown below. Which specialist should be consulted with?
a. Dermatologist
b. Cardiologist
c. Psychiatrist
d. Neurologist

Trichobezoars

Ans: c

Q. A 16-year-old female eats food by arranging it in pieces and takes very small, equal bites each time, spending a lot of time eating her meal. What is the likely diagnosis?
a. Anorexia nervosa
b. Obsessive-compulsive disorder
c. Panic disorder
d. Generalized anxiety disorder

Ans: b

Q. Which of the following is a true statement about OCD?
a. Atypical antipsychotics are the first-line treatment
b. Commonly associated comorbidity is depression
c. Prevalence in the general population is 7 - 10%
d. Contamination is an uncommon obsession

Ans: b

10. TRAUMA AND STRESS RELATED DISORDERS

TRAUMA AND STRESS RELATED DISORDERS

00:01:01

- Trauma or stress can be
  - Major life threatening event
  - Mild to moderate routine event

Major Life Threatening Event	Mild To Moderate Routine Event

• Post Traumatic stress disorder → Symptoms ≥ 1 months
• Acute stress disorder → Symptoms < 1month
• E.g of Major life threatening event
  ○ Serious accidents
  ○ Exposure to war
  ○ Physical assault
  ○ Kidnapped
  ○ Natural disaster
  ○ Sexual offence (Rape)
  ○ Serious illness
	• Adjustment disorder
	• E.g of mild to moderate routine event
	  ○ Financial problems
	  ○ Medical illness
	  ○ Relationship problems
	  ○ Specific developmental events

POST TRAUMATIC STRESS DISORDER

00:02:52

- Exposure to actual or threatened death, serious injury or sexual offence
- Symptoms last for ≥ 1 months

Symptoms

MNEMONIC → MAHI

- Mood & cognition
  - Negative emotional state → fear, anger, guilt
  - Negative beliefs
- Avoidance
  - Avoidance of feelings, memories, thoughts of people, place, objects related with the trauma
- Hyperarousal
  - Irritability
  - Exaggerated startle response
  - Hypervigilance
  - Insomnia
  - Decreased concentration
- Intrusion symptoms → Re - experiencing the symptoms
  - Distressing dreams
  - Distressing memories
  - Flashbacks (feels trauma is recurring)

Treatment

- Psychotherapy
  - CBT (Cognitive Behaviour therapy): Most effective
  - EMDR (Eye movement Desensitization and Reprocessing therapy) → Recalling of distressing images while distracted by sensory inputs
- Pharmacotherapy
  - SSRIs → Sertaline, Paroxetine

ADJUSTMENT DISORDER

00:06:50

- Emotional or behavioral symptoms in response to a stressor

Symptoms

- Depressed mood → low mood, Tearfulness
- Anxiety → Worry, nervousness
- Conduct disturbance → Aggression, Dissocial behavior

Diagnosis

- Diagnosis of exclusion
- A 24-year-old male, lost job, for 1 month
  - C/O low mood , decrease interest, low energy, disturbed sleep and decreased appetite → Major Depressive Disorder
  - C/O low mood , irritability , decreased sleep → Adjustment disorder

Treatment

- Psychotherapy
  - Cognitive Behavior therapy
  - Supportive psychotherapy
  - Crisis intervention
- Pharmacotherapy → Augment psychotherapy
  - SSRIs

Differential Diagnosis

- Uncomplicated Bereavement or Grief reaction
  - Symptoms develops after loss of loved one , are within expected norms
- Adjustment disorder
  - Symptoms are beyond expected norms , with significant dysfunction

IMPULSE CONTROL DISORDER

00:09:25

- Impulse is a feeling of increasing tension and arousal that leads to performance of a certain act
- Irresistible impulse or urge to perform an act which is harmful to self or others

Impulse Control Disorder	Features
Pyromania	• Recurrent purposeful setting of fires in an absence of clear motive (e.g Monetary gain, revenge)

Kleptomania	• Recurrent stealing of objects that are not needed for personal use or for their monetary value
Intermittent explosive disorder	• Recurrent brief episodes of verbal or physical aggression or destruction of property • Magnitude of aggressiveness is out of proportion to the provocation or precipitating psychosocial stressors
Compulsive sexual behavior	• Included under impulse control disorder in ICD 11 • Persistent failure to control, intense, repetitive sexual impulses resulting in repetitive sexual behaviors
Oniomania / Compulsive buying	• Recurrent episodes of buying despite the buying behavior causing significant monetary loss and socio-occupational distress

SOMATIC SYMPTOMS & RELATED DISORDERS

00:12:04

- Symptoms are produced unconsciously by mind not bodily cause
- Examination and Investigations → Normal
- Stressor may or may not be present
- Pathology

Stress
↓
To resolve these stress
↓
Mind converts unconscious conflicts
↓
As a result symptoms are produced
↓
To relieve anxiety

Dissociative Disorder

- Disturbance in one or more mental functions such as memory, identity, perception, consciousness or motor behavior

DISSOCIATIVE AMNESIA	• Inability to recall important personal information, usually for traumatic events inconsistent with ordinary forgetting
DISSOCIATIVE FUGUE	• Fugue means to wander • Sudden, unexpected travel away from home or workplace • Unable to recall the past • May assume new identity • Person maintains basic self care during fugue
TRANCE & POSSESSION DISORDER	• Trance state in which there is marked changes in person's state of consciousness • Person behaves as if possessed by spirit or deity • Individual experience personal identity is replaced by external possessing identity

DEPERSONALIZATION & DEREALIZATION DISORDER	• Depersonalization → Feeling detached from self
	  ○ Feels like watching themself from outside like in a movie
	• Derealization → Feeling detached from the world
	  ○ Feels as if world is unreal
	• Reality testing is intact

DISSOCIATIVE IDENTITY DISORDER	• A/k/a Multiple personality disorder
	• 2 or > personalities exist in an individual, with only one of them evident at a time
	• Unaware of each others existence
	• These personalities are known as alters
	• Treatment
	  ○ Psychotherapy
	  ○ Cognitive behavior therapy

Conversion Disorder

Important Information

- In DSM 5 → classified under somatic symptom disorder
  - Functional neurological symptom disorder
- In ICD 11 → classified under Dissociative disorder
  - Dissociative neurological symptom disorder

- More common in females than males
- Onset: late childhood and early adulthood
- Rare after 35 years

Symptoms

- Sensory symptoms
  - Hemianesthesia
  - Deafness
  - Blindness
- Motor symptoms
  - Abnormal movements
  - Paralysis
  - Paresis
  - Pseudo seizure
  - Astasia - abasia gait
- Symptoms are inconsistent with anatomy and physiology of body
- La Belle Indifference → Patient's inappropriately careless attitude towards serious symptoms

Treatment

- Cognitive behavior therapy

Somatic Symptoms And Related Disorder

- Previously known as somatoform disorder
- Patient presents with somatic (physical symptoms) leads to significant distress / Impairment
- No medical cause
- Medically unexplained symptoms

Types

- Somatization
  - Preoccupied with bodily symptoms
  - In ICD 11 it is called Bodily Distress Disorder
- Hypochondriasis
  - Preoccupied of having serious illness
  - Somatic symptoms may or may not be present
  - In DSM 5 it is called Illness anxiety disorder

Treatment

- Cognitive behavior therapy

CONSCIOUS SYMPTOMS

00:27:29

- Falsification of symptoms
- Types
  - Factitious disorder
  - Maligering

Factitious Disorder

- A/k/a Munchausen syndrome
- Patient produce fake symptoms can be physical / psychological to assume sick role, with aim to receive medical attention
- Psychiatric disorder

Important Information

- Factitious disorder by proxy / Munchausen syndrome by proxy
- A person usually caretaker produces symptoms in another person with the aim of gaining medical attention

Malingering

- Receive external gains / benefits
- Not a psychiatric disorder

ERROR FILES

00:30:18

- Disruption of one or more mental functions such as memory, identity → Dissociative disorder
- Predominant neurological symptoms → Conversion disorder
- Preoccupied with bodily symptoms → Somatization
- Preoccupied of having serious illness → Hypochondriasis
- Preoccupied of physical defect → Bodily dysmorphic disorder
- Intentionally feign symptoms to gain medical attention → Factitious disorder

MCQ

00:32:14

Q. A 35 year old man presents to psychiatry OPD , he has a history of RTA 2 months back with multiple fractures . He recovered but from the past 1.5 months , has sleep disturbances with dreams of the accident and wakes up feeling anxious . He gets startled while walking on the road hearing the sounds of vehicles . Likely diagnosis ?

a. Acute stress disorder
b. Adjustment disorder
c. Post traumatic stress disorder
d. Major depression

Ans: c

Q. A patient admitted in hospital, thinking he had MI but was well .On discharge , he denied to go home as 10 days back, thieves came to his home and put a gun on his head. What is the likely diagnosis ?

a. Acute stress disorder
b. Schizophrenia
c. Avoidant personality disorder
d. Delirium

Ans: a

Q. A 21 year old female patient in the emergency with complaints of amnesia of events for the past 2 weeks since she lost her father in a Road traffic accident. She gets flashbacks of the event. What is the likely diagnosis ?

a. Dissociative disorder
b. Adjustment disorder
c. PTSD
d. Acute stress disorder

Ans: d

Q. A 28 year old software engineer visits a psychiatry clinic as he is suffering from sleep disturbances , low mood , stress in his current job for the past 3 months. He cannot work properly and having difficulty to balance family and work. He has no prior psychiatric history. What is the likely diagnosis ?

a. Adjustment disorder
b. Generalized anxiety disorder
c. Acute stress disorder
d. Post traumatic stress disorder (PTSD)

Ans: a

Q. Match the following ?

Column 1	Column 2
a.Pyromania	1.Compulsive alcohol drinking
b.Kleptomania	2.Mutilating body parts

c.Mutilomania	3.Setting fire
d.Dipsomania	4.Stealing things of little value

A. a1 , b2 , c3 , d4
B. a2 , b1 , c3 , d4
C. a4 , b3 , c2 , d1
D. a3 , b4 , c2 , d1

Ans: d

Q. A man came with a bizarre presentation to the hospital .Some collateral person gave a history of the recent earthquake few months back. The person neither remembers personal information nor why he came to a hospital that is 100 km away from his home. No history of physical injury or substance abuse. What is the likely diagnosis ?
a. Dissociative amnesia
b. Dissociative identity disorder
c. Dissociative fugue
d. Total global amnesia

Ans: c

Q. A lady presents to the hospital after a fight with her husband. She reports that she is unable to speak. However all neurological and physical examination are normal and she does not seem concerned about her condition. What is the likely diagnosis ?
a. Somatic symptom disorder
b. Malingering
c. La Belle indifference
d. Generalized anxiety disorder

Ans: c

Q. A young girl presented with a history of multiple episodes of loss of consciousness lasting for 20 minutes. These episodes occur only in front of family members and only in day time. There is no history of tongue bite, incontinence. EEG, MRI studies are normal. What is the appropriate management ?
a. Treat with aversive therapy
b. Insight oriented psychotherapy
c. Valproate
d. Ketogenic diet

Ans: b

Q. A young girl after the death of her mother suddenly becomes blind but seems to be less bothered about her blindness .Which of the following is true about her conditions ?
a. In children incidence is equal in boys and girls
b. In children incidence is more in girls

c. In adult's incidence is more in males
d. In adult's incidence is equal in males and females

Ans: b

Q. Manish a 40 year old man is chronically preoccupied with his health. For many years he feared that his irregular bowel functions meant he had cancer. Now he is very preoccupied about having a serious heart disease, despite his physician's assurance that the occasional extra beats he detects when he checks his pulse are completely benign. What is his most likely diagnosis?
a. Somatization disorder
b. Hypochondriasis
c. Delusional disorder
d. Panic disorder

Ans: b

11. SUBSTANCE USE AND ADDICTIVE DISORDER

SUBSTANCE DEPENDENCE

00:01:30

- Symptoms
  - Craving: A strong desire or sense of compulsion to take the substance
  - Withdrawal Symptoms: Physical or psychological symptoms occurring after reducing or stopping substance use (e.g., tremors).
  - Tolerance: Increased amounts of the substance are required to produce the desired effect previously achieved by lower amounts.
  - Difficulty in controlling substance-taking behavior in terms of its onset, termination, or level of use
  - Progressive neglect of alternative pleasure or interests because of substance use
  - Persistent use despite clear evidence of harmful consequences
- Diagnosis: Symptoms evident over a period of at least 12 months
- DSM-5 Nomenclature: Uses the term "Substance Use Disorder.

