Psychopathology
Is this individual suffering from a mental disorder?
- Molly is very concerned about pathogens in her environment. Even though she is a highly paid professional, she wears a white smock over her normal work clothing because she is worried about getting them dirty. She carries latex gloves with her in case she touches something that she thinks may cause her to contract a disease and she often wears a mask over her mouth as well. If someone shakes her hand she makes sure she washes them before she sees her next client and her desire to be free of contaminants causes her to wash her hands 30 or more times a day. She wears odd jewelry consisting of two rubber hoses attached to a silver disk that she drapes over her chest. She says this helps her to hear things that indicate problems that people have.

Determining Abnormality
Criteria for judging psychopathology
1. Statistical Deviance
- Is the individual behaving in a highly unusual way?
- Meet Robin Williams
2. Maladaptiveness
- Does the individual’s behavior cause him problems in dealing with People? Meet Donald Trump.
3. Personal Distress
- Is the individual unhappy, anxious, hostile, etc.
- What if the person feels there’s nothing wrong with him? Meet John Wayne Gacy.

Medical Model of Mental Illness
Clinical psychology adopted the Medical model that assumes a person who is suffering from mental problems is mentally "ill" in a way which is analogous to a physical illness.
- The assumption is that an underlying pathogen is causing the person to develop symptoms characteristic of a “disease.”
- To treat the person for the appropriate pathogen the disease needs to be identified.

Medical model stresses diagnosing and labeling the illness as an important first step in studying its causes and determining treatment.

Symptoms ➔ Disorder(label) ➔ Treatment

Problems with Labeling Mental Illnesses
Critics have argued that labeling people as “mentally ill” has unfortunate consequences:
- People are labeled mentally ill they are thought of as “sick” or “abnormal” and we separate ourselves from them.
- Labeling a person with a mental illness also places the problem of inside individual, the “have” X, and causes us ignore how the environment may be an important cause in their illness.
- On the other hand, labeling a person as “sick” absolves them of responsibility for their actions in the illness and decreases motivation to get better, because they “can’t help it” if they are “sick.”

How good are psychologists and psychiatrists in applying the correct label to people.

The Rosenhan Study
Rosenhan asked how difficult is it to be identified as a schizophrenic?
Pseudo-patients appeared at emergency room complaining of voices that said "empty, hollow, thud)?
- Easy to get in, somewhat difficult to get out. Took an average of 19 days, and received label "schizophrenia in remission."

Doctors found it hard to recognize "normality" in an abnormal setting?
- Normal behaviors interpreted in light of abnormal diagnosis. Their “sick” label colored how their behavior was interpreted.

DSM-IV
Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV)
- Attempts to provide reliable categories of mental illness, based on observable characteristics
- It lists diagnostic labels for all psychological disorders according to symptoms based on objective criteria
- Contains information on how to distinguish a particular disorder from others that are similar to it. Differential diagnosis

Example of Anorexia Nervosa
- Must have a body weight less than 85% of expected weight.
- Must express intense fear of gaining weight.
- Must express a distorted body image.
- If most mibental female, no normal for 3 successive
DSM-IV

Diagnosis is made along five axes (lists). A person can have one or more diagnoses on a given axis.

Axis I
- Major clinical disorders are diagnosed on Axis I. These are disorders that involve a deterioration of functioning.

Axis II
- Axis II is reserved for personality disorders and mental retardation.
- These are disorders Milder and less disruptive but persist throughout life.

Axis III
- General Medical Conditions that may have an effect on diagnosis and treatment, i.e. diabetes

Axis IV
- Psychosocial and Environmental Problems that may have a bearing on condition, diagnosis or treatment. i.e. having been an abused child

Axis V
- Global Assessment of patient’s ability to function at home, in society, on the job.

Problems with DSM-IV

In the 1950s the number of disorders in the DSM-I was 60. Now, there are 400 disorders in DSM-IV. Why have the number of disorders increased?

Explanations
- The younger generations are “sicker”?
- The criteria and methods of evaluation changed for determining disorders, making identification of an illness easier.
- Insurance companies require a clinical diagnosis of a problem before they pay for visits.

Psychologists challenge proposed new diagnoses in DSM-5

The next edition of DSM may include diagnoses of:
- Internet addiction disorder
- Apathy syndrome
- Parental alienation syndrome
- Mild neurocognitive disorder

Critics argue changes are not supported by published scientific research. But could this cause any harm? Children and the elderly are particularly vulnerable to being mislabeled with a mental illness, since it could lead doctors to prescribe medication that could be harmful.

Incidence of Mental Disorders

- In the US approximately 26% meet the criteria for a disorder in any one year.
- Estimated that 46% of people will meet criteria for one disorder in their lifetime.
- Around 70% of people with diagnosable mental disorders do not seek treatment.
- Even though more people are seeking treatment there is still a stigma associated with mental illness.

The Biosocial Model of Mental Illness

Biology - include genetic factors, brain injury, disease processes, and the like which result in abnormal brain development, or imbalances of neurotransmitters or hormones. All of which can result in abnormal behavior.

Psychological roots – an individual’s life history and experiences which contributes to his or her ability to cope or to succumb to stress.

Social and cultural context – includes how people have been influenced by how others treated or responded to them and the expectations they created in them as well as stress that comes from the culture.

Mental Disorders Axis I - Schizophrenia

Schizophrenia -
- A severe mental disorder affecting approximately 1% of the population. 50% of hospitalized patients.
- Occurs in early adulthood, late teens or 20s, first diagnosis usually before age 25.
Schizophrenia

Schizophrenia (split mind) gets its name from the disordered thought showing a split between thought and feelings.

Symptoms: Must demonstrate 2 or more of the following symptoms with signs of the disorder persisting for at least 6 months

- Disordered thinking: Lapses of attention, difficulty in switching rules and routines, loose associations, and difficulties with abstraction such as proverbs.
- Disorganized or catatonic behavior. Often performs motor acts constantly and obsessively (Jerry’s hair pulling).

Symptoms of Schizophrenia

- Delusions: unfounded beliefs that are strongly held – Persecution, Grandeur, Control, Reference
- Hallucinations – Auditory, hearing voices (Broca’s area), or less frequently visual
- Loss of normal emotional responses and social behaviors – Poor judgment, lack of interest in environment. Loss of “social graces.” Do not respond appropriately and may neglect personal hygiene.
- Anxious but appears emotionally flat. Will show inappropriate emotional behavior to events. Emotional withdrawal.

Chronic vs. Acute Schizophrenia

- Chronic has developed over a long period of time and has more negative and positive symptoms. More difficult to treat and poorer prognosis

Types of Schizophrenia

Disorganized-hebephrenic

- Incoherent speech
- Extreme lack of social relationships
- “Silly” or odd behavior
- Characterized by disorganized thinking “Word salad”. When asked how he felt: “Who can tell me the name of my song? I don’t know, but it won’t be long. It won’t be short, tall, none at all. My head hurts my knees hurt—my nephew, his uncle my aunt. My God, I’m happy, not a care in the world. My hair’s been curled, the flag’s unfurled. This is my country, land that I love, this is the country, land that I love.” (Duke & Newicki, 1979)

Types of Schizophrenia

Catatonic

- Characterized by various motor disturbances and postures
- Rigid inactivity
- Excessive activity
- The person is aware of his or her surroundings but lacks the ability to develop a relationship to the outside world.

Symptoms of Schizophrenia

- Positive symptoms-behaviors that stand out because of their presence.
  - Hallucinations, delusions, bizarre behavior
- Negative symptoms-behