



Mood/Affective Disorders

Psychology 372

Physiological Psychology

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Overview

- Mood Disorders
 - Usually are related to sustained emotional states
 - Lasts weeks or more
 - Range of stimuli causing mood variability is more limited
- Affective Disorders
 - Usually relates to immediate or momentary states of emotion
 - Lasts a short period of time
 - Are more directly responsive to external stimuli

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Mood Disorders

- Generally classified in two groups
- Unipolar disorders
 - Depression
 - Mania
- Bipolar Disorders

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Unipolar Depression

- First described by Hippocrates
 - Thought depression was caused by an excess of Black Bile
 - Called Melancholia = Black Bile
- First really to propose that a psychological problem was caused by a physiological problem.

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Today

- Is described in approximately 5% of the world population
- 8 Million people in the U.S. suffer from the disorder.
- Most (70%) have more than one episode
- Average onset age = 28
- Women are affected 2-3 times more often than men
 - May be a diagnosis issue
 - Men may not seek out treatment
- Occurs both in young children and the elderly
 - Most are not diagnosed
- Has several major subtypes
 - Melancholic Depression
 - Atypical Depression
 - Dysthymia

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Some Symptoms

- Unpleasant mood
- Mental Anguish
- Inability to experience pleasure
- Loss of interest in the world

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Requires Three of these Symptoms

- Disturbed sleep
- Loss of Appetite and weight loss
- Loss of energy
- Decreased sex drive
- Restlessness
- Psychomotor retardation
- Difficulty in concentrating
- Indecisiveness
- Feelings of worthlessness
- Guilt
- Pessimistic thoughts
- Thoughts of dying or suicide
- Can be others

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Other Variables

- Depression needs to be greater than the loss experienced
- Time of duration (days vs. weeks)
- No recent precipitating event
 - Death of a family member
- Is not pervasive or unrelenting
- No health disorder
 - Thyroid Problems
- Others

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Diagnosis

- Should be done by a professional
- Many types of tests
 - Beck Depression Inventory

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Subtypes of Unipolar Depression

- Melancholic Depression
- Atypical
- Dysthymia

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Melancholic Depression

- Most frequent 40-60%
- Has no precipitating event
- Often occurs more than once
- May lead to motor retardation
- Responds well to
 - ECT
 - Tricyclics
 - SSRI's

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Atypical

- Less common than melancholic depression
- Symptoms are opposite of melancholic depression
 - Appears earlier in life
 - Tends to be chronic
 - Can cheer up temporarily
 - Often overeat and sleep more
 - Depression is worse in the evening
- Respond better to MAOIs

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Dysthymia

- Is a milder depression
- Lasts for at least two years
- Symptoms are milder than major depression

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Causes

- Genetic Causes
 - Concordance rates in Bipolar Depression can reach 80% in monozygotic twins
 - Suicide rates higher as well
- No one specific gene has been identified
- Chromosome 18 (198q22-23) appears linked with depression

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Biogenic Amine Hypothesis

- Developed from the Catecholamine Hypothesis
- Contends that depression occurs from a reduction of Norepinephrine, Serotonin, or both.

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Support

- MAOIs, Tricycles, and SSRI's increase the levels of Biogenic Amines and decrease depressive symptoms.
- ECT also increases serotonin levels

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Problem

- Tricycles and SSRI's rapidly block reuptake systems of NE and Serotonin
- Recovery from depression is often slow (weeks).
- Some patients with depression actually have an increase of serotonin

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Neuroendocrine Function

- Severely depressive individuals also have excessive secretion of Adrenocorticotrophic hormone (ACTH) secretion by the pituitary.
- Increases levels of cortisol from the adrenal cortex
- Follows a circadian rhythm
- Many depressive individuals also have a disruption of their circadian rhythms.
- Returns to normal levels following recovery from depression

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Conclusion

- Not as clear cut as before. May involve multiple systems.
- Regardless of cause, have effective treatments.

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Treatment for Unipolar Depression

- Tricyclic Antidepressants (TCA's)
- Monoamine Oxidase Inhibitors
- Selective Serotonin Reuptake Inhibitors
- ECT

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Tricyclic Antidepressants (TCA's)

- Block the reuptake of Norepinephrine
- Block the reuptake of Serotonin
- Block postsynaptic Histamine receptors
- Block postsynaptic Acetylcholine receptors

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Many Types

- Imipramine (Tofranil)
- Desipramine (Norpramin)
- Amitriptyline (Elavil)
- Nortriptyline (Pamelor)

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Clinical Limitations

- Have slow onset of action
- Exert a wide variety of effects on the CNS causing side effects not shared by SSRIs.
- Are cardiotoxic and can be potentially fatal

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Other Issues

- Do not produce euphoria in normal individuals
- Are not reinforcing – low abuse potential
- Withdrawal is usually no problem.
- Have a long half-life
- Readily cross the placental barrier

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Monoamine Oxidase
MAO

- Are enzymes
- Break down NE and Serotonin after vesicular release
- Two types
 - MAO-A (Good MAO)
 - Found in NE and Serotonin synapses
 - MAO-B (Bad MAO)
 - Found in Dopamine Synapses

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MAO A and B

- MAO-A
 - Blockage is responsible for antidepressant activity
- MAO-B
 - Blockage is responsible for side effects

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Monoamine Oxidase Inhibitors
MAOIs

- Have been around since the 1950's
- Have serious side effects (especially with some foods)
- Can be as safe as TCAs or SSRIs
- Can work in patients who do not respond to other drugs.
- Are excellent for atypical depression

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Types

- Phenelzine (Nardil)
- Tranylcypromine (Parnate)
- Isocarboxazid (Marplan)

- All block MAO-A and MAO-B

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Side Effects

- Can be fatal
- Occurs with
- Food
 - Cheese
 - Beer
 - Fermented foods
 - Other
- Medicines
 - Nasal Sprays
 - Antihistamines
 - Cold Medicines
 - Cocaine

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Overall

- Can be effective is used carefully

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Serotonin-Specific Reuptake Inhibitors (SSRIs)

- Block the reuptake of Serotonin from the synaptic cleft.
- Don't block other neurotransmitters
- Appear to be equally effective
- Are not interchangeable
- Used for a variety of other disorders as well (Bulimia, Anorexia, ADHD, Others)

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Side Effects

- Can cause:
 - Alterations of cognition (e.g., confusion)
 - Fever/Chills
 - Agitation, restlessness
 - Others
- Usually occurs in combination with other drugs.
- 60% develop serotonin withdrawal syndrome

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Types

- Fluoxetine (Prozac)
- Sertraline (Zoloft)
- Paroxetine (Paxil)
- Fluvoxamine (Luvox)
- Citalopram (Celexa)

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Issues

- SSRIs have the same effectiveness as a placebo in double-blind studies.

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Electroconvulsive Therapy
ECT

- Can be very useful for Depression
- Produces full remission or marked improvement in 85% of patients with major depression.
- Not the same as old ECT
- Still causes a brain seizure
- Use about 6-8 treatments (Not 50-60)
- Usually get complete remission of symptoms.
- Why - Unknown
 - May still get some memory loss

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Mania

- More than general hyperactivity
- Literally bouncing off the walls
- Treatment
 - Lithium Salts
 - Stops manic episodes
 - Is toxic to the liver
 - Good follow-up

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Bipolar Disorder

- Alteration of Mania with Depression
- Often occurs following a depressive episode
- Usually take several weeks before drugs become effective in treating the disorder.

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Seasonal Affective Disorder

- SAD is a form of depression evident in winter months (short days/long nights)
- SAD involves
 - Mood and sleep disturbances
 - Carbohydrate cravings and weight gain
- Phototherapy for SAD: increased exposure to light improves mood in SAD (and also for unipolar depression)

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