

## **Mood Disorders**

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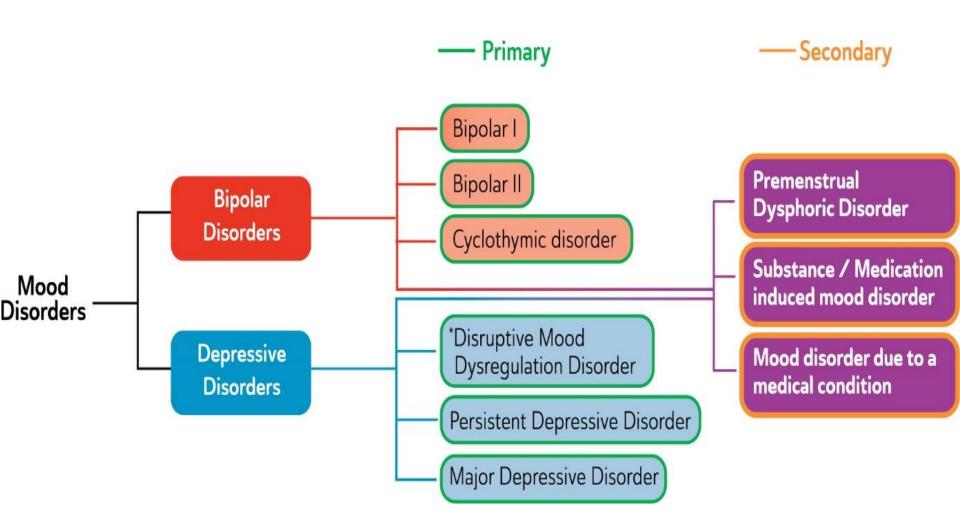
- Mood is a pervasive and sustained feeling tone that is experienced internally and that influences a person's behavior and perception of the world. Long (Climate)
- Affect is the external expression of mood. Short (weather)
- Healthy persons feel in control of their moods & affects.

Mood disorders are a group of clinical conditions characterized by a loss of that sense of control and a subjective experience of great distress.

### **SYMPTOMATIC PATTERNS**

- Patients with **elevated mood** demonstrate expansiveness, flight of ideas, decreased need for sleep, and grandiose ideas.
- Patients with **depressed mood** experience a loss of energy and interest, feelings of guilt, difficulty in concentrating, loss of appetite, and thoughts of death or suicide.
- Other signs & symptoms of mood disorders include change in:
- activity level, cognitive abilities, speech, and biological functions (e.g., sleep, appetite, sexual activity, and other biological rhythms).
- These disorders result in impaired interpersonal, social, and occupational functioning

### **Classification**



## Major Depressive Disorder

### DSM-5 Criteria for Major Depressive Disorder

- A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning: at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.
- Note: Do not include symptoms that are clearly attributable to another medical condition.
- 1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). (Note: In children and adolescents, can be irritable mood.)
- 2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation)
- 3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day.
- (Note: In children, consider failure to make expected weight gain.)

- 4. Insomnia or hypersomnia nearly every day.
- 5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
- 6. Fatigue or loss of energy nearly every day.
- 7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
- 8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
- 9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

- **B.** The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- **C.** The episode is not attributable to the physiological effects of a substance or to another medical condition.
- Note: Criteria A-C represent a major depressive episode.
- **D.** The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.
- **E.** There has never been a manic episode or a hypomanic episode.

# Biological features of

## depression:

- -Sleep
- -Appetite
- -Weight
- -Libido
- -Constipation
- -Diurnal variation
- -Energy
- -Menstrual cycle

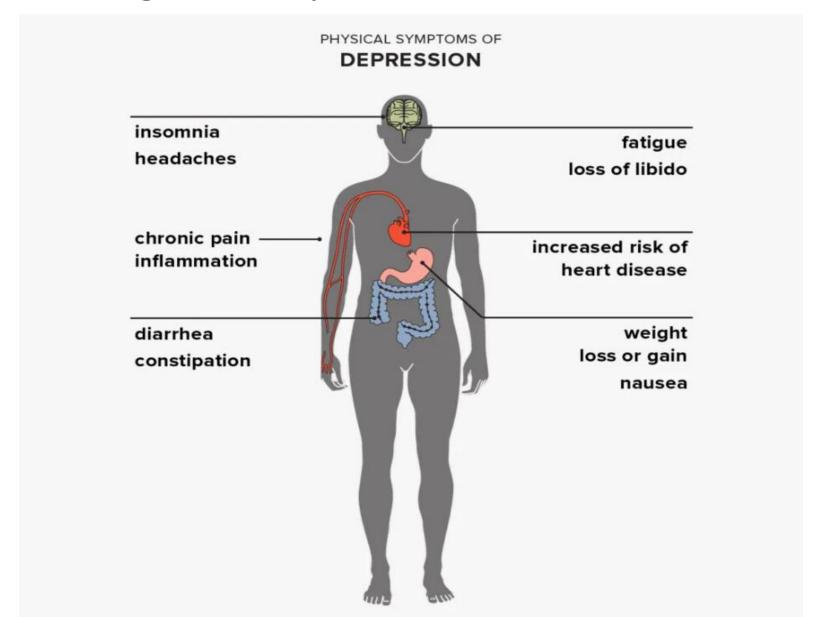
# Emotional symptoms of depression:

