Mood Disorders

Dr. Fred Rose

An Overview of Mood Disorders

• Extremes in Normal Mood
  – Nature of depression
  – Nature of mania and hypomania

• DSM-IV Depressive Disorders
  – Major depressive disorder
  – Dysthymic disorder
  – Double depression
An Overview of Mood Disorders

- *DSM-IV Bipolar Disorders*
  - Bipolar I disorder
  - Bipolar II disorder
  - Cyclothymic disorder

Major Depression: An Overview

- *Major Depressive Episode*
  - Depressed mood
  - Anhedonia
  - Cognitive symptoms
  - Vegetative symptoms

- *Major Depressive Disorder*
  - Single episode
  - Recurrent episodes
Dysthymia: An Overview

- **Overview and Defining Features**
  - Depressed mood for at least 2 years
  - Mild
  - Chronic

- **Facts and Statistics**
  - Late onset – early 20s
  - Early onset – Before age 21, poorer prognosis

Double Depression: Overview

- **Overview and Defining Features**
  - Major depressive episodes and dysthymic disorder
  - Dysthymic disorder typically first

- **Facts and Statistics**
  - Severe psychopathology
  - Poor outcome
  - Most difficult to treat
Bipolar I Disorder: An Overview

• Overview and Defining Features
  – Full manic episodes and major depression
• Facts and Statistics
  – Average age on onset is 18 years
  – Chronic
  – Suicide is common

Bipolar II Disorder: An Overview

• Overview and Defining Features
  – Hypomanic episodes and major depression
• Facts and Statistics
  – Average age on onset is 22 years
  – Only 10 to 13% of cases progress to bipolar I
  – Chronic
Cyclothymic Disorder

• Overview and Defining Features
  – Milder mania and depression
  – Pattern must last for at least 2 years

• Facts and Statistics
  – High risk for developing bipolar I or II
  – Most are female
  – Average age on onset is early adolescence

The Bipolar Spectrum
Course of Mood Disorders

Major Depression Mnemonic

- SIGECAPS
- Sleep
- Interest
- Guilt
- Energy
- Concentration
- Appetite
- Psychomotor
- Suicide
# Mood Disorders: Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Major Dep’n</th>
<th>Dysthymia</th>
<th>Bipolar I</th>
<th>Bipolar II</th>
<th>Cyclothymia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>25-29</td>
<td>20-25</td>
<td>18</td>
<td>22</td>
<td>12-14</td>
</tr>
<tr>
<td>Pattern</td>
<td>Stable</td>
<td>Stable</td>
<td>Variable</td>
<td>Variable</td>
<td>Variable</td>
</tr>
<tr>
<td>Duration</td>
<td>2 weeks</td>
<td>2 years</td>
<td>Varies</td>
<td>Varies</td>
<td>2 years</td>
</tr>
<tr>
<td>Chronicity</td>
<td>6-9 months</td>
<td>Chronic</td>
<td>Chronic</td>
<td>Chronic</td>
<td>Chronic</td>
</tr>
<tr>
<td>Lows</td>
<td>Severe</td>
<td>Mild</td>
<td>Severe</td>
<td>Severe</td>
<td>Mild</td>
</tr>
<tr>
<td>Highs</td>
<td>No</td>
<td>No</td>
<td>Manic</td>
<td>Hypomanic</td>
<td>Hypomanic</td>
</tr>
<tr>
<td>Suicide Risk</td>
<td>12%</td>
<td>Low</td>
<td>24%</td>
<td>17%</td>
<td>Low</td>
</tr>
</tbody>
</table>

# Mood Disorders: Subtypes

<table>
<thead>
<tr>
<th>Major Depressive Disorder</th>
<th>Bipolar Disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dysthymic Disorder</td>
<td>Cyclothymic Disorder</td>
</tr>
<tr>
<td>With melancholic features</td>
<td>Depression</td>
</tr>
<tr>
<td>With atypical features</td>
<td>Mania</td>
</tr>
<tr>
<td>With psychotic features</td>
<td>melancholic</td>
</tr>
<tr>
<td>With catatonic features</td>
<td>atypical</td>
</tr>
<tr>
<td>With postpartum features</td>
<td>psychotic</td>
</tr>
<tr>
<td>With seasonal onset (SAD)</td>
<td>catatonic</td>
</tr>
<tr>
<td></td>
<td>postpartum</td>
</tr>
<tr>
<td></td>
<td>seasonal onset</td>
</tr>
</tbody>
</table>
Additional Facts and Statistics

• *Lifetime Prevalence*
  – About 7.8% of US population

• *Sex Differences*
  – MDD: 2:1 Women to Men
  – Bipolar disorders: 1:1

• *Most Depressed Persons are Anxious, Not All Anxious Persons are Depressed*

Genetic Influences

• Strong familial inheritance patterns for both Major Depression and Bipolar
• Serotonin Transporter gene (5-HTT) is ONE candidate
• Depression in MDD and Bipolar have same genetics
• Mania has a separate genetic influence
GeneAc
Influences

Neurobiological Influences

- **Neurotransmitter Systems**
  - Serotonin
  - Permissive hypothesis

- **The Endocrine System**
  - Cortisol and Dexamethasone suppression test (DST)

- **Sleep and Circadian Rhythms**
  - Sleep disturbance = hallmark
Learned Helplessness

- Animal Research (Seligman & Maier, 1967):
  - Dogs learn to avoid shock by jumping a barrier.
  - Dogs who previously cannot control shock do not subsequently learn to avoid shock.
  - Instead, these dogs become ‘Helpless’

Psychological Dimensions (Learned Helplessness)

- The Learned Helplessness Theory of Depression
  - Related to lack of perceived control over life events
- Depressive Attributonal Style
  - Internal attributions – Negative outcomes are one’s own fault
  - Stable attributions – Believing future negative outcomes will be one’s own fault; pessimism
  - Global attribution – Believing negative events will disrupt many life activities
  - All three domains contribute to a sense of hopelessness
Beck’s Cognitive Triad

I suck!
The world sucks!
We’ll always suck!

Beck’s Cognitive Model (1967)

(Early) Experience → Formation of Depressogenic Schemas → Critical Incidents → Schemas Activated → Negative Automatic Thoughts (NATs) → Symptoms

Symptoms:
- Behavioural
- Cognitive
- Motivational
- Somatic
- Affective

Negative cognitions

Self

About

About

About

World

Future
Depressive Cognitions

**Negative Cognitive Triad:**
(Pessimistic views of the self, the world & the future)

**Depressogenic (Negative) Schema:**
Triggered by negative life events.
(e.g. “I must be the best at everything”)

**Cognitive Biases (Systematic Logical Errors):**
- Arbitrary Inference - The professor must think I’m stupid because I got a “D”.
- Selective Abstraction - I did poorly because I’m stupid.
- Overgeneralization - I got a “D” on the test, I’m going to flunk out of school.
- Magnification & Minimization - That “A” was a fluke.
- Personalization - The professor didn’t call on me; he must think I’m dumb.
- Absolutistic Dichotomous Thinking - If I don’t get an “A” I’m a loser.
- Should & Must Statements - I have to get the highest grade.

Depression

An Integrative Theory

- **Shared Biological Vulnerability**
  - Overactive neurobiological response to stress

- **Exposure to Stress**
  - Stress activates hormones that affect neurotransmitter systems
  - Stress turns on certain genes, affects circadian rhythms, awakens dormant psychological vulnerabilities (i.e., negative thinking), contributes to sense of uncontrollability (i.e., helplessness), fosters a sense of helplessness and hopelessness

- **Social and Interpersonal Support are Moderators**
Gene-Environment Interactions

• Murphy et al. (2001)
  – Mice with altered 5-HTT susceptible to stress
• Suomi and colleagues, Bennet et al. (2002)
  – Macaques with 5-HTTs gene susceptible to stress AND show lower serotonin levels
• Hariri et al. (2002)
  – Humans with 5-HTTs show INCREASED amygdala activation to fearful stimuli
• Caspi et al. (2003)

Mood Disorders

Dr. Fred Rose
### Treatment: Tricyclic Medication

- **Widely Used (e.g., Tofranil, Elavil)**
- **Block Reuptake of Norepinephrine and Other Neurotransmitters**
- **Takes 2 to 8 Weeks for the Therapeutic Effects to be Known**
- **Negative Side Effects Are Common**
- **May be Lethal in Excessive Doses**

### Monoamine Oxidase Inhibitors (MAO-I)

- **Blocks Monoamine Oxidase**
  - Monoamine oxidase (MAO) is an enzyme that breaks down serotonin/norepinephrine
- **MAO Inhibitors Are Slightly More Effective Than Tricyclics**
- **Must Avoid Foods Containing Tyramine (e.g., beer, red wine, cheese)**
Selective Serotonin Reuptake Inhibitors (SSRI’s)

- *Specifically Block Reuptake of Serotonin*
  - Fluoxetine (Prozac) is the most popular SSRI
- *SSRIs Pose No Unique Risk of Suicide or Violence*
- *Negative Side Effects Are Common but Temporary*
  - Decreased sexual arousal/functioning
  - “Jitteriness”
  - Sleep disturbance

Treatment: Lithium

- *Lithium Is a Common Salt*
  - Primary drug of choice for bipolar disorders
- *Side Effects May Be Severe*
  - Dosage must be carefully monitored
- *Why Lithium Works Remains Unclear*
- *Common Alternative: Depakote*
Electroconvulsive Therapy (ECT)

- **ECT Is Effective for Cases of Severe Depression**
- **The Nature of ECT**
  - Involves applying brief electrical current to the brain
  - Results in temporary seizures
  - Usually 6 to 10 outpatient treatments are required
- **Side Effects Are Few and Include Short-Term Memory Loss**
- **Uncertain Why ECT works and Relapse Is Common**

Psychosocial Treatments

- **Cognitive Therapy**
  - Addresses cognitive errors in thinking
  - Also includes behavioral components
- **Interpersonal Psychotherapy**
  - Focuses on problematic interpersonal relationships
- **Outcomes with Psychological Treatments Are Comparable to Medications**
Data from Teasdale 2000 study on patients treated with severe depression

Suicide Facts and Statistics

- *Eighth Leading Cause of Death in the United States*
- *Overwhelmingly a White and Native American Phenomenon*
- *Suicide Rates Are Increasing, Particularly in the Young*
- *Gender Differences*
  - Males are more successful at committing suicide than females
  - Females attempt suicide more often than males
Method of Suicide (1990)

Suicide: Risk Factors

- *Suicide in the Family Increases Risk*
- *Low Serotonin Levels Increase Risk*
- *A Psychological Disorder Increases Risk*
- *Alcohol Use and Abuse*
- *Past Suicidal Behavior Increases Subsequent Risk*
- *Experience of a Shameful/Humiliating Stressor Increases Risk*
- *Publicity About Suicide and Media Coverage Increase Risk*
Suicide: What to Do

• Research shows that threats should be taken seriously
• Do not be afraid to discuss the topic
• Get assistance - don’t accept responsibility
• Consider hospitalization

Summary of Mood Disorders

• All Mood Disorders Share
  – Gross deviations in mood
  – Common biological and psychological vulnerability
• Stress and Social Support Seem Critical in Onset, Maintenance, and Treatment
• Suicide Is an Increasing Problem Not Unique to Mood Disorders
• Medications and Psychotherapy Produce Comparable Results