Mood Disorders
An Overview of Depression and Mania

• **Mood Disorders**
  – “Depressive disorders”
  – “Affective disorders”
  – “Depressive neuroses”
  – Gross deviations in mood
    • Depression
    • Mania
An Overview of Depression

- Major depressive episode
  - Extreme depression
  - 2 weeks (bottom limit)
  - Cognitive symptoms
  - Physical dysfunction
  - Anhedonia
  - Duration - 4 to 5 months, untreated
  - 4-7 episodes
An Overview of Mania

- **Manic episode**
  - Exaggerated elation, joy, euphoria
  - 1 week, or less
  - Cognitive symptoms
  - Physical dysfunction
  - Duration – 3 to 6 months, untreated

- **Hypomanic episode**
Structure of Mood Disorders

• **Unipolar disorders**
  – Depression or mania alone
  – Typically depression

• **Bipolar disorders**
  – Depression and mania
  – Mixed episodes
Structure of Mood Disorders

• Diagnostic considerations
  – Accompanying symptoms
    • Overlap between disorders
  – Severity
  – Course (Very important)
    • Recurrent
    • Alternating
    • Seasonal
Depressive Disorders

• **Major Depressive Disorder**
  – No mania/hypomania
  – Single episode
    • Rare (85% have another one)
  – Recurrent
    • 4 episodes (lifetime)
    • Duration – 4 to 5 month
• **Onset**
  – Low until early teens
  – Mean age = 30
  – Becoming earlier!

**TABLE 7.1 Criteria for Major Depressive Episode**

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 due to a general medical condition or mood-incongruent delusions or hallucinations.*

1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) 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 made by others)

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 gains*

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 symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hypothyroidism).
Dysthymic Disorder

Milder symptoms
- 2+ years
- Chronic
- Persistent

- Onset = early 20’s
- Early onset = before 21
  - Greater chronicity
  - Poor prognosis
  - Stronger familial component

- Median duration = 5 years
  - Depends on comorbidity
Dysthymic Disorder

- Patients with dysthymic disorder and major depressive disorder (N=46)
- Patients with pure dysthymic disorder (N=36)
- Patients with nonchronic major depressive disorder (N=38)

Score on Hamilton depression rating scale

Time (months)

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Depressive Disorders: An Overview

• **Double Depression**
  – Major depressive episodes and dysthymic disorder
  – Dysthymia first
  – Severe psychopathology
  – Poor course
  – High recurrence rates
Grief and Depression

Integrated vs. Complicated Grief

Bereavement exclusion was removed

Depression frequently follows loss
- 62% after death have severe depression

Pathological or Complicated Grief
- Severity of symptoms
- Altered neurotransmitter-levels profile
- Dysfunction
- Persistence of symptoms
- After a year, change of recovering from grief is less.
- For 10-20% this becomes a clinical disorder.
Review

• Is earlier onset dysthymia better or worse in terms of chronicity (how long it lasts), prognosis (response to treatment)?
  – Which type is most hereditary?

• The onset age of depression is moving towards an earlier or later period world-wide?
Bipolar I Disorder: An Overview

- Alternating major depressive and manic episodes
- Single manic episode
- Recurrent
  - Symptom free for 2 months

**TABLE 7.2 Criteria for Manic Episode**

A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased goal-directed activity or energy, lasting at least 1 week and present most of the day, nearly every day (or any duration if hospitalization is necessary).

B. During the period of mood disturbance and increased energy or activity, three (or more) of the following symptoms (four if the mood is only irritable) are present to a significant degree and represent a noticeable change from usual behavior:
   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 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 (e.g., purposeless non-goal-directed activity).
   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 mood disturbance is sufficiently severe to cause marked impairment in social or occupational functioning or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.

D. The episode is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication, other treatment) or to another general medical condition.

*Note: A full manic episode that emerges during antidepressant treatment (e.g., medication, electroconvulsive therapy) but persists at a fully syndromal level beyond the physiological effect of that treatment is sufficient evidence of a manic episode and, therefore, a bipolar I diagnosis.*

Bipolar I Disorder: An Overview

• Statistics
  – Onset = age 18
    • Childhood
    • Younger than MD
    • More acute onset
    • 1/3 or cases begin in adolescence
  – Chronic
  – Suicide

This is serious!
Suicide attempts: 17% Bipolar 1, 24% Bipolar 2, 12% unipolar
Bipolar II Disorder

- Alternating major depressive and hypomaniac episodes (< 1 week, > 4 days)

- Statistics
  - Onset = age 19 to 22
    - Childhood
  - Chronic
Cyclothymic Disorder

• Alternating manic and depressive episodes
  – Less severe
    • Definition: moodiness that interferes with functioning.
  – Persists longer

• Chronic symptoms
  – Adults = 2+ years
  – children and adolescents = 1+ year
Cyclothymic Disorder

• Statistics
  – Onset = age 12 or 14
    If it has not already appeared, it is unlikely to after 40
  – Chronic
  – Lifelong
  – Female > Male
  – Risks for Bipolar I/II
Review

- What is the difference between Bipolar I and II?
- How long do the symptoms have to occur for to be a full manic vs. a hypomanic episode?
- What is cyclothymic disorder?
- How long does someone have to be down, most of the day, nearly every day for it to be considered a full depressive episode?
Additional Defining Criteria

• **Symptom Specifiers (know each)**
  – Atypical
    • Most severe symptoms
      – And suicide attempts
  – Melancholic
  – Chronic
    • \( \geq 2 \) years (not dysthymia)
  – Catatonic
    • Rare!
  – Psychotic
    • More common than you would guess
      – 18% of those meeting criteria for Unipolar depression have this on some Level.
    • Mood congruent/ incongruent
  – Postpartum 13-19 percent
Additional Defining Criteria

- **Course Specifiers (know each)**
  - Mixed Features
  - Anxious distress
  - Longitudinal course
    - Full/partial remission
  - Rapid cycling pattern
    - At least 4 manic or DP Episodes in a year.
      = poor responders, high suicide rate.
  - Seasonal pattern
    - Late fall-early spring – **CABIN FEVER**
    - Depression (2.7%!) vs. mania
    - Regional (e.g., 2% FL vs Fairbanks 9%)
    - Too much Melatonin production
      - Melatonin is secreted by the pineal gland to help regulate sleep. Light suppresses it so winter is bad for vulnerable folks.
    - Phototherapy
      Most common symptoms
      sleep and weight gain.
## Prevalence of Mood Disorders

### TABLE 7.2
Prevalence of Affective Disorders Reported in Epidemiological Surveys Conducted Since 1980*

<table>
<thead>
<tr>
<th>Disorder</th>
<th>6 Months to 1 Year</th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major depression</td>
<td>6.5 (2.6 to 9.8)</td>
<td>16.1 (4.4 to 18.0)</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>3.3 (2.3 to 4.6)</td>
<td>3.6 (3.1 to 3.9)</td>
</tr>
<tr>
<td>Bipolar</td>
<td>1.1 (1.0 to 1.7)</td>
<td>1.3 (0.6 to 3.3)</td>
</tr>
</tbody>
</table>

*Surveys used research diagnostic criteria (RDC); the third edition or third edition, text revision, of the Diagnostic and Statistical Manual (DSM-III or DSM-III-R); or International Classification of Diseases, 10th edition (ICD-10), criteria.

### TABLE 7.3
Lifetime Prevalence of Mood Disorder Subtypes by Age, Sex, and Ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Bipolar I</th>
<th>Bipolar II</th>
<th>Major Depression</th>
<th>Dysthymia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>0.8</td>
<td>0.5</td>
<td>4.9</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–29</td>
<td>1.1</td>
<td>0.7</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>30–44</td>
<td>1.4</td>
<td>0.6</td>
<td>7.5</td>
<td>3.8</td>
</tr>
<tr>
<td>45–64</td>
<td>0.3</td>
<td>0.2</td>
<td>4.0</td>
<td>3.6</td>
</tr>
<tr>
<td>65+</td>
<td>0.1</td>
<td>0.1</td>
<td>1.4</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>0.7</td>
<td>0.4</td>
<td>2.6</td>
<td>2.2</td>
</tr>
<tr>
<td>Women</td>
<td>0.9</td>
<td>0.5</td>
<td>7.0</td>
<td>4.1</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>0.8</td>
<td>0.4</td>
<td>5.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Black</td>
<td>1.0</td>
<td>0.6</td>
<td>3.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.7</td>
<td>0.5</td>
<td>4.4</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Note: Significant variation within groups, adjusted for age, sex, or ethnicity.
Prevalence of Mood Disorders

• Children and Adolescents
  – Symptom presentations
    • Not as episodic
    • Less imbalance in gender
      – Slightly more in boys!
    • Bipolar is rare in childhood but increases in adolescence.

– Misdiagnosis
  • ADHD
    – Because of aggression and destructiveness
  • Conduct disorder
Aspects of Mood Disorder Criteria that differ in Children

• Major Depressive Disorder
  – lower prevalence
  – Irritability instead of depressed mood
  – Eating: failure to achieve weight gain
  – Stronger association with aggression

• Bipolar Disorder
  – Chronic
  – Explosiveness
  – Most commonly similar to mixed state
  – Is this bipolar disorder?
Review

• Describe the changing gender balance in depression rates in children vs. adolescents vs. adults vs. elderly.

• How are symptoms different in children than adults for bipolar disorder?

• What symptoms characterize later onset depression in the elderly?
  – Sleep, hypochondriasis, agitated
Prevalence of Mood Disorders

- Among the creative
- Higher prevalence
  - Melancholia
  - Mania
- Manic and creativity or.. Genes that predispose to bipolar are in some way related to creativity (reciprocal Gene x environment model).

<table>
<thead>
<tr>
<th>Poet</th>
<th>Pulitzer Prize in Poetry</th>
<th>Treated for Major Depressive Illness</th>
<th>Treated for Mania</th>
<th>Committed Suicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hart Crane (1899–1932)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Theodore Roethke (1908–1963)</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Delmore Schwartz (1913–1966)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Berryman (1914–1972)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randall Jarrell (1914–1965)</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Robert Lowell (1917–1977)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anne Sexton (1928–1974)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sylvia Plath* (1932–1963)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Plath, although not treated for mania, was probably bipolar II.
Overlap of Anxiety and Depression

• More alike than different
  Almost all depressed persons are anxious not all anxious persons are depressed

• Negative affect

• Core symptoms of depression
  – Anhedonia Letter
  – Slowing
  – Negative cognitions

TABLE 7.6 Symptoms Specific to Anxiety and to Depression, as Well as Symptoms Shared by Both States

<table>
<thead>
<tr>
<th>Pure Anxiety Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprehension</td>
</tr>
<tr>
<td>Tension</td>
</tr>
<tr>
<td>Edginess</td>
</tr>
<tr>
<td>Trembling</td>
</tr>
<tr>
<td>Excessive worry</td>
</tr>
<tr>
<td>Nightmares</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pure Depression Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helplessness</td>
</tr>
<tr>
<td>Depressed mood</td>
</tr>
<tr>
<td>Loss of interest</td>
</tr>
<tr>
<td>Lack of pleasure</td>
</tr>
<tr>
<td>Suicidal ideation</td>
</tr>
<tr>
<td>Diminished libido</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mixed Anxiety and Depression Symptoms (Negative Affect)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipating the worst</td>
</tr>
<tr>
<td>Worry</td>
</tr>
<tr>
<td>Poor concentration</td>
</tr>
<tr>
<td>Irritability</td>
</tr>
<tr>
<td>Hypervigilance</td>
</tr>
<tr>
<td>Unsatisfying sleep</td>
</tr>
<tr>
<td>Crying</td>
</tr>
<tr>
<td>Guilt</td>
</tr>
<tr>
<td>Fatigue</td>
</tr>
<tr>
<td>Poor memory</td>
</tr>
<tr>
<td>Middle or late insomnia</td>
</tr>
<tr>
<td>Sense of worthlessness</td>
</tr>
<tr>
<td>Hopelessness</td>
</tr>
<tr>
<td>Early insomnia</td>
</tr>
</tbody>
</table>
- **Premenstrual Dysphoric Disorder (PMDD)**
  - 2-5 percent of women report incapacitating emotional reactions during this time
  - Very controversial still
- **Disruptive Mood Dysregulation Disorder**
  - There was a 40x increase in bipolar in children diagnosed in a 10 year period
  - There was nowhere to put irritable children and these were incorrectly lumped in BPD or ADHD/CD (they don’t really show mania)
  - Don’t appear to be BPD (not higher incidence in families) (Do not go on to develop BPD but rather Anxiety and depression)
  - Don’t appear to be ADHD or conduct (irritability and mood regulation issues driven more by negative affect)
  - Issues with medication
Depression and Anxiety: The Same Genes?

- Genes for negative affectivity?
- Shared genetic vulnerability
  - High familial heritability
  - Same genetic factors
  - General predisposition
    - Except mania?

So... If it is the same genes, then maybe what causes a different outcome is environment?
Environmental risk factors for mood and anxiety disorders

- **Anxiety** (anticipation of a threat)
  - Risk of loss of attachment figure
  - Physical jeopardy
  - Impending school transition
  - Taking an exam
  - Parental perfectionism

- **Depression** (Stressor already occurred, not future oriented): loss events
  - Loss of attachment figure
  - Serious illness to relative
  - Family discord: more for females?
  - Divorce: more for males?
  - Onset of parental depression
  - After a move
A theoretical pathway to comorbid anxiety and depression

Common Genes → Negative Affect

Experience
- Threat / Danger
- No control

Cognition
- Anticipatory Anxiety / Avoidance
- Hopeless / Helpless
- Anxiety Disorder
- MDD
Causes of Mood Disorders

• Familial and Genetic Influences
  – Family Studies
    • Rate of family members having a mood disorder is 2-3x higher if they have a depressed relative than if they do not.
      » But is this because of environment?

  – Twin Studies in part control for environmental confound.
    • Because the disorder is present in identical twins to a much greater extent than in fraternal twins (sharing less genetic material or concordance), this suggest a strong heritability.
    • Bipolar (higher genetic influence)
    • Unipolar (40% women, 20% men): still leaves room for environment (up to 80%)

• Higher concordance with higher severity

• Higher heritability for females
Causes of Mood Disorders: Biological

• Neurotransmitter Systems
  – **Serotonin** – depression

  – We are more impulsive and have mood swings when serotonin is low, as this regulates DA and norepinephrine.

  – The “**permissive**” hypothesis (when serotonin levels are low other neurotransmitters are permitted to range more widely, becoming deregulated, and this contributes to mood irregularities including depression).

  – **Dopamine** – mania
Causes of Mood Disorders: Biological

Endocrine System

“Stress hypothesis”

- Overactive HPA axis
- Neurohormones
- Elevated cortisol
- Suppressed hippocampal neurogenesis

- Dexamethasone suppression test (DST)

- Suppresses cortisol secretion in healthy subjects
- But, not in 50% of patients with DP
  - Adrenal cortex secreted enough cortisol to overwhelm suppressive effects of dexamethasone.
  - But, this is not specific to DP—it also is in anxiety disorder.
Causes of Mood Disorders: Biological

- **Sleep and Circadian Rhythms**
  - REM sleep (only when depressed - not during period of remission; endophenotype?)
    - Reduced latency
    - Increased intensity
  - Decreased slow wave sleep

- **Sleep deprivation effects**
  - Improves condition!
Causes of Mood Disorders: Psychological

• Stressful life events
  – Context
  – Meaning
  – Timing

• Recall bias

• Effects of stress
  – Poorer treatment response
  – Delayed remission
  – Trigger for episode or relapse
Causes of Mood Disorders: Psychological

- **Learned Helplessness (Seligman/Maier)**
  - Lack of perceived control

- **Depressive Attributional Style**
  - Internal
  - Stable
  - Global

- Also characterizes anxiety
Causes of Mood Disorders: Biological

- Sleep and Circadian Rhythms
  - REM sleep (only when depressed- not during period of remission; endophenotype?)
    - Reduced latency
    - Increased intensity
  - Decreased slow wave sleep

- Sleep deprivation effects
  - Improves condition!
Causes of Mood Disorders: Psychological

- **Sense of hopelessness**
  - Lack of perceived control
  - Will not regain control

- Pessimism
  - Causality?
  - Before or after?
Causes of Mood Disorders: Psychological

- Negative Cognitive Styles
  - Cognitive Theory of Depression (Beck)
  - Depressive triad
  - Negative schema
    - Self blame
    - Self evaluation

- Cognitive errors in depression
  - Negative interpretations

- Types of Cognitive Errors
  - Arbitrary inference
    - DP individual emphasizes negative rather than positive aspects
  - Overgeneralization
    - Teacher makes one comment critical and you assume you are a failure.

People with a negative cognitive style are 12x more likely to later develop depression.
Mood Disorders: Social and Cultural Dimensions

- Marriage and Interpersonal Relationships
  - Relationship disruption precedes depression
    - Females (21%)
    - Strongest effects for males 17% is 9x higher than those who stayed married.
      However…
      When ruling out history of DP, it stayed at 14% for men, and dropped to only 5% for women

- Martial conflict vs. marital support
  - Can coexist
    - High conflict + low support is among the worst conditions

- Gender differences in causal direction
  - Men get depressed and this causes withdraw and problems whereas women react to the declining relationship and feel depressed.
Mood Disorders: Social and Cultural Dimensions

• Mood Disorders in Women
  – Prevalence: Females > Males
  – True for all mood disorders (similar to anxiety rates)
    • Except bipolar- evenly divided
EXPLAINING THE FINDINGS THAT RATES OF DEPRESSION ARE HIGHER AMONG WOMEN THAN AMONG MEN

THE GENDER DIFFERENCES ONLY APPEAR TO BE REAL BECAUSE

- Women may be more likely to seek treatment.
- Women may be more willing to report their depression to other people.
- Diagnosticians or the diagnostic system may be gender biased.
- Men may exhibit depression in different ways and may be given other diagnoses.

THE GENDER DIFFERENCES ARE REAL BECAUSE

- Genetic or hormonal differences between genders may account for higher depression levels among women.
- Women are subjected to gender roles that may be unfulfilling and that limit occupational opportunities.
- Gender roles may lead to feelings of helplessness.
- Traditional feminine roles may be less successful at eliciting positive reinforcement from others, compared with traditional male roles, which foster assertive and forceful behavior.
- Women may have been subjected to childhood traumas (sexual abuse, child abuse, neglect) that lead to depression.

• Mood Disorders in Women
  – Gender roles: 70% of depressed individuals are Females
    • Perceptions of uncontrollability
    • Socialization
  – Access to resources
  – Emphasis on relationships
Mood Disorders: Social and Cultural Dimensions

• Social Support
  – Related to depression
  – Following a life event-
    • 10% women with a close friend became depression whereas 37% without a friend did.
  – Lack of support
    • predicts late onset depression
  – Substantial support
    • predicts recovery for depression (not mania)