- -Hopeless
- -Helpless
- -Guilt
- -Shame

### Somatic symptoms:

- -Headache
- -backache

### Biological/Physical Features of MDD



### **EPIDIMIOLOGY**

- Prevalence of MDD:10-15%
- M:F = 1:2
- Mean age of onset of MDD is 40 years, with 50% of patients having onset between 20-50 years of age
- No correlation has been found between MDD and socio economic status
- More common in the unemployed (3 times more likely), divorced people
- Patients with OCD, borderline and histrionic personality are at a greater risk of developing MDD
- Lifetime prevalence in the elderly is <10%
- It is known that Depression increases the mortality in patients with other comorbidities such as Diabetes, Stroke & Cardiovascular problems.

## **ETIOLOGY**

The precise cause of depression is unknown, but MDD is believed to be a heterogeneous disease, with biological, genetic, environmental, and psychosocial factors contributing.

### **Neurotransmitters:**

Antidepressants exert their therapeutic effect by increasing catecholamines; \( \text{cerebrospinal fluid (CSF) levels of 5-hydroxyindolacetic acid (5-HIAA), the main metabolite of serotonin, have been found in depressed patients with impulsive and suicidal behavior.

Increased sensitivity of beta-adrenergic receptors in the brain has also been postulated in the pathogenesis of MDD.

## **ETIOLOGY**

**<u>High cortisol:</u>** Hyperactivity of hypothalamic-pituitary-adrenal axis, as shown by failure to suppress cortisol levels in the dexamethasone suppression test.

**Abnormal thyroid axis:** Thyroid disorders are associated with depressive symptoms.

Gamma-aminobutyric acid (GABA), glutamate, and endogenous opiates may additionally have a role.

<u>Psychosocial / life events:</u> Multiple adverse childhood experiences are a risk factor for later developing MDD.

Genetics: First-degree relatives are two to four times more likely to have MDD. Concordance rate for monozygotic twins is <40%, and 10–20% for dizygotic twins.

### Risk factors for depression in women:

- 3 or more children under the age of 14 at home
- Not working outside home
- Lack of confiding relationships
- Loss of mother by death or separation before the age of 11 years

### Risk Factors for Suicide During a Major Depressive episode

#### Nonmodifiable Risk Factors

#### Modifiable Risk Factors

- Older men
- Past suicide attempt
- History of selfharm behaviour
- Being a sexual minority
- Family history of suicide
- History of legal problems

#### Symptoms and life events

- Active suicidal ideation
- Hopelessness
- Psychotic symptoms
- Anxiety
- Impulsivity
- Stressful life events such as financial stress (e.g., bankruptcy) and victimization

#### Comorbid conditions

- Substance use disorders (especially alcohol use disorder)
- Posttraumatic stress disorder
- Comorbid personality disorders (especially cluster B personality disorders)
- Chronic painful medical conditions (e.g., migraine headaches, arthritis)
- Cancer

### Suicidal risk assessment

| Letter | Meaning                               | Number of<br>Points Assigned |
|--------|---------------------------------------|------------------------------|
| S      | Sex: male                             | 1                            |
| Α      | Age: < 19 or > 45 years               | 1                            |
| D      | Depression or hopelessness            | 2                            |
| Р      | Previous attempts or psychiatric care | 1                            |
| E      | Excessive alcohol or drug use         | 1                            |
| R      | Rational thinking loss                | 2                            |
| S      | Separated/divorced/widowed            | 1                            |
| 0      | Organized or serious attempt          | 2                            |
| Ν      | No social supports                    | 1                            |
| S      | Stated future intent                  | 2                            |

### Score (Level of Risk)

- 0-4=Low
- 5-6=Medium
- 7-10=High

## Prognosis

- Untreated, depressive episodes are self-limiting but last from 6 to 12 months. Generally, episodes occur more frequently as the disorder progresses.
- The risk of a subsequent major depressive episode is 50–60% within the first 2 years after the first episode. <u>Up to 15% of patients with MDD eventually commit suicide.</u>
- Approximately 60–70% of patients show a significant response to antidepressants.
- Combined treatment with both an antidepressant and psychotherapy produce a significantly \(\gamma\) response for MDD.

## Prognosis

### **Good prognostic factors**

- Abrupt or acute onset
- Severe depression
- Typical clinical features
- Well adjusted premorbid
   Personality
- Good response to treatment

### Poor prognostic factors

- Double depression
- Co-morbid physical disease, personality disorders or alcohol dependence
- Chronic ongoing stress
- Poor drug compliance
- Marked mood incongruent features

### **Hospitalization**

■ Indicated if the patient is at risk for suicide, homicide, or is unable to care for him/herself.

#### **Pharmacotherapy**

### **Antidepressant medications:**

- *Selective serotonin reuptake inhibitors (SSRIs):*
- Inhibit the reuptake of serotonin, thus increasing the amount of serotonin in the brain.
- Safer and better tolerated than other classes of antidepressants.
- side effects are mild but include headache, *gastrointestinal disturbance*, *sexual dysfunction*, and rebound anxiety.
- Examples are Fluoxetine (Prozac), Escitalopram (Purlex) and Sertraline (Zoloft).
- Serotonin-norepinephrine reuptake inhibitors (SNRIs):
- Inhibit the reuptake of both serotonin and norepinephrine, thus increasing the level of both neurotransmitters in the brain.
- Includes Venlafaxine (EffexorR) and Duloxetine (CymbaltaR).
- *Novel agents:* Other agents commonly used to treat depression include the  $\alpha$ 2-adrenergic receptor antagonist Mirtazapine (RemeronR), and the dopamine-norepinephrine reuptake inhibitor Bupropion (WellbutrinR).
- *Tricyclic antidepressants (TCAs):* Most lethal in overdose due to cardiac arrhythmias; side effects include sedation, weight gain, orthostatic hypotension, and anticholinergic effects. Can aggravate prolonged QTc syndrome.

- *Monoamine oxidase inhibitors (MAOIs):*
- Older medications occasionally used for refractory depression;
- risk of *hypertensive crisis* when used with sympathomimetics or ingestion of tyramine-rich foods, such as Fava beans, wine, beer, aged cheeses, liver, and smoked meats (tyramine is an intermediate in the conversion of tyrosine to norepinephrine);
- risk of serotonin syndrome when used in combination with SSRIs.
- Most common side effect is orthostatic hypotension.

### **Adjunct medications:**

- Atypical (second-generation) antipsychotics along with antidepressants are first-line treatment in patients with MDD with psychotic features. In addition, they may also be prescribed in patients with treatment resistant/refractory MDD without psychotic features.
- Triiodothyronine (T3), levothyroxine (T4), and lithium have demonstrated some benefit when augmenting antidepressants in treatment refractory MDD.
- While stimulants (such as methylphenidate) may be used in certain patients (e.g., geriatric and terminally ill patients), the efficacy is limited and trials are small.

### **Psychotherapy**

- Cognitive-behavioral therapy (CBT), interpersonal psychotherapy, supportive therapy, psychodynamic psychotherapy, problem-solving therapy, and family/couples therapy have all demonstrated benefit in treating MDD.
- Among the major kinds of psychotherapy, there is no compelling evidence that one is superior to the rest. The choice is usually based on availability and patient preference.
- CBT and interpersonal psychotherapy are often selected as initial treatment because they have been the most widely studied.
- May be used alone or in conjunction with pharmacotherapy.
- Early dropout is common (as with pharmacotherapy). It is important to track patient adherence over time.

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### **Electroconvulsive Therapy (ECT)**

- Indicated if the patient is unresponsive to pharmacotherapy, if patient cannot tolerate pharmacotherapy (pregnancy, etc.), or if rapid reduction of symptoms is desired (e.g., immediate suicide risk, refusal to eat/drink, catatonia).
- ECT is extremely safe (primary risk is from anesthesia) and may be used alone or in combination with pharmacotherapy.
- ECT is often performed by premedication with atropine, followed by general anesthesia and administration of a muscle relaxant (typically succinylcholine). A generalized seizure is then induced by passing a current of electricity across the brain (either bilateral or unilateral); the seizure should last between 30 and 60 seconds, and no longer than 90 seconds.
- 6–12 treatments are administered over a 2- to 3-week period, but significant improvement is sometimes noted after the first several treatments.
- Retrograde and anterograde amnesia are common side effects, which usually resolve within 6 months.
- Other common but transient side effects: headache, nausea, muscle soreness.