ALCOHOL

00:03:48

- Active Ingredient: Ethanol / Ethyl Alcohol

Screening Tool

- **CAGE Questionaire**
  - C: Need to Cut down on drinking
  - A: Annoyance when asked about your drinking
  - G: Guilt about your drinking
  - E: Need for an Eye-opener the morning after heavy drinking (drink first thing in the
  - A score of 2 or more, suggestive of alcohol use disorder
- AUDIT: Alcohol Use Disorder Identification Test.
- MAST: Michigan Alcoholism Screening Test.
- SADQ: Severity of Alcohol Dependence Questionnaire (assesses severity)

Alcohol Intoxication

- Alcohol is a CNS depressant at all doses
- Legal driving limit (India): 30 mg/dL
- Alcoholic Blackouts: Occur at blood alcohol concentrations of 200–300 mg/dL
  - Characterized by anterograde amnesia (inability to remember events during intoxication).

Alcohol Withdrawal

- Symptoms which develop after reducing or stopping alcohol intake

6-8 HOURS POST CESSATION	• Tremulousness (most common/classic symptom). • Nausea, vomiting, anxiety, irritability • Autonomic hyperactivity: Tachycardia, hypertension, sweating, mydriasis.

8-12 HOURS POST CESSATION	• Perceptual disturbances - Alcoholic Hallucinosis
	  ○ Hallucinations (Auditory, Visual, or Tactile).
	  ○ Occurs in a state of clear consciousness.

12-24 HOURS POST CESSATION	• Withdrawal Seizures (GTCS)
	  ○ Aka "Rum Fits."
	  ○ May occur in clusters

48-72 HOURS POST CESSATION	• Delirium Tremens (DT).
	  ○ Disturbance of consciousness (disorientation to time, place, person)
	  ○ Visual hallucinations: Often "Lilliputian" (seeing small creatures)
	  ○ Autonomic hyperactivity and tremors
	  ○ It is the most severe form of alcohol withdrawal
	  ○ It is a medical emergency
	  ○ Untreated: Mortality rate of 20%

Important Information

Differentiation from delirium tremens

- Delirium Tremens involves impaired consciousness
- Alcoholic Hallucinosis occurs in clear consciousness.

Risk of Dt Increases With

- Infections, pancreatitis, hepatic insufficiency, heart failure, or renal disease.

Treatment

1. Detoxification
2. Maintenance

Detoxification

- Manage the withdrawal Symptoms.
  - Duration of treatment: 7-14 days.
  - DOC for alcohol withdrawal: Benzodiazepines (BZD) / Benzodiazepines + Thiamine
    → Along with Benzodiazepines, Thiamine is also added
  - Short acting drugs: Lorazepam, Oxazepam
  - Long acting drugs: Chlordiazepoxide, Diazepam
  - Dose reduction:20% dose reduction every day from the dose of the first day.
  - By 7th to 14th day, Benzodiazepine is stopped
- Treatment of withdrawal in Liver Disease (Deranged LFTs)
  - Drugs which undergo Glucuronidation and have no active metabolites are generally preferred for patients with Liver Disease: Lorazepam, Oxazepam, Temazepam
  - Benzodiazepines like Chlordiazepoxide, Diazepam are avoided in Liver disease

Maintenance Phase

- To maintain the Abstinence:
  - Pharmacological Treatment
  - Non-Pharmacological Treatment

Pharmacotherapy

Deterrent Agent (Aversive Agent)	• Drug: Disulfiram • Mechanism of Action of Disulfiram ○ Irreversible Inhibitor of Aldehyde Dehydrogenase (ALDH) enzyme Alcohol (Ethanol) → Alcohol Dehydrogenase (ADH) → Acetaldehyde → Aldehyde Dehydrogenase → Acetic Acid → $CO_2 + H_2O$ ○ Disulfiram blocks Acetaldehyde breakdown → ↑ Acetaldehyde levels → Disulfiram-Ethanol Reaction (DER). ○ DER Symptoms: → Nausea, vomiting, burning sensation in face or stomach → Severe reaction can lead to MI or respiratory depression ○ Administration: Last drink must be at least 12–24 hours prior. ○ DER can occur up to 2 weeks after stopping Disulfiram. ○ Warn about alcohol in vinegar, perfumes, or cough syrups
ANTICRAVING AGENTS	• Acamprosate: NMDA antagonist. • Naltrexone: Opioid mu-antagonist • Other Agents (**Mnemonic: "Alcohol NOT Your Best Friend"**): ○ **Alcohol:** Acamprosate. ○ **N:** Naltrexone. ○ **O:** Ondansetron (5HT3 antagonist) ○ **T:** Topiramate (Anti-epileptic) ○ **Best:** Baclofen (GABA-B agonist) ○ **Friend:** Fluoxetine (SSRI)

Non Pharmacological Therapy

- Cognitive Behavior Therapy (CBT).
- Alcoholics Anonymous (AA) groups: Self-help group, follow 12 step based approac

Alcohol induced neurocognitive disorders

WERNICKE ENCEPHALOPATHY	• Onset → Sudden. • Symptoms (Mnemonic: GOA): ○ **G:** Global Confusion. ○ **O:** Ophthalmoplegia (Horizontal nystagmus, gaze palsy; 6th nerve affected > 3rd) ○ **A:** Ataxia. • Cause → Vitamin B1 (Thiamine) deficiency.

	• Management:
	  ○ Parenteral Thiamine
	  ○ Condition is reversible
	• Neuropathologic lesions are Symmetrical involving
	  ○ Mammillary bodies, Thalamus, Hypothalamus, Midbrain, Pons, medulla, fornix, and Cerebellum

KORSAKOFF SYNDROME	• Onset → Chronic sequel to Wernicke's.
	• Symptoms:
	  ○ Amnesia: Anterograde (inability to form new memories) > Retrograde (inability to recall old memories)
	  ○ Confabulation: Making up stories to fill memory gaps (not deliberate lying).
	• Cause → Vitamin B1 (Thiamine) deficiency.
	• Management → Oral Thiamine (100mg 2-3 times/day)
	• Often irreversible (~20% recover).

Clinical notes on thiamine

- In patients with Alcohol related disorders, receiving IV Glucose solution, it is good practice to add 100mg of Thiamine in each litre of glucose
  - Thiamine Pyrophosphate (TPP) is a cofactor for glucose metabolism enzymes:
    → Alpha-ketoglutarate dehydrogenase.
    → Transketolase
    → Pyruvate dehydrogenase.
- Patient who appear to have Wernicke-Korsakoff syndrome but do not respond to thiamine
  - Consider: Alcoholic Pellagra Encephalopathy
  - Cause: Niacin deficiency
  - Treatment: Supplement with Niacin.

OPIOIDS

00:25:30

- Source → Opium Poppy Plant (Papaver somniferum)
- Commonly Abused Form → Heroin (Diacetylmorphine)
- Street Names → Smack, Brown Sugar (contains impurities like chalk/quinine)
- Routes of Administration → Sublingual, IV, or "Chasing the Dragon" (inhaling fumes of heated powder)

Opioid Intoxication

- Classical triad of
  - Respiratory Depression
  - Pinpoint Pupil (Miosis).
  - Coma.
- Drug of Choice (DOC) → IV Naloxone (Opioid mu-antagonist).
  - Dosing: Slow rate of 0.8 mg per 70 kg body weight.

Opioid Withdrawal

- Symptoms resemble a flu-like state
- Symptoms include
  - Muscle cramps, Bone aches, Abdominal cramps.
  - Profuse diarrhea, Lacrimation (tearing), Rhinorrhea (runny nose), Excessive sweating
  - Piloerection / Gooseflesh
  - Excessive yawning
  - Pupillary dilation (Mydriasis)

Management

DETOXIFICATION	• Manage withdrawal symptoms
	  ○ Methadone: Pure Opioid Mu Agonists
	  ○ Buprenorphine: Partial Opioid Mu Agonists
	  ○ Dose is tapered and stopped usually within 2-3 weeks
	• Symptomatic Treatment
	  ○ Clonidine: a-2 Adrenergic Agonist.
	  → Reduces Autonomic withdrawal symptoms (Sweating, Restlessness, Tremor or Rhinorrhea)
	  ○ For other symptoms
	  → Benzodiazepines → For anxiety
	  → Zolpidem → For sleep disturbances
	  → NSAIDs → For pain
	  → Loperamide → For diarrhea

MAINTENANCE	• Relapse prevention
	Pharmacological Treatment
	• Opioid substitution therapy
	  ○ Replacing illicit, short-acting opioids with medically safe, long-acting opioids.
	  ○ Drugs used: Methadone and Buprenorphine
	• Opioid antagonist
	  ○ Naltrexone → Binds to opioid receptors to block the euphoric effects of outside opioids
	Non Pharmacological Treatment
	• Cognitive Behavioral Therapy (CBT).
	• Narcotics Anonymous (NA): A 12-steps approach, self-help group

CANNABIS

00:30:51

- Derived from the hemp plant, Cannabis sativa

Important Information

Most Common Substances

- India: Tobacco > Alcohol
- World: Alcohol > Tobacco
- Most common substance worldwide now: Caffeine
- Most common illicit (illegal) substance worldwide and in India: Cannabis

Various Cannabis Forms

- Bhang: Derived from dried leaves
- Ganja: Derived from flowering tops/stems
- Hashish/Charas: Derived from dried resin
- Hash oil: Oil-based extract.
- Street names: Marijuana, Grass, Pot, Weed

Active Ingredient

- Delta-9-tetrahydrocannabinol (Delta-9-THC)
- Responsible for psychoactive effects

Symptoms of Cannabis Intoxication & Withdrawal

CANNABIS INTOXICATION	CANNABIS WITHDRAWAL
• Euphoria and intense happiness • Time distortion (feeling that time has slowed down) • Redness of conjunctiva (red eyes). • ↑ Appetite • Dry mouth • Hallucinations • Delirium (impairment in consciousness) at very high doses	• Depressed mood, anxiety, and irritability • ↓ Appetite • Sleep difficulties • Physical signs: Mild tremors, sweating, fever, chills, and abdominal pain

Specific Cannabis Phenomenon

- Bad Trips: Unpleasant experiences involving restlessness, fearfulness, panic, and fear of "going crazy."
- Cannabis-Induced Psychotic Disorder (Hemp Insanity):
  - Presence of delusions and hallucinations
  - Symptoms typically improve within a month of cessation.
- Schizophrenia Risk: Use in childhood or adolescence ↑ risk of developing schizophrenia
- Flashbacks: Re-experiencing the effects of cannabis use without consuming the drug.
- Amotivational Syndrome:
  - Characterized by ↓ motivation, apathy, lethargy, and weight gain
  - Unwillingness to persist in a task, such as school or work
- Running Amok: A state of rage where the individual may hurt themselves or others

Management

- Symptoms are usually mild; primarily requires supportive care
- Short-term use of Benzodiazepines for symptomatic relief

HALLUCINOGENS

00:36:30

Common Substances

- PCP (Phencyclidine): Also known as "Angel Dust."
- Ketamine: An anesthetic agent
- LSD (Lysergic acid diethylamide)
- Mescaline: Derived from cactus

- Psilocybin: Derived from mushrooms
- MDMA (Methylenedioxymethamphetamine): Also known as "Ecstasy."

Key phenomenons

Reflex hallucination

- A real stimulus in one sensory modality produces a hallucination in a different modality
- Example: Hearing music (auditory stimulus) causes the person to see colors (visual hallucination)
- Commonly associated with LSD

Flashbacks

- E.g., flashes of color, visual distortion, Halos, Macropsia, Micropsia
- Seen especially with LSD

Bad Trips

- Frequently seen with LSD

Withdrawal

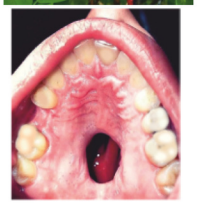
- Hallucinogens do not cause withdrawal symptoms and lack physical dependence

STIMULANTS

00:39:07

- Substances include
  - Cocaine
  - Amphetamine

Cocaine



- Derived from the plant Erythroxylum coca.
- It ↑ Sympathetic activity (Sympathomimetic).
- Most common method of use: Snorting (inhaling fine powder)
- Due to Vasoconstriction, can cause Rhinorrhea, Nosebleeds
- Can eventually cause nasal septal perforation
- Tongue: Jet black pigmentation
- Vasoconstriction, Increase Heart rate
  - Peripheral vessels → Hypertension
    → Damage to end organ such as the brain, kidneys, and intestines.
  - Coronary Blood vessel → Myocardial Infarction (MI) due to coronary vasoconstriction and ↑ oxygen demand

Intoxication Symptoms

- Euphoria, Mydriasis (Pupillary dilation)
- Tachycardia, Hypertension, Sweating
- Respiratory Depression, Cardiac Arrhythmias, Seizures
- Hyperthermia (↑ body temperature)
- Associated with Auditory Hallucinations, Paranoid Ideations.
- Tactile Hallucinations (Cocaine Bugs):
  - Feeling of bugs crawling under the skin
  - Often presents with scratch marks on the body

Dependence
- Strong psychological dependence; physiological dependence is relatively mild

Cocaine Induced Psychotic Disorder
- Mimics schizophrenia (paranoid delusions/auditory hallucinations)
- Most common with Intravenous cocaine users or crack users

MANAGEMENT
- Withdrawal symptoms are generally mild
- No specific pharmacological agent exists to reduce withdrawal intensity
- Speedballs: The combination of Cocaine and an Opioid (e.g., Heroin)

Tobacco
- Most common substance use disorder in India
- Active ingredient causing addiction: Nicotine

Withdrawal Symptoms
- Intense craving
- Irritability, anxiety, and difficulty concentrating
- Insomnia
- Bradycardia (↓heart rate).
- ↑ Appetite and weight gain.

Assessment Of Severity Of Nicotine Dependence
- Fagerström Test for Nicotine Dependence (assesses severity).

Treatment
Nicotine Replacement Therapy
- Forms: Gums, lozenges, patches, nasal sprays, and inhalers
- E-cigarettes are banned in India due to potential carcinogens.

Non-Nicotine Medications

VARENICLINE	• Partial agonist at Alpha-4 Beta-2 (α4β2) nicotinic acetylcholine receptors.
	• Most efficacious pharmacological agent.
	• Adverse effects
	  ○ Depression
	  ○ Suicidal ideation
	  ○ Cardiovascular issues (HF, arrhythmias).

BUPROPIONE	• An NDRI antidepressant used for smoking cessation. • Contraindicated in seizure disorders, bulimia, and anorexia nervosa

INHALANT DRUGS
00:45:44
- They are volatile hydrocarbons (e.g., Toluene).
- Vaporize at room temperature; inhaled via nose or mouth

- Common sources: Solvents for Glue, gasoline, thinners
- Long term inhalant use cause various adverse effects such as irreversible liver disease or kidney damage, Muscle damage, Peripheral neuropathy, Brain damage

CLUB DRUGS/RAVE DRUGS

- Often associated with dance clubs, dance parties (rave parties)
- Also known as Rave Drugs
- Drugs include:
  - E → Ecstasy (MDMA)
  - F → Flunitrazepam (Rohypnol/"Roofies")
  - G → Gamma-hydroxybutyrate (GHB)
  - K → Ketamine
  - L → LSD
  - M → Methamphetamine

GAMBLING AND GAMING DISORDER

00:47:48

GAMBLING DISORDER	GAMING DISORDER
• Categorized in DSM-5 • There are persistent and recurrent gambling behavior, online or offline	• A new diagnosis in ICD-11 (DSM-5, under condition for further study) • Persistent or recurrent gaming behavior (Digital or video gaming), online (over the internet) or offline

Features

- Impaired control over the behavior
- Behavior takes precedence over daily activities and life interests
- Continuation despite negative consequences
- Significant impairment in functioning.

TRANSTHEOROTICAL MODEL OF CHANGE

00:48:46

- By Prochska and DiClemente
  - Patients with substance use & addictive disorders go through stage of change before stopping the substance use
- According to this model, the stages of change are:

1. Pre-contemplation: Individual does not believe there is a problem.
2. Contemplation: Realizes a problem exists but has no commitment to change (weighing pros and cons).
3. Preparation: Individual intends to change and prepares to act.
4. Action: The individual actively stops the substance or behavior.
5. Maintenance: Sustained change over time (typically >6 months).
6. Relapse: Reverting to use; can occur from any stage.

MCQ

00:50:22

Q. All of the following statements are correct except?

A. Cannabis use can result in self driven (repetitive) behaviors

B. Volatile inhalational agents are toxic to humans

C. Opioids are very effective analgesics
D. Alcohol acts as a stimulant at low dose and a depressant at high dose

Answer: D

Q. A mother reported that her daughter ingested a substance in an unknown date. The girl presents with hypertension, tachycardia, mydriasis. hyperthermia. What is the likely substance?
A. Heroin
B. Morphine
C. Cocaine
D. Chlorpheniramine

Answer: C

Q. Match the following drugs with the conditions they are used for?

a. Delinum tremens	1. Naloxane
b. Alcohol dependence	2. Oxazepam
c. Smoking cessation	3. Varenidine
d. Opioid intoxication	4. Acamprosate

A. a1, b3, c4, d2
B. a2, b4, c3, d1
C. a4, b2, c3, d1
D. a2, b3, c4, d1

Answer: D

Q. A chronic alcoholic patient, who has not consumed alcohol for last 2 days now presenting with tremors, seizures, confusion. On investigation his LFTS are deranged. Which of the following drug is best for management?
A. Diazepam
B. Midazolam
C. Oxazepam
D. Phenytoin

Answer: C

Q. Consider the following statements
1 Contemplation: A patient who smokes is thinking of quitting smoking but not sure
2. Procontemptation. A person is considering starting morning walks to improve health
3. Maintenance phase: A person quit smoking 1 year back and has not smoked since
4. Action phase: A person with obesity says he can't do anything as it runs deep in family
A. Statement 1 and 3 are correct
B. Statement 1 and 2 are correct
C. Statement 1, 2, 3 are correct

D. Statement 1, 2, 3, 4 are correct

Answer: A

Q. Which of the following clinical features can be encountered in Korsakoff syndrome?
1. Amnesia
2. Confabulation
3. Ophthalmoplegia
4. Peripheral neuropathY

A. 1, 2, 4
B. 1, 2, 3, 4
C. 2, 3, 4
D. 1, 3, 4

Answer: A

Q. What common effects of cannabis/ marijuana intake ?
A. Depression
B. Physical dependence
C. A state of dreaminess with altered consciousness
D. Anxiety

Answer: C

Q. A patient is given 5mg I/V marniune for post operative pain management. You are monitoring him for opioid toxicity. Which of the following findings can suggest morphine overdose?
A. Unequal pupil
B. Dilated pupil
C. Tachypnea
D. Bradypnea

Answer: D

Q. A person chronically consumes alcohol, indulged in binge drinking 10 days back, was brought to emergency in unconscious state. Non-contrast CT scan was normal. His blood glucose was 45 mg/dL. Which of the following is the likely treatment?
A. Normal saline (NS)
B. I.M. thiamine followed by glucose
C. Vitamin K
D. 5% dextrose

Answer: B

Q. Which of the following drugs is used in opioid maintenance?

A. Bupropion

B. Clonidine

C. Buprenorphine

D. Disulfiram

Answer: *C*

12. CHILD PSYCHIATRY

ATTENTION DEFICIT HYPERACTIVE DISORDER/ADHD

NEET PG 2018

- Formerly known as Minimal brain damage or dysfunction
- Currently classified as a neurodevelopmental disorder

Symptoms

- Inattention
  - Failure to give close attention to details
  - Making careless mistakes in schoolwork or other activities
  - Difficulty finishing tasks or losing focus
  - Easy distractibility (e.g., looking out of windows instead of focusing on the board)
- Hyperactivity and Impulsivity
  - Appears fidgety; continuous tapping of hands or feet
  - Leaving the seat when remaining seated is expected
  - "On the Go", acting as if "driven by a motor"
  - Frequent interruption of others
  - Difficulty waiting for their turn
  - Blurting out answers before questions are completed

DSM 5 Diagnostic Criteria

- Symptom onset → before 12 years of age (previously 7 years)
- Symptoms must be present in at least two situations (e.g., home, school, clinic)
- Duration → at least 6 months

Adult ADHD

- Symptoms must have started before age 12 and persisted into adulthood
- ICD-11 also requires symptoms in at least two situations

Subtypes

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- Combined: Inattention + Hyperactivity-Impulsivity
- Predominantly Inattentive
- Predominantly Hyperactive-Impulsive

Epidemiology & Coourse

- Generally more common in boys than in girls.
- Puberty/Early Adulthood → 40% show remission
- Adolescence → 60%–85% persist
- Adulthood → ~60% persist

Remission Sequence
- Hyperactivity → first symptom to remit
- Inattention → last symptom to remit

Long-term Risks
- Adolescence → ↑ risk of Conduct Disorder
- Adulthood → ↑ risk of Antisocial Personality Disorder, Substance Use Disorder, and Mood Disorders

Management
NEET PG 2024
- Pharmacotherapy is the first-line treatment

CNS Stimulants
- Contraindications: Known cardiac risk or family history of sudden death.
- Administration: Give in the morning or afternoon
- Avoid evening doses → causes insomnia
- First-line agents used

Methylphenidate
- Drug of choice
- Mechanism: Norepinephrine-Dopamine Reuptake Inhibitor (NDRI).
- Side effects:
  - Headache
  - Nausea
  - insomnia
  - Exacerbation of tics
- Growth suppression: Managed via "drug holidays" (stopping medication on weekends/vacations)
- Available as a transdermal patch and Dexmethylphenidate

Amphetamine
- Second-line drug of choice
- Mechanism: NDRI + facilitates dopamine release
- Not available in India for ADHD management

Modafinil
- Alpha-1 agonist
- Helpful in adult ADHD (not FDA approved for ADHD)
- Used primarily for Narcolepsy

Non Stimulants
- Used if stimulants show poor response, cause tics, or are contraindicated.

Atomoxitene
- Mechanism: Selective Norepinephrine Reuptake Inhibitor (SNRI/NRI)
- Risk: ↑ suicidal ideation

Reboxetine

- Mechanism: Selective NRI
- Not FDA approved for ADHD

Alpha 2 Agonists

- Clonidine, Guanfacine
- Side effects:
  - Hypotension
  - Sedation
  - Headache
  - Fatigue
- Preferred in comorbid tic disorders
- Useful at nighttime due to sedation
- Also used for detoxification in substance use disorders

Bupropione

- Mechanism: NDRI (Antidepressant)
- Risk: Seizures at high doses
- Not FDA approved for ADHD
- Used as an antidepressant, for ADHD, and for smoking cessation

AUTISM SPECTRUM DISORDER

00:11:25

INICET 2024, 2025

- New term in DSM-5 and ICD-11; previously PDD (Pervasive Developmental Disorder)
- Classified as a neurodevelopmental disorder
- Includes
  - Autistic disorder
  - Rett syndrome
  - Childhood Disintegrative Disorder
  - Asperger disorder

Core Features

Deficit in Social Communication

- Poor reciprocal social skills
- Lack of social smile or anticipatory posture (e.g., reaching to be picked up) in infancy
- Poor eye contact
- Poor attachment behavior (indifferent to parents' presence)
- Social behavior is awkward
- Difficulty making friends or establishing relationships

Repetitive and Restrictive Pattern

- Rigid and monotonous activities
- Ritualistic play (e.g., playing only with a specific part of a toy car or doll)
- Stereotypies and mannerisms (e.g., spinning, head-banging)
- Panic or fear responses to any routine change

Associated Features

- 3rd criterion- Language impairment- Removed as a core symptom in both DSM-5 and ICD-11; associated feature, not a defining core feature
- Abnormal dermatoglyphics (fingerprints)
- Intellectual disability (present in ~30%)
- Irritability and aggressiveness

Special Skills

- Known as Precocious/Splinter/Savant skills
- Seen in 10% of individuals
- High proficiency in specific areas:
  - Hyperlexia
  - Excellent rote memory
  - Complex mental calculations

Genetic Associations

- Most common: Fragile X Syndrome
- 2nd most common: Tuberous Sclerosis

Specific Disorders Within The Spectrum

Autistic Disorder

- Onset: Before 3 years of age
- More common in males > females
- Strongly associated with genetic factors

Rett Syndrome

INICET 2022-23

- Predominantly seen in females
- Genetic link: Mutation in the MECP2 gene (X-linked, Chr Xq28)
- Course: Normal development until 5 months → abnormalities start between 6 months and 2 years
- Characteristics: Loss of motor skills replaced by midline "hand-wringing" movements
- Physical finding: Microcephaly (deceleration of head growth; head is normal at birth)
- Clinical findings
  - Loss of speech
  - Poor muscle coordination
  - Unsteady gait
- EEG: Abnormalities in nearly 100%; seizures in 75%
- Trofinetide
  - Approved for Rett syndrome (age >2 years)
  - Synthetic analog of the N-terminal tripeptide of IGF-1 (Glycine-Proline-Glutamic acid)

Childhood Disintegrative Disorders

- More common in boys than in girls
- Development appears normal until 2 years of age
- Symptoms begin after 2 years → marked regression in several areas
- Areas of regression:

  - Language
  - Social
  - Adaptive behaviors
- Loss of previously achieved bowel and bladder control
- Play skills and motor skills are affected
- Differentiation from Childhood Autism:
  - Autism symptoms typically develop before 3 years.
  - But here a clear period of normal development followed by regression.

Asperger Syndrome

FMGE 2020

- More common in boys than girls
- Language impairment:
  - Historically part of the core criteria, but now removed.
  - Patients never exhibit a language delay
- Core impairments:
  - Non-verbal communicative gestures
  - Repetitive patterns of behavior
  - Normal language/sing-song speech is maintained

Management of ASD

Psychological Interventions

- Aim to develop socially acceptable behavior
- Aim to ↓ address odd behavioral symptoms

Applied Behaviour Analysis

- Targets social, communication, and behavioral skills.
- Goal is to promote desired behaviors and ↓ undesired behaviors.
- Focuses on improving adaptive skills

SPECIFIC LEARNING DISORDERS

00:21:23

FMGE 2025

- Known as Developmental Learning Disorder in ICD-11

Clinical Features

- Child appears normal but struggles with learning
- Classified as a neurodevelopmental disorder, not a behavioral tantrum
- Persistent difficulty in learning academic skills inconsistent with the child's intellectual ability

Types

Dyslexia

- Inability to read properly (e.g., confusing 'b' and 'd' or '6' and '9')
- Difficulty recognizing words
- Slow, inaccurate reading with poor comprehension
- Difficulties with spelling

Dysgraphia
- Also known as Specific Spelling Disorder
- Poor writing skills and spelling errors
- Errors in grammar and punctuation
- Poor handwriting (words may appear misaligned)

Dyscalculalia
- Difficulty recognizing mathematical signs (addition vs. multiplication)
- Difficulty learning numerals
- Slow and inaccurate calculations

Mixed Disorder of Scholastic Skills
- A combination of two or more of the above types

INTELLECTUAL DISABILITY 00:23:55
- DSM-5: Intellectual Disability
- ICD-11: Disorder of Intellectual Development
- Previous term: Mental Retardation

Definition
- Significant limitations in:
  - Intellectual Functioning: Problems with reasoning, learning, and problem-solving
  - Adaptive Behavior: Deficits in conceptual, practical, social, and self-care skills
- Onset: Symptoms must develop before 18 years of age

IQ
- Intelligent quotient
- Formula IQ= Mental age/Chronological age x 100

IQ Ranges
- Normal: 90 - 109
- Borderline: 70 - 89
- Intellectual Disability: <70

Severity Levels Based on IQ
- Mild: 50 - 69
- Moderate: 35 - 49
- Severe: 20 - 34
- Profound: <20

DSM 5 Determination
- Severity is determined by adaptive functioning rather than IQ scores alone
- Levels of support required:
  - Mild/Moderate: Less support needed
  - Severe/Profound: Higher degree of support required

Etiology

Genetic Factors

- Most common genetic cause: Down Syndrome (Trisomy 21)
- 2nd most common genetic cause: Fragile X Syndrome
- Most common single-gene cause: Fragile X Syndrome

Other Causes

- Prenatal: Maternal infections or substance use (e.g., alcohol)
- Perinatal: Birth trauma
- Postnatal: Infections like Encephalitis

Management

- The condition cannot be cured
- Psychosocial Interventions:
  - Behavior therapy for maladaptive behaviors (aggression, self-injury, hyperactivity)
  - Contingency Management:
    → Rewarding desired behaviors (e.g., chocolates, praise)
    → Punishing undesired behaviors (non-harsh punishment)
  - Pharmacotherapy (Symptomatic):
    → Aggression/Irritability/Self-injury: Antipsychotics (Risperidone, Aripiprazole)
    → Depression/Anxiety: SSRIs

TOURETTE SYNDROME

- A neurodevelopmental disorder characterized by:
  - Multiple motor tics (e.g., shrugging, eye blinking)
  - At least one vocal tic
- Onset: Symptoms must appear before 18 years of age
- Clinical Example (Movie: Hichki): Character exhibits multiple motor and vocal tics

Management

- Psychotherapy: Habit Reversal Therapy (HRT)
- Pharmacotherapy:
  - First-line: Clonidine, Guanfacine (due to fewer side effects).
- FDA-approved
  - Haloperidol
  - Pimozide (1st generation antipsychotics; carries the risk of EPS)

DISRUPTIVE DISORDERS OF CHILD

00:29:27

FMGE 2020,
INICET 2025,
Neet PG 2024

Oppositional Defient Disorders

- Pattern of negativistic, disobedient, and hostile behavior toward authority figures (parents, teachers)
- Features: Refusal to obey, hostility
- No physical aggression or destruction of property

Management

- CBT and family interventions

Conduct Disorder

- More severe pattern of behavior violating the rights of others
- Features: Physical aggression, bullying, threatening harm, harming animals, property destruction (school/home), and stealing
- Outcome→ May progress to Antisocial Personality Disorder in adulthood

Management

- CBT (preferred); Risperidone (for aggression)

Disruptive Mood Deregulation Disorder

- Categorized under Depressive Disorders in DSM-5
- Characterized by:
  - Severe recurrent temper outbursts (verbal or behavioral)
  - Outbursts are out of proportion to the stressor or developmental age
  - Mood between episodes: Persistently angry or irritable
  - Differentiation from Intermittent Explosive Disorder (IED):
    → IED: Patient is normal between episodes.
    → DMDD: Mood is dysregulated/irritable even between outbursts.
- Management: CBT

PYQs

00:32:00

Q. A 13-year-old boy committed murder, of someone and when police were arresting him, he was worried about the jacket he left behind at the crime scene and not about his arrest by the police. What is the likely diagnosis?

a. Antisocial personality disorder
b. Conduct disorder
c. Oppositional defiant disorder
d. Adjustment disorder

Ans: b

Q. Cannabidiol is not used for?

a. Dravet syndrome
b. Tuberous Sclerosis Complex
c. Lennox-Gastaut syndrome
d. Rett syndrome

Ans: d

Q. Untreated ADHD persisting in childhood increases the risk of development of which of the following in adolescence?

a. Selective mutism
b. Conduct disorder
c. Binge eating disorder
d. Separation anxiety disorder

Ans: b

Q. Which of the following selective norepinephrine reuptake inhibitors is used in ADHD?

a. Methylphenidate
b. Guanfacine/ Clonidine
c. Modafinil
d. Reboxetine

Ans: d

Q. A 7-year-old child frequently shows anger outbursts that are disproportionate to the situation/developmental age and persist over time for 1 year. His mood is irritable most of the time in between episodes. What is the likely diagnosis?

a. Attention Deficit/Hyperactivity Disorder
b. Conduct disorder
c. Oppositional Defiant Disorder
d. Disruptive Mood Dysregulation Disorder

Ans: d

Q. Which of the following is not included in the diagnosis of autism spectrum disorder?

a. Abnormalities in communication
b. Restricted pattern of behavior and interest
c. Abnormalities in socializing
d. Impairment in cognition/ cognitive decline

Ans: d

13. SLEEP DISORDERS

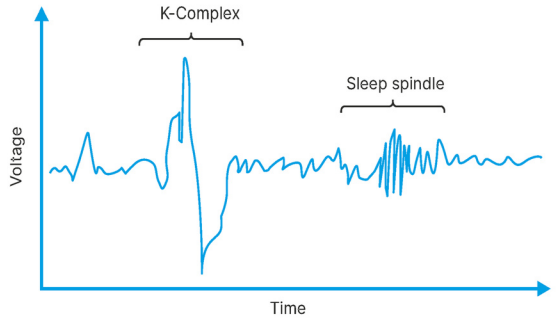
BASICS

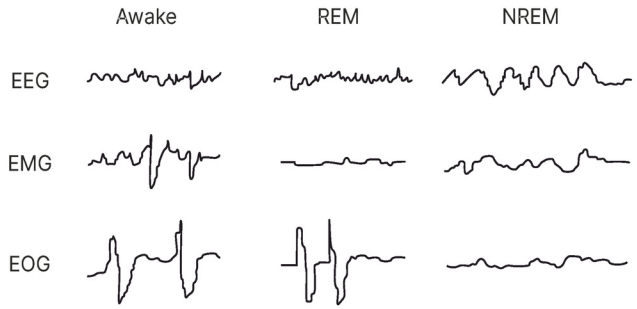
00:00:13

- Sleep is made up of 2 physiological states:
  - Non-rapid eye movement (N-REM): 1st stage
  - Rapid eye movement (REM)

NREM (75%)	REM (25%)
• Stage 1: N1 5% • Stage 2: N2 45% (max) • Stage 3 & 4: N3 25%	• EEG: beta and alpha waves • Muscle tone is paralysis: atonia

- Beta waves: seen when awake and eyes are open, a high-frequency wave
- Alpha waves: awake, but eyes are closed

Stages	EEG	EOG	EMG
N1	Loss of alpha wave → theta wave (4-7 Hz)	Slow eye movements	Tonic activity decreases
N2	Sleep spindles K-complex 	None	Low tonic activity
N3 (deep sleep)	Delta waves (slow waves, high amplitude): 3-7 Hz	None	Low tonic activity
REM	Increased activity similar to the awake state (beta and alpha waves) Sawtooth waves	Fast activity	Paralysis



- A: Awake
- B: REM
- C: NREM (N3)

	NREM	REM
	Orthodox sleep	**Paradoxical sleep**
Brain activity and physiological activity	Lower than awake	Increased, except for muscle tone (paralysis)
Dreams	Not remembered	Remembered
Penile erection	-	+
Body movements	+	-
Disorders	• Somnambulism • Night terror • Bruxism • Somniloquy • Nocturna enuresis	• Narcolepsy • Night mares • REM sleep behaviour disorder • Sleep apnea

PARASOMNIAS:

00:09:00

- Disorders of partial arousal

NREM-related Parasomnias:

- Somnambulism/Sleep Walking:
  - Person engage in motor behaviour while unconscious
  - Difficult to awaken, may appear confused if awakened, and may react violently
  - Common in children, after adolescence usually disappears
  - Treatment: reassurance and BZDs
- Sleep Terrors/Night Terrors:
  - Sudden arousal with fearfulness (may scream, cry, panic symptoms)
  - Appear confused if awakened
  - Unable to recall any dream
- Bruxism/Teeth Grinding:
  - A person grinds teeth, making loud sounds
  - May damage enamel
  - Wear an oral appliance, such as a mouthguard, to protect teeth
- Somniloquy/Sleep Talking:
  - A person talks during sleep
  - Unable to recall in the morning

REM-related Parasomnias:

- Nightmare Disorder:
  - Sudden arousal with fearfulness
  - Able to recall any dream
  - Behavioral techniques may be used

- BZD may also be helpful
- Prazosin (alpha-1 antagonist)

- Rem Sleep Behavior Disorder:
  - Seen in lewy body dementia
  - Failure of patient to have atonia (paralysis in sleep)
  - During REM sleep
  - Leading to the enactment of dreams, like punching, kicking
  - Seems unaware of the environment.
- Narcolepsy:
  - Tetrad of symptoms,
    → Sleep attacks: MC, strong urge of excessive daytime sleepiness
    → Cataplexy: Sudden loss of muscle tone; person may fall, triggered by emotional outbursts
    → Sleep paralysis: person wakes up but is able to move the body
    → Hypnagogic and hypnopompic hallucinations: going to sleep and coming out of sleep, respectively
  - Reduced REM latency
  - Deficiency of hypocretin (orexin) in the lateral hypothalamus
  - Management:
    → Regimen of forced naps at regular intervals
    → Wake-promoting agents:
      - Modafinil
      - Armodafinil
      - Pitolisant (H3 antagonist/inverse agonist)
      - Solriampetol (NDRI)
    → For cataplexy,
      - Antidepressants that increase NE or serotonin
      - SSRI, venlafaxine
      - Sodium oxybate is also effective

KLEINE LEVIN SYNDROME

00:16:23

- Episodes of,
  - Hypersomnia
  - Hyperphagia
  - Hypersexuality
  - Disinhibition (e.g., aggression)
- In between episodes, the patient is asymptomatic

IMPORTANT CONDITIONS RELATED WITH INSOMNIAS

Restless Leg Syndrome:

- Irresistible urge to overleg at rest or trying to fall asleep
- Uncomfortable sensations in the legs, such as an insect crawling
- Rx: Gabapentin (DOC), dopamine agonist: pramipexole, ropinirole, rotigotine

Periodic Limb Movement Disorder:

- Sudden contraction of groups of muscle (usually leg) while sleeping
- Can lead to brief arousal from sleep
- Treatment: BZD

14. SEXUAL DISORDERS

Phases Of Sexual Response Cycle

00:00:09

- **Mnemonic: DOER**

D – Desire Phase

- Includes sexual urges
- Sexual wishes
- Desire to engage in sexual activity

E – Excitement Phase / Arousal Phase

- Subjective feeling of sexual pleasure
- Accompanied by physiological changes:
  - Increase in heart rate
  - Increase in blood pressure
  - Increase in respiratory rate
- In males
  - Penile erection occurs
  - Remember: E for erection, E for excitement
  - Erectile dysfunction in males is a disorder of the excitement phase
- In females
  - Vaginal lubrication occurs

O – Orgasm Phase

- Smallest stage
- Lasts for 3-15 seconds
- Stage of peak sexual pleasure
- In males
  - Ejaculation/discharge of semen
- In females
  - Involuntary contraction of lower one-third of vagina
  - Contraction of uterus
- Premature ejaculation & anorganism are the problems of the orgasm phase

R – Resolution Phase

- Body goes back to resting stage
- All physiological changes return to normal
- Lasts for around 10-15 minutes

Male Erectile Disorder / Erectile Dysfunction

00:02:00

- Erection occurs in the excitement phase; therefore, it is a disorder of excitement phase
- Difficulty in:

- Obtaining erection
- Maintaining erection required for satisfactory intercourse

Causes

- Psychogenic cause
- Organic cause

Psychogenic Erectile Dysfunction

- Due to psychological factors like:
  - Anxiety
  - Stress
  - Depression
  - Marital problems
- More common cause of ED

Organic Erectile Dysfunction

- Due to medical causes like:
  - Vascular problem
  - Diabetes mellitus
  - Arteriosclerosis
  - Neurological disorder
- More common in older age
- Especially if age is >50 years

Difference Between Psychogenic And Organic Ed

Feature	Psychogenic ED	Organic ED
Cause	Psychological factors	Medical / anatomical cause
Early morning erection	Present	Absent
Nocturnal erection	Present	Absent / abnormal
Nocturnal penile tumescence	Normal	Abnormal
Penile plethysmography	Normal	Abnormal
Common age group	More common overall	More common in age >50 years

Treatment

- Pharmacological
- Non-pharmacological

Pharmacological Treatment

PDE-5 inhibitors

- Nitric oxide enhancers

- Facilitate blood flow into penis
- Enhance erection
- Examples
  - Sildenafil
  - Vardenafil
  - Ranolafil
  - Tadalafil- one of the longer-acting drugs
- Contraindication
  - Should not be used along with organic nitrates
  - Can cause fall in blood pressure

Non-Pharmacological Treatment

Dual Sex Therapy / Sex Therapy

- Given by Masters and Johnson
- Couple is treated, not just the patient
- Effective for other sexual disorders also

Sensate Focus Exercises

- Used especially for erectile dysfunction
- Non-genital sensate focus
  - Partner stimulates non-genital body parts
  - Parts other than Genitals & Breasts
- Genital sensate focus
  - Focus on: Genitals & Breasts

Premature Ejaculation

00:05:35

- Ejaculation occurs prematurely
- Since ejaculation occurs in orgasm phase, it is a disorder of orgasm phase

Definition

- Persistent or recurrent ejaculation before vaginal penetration or immediately after vaginal penetration

Dsm-5 Point

- Ejaculation within <1 minute of vaginal penetration = premature ejaculation
- Severe premature ejaculation = ejaculation within <15 seconds

Cause

- Usually psychogenic

Treatment

Behaviour Therapies

- Squeeze technique
  - Given by Masters and Johnson
  - When ejaculation is about to occur:
    → Male partner himself or partner

→ Squeezes the coronal ridge of the glans
- Results in the inhibition of ejaculation
- Raises the threshold of penile excitability

- Stop-start technique
  - Given by Semans
  - When ejaculation is about to occur:
    → Stop sexual activity for some time
    → Restart after excitement decreases
  - Increases the threshold of penile excitement

Drugs

- SSRIs
  - Used because they delay ejaculation
  - Example: Paroxetine

Important Information

- **Nymphomania-** Excessive sexual desire in females
- **Satyriasi-** Excessive sexual desire in males

Disorders Of Sexual Preferences

00:07:39

- Also known as:
  - Paraphilias
  - Sexual perversions
- Sexual stimuli or act deviates from normal sexual behavior
- Necessary for some people to experience orgasm or arousal

Types Of Paraphilias

Fetishism

- Sexual arousal by objects intimately associated with human body
- Examples:
  - Gloves
  - Shoes
  - Non-genital body parts

Partialism

- Sexual arousal from non-genital body parts

Transvestism / Eonism

- Sexual arousal by dressing in opposite gender clothes

Frotteurism

- Sexual arousal by touching or rubbing against non-consenting person in public

Exhibitionism

- Sexual arousal by exposing / exhibiting genitals to:

- Strangers
- Unsuspecting persons

Voyeurism

- Sexual arousal by observing people:
  - Undressing themselves
  - Engaged in sexual activity
  - Engaged in intimate behaviour
- Also known as:
  - Peeping Tom
  - Scopophilia

Pedophilia

- Sexual urges towards children 13 years of age or less

Masochism

- Sexual arousal by suffering on oneself
- Example:
  - Being humiliated
  - Beaten
  - Bound

Sadism

- Sexual arousal by physical or psychological suffering on the other person

Gender Identity Disorder

00:09:49

- In DSM-5 → Gender dysphoria
- In ICD-11 → Gender incongruence

Gender Identity

- Sense one has of being a male or female
- Usually corresponds to person's anatomical sex

Gender Identity Disorder Of Childhood

- Marked incongruence between:
  - Expressed gender
  - Assigned gender

Example

- Child born as male but feels that he is female

Features

- Occurs in prepubertal children
- Strong desire to be of other gender
- Preference for cross-dressing

- Preference for toys or games of other gender
- May dislike one's own sexual anatomy

Transsexualism

- Trans = opposite
- Person desires to live and be accepted as a member of the opposite gender
- Accompanied by discomfort or inappropriateness of one's anatomical sex

Example

- Anatomically female but wants to live and be accepted as male

Features

- Usually develops in Adolescence or Adulthood
- Patient may want:
  - Hormonal treatment
  - Surgery
- Wants body to become as close as possible to desired gender
- Transsexual identity should be present for at least 2 years

Common Expressions

- "I am a man trapped in the body of a female"
- "I am a female trapped in the body of a male"

Treatment

- Bring the person as close as possible to the desired gender

HORMONAL THERAPY	SURGICAL TREATMENT
If a female wants to live as a male • Testosterone therapy • Increase in muscle mass • Cessation of menses • Voice becomes deeper If a male wants to live as a female • Estrogen + progesterone • Testosterone blockers • Breast growth • Erection decreases	• Gender affirming surgery • Earlier known as sex reassignment surgery If a male wants to live as a female • Breast may be added • Penis may be removed If a female wants to live as a male • The breast may be removed • A false penis may be created • Hormonal treatment is also given during surgeries

Transsexualism Vs Transvestism

Feature	Transsexualism	Transvestism
Core issue	Wants to live as opposite gender	Gets sexual arousal by wearing opposite gender clothes

Purpose of opposite gender clothing	Identity-related	Arousal / orgasm-related

MCQs

00:13:40

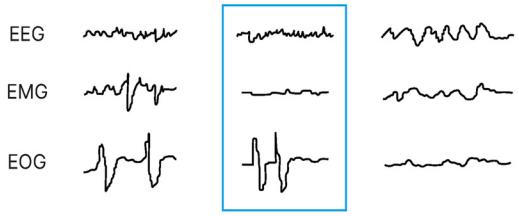
Q. An EEG recording was done in a resting, normal awake patient, and the patient was asked to close their eyes for some time. On opening the eye, which wave is likely to decrease?

a. Alpha
b. Beta
c. Delta
d. Theta

Ans: a

Q. Which of the following sleep stage is represented in the image?

a. NREM 1
b. NREM 2
c. NREM 3
d. REM



Ans: d

Q. Not true about Somnambulism?

a. Disorder of sleep arousal
b. Also known as sleepwalking
c. Consciousness is preserved
d. Low-level motor skill is present

Ans: c

Q. Match the following?

Column A	Column B
a. Frotteurism	Sexual gratification by pain
b. Eonism	Rubbing of private parts
c. Necrophilia	Wearing clothes of the opposite sex
d. Algolagnia	Sexual intercourse with a dead body

a. a1, b3, c4, d2
b. a2, b4, c3, d1
c. a4, b2, c3, d1
d. a2, b3, c4, d1

Ans: d

Q. Excessive sexual desire in male is known as?
a. Nymphomania
b. Satyriasis
c. Fetishism
d. Voyeurism

Ans: b

Q. A patient presents with his wife in the psychiatry clinic due to marital discord, with a clinical history suggestive of premature ejaculation. Which of the following non-pharmacological methods is useful for the couple?
a. Squeeze technique
b. Sensate focus technique
c. Cognitive behavior therapy
d. Exposure and response prevention

Ans: a

Q. A 30-year-old male need to be dressed in female undergarment and high heels to feel aroused and have intercourse with a female. He denies any attraction towards male. What is the likely diagnosis?
a. Gender dysphoria
b. Transvestic fetishism
c. Homosexuality
d. Testicular feminization

Ans: b

15. EATING DISORDERS

ANOREXIA NERVOSA

00:00:09

- Females > males (10:1)
- Most common age of onset: 14-18 years
  - Young adolescent females

Clinical Feature:

- Restriction of energy intake results in significantly lower weight than normal
  - In adults: BMI < 18.5 kg/m^2
  - In children and adolescents: BMI for age under the 5th percentile
- Intense fear of gaining weight or fatness
- Disturbance of body image

DSM and ICD-11:

- Amenorrhea has been removed as a necessary criterion.
- Endocrine changes: LH, FSH, estrogen, and testosterone are decreased
- Prolactin increased
- Have delayed sexual development
- Adult patients may show decreased interest in sexual activities

Subtypes

Restricting Subtype:	Binge-eating/purging:

• Seen in 50% of patients
• Highly restricted diet
• May do excessive exercises
	• Intake of large amount of food in short adoration, with associated feeling of lack of self control
	• Compensatory mechanism for excessive calories by:
	  ○ Self-induced vomiting
	  ○ Laxative use
	  ○ Diuretic or emetic

- The most common comorbid psychiatric disorder is depression

Course and Prognosis:

- High mortality rate: as high as any psychiatric illness
- Most deaths: medical complications of low weight and malnutrition
- Suicide is another cause of death (1 in 5)
- The rate is higher in the binge-eating/purging type

Treatment:

- Patients are often secretive, deny their symptoms, and resist treatment
- Hospitalization may be required
  - To restore patients' nutritional status and manage complications like dehydration and electrolyte (decreased Na, K, Cl),
  - Patients who are 20% below normal weight for height (long-term psychiatric hospitalizations required for patients who are 30% below normal weight for height)
- Nutritional rehabilitation and weight restoration:
  - Primary treatment goal
  - Calorie intake of 1500-1800 kcal/day (divided into meals) and gradually increased to 3500-4000 kcal/day
- No weight gain after one week of calorie intake initiation:
  - Monitor patients for 2 hours after each meal (to prevent self-induced vomiting)
- Refeeding syndrome:
  - Because the patient is on calorie restriction and now that it has been restored, thiamine deficiency occurs, a decrease in phosphate, potassium, and magnesium, and can present with cardiac arrhythmias
- Cognitive behavioural therapy (CBT)
  - Praise the patient for healthy eating habits
  - Restriction of self-induced vomiting
- SSRI: patient may benefit
- Antipsychotics: olanzapine
  - Shown promise in promoting weight gain
  - Reducing distressing psychological symptoms

BULIMIA NERVOSA:

00:07:35

- Females > Males (10:1)
- The most common age of onset is late adolescence - young adulthood

Clinical Features:

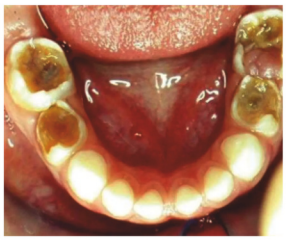
- Episodes of binge eating combined with inappropriate ways of preventing weight gain
- A large amount of food is consumed in a shorter duration
- With an associated feeling of lack of control during binge episodes
- Compensatory behaviors to prevent weight gain include
  - Purging behaviours like self-induced vomiting, laxatives, diuretics, and emetics
  - Excessive exercise, fasting
- At least 1 episode/week for 3 months
- May also have fear of gaining weight or desire to lose weight
- Differentiate from anorexia nervosa
  - Weight: normal or increased in Bulimia nervosa
  - Weight is decreased in anorexia nervosa
- Mostly are sexually active, compared to anorexia nervosa who are not interested in sexual activities
- Some patients may have menstrual irregularities

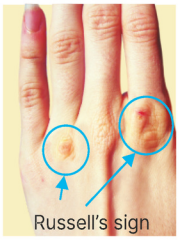
Features Secondary to Purging,

- Enamel erosion and dental caries
- Swollen parotid and salivary glands

Yourwish

- Russell's sign: callus on knuckles
- Hypokalemia, hypochloremia, hyponatremia: metabolic alkalosis
- Rarely is there a gastric and esophageal tear during forceful vomiting





Treatment:

- Usually outpatient
- Psychotherapy: CBT is the 1st line treatment
- Pharmacotherapy:
  - SSRI: fluoxetine
  - Bupropion is C/I due to increased risk of seizures

BINGE EATING DISORDER:

00:11:43

- Most common eating disorder
- Females > males (1.75:1)
- Episodes of binge eating, but there is no compensatory behavior
- There is a sense of lack of self-control
- Weight often is in the overweight/obese range: BMI increased

Treatment

- CBT is first-line
- SSRI may be used
- Lisdexamphetamine is approved by FDA for short-term treatment of bed (decreasing weight and binge episodes)

Lifetime prevalence		Bulimia nervosa	Anorexia nervosa
	Female	2%	1.4%
	Male	0.6%	0.2%

SCOFF QUESTIONNAIRE:

00:13:23

- Screening tool for eating disorder
  - S: Do you make yourself sick because you feel uncomfortably full?
  - C: Do you worry that you lost control over how much you eat?
  - O: lost > one stone (14 lb / 6.35 kg) in 3 months?
  - F: Do you believe yourself to be fat when others say you are too thin?
  - F: Does food dominate your life?
- For diagnosis: if answer to 2 or more is yes

SUMMARY

	Anorexia nervosa	Bulimia nervosa	Binge eating disorder
Avoidance	+	-	-
Binge eating	+	+	+
Compensation	+	+	-
Weight/BMI	Decreased	Normal/Increased	Very high

16. PERSONALITY DISORDERS

PERSONALITY DISORDERS

00:00:08

- How an individual deals with day-to-day situations
- Personality usually remains stable over time (e.g., 10–15 years)
- Definition
  - Enduring patterns of behavior & inner experiences that deviate significantly from the individual's cultural standards lead to clinically significant distress or impairment in functioning.
- Onset: Typically occurs during adolescence or early adulthood
- Symptoms remain stable through time
- Some personality disorders (e.g., Antisocial, Borderline) tend to become less evident with age or remit with age
- Maturation occurs by 40 years, resolution of abnormal patterns of behaviour

Classification

Cluster A	Cluster B	Cluster C
• Paranoid Personality Disorder • Schizoid PD • Schizotypal PD	• Antisocial PD • Borderline PD • Histriconic PD • Narcissistic PD	• Avoidant PD • Dependent PD • Obsessive compulsive PD
• Characteristic: weird (ODD/ eccentric behaviour)	• Characteristic: Wild (Dramatic/ Impulsive)	• Characteristic: Worried (Anxious/ fearful)

Cluster A

Paranoid Personality Disorder	• No delusions or hallucinations (if present, consider psychotic disorders) • Long-standing suspiciousness • Distrust of others; belief that people have ulterior motives even for neutral events. • Tendency to bear grudges.
Schizoid Personality Disorder	• Long pattern of social withdrawal • Appears emotionally cold • Indifferent to both praise and criticism • Preference for solitary activities over group activities • Lack of close friends and little interest in sexual activities
Schizotypal Personality Disorder	• Social difficulties and eccentric behavior. • Odd beliefs (e.g., magical thinking, superstition, 6th sense, black magic, telepathy). • Over-elaborate or vague speech • May experience illusions or ideas of reference (not reaching the level of delusions) • Highest risk for developing Schizophrenia compared to other Cluster A disorders • ICD-11 Classifies Schizotypal as a Psychotic Disorder, not a Personality Disorder

Management

- Mainstay: Psychotherapy (Individual).
- Therapist should be straightforward in dealing with patients

Cluster B

Antisocial Personality Disorder	• Aka Dissocial personality disorder • Disregard for the rights of others (often violates them) • Engagement in unlawful activities (theft, lying, conning). • High irritability and aggressiveness (physical fights/assaults) • Lack of guilt or remorse for actions • More common in males • Diagnosis requires the individual to be at least 18 years old • Evidence of Conduct Disorder must be present before age 15 • Frequently associated with Substance Use Disorders

Borderline Personality Disorder	• More common in females
	• Unstable interpersonal relationships (rapidly shifting from idealization to devaluation)
	• Identity disturbance (unstable self-image; shifts in goals, values, or sexual identity)
	• Impulsivity in self-damaging areas (reckless driving, spending, substance use)
	• Recurrent suicidal behavior, gestures, or threats.
	  ○ Physical signs: Multiple intentional cut marks or wrist slashing
	• Unstable mood and sudden anger outbursts
	• Chronic feelings of emptiness
	• Frequent states of crisis and potential "micro-psychotic" episodes (short-lived/fleeting)
	• Defence mechanism of Splitting (all or none/black or white) is often seen
	
	Management
	• TOC: Dialectical Behavior Therapy (DBT) by Marsha Linehan
	• Other therapies
	  ○ Mentalization-based therapy
	  ○ Transference-focused psychotherapy.

Histrionic Personality Disorder	• Key feature: Attention-seeking behavior. • Desire to be the center of attention. • Exaggerated/dramatic expression of emotions. • Uses physical appearance to draw attention. • Inappropriately sexually seductive or flirtatious behavior
Narcissistic Personality Disorder	• Heightened sense of self-importance • Expects special treatment despite modest achievements • Preoccupied with fantasies of unlimited power or success • Requires excessive admiration ("buttering up") • Exploitative toward others (juniors/colleagues) and lacks empathy

Cluster C

Anxious /Avoidant Personality Disorder	• Extremely sensitive to rejection. • Avoids public speaking or sharing opinions due to fear of criticism/rejection • Unwilling to get involved with people unless certain of being liked. • Views self as socially inept or inferior
Dependent Personality Disorder	• Relies on others for everyday decisions (e.g., what to eat/wear) • Requires constant advice and reassurance • Needs others to assume responsibility for major areas of life • Difficulty expressing disagreement due to fear of losing support • Lacks confidence to initiate new tasks
Obsessive -compulsive Disorder	• No actual obsessions or compulsions (unlike OCD) • The patient does not think their behavior is wrong (unlike OCD, which is ego-dystonic) • Preoccupied with rules, details, and organization • Perfectionism that interferes with task completion or causes significant delays • Rigid, stubborn, and inflexible • Excessive devotion to work at the expense of leisure and friendships • Marked frugality (reluctance to spend money)

Important Information

- ICD-11 Update:
  - Older classifications of personality disorders are removed
  - Personality Disorder is now classified by severity into Mild, Moderate, and Severe

Other Classification

Type A Personality

- Competitive, ambitious, and impatient.
- Sense of "time urgency" and potential hostility.
- Health Risk: 2-fold risk of Myocardial Infarction and CAD-related mortality.

Type B Personality

- Easy-going, relaxed, and non-competitive
- Focused on enjoyment rather than winning

Type D Personality

- Characterized by "Negative Affectivity" (tendency for negative emotions) and "Social Inhibition" (not expressing emotions).
- Health Risk: Increased risk of Coronary Heart Disease.

MCQs

00:16:02

Q. A young girl with anorexia nervosa is on treatment. Even after giving adequate food according to the recommended diet plan for last 1 week, there is no gain of weight. What is the next step in management?

A. Increase fluid intake
B. Increase the dose of anxiolytics
C. Increase calories intake from 1500 kcal to 200 kcal per day
D. Observe the patient for 2 hours after each meal

Ans: D

Q. A young female reports episodes of binge eating followed by self- Induced vomiting. She is most likely to have which of the following acid- base disturbances?

A. Respiratory acidosis
B. Respiratory alkalosis
C. Metabolic acidosis
D. Metabolic alkalosis

Ans: D

Q. A mother is complaining about her young daughter that she is having a peculiar behavior towards for few months. She eats a lot of burgers in one go and then she vomits them out. He BMI is 27. What is the most likely diagnosis?

A. Anorexia nervosa
B. Bulimia nervosa
C. Pica
D. Binge eating disorder

Ans: B

Q. A friend of patient Mr. K reports that Mr. K is very much obsessed with his schedule and overly focused on rules and details. He is rigid about perfection. He keeps on managing everything systematically. He has been doing this since his adolescence. Mr. K doesn't agree with his friend, and he is not ready to seek any therapy. What is the possible diagnosis?

A. Narcissistic PD
B. Dependent PD
C. Obsessive compulsive PD
D. Paranoid PD

Ans: C

Q. A 16-year-old female patient was referred to psychiatrist by physician for having irresistible urges (cravings) to eat, excessive eating followed by episodes of self-induced vomiting. She was also using appetite suppressant drugs. What is the likely diagnosis?

A. Anorexia nervosa
B. Bulimia nervosa
C. Atypical depression
D. Binge eating disorder

Ans: B

Q. A person who is shy and prefers social isolation, appears emotionally cold. No hallucinations and delusions seen. What is the possible diagnosis?

A. Paranoid PD
B. Schizoid PD
C. Antisocial PD
D. Emotionally Unstable PD

Ans: B

Q. A 24-year-old male presented for evaluation. He appears very calm and charming. He behaves well in front of the psychiatrist, however, often gets into fights with friends, bunk classes, and breaks traffic rules. He is also involved in multiple police cases. What is the likely diagnosis?

A. Narcissistic PD
B. Paranoid PD
C. Schizoid PD
D. Antisocial PD

Ans: D

Q. A 25-year-old male brought by the parents with the complains that he has peculiar interests in telepathy, 6th sense and visits social groups indulged in similar interest. His behavior appears odd and has limited social interactions. These are present since early adolescence. On examination his speech is vague, ideas of reference present. Likely diagnosis?

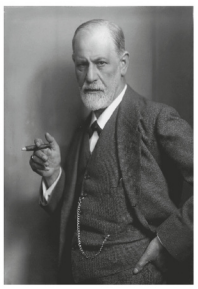
A. Schizophrenia
B. Schizotypal personality disorder
C. Borderline personality disorder
D. Paranoid personality disorder

Ans: B

2. PSYCHOLOGY

SIGMUND FREUD

00:00:30



- Tried to understand the mind
- Gave many theories related to the mind
- Coined the term psychoanalysis
  - Psyche = mind
  - Analysis = analysis of mind
- Said childhood experiences and the unconscious mind impact us
- Also leads to certain psychiatric disorders
- Known as the father of psychoanalysis

PHENOMENA BETWEEN PATIENT AND THERAPIST

00:00:36

Transference

- Feeling of the patient towards the therapist
- May be
  - Unconscious
    → The person is not aware that these feelings have developed
  - Conscious
    → The person is aware that these feelings have developed
- Usually based on some past relationship with a significant figure in the patient's life

Positive transference	Negative transference
Example • A 30-year-old female says to a 50-year-old therapist: ○ "You are very kind" ○ "You are very loving" ○ "Just like my father" ○ "I love coming to your clinic"	**Example** • Another patient says to the therapist: ○ "You are very mean" ○ "You are very rude" ○ "Just like my stepfather" ○ "I will never see your face again"

- Important point
  - The development of transference is not bad
  - It can be used in therapy

Countertransference

- Feeling of the therapist towards the patient
- May be
  - Conscious
  - Unconscious

- Positive
- Negative

MODELS OF MIND GIVEN BY SIGMUND FREUD

Topographical Model Of Mind

- Mind is divided into 3 parts
  - Conscious
  - Preconscious
  - Unconscious

Conscious mind	• Content of which we are aware
	• Examples:
	  ○ What is happening around you
	  ○ What you did yesterday

Preconscious mind	• Content right now not in awareness
	• But it can be brought to awareness by focused attention
	• Example:
	  ○ If asked what you were doing exactly one year back at the same time, you may not know immediately
	  ○ But by going step by step, you may be able to remember

Unconscious mind	• Content of which we are not aware • Example: ○ In dissociative/conversion-related symptoms, the person is not aware that the mind is producing symptoms

Techniques to understanding the unconscious mind

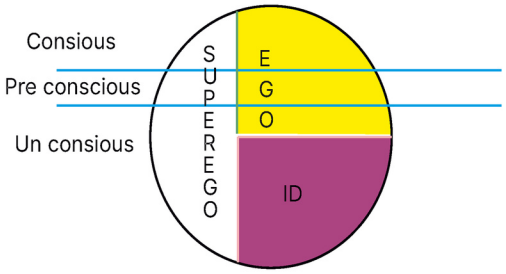
Free association	• Freud asked the client to:
	  ○ Lie down on the couch
	  ○ He would look the other way
	  ○ Keep saying whatever is coming to mind
	  ○ Without any filter
	• He would make notes
	• By this, he tried to understand unconscious content

Dream analysis	• Freud analyzed dreams • In The Interpretation of Dreams, he said: ○ Dream is the royal road to unconsciousness
Slip of tongue / Parapraxis	• Sometimes a person mistakenly says something • It may not be a simple mistake • It may convey important information about the unconscious mind • This may reflect unconscious content

Yourwish

Structural Theory Of Mind

- Mnemonic
  - S for structural
  - S for superego
- Mind divided into
  - Id
  - Ego
  - Superego



Id	• Consists of instinctive drives • Like animal • Based on the pleasure principle • Operates under primary process • Lacks the capacity to delay urges • Wants immediate gratification • Located in the unconscious mind

Ego	• Executive organ of the psyche/mind
	• Works on the reality principle
	• Creates balance between the id, superego, and the real world
	• Spans across
	  ○ Conscious
	  ○ Preconscious
	  ○ Unconscious
	• Uses defense mechanisms
	  ○ To handle stress
	  ○ The majority of defense mechanisms lie in the unconscious mind

Superego	• Moral compass • Insists on socially acceptable behaviour • Begins to develop at 5-6 years of age • Develops after the resolution of the Oedipus complex • Mostly in the unconscious mind • Some component in the conscious mind also

Example of a structural model of the mind

- Suppose a student has exams coming up
- Id says
  - Let's go out
  - Let's party
  - Let's have fun
  - Wants immediate gratification
- Superego says
  - Exams are coming
  - We should study

- Ego comes to the rescue
  - Tries to balance the id and the superego
  - Example:
    → Let's study for half a day
    → Then we will go out and have fun

Defense Mechanisms

- Used by the ego
- Prevent the development of excessive anxiety
- Create a balance between the id and the superego
- The majority are unconscious
- **Categories Of Defense Mechanisms**
  - Mnemonic: NIMN
    → N = Narcissistic
    → I = Immature
    → N = Neurotic
    → M = Mature

Narcissistic Defense Mechanisms

Projection	• Projecting one's own inner conflict/desire onto another person
	• Example:
	  ○ A man himself has an extramarital affair
	  ○ But he is convinced that his wife has an extramarital affair
	• Seen in psychotic disorders like schizophrenia

Denial	• Not allowing reality to penetrate in
	• Example:
	  ○ A lady hears on the radio that her husband, a soldier, has died in the war
	  ○ She continues to cook as if nothing has happened
	• The mind does not allow news to reach awareness

Splitting	• Black-or-white thinking • All-or-none thinking

Immature Defense Mechanisms

Acting out	• Unconscious wishes/impulses are enacted in behaviour
	• Examples:
	  ○ A person is very afraid while walking alone at night, but starts whistling or singing
	  ○ A student is angry with a friend, but instead of saying it, throws a book at him
	• Seen in impulse control disorders

Regression	• Returning to the earlier stage of development • Used to avoid the anxieties/hostilities of the later stage • Examples: ○ A 10-year-old child who had bladder control starts bedwetting again after the birth of a younger sibling

Neurotic Defense Mechanisms 00:11:00

Mnemonic

- We watched the movie 3 Idiots in 3D in the third row
- So remember:
  - 3 I's
  - 3 D's
  - 3 R's

Three I's

Intellectualization	• Using intelligence/intellect to handle painful emotions
	• Example:
	  ○ Patient is told he has a grade 4 pancreatic tumor
	  ○ Instead of reacting emotionally, ask:
	  → Histopathology of the pancreas
	  → Anatomy of the pancreas
	  → Four stages of pancreatic tumor

Inhibition	• Unconsciously limiting an aim and accepting partial fulfilment of desire
	• Example:
	  ○ A person could not clear the MBBS entrance
	  ○ Becomes a veterinary doctor instead

Isolation Of Affect	• Separating emotions from a stressful event
	• Reality is accepted
	• Example:
	  ○ A man tells his family he has lung cancer
	  ○ Accepts it but without any emotion

Three D's

Displacement	• Unconscious shifting of impulses from one object to another
	• Example:
	  ○ Husband scolded by boss
	  ○ Shouts at wife
	  ○ Wife shouts at son
	  ○ Son punches friend
	• Anger gets displaced downward

Undoing	• An act done to nullify a previous act
	• Examples:
	  ○ When a negative thought comes, the person says, "touch wood"
	  ○ A man sexually provoked by seeing a woman outside immediately buys flowers for his wife

Dissociation	• Separation of one or more mental functions from the remaining functions to avoid distress • Example: ○ A kidnapped person says it was as if he was floating on the ceiling and watching the event happen to him

Three R's

Rationalization	• Giving a rational explanation for his unacceptable behaviour
	• Examples:
	  ○ In antisocial behaviour, a person says:
	  → "It is good he has gone"
	  → "He deserved to die"
	  ○ In substance use disorder:
	  → "I drink alcohol because it kills all germs in my body"
	• In substance use disorder, denial may also be seen
	  ○ Example:
	  → Patient says he drinks only a little
	  → Family says one full bottle every day

Reaction Formation	• Unacceptable impulse transformed into its opposite • Example: ○ A boy fascinated by porn starts an anti-pornography campaign
Repression	• An idea or feeling is eliminated from consciousness • A person cannot access it • You forget, and then you forget that you have forgotten it • Example: ○ Child is abused by the mother, and now has no memory of the abuse

Mature Defense Mechanisms 00:15:13

- Mnemonic: ASH
  - A = 3
  - S = 2
  - H = 1

Yourwish

Altruism	• Using constructive and gratifying service to others
	• May be harmful to self
	• A person handles their own emotions by doing service for others
	• Example:
	  ○ Manjhi, the mountain man
	  ○ He could not save his wife
	  ○ Could not take her to the hospital at the right time
	  ○ He spent years building a road through the mountain

Anticipation	• Anticipating that something bad will happen in the future
	• Planning about it in advance
	• Example:
	  ○ A girl fails the exam
	  ○ While walking home, she keeps thinking: What excuse will I give to mummy and papa?

Asceticism	• Ascetic = monk-like
	• Eradicating the pleasurable effects of experience
	• Example:
	  ○ A person is so engrossed in office work
	  ○ He does not even have time to eat

Sublimation	• Channeling unacceptable impulses into socially acceptable behaviour
	• Example:
	  ○ A child is scolded by their mother
	  ○ He feels very angry
	  ○ He goes and scores a century for his team

Suppression	• Exception: Suppression is a conscious defense mechanism
	• Consciously deciding to postpone attention to an impulse or conflict
	• Example:
	  ○ A student has studied for many days
	  ○ He consciously decides:
	  → Today I will take a break and enjoy my day

Humor	• Using humor/comedy to deal with unpleasant emotions or situations
	• Example:
	  ○ A student is badly scolded by the examiner in the viva
	  ○ Comes out and narrates the whole event in a funny way

Defense Mechanisms In Ocd

00:17:24

- Mnemonic: RUDI
  - R = Reaction formation
  - U = Undoing
  - D = Displacement
  - I = Inhibition
  - I = Isolation of affect

PSYCHOSEXUAL STAGES OF DEVELOPMENT – SIGMUND FREUD

00:17:50

- Freud proposed that all of us pass through 5 stages of psychosexual development
- Sometimes development may get arrested at a particular stage
- This is called fixation
- Fixation at one stage may later lead to psychiatric disorders
- These are hypotheses

Psychosexual Stages Of Development

Stage	Age	Main point	Fixation may cause
Oral	Birth – 1.5 years	Pleasure through the oral cavity	Schizophrenia, substance dependence
Anal	1.5 – 3 years	Pleasure through excretion	OCD, OCPD
Phallic	3 – 5 years	Pleasure by genital stimulation	Hysteria/somatization-related disorders, sexual deviations **Male child develops:** Oedipus complex- Attraction towards the mother Castration anxiety- fear of castration by the father if he finds out the child's attraction towards the mother **Female child develops:** Electra complex- Attraction towards the father Penis envy- Discontent with the female genitalia following a fantasy that it resulted from the loss of a penis
Latency	5–6 years to 11–13 years	Sexually quiescent stage	Superego formation, mastery of skills
Genital	11–13 years – young adulthood	Maturation of genital function	Development of adult sexuality and identity

MCQs

00:20:50

Q. Which of the following is not a defense mechanism?

a. Regression
b. Displacement
c. Rationalization
d. Replacement

Ans: d

Q. A patient visiting the psychiatry OPD shows stubbornness and frugality. Fixation in which of the following stages is seen?
a. Oral
b. Anal
c. Phallic
d. latent

Ans: b

Q. During therapy, the therapist has mixed conscious and unconscious feelings towards the patient, regardless of the patient. Therapist keeps his own unmet needs towards the patient. This is known as?
a. Transference
b. Terapeutic alliance
c. Countertransference
d. Dissociation

Ans: c

Q. All of the following are correct about the structural theory of mind except:
a. Id works on the pleasure principle
b. Ego uses defense mechanisms to relieve anxiety
c. Superego is the moral compass
d. Superego is present at birth and is in unconscious mind

Ans: c

18.FORENSIC PSYCHIATRY AND MISCELLANEOUS TOPICS

MENTAL HEALTH CARE ACT 2017

- New legislation dealing with the treatment and rights of patients with mental illness
- Introduced the term "Mental Health Establishment" for hospitals where patients are treated

Capacity

- Assess the ability to make mental health care and treatment decisions
- Assessment criteria:
  - Patient understands the information relevant to deciding on treatment or admission
  - Patient understands the consequences of the decision (or lack thereof)
  - Patient is able to communicate the decision

Advance Directive

INICET 2021

- Anyone in India aged 18 and above can write one
- Contents:
  - Desired treatment methods for future mental illness
  - Treatment methods to be avoided
  - Appointment of a Nominated Representative (NR)
- Applicability: Active only if the person loses the capacity to make treatment decisions

Nominated Representative

- Every person can appoint a Nominated Representative.
- If a person loses the capacity to make mental healthcare or treatment decisions, their Nominated Representative will help (or will take) in taking decisions about the treatment of the person

Admission Types

Independent Admission

- When the patient himself wants to get admitted and has the capacity to make mental health and treatment decisions.