## Manic episode

### • DSM-5 Criteria

- A distinct period of abnormally and persistently elevated, expansive, or irritable mood.
- Lasting at least 1 week.
- Three or more (four if the mood is only irritable) of the following symptoms:
  - 1. Inflated self-esteem or grandiosity
  - 2. Decreased need for sleep
  - 3. Pressured speech or more talkative than usual
  - 4. Flight of ideas or racing thoughts
  - 5. Distractibility
  - 6. Psychomotor agitation or increase in goal-directed activity
  - 7. Excessive involvement in activities that have a high potential for painful and negative consequences (e.g overspending, sexual indiscretions)

- (cont.) Manic Episode Criteria
  - Causes marked impairment in occupational functioning in usual social activities or relationships, or
  - Necessitates hospitalization to prevent harm to self or others,
  - Not due to substance use or abuse (e.g., drug abuse, medication, other treatment), or a general medial condition (e.g., hyperthyroidism).

## Hypomanic episode

- A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased activity or energy, lasting at least 4 consecutive days and present most of the day, nearly every day.
- **B.** During the period of mood disturbance and increased energy and activity, three (or more) of the following symptoms (four if the mood is only irritable) have persisted, represent a noticeable change from usual behavior, and have been present to a significant degree:

- 1. Inflated self-esteem or grandiosity.
- 2. Decreased need for sleep (e.g., feels rested after only 3 hours of sleep).
- 3. More talkative than an usual or pressure to keep talking
- 4. Flight of ideas or subjective experience that thoughts are racing.
- 5. Distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed.
- 6. Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation.
- 7. Excessive involvement in activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments.

- C. The episode is associated with an unequivocal change in functioning that is uncharacteristic of the individual when not symptomatic.
- **D.** The disturbance in mood and the change in functioning are observable by others.
- E. The episode is not severe enough to cause marked impairment in social or occupational functioning or to necessitate hospitalization. <u>If there are psychotic features</u>, the episode is, by definition, manic.
- **F.** The episode is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication, other treatment).

## DIFFERENCES BETWEEN MANIC AND HYPOMANIC EPISODES

### **Mania**

- Lasts at least 7 days
- Causes severe impairment in social or occupational functioning
- Usually necessitates hospitalization to prevent harm to self or others
- May have psychotic features

### **Hypomania**

- Lasts at least 4 days
- No marked impairment in social or occupational functioning
- Does not require hospitalization
- No psychotic feature

## Bipolar I disorder

A. Criteria have been met for at least one manic episode.

**B.** The occurrence of the manic and major depressive episode(s) is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified or unspecified schizophrenia spectrum and other psychotic disorder.

## Bipolar II Disorder

- A. Criteria have been met for at least one hypomanic episode and at least one major depressive episode
- **B.** There has <u>never</u> been a manic episode.
- C. The occurrence of the hypomanic episode(s) and major depressive episode(s) is not better explained by schizoaffective disorder, schizophrenia schizophreniform disorder, delusional disorder, or other specified or unspecified schizophrenia spectrum and other psychotic disorder.
- D. The symptoms of depression or the unpredictability caused by frequent alternation between periods of depression and hypomania causes clinically significant distress or impairment.

### Bipolar Vs. Unipolar depression

# Predictors of a Bipolar Process rather than a Unipolar one

- -Early age of onset
- -Psychotic depression before the age of 25 years
- -Postpartum depression, especially with psychotic features
- -Rapid onset & offset of depressive episodes of short duration (<3 months)
- -Recurrent depression (more than 5 episodes)
- -Depression with marked psychomotor retardation
- -Seasonality
- -Bipolar family history
- -Hypomania associated with antidepressants
- -Repeated (at least 3 times) loss of efficacy of antidepressants after initial response

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### **Epidemiology**

- Prevalence of BAD: 1-2%
- Life time prevalence of BAD in first degree relative: 4-18%
- MDD in first degree relative: 9-25%
- BAD has equal M:F ratio
- Manic episodes are more common in men
- Depressive episodes are more common in females
- Mean age of onset of BAD is 30 years, the age of onset of BAD can be as early as 6 years of age up to 50 years of age
- Average patient has 9 relapses during his life time
- Bipolar I disorder is more common in single or divorced people, this may reflect the early onset of the disorder
- A higher than average incidence is found in the upper socio economic groups
- Schneiderian first rank symptoms occur in 15-20% episodes of mania (have shorter duration, changing in content, improve rapidly)

### Schneider formulated what he considered to be pathognomic of first rank symptoms of schizophrenia (Schneider, 1959).

- Audible thoughts (voices speaking out his thoughts aloud).
- Voices arguing (Referring to the patient in 3rd person)
- Voices commenting on one's actions.
- 4. Thought withdrawal
- 5. Thought insertion
- 6. Thought broadcasting
- Made volition.
- 8. Made affect
- 9.Made impulse
- 10.Somatic passivity (experiencing externally controlled body changes)
- 11. Delusional perception (a real percept elaborated in a delusional way)

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### **ETIOLOGY**

- Biological, environmental, psychosocial, and genetic factors are all important.
- First-degree relatives of patients with bipolar disorder are 10 times more likely to develop the illness.
- Concordance rates for monozygotic twins are 40–70%, and rates for dizygotic twins range from 5% to 25%
- Bipolar I has the highest genetic link of all major psychiatric disorders.

### Pharmacological treatment of BAD

### Acute mania

- Atypical antipsychotics:
- Olanzapine, Risperidone, Quetiapine, Ziprasidone, Aripiprazole.
- <u>Typical (Depot):</u> Haldol, Chlopromazine.
- <u>Mood stabilizers:</u> Lithium ,valproate, carbmazipine

### **Maintenance**

- Lithium (gold stnadard)
- Valproate
- Carbamazipine
- Lamotrigene

It is generally clinically appropriate to initiate <u>prophylactic</u> treatment:

- (1) after a single manic episode that was associated with significant risk and adverse consequences;
- (2) in the case of bipolar I illness, two or more acute episodes; or
- (3) in the case of bipolar II illness, significant functional impairment, frequent episodes or significant risk of suicide

## Other Treatments of BAD

### **■ Psychotherapy:**

Supportive psychotherapy, family therapy, group therapy (may prolong remission once the acute manic episode has been controlled).

### **ECT**:

- Works well in treatment of manic episodes.
- Some patients require more treatments (up to 20) than for depression.
- Especially effective for refractory or life-threatening acute mania or depression.

### **Dysthymia**

(Persistent Depressive Disorder)

Patients with persistent depressive disorder (dysthymia) have chronic depression most of the time, and they may have discrete major depressive episodes.

- Subclinical depressive disorder, with chronicty for at least 2 years (1 year in children + adolescents) and an insidious onset often in childhood or adolescence
- Early onset (more common) before the age of 21, late after 21
- Prevalence: 5-6% of the population
- More common in women
- Depression on top of Dysthymia double depression

### **Dysthymia**

(Persistent Depressive Disorder)

### **Diagnosis and DSM-5 Criteria**

- 1. Depressed mood for the majority of time most days for at least 2 years (in children or adolescents for at least 1 year).
- 2. At least two of the following:
- Poor concentration or difficulty making decisions.
- Feelings of hopelessness.
- Poor appetite or overeating.
- Insomnia or hypersomnia.
- Low energy or fatigue.
- Low self-esteem.
- **3.** During the 2-year period:
- The person has not been without the above symptoms for >2 months at a time.
- May have major depressive episode(s) or meet criteria for major depression continuously.
- The patient must never have had a manic or hypomanic episode (this would make the diagnosis bipolar disorder or cyclothymic disorder, respectively).

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### **Dysthymia**

(Persistent Depressive Disorder)

### **Treatment**

- Combination treatment with psychotherapy and pharmacotherapy is more efficacious than either alone.
- Cognitive therapy, interpersonal therapy, and insight-oriented psychotherapy are the most effective.
- Antidepressants found to be beneficial include SSRIs, SNRIs, novel antidepressants (e.g., bupropion, mirtazapine), TCAs, and MAOIs.

### **Cyclothymia**

Cyclothymic disorder is symptomatically a mild form of Bipolar II disorder (Alternating periods of hypomania and periods with mild-to-moderate depressive symptoms).

### **Epidemiology**

- Prevalence: 1%
- Cyclothymic disorder may coexists with borderline personality
- M:F = 1:1
- 30% of patients with Cyclothymia have a family history of Bipolar type I
- 30% of patients with Cyclothymia will go on to develop major mood disorder
- Onset usually between the ages 15 25

### **Cyclothymia**

### **Diagnosis and DSM-5 Criteria**

- Numerous periods with hypomanic symptoms (but not a full hypomanic episode) and periods with depressive symptoms (but not full MDE) for at least 2 years.
- The person must never have been symptom free for >2 months during those 2 years.
- No history of major depressive episode, hypomania, or manic episode.

### **Course and Prognosis**

Chronic course; approximately one-third of patients eventually develop Bipolar I/II disorder.

### **Treatment**

Anti-manic agents (mood stabilizers or/with second-generation antipsychotics) as are used to treat Bipolar disorder.

## **Any Questions?**