Supported Admission

- A person who needs admission (Threatened/Attempted Bodily Harm to himself/to others, or Unable to care for himself, leading to risk of harm to himself)
- However, they have lost the capacity to make mental healthcare or treatment decisions, hence need a high level of support from a nominated representative who gives consent for admission in this case
- Section 89: Admission and treatment with high support needs can be done for up to 30 days (extendable)

Prohibited Procedures

- Direct ECT: Electroconvulsive therapy without muscle relaxants and anesthesia is banned
  - Modified/Indirect ECT: Must be administered under anesthesia and muscle relaxants

- ECT for Minors: Generally prohibited; requires informed consent from guardians and prior permission from the Mental Health Review Board.
- Psychosurgery: Restricted; if the psychiatrist recommends, then he needs to obtain informed consent from the patient and approval from the Mental Health Review Board.

Decriminalisation Of Suicide

- Previously punishable under Section 309 of the IPC
- MHCA 2017 assumes a person attempting suicide is under tremendous stress
- Section 309 IPC is now replaced by the Bharatiya Nyaya Sanhita (BNS)
- There is no corresponding punishable section for suicide in the BNS

LITHIUM

00:26:10

FMGE 2022,
Neet PG 2023

- Classified as a mood stabilizer
- Studied extensively by John Cade
- It is a monovalent ion/element
- 100% absorbed after oral administration
- Does not bind to plasma proteins
- Not metabolized in the body; excreted unchanged through the kidneys
- Dosing in Renal Disease: ↓ Kidney function → ↓ Lithium dose to prevent toxicity.

Therapeutic Range

- Narrow therapeutic range: 0.5 to 1.5 mEq/L
  - Level <0.5 → No effect
  - Level >1.5 → Signs of toxicity
- Acute Mania: 1.0 to 1.5 mEq/L
- Maintenance: 0.6 to 1.2 mEq/L

Antisuicidal Properties

- Lithium possesses anti-suicidal properties
- Other treatments with anti-suicidal properties: Clozapine (Antipsychotic), Ketamine/Esketamine (Antidepressant), and ECT

Side Effects Of Lithium

Mnemonic: LITHIUM

- L - Loss of hair: Alopecia, acne, psoriasis, rash, and loss of appetite
- I - Increase in Leucocyte count
- T - Tremors
  - Fine
  - Postural tremors (8–12 Hz frequency)
  - Treatment: Beta-antagonists (e.g., Propranolol)
- H - Hypothyroidism
  - Can also cause Hyperthyroidism and hyperparathyroidism.
  - Clinical Scenario: Lithium → Hypothyroidism → Leads to rapid cycling bipolar disorder (requires Thyroid Function Test)
- I - Increase in Urine output
  - Lithium-induced Diabetes Insipidus

  - Treatment: Thiazide and Potassium-sparing diuretics.
  - Interaction: Thiazides ↓ renal clearance of Lithium → ↑ Lithium levels → Toxicity (requires ↓ Lithium dose)
- M – Miscellaneous:
  - Weight gain
  - ECG changes: Benign T-wave flattening or inversion
  - C/I in Sick Sinus Syndrome (↓ sinus node activity)
  - Pregnancy: Causes Ebstein's anomaly in the fetus
  - ECT interaction: Lithium lowers seizure threshold and may produce delirium; discontinue 2 days before ECT

Initial Workup

- Kidney Function Test (KFT), Thyroid Function Test (TFT), Serum electrolytes, CBC, ECG
- Pregnancy test for females of childbearing age

Check Ing Lithium Levels

- $T\frac{1}{2}$ - 1 day
- Pt should be at steady-state lithium dosing- After 5 days of constant dosing
- Blood sample should be taken 12 hrs (±30 mins) after the last dose

Toxicity

- The body treats Lithium like Sodium (reabsorbs it during dehydration, vomiting, or diarrhea).
- Mild to Moderate (1.5–2.0 mEq/L): Vomiting, abdominal pain, ataxia, nystagmus, muscle weakness
- Moderate to Severe (2.0–2.5 mEq/L): Anorexia, nausea, vomiting, hyperactive deep tendon reflexes, convulsions, stupor, coma, circulatory failure
- Severe (>2.5 mEq/L): Generalized convulsions, oliguria, renal failure, death

Management Of Lithium Toxicity

- First step: Withhold/stop Lithium
- Correct hydration
- Remove unabsorbed drug using PEG (Polyethylene Glycol) or Sodium Polystyrene Sulfonate
- Activated charcoal has no role
- Hemodialysis: Indicated in severe cases or if concentration >4 mEq/L

MILSAPERIDONE

00:13:52

- Approved by the FDA in 2024
- 2nd generation antipsychotic (converted into Iloperidone)
- Indications: Schizophrenia and Bipolar I disorder (acute manic or mixed episodes)

Mechanism Of Action

- D2 and 5-HT2 antagonist
- Alpha-1 adrenergic receptor antagonist

Precautions and Side Effects

- Intraoperative Floppy Iris Syndrome (during cataract surgery)
- Priapism (due to Alpha-1 antagonism)
- QTc prolongation, Neuroleptic Malignant Syndrome (NMS), leukopenia, agranulocytosis
- Dizziness, somnolence, orthostatic hypotension, weight changes, metabolic effects

SOMATIC TECHNIQUES

00:15:00

- Non-invasive: ECT, rTMS, tDCS
- Invasive: VNS, Deep Brain Stimulation, Psychosurgery

Electroconvulsive Therapy

- Uses electrical current to produce seizures/convulsions
- Always administered as Modified ECT (with anesthesia and muscle relaxant)
- Anesthetic Agents: Methohexital (most common); others include Thiopental, Etomidate, Ketamine, Alfentanil, Propofol
- Muscle Relaxant: Succinylcholine (most common)

Indications

- Major Depressive Disorder (MDD): Most common; preferred for suicidal risk, stupor, agitation, catatonia, or psychotic symptoms
- Manic Episode: Unresponsive to meds or a dangerous level of exhaustion
- Schizophrenia: Catatonic type, medication resistance, or psychotic symptoms
- Others: OCD, NMS, intractable seizure disorder, hypopituitarism, "on-off" phenomenon in Parkinson's

rTMS

- Repetitive Transcranial Magnetic Stimulation
- Rapidly changing magnetic fields to induce small electric currents (eddy currents) in the cortex
- Non-convulsive; no anesthesia required
- Safer side effect profile; no cognitive/memory impairment
- Common side effect: Scalp pain/discomfort.
- FDA approved for: Depression (after failing one antidepressant) and smoking cessation in adults

tDCS

- Transcranial Direct Current Stimulation
- Uses
  - Transcranial Direct Current Stimulation FDA-approved "FL100" home brain stimulation device (Cranial Electrotherapy Stimulator)
  - Worn like a headset to stimulate specific brain areas.
  - Indication: Moderate to severe MDD in adults (not treatment-refractory)

Vagal Nerve Stimulation

- Invasive; involves the left vagal nerve (mostly afferent fibers)
- Pulse generators in the chest stimulate serotonergic brain areas
- Use: Long-term adjunctive treatment for chronic/recurrent depression (failure of 4+ antidepressants)

Deep Brain Stimulation

- Electrodes inserted into deeper brain areas
- FDA approved for OCD (targets: Ventral Striatum or Ventral Capsule)

PROJECTIVE PERSONALITY TESTS

00:20:33

Principle

- Patients are given ambiguous/non-specific stimuli. They project inner conflicts onto the stimuli.

Rorschach Inkblot Test

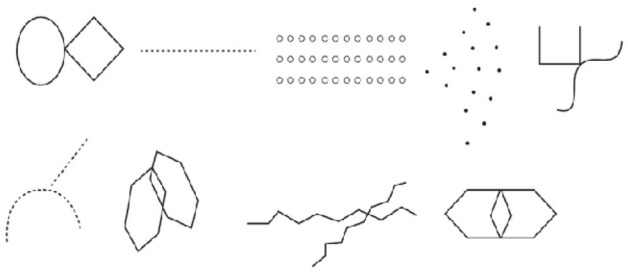
- Developed by Hermann Rorschach
- Most frequent projective test
- Consists of 10 symmetrical inkblot cards
- Interpretation: Patient describes what they see (e.g., mask, pelvis, dogs) to assess unconscious mind content

Thematic Apperception Test

- Consists of 20 pictures of individuals in activities
- Patient tells a short story (past, present, and future of the image)
- Assesses personality and the unconscious mind

Bender Gestalt Test

- Screening tool for organic brain disorders
- Patient is shown 9 images and asked to copy them
- Assesses memory, sensory-motor, language, executive, arithmetic, and visual-spatial functions



SCALES AND PROGRAMS

00:22:50

- HAM-D: Hamilton Rating Scale for Depression (clinician-rated, requires expertise)
- BDI: Beck Depression Inventory (patient-rated; used in community settings)
- PANSS: Positive and Negative Syndrome Scale (used for Schizophrenia)
- SPIKES Protocol: Used for breaking bad news
- HEADS Approach: Used for assessing adolescent patients
- Tele MANAS: National Tele Mental Health Program
  - Helpline: 14416
  - Stands for: Tele Mental Health Assistance and Networking Across States

PYQs

00:24:14

Q. A pregnant female diagnosed with bipolar disorder with a previous history of 4 episodes and no episode in the past 1 year, well controlled with Lithium 750 mg, is now in the third trimester, came to psychiatry. What is the next step in management?

a. Increase lithium dose
b. Decrease the lithium dose
c. Switch to valproate
d. Stop the drug and proceed drug-free

Ans: b

Q. Which of the following ECG changes is most likely to be associated with Lithium therapy?

a. QT prolongation
b. ST elevation
c. ST depression
d. T wave inversion

Ans: d

Q. A female patient with bipolar disorder has been on lithium for the last 1 year. Which of the following side effects is least likely to occur?

a. Hypothyroidism
b. Tremors
c. Tardive dyskinesia
d. Diabetes insipidus

Ans: c

Q. A girl came with a history of schizophrenia to a PHC. Which of the following is a Tel Mental health program provided by the government for India to deliver mental health care services via telephone and online application?

a. Tele MANAS
b. U-WIN
c. NIKUSHT
d. NIKSHAY

Ans: a

Q. A patient was on lithium for bipolar disorder, now fasting due to religious reasons for 2 days, developed vomiting, coarse tremors, and ataxia. Next best line of investigation?

a. Serum Electrolytes
b. Serum Lithium levels
c. EEG
d. MRI Brain

Ans: b

Q. What is the term used in MHCA 2017 for a person who makes a decision related to treatment for the patient, when the patient himself is not in the right state to make those decisions?

a. Nominated representative

b. Advanced directive

c. Advanced nomination

d. Nominated directive

Ans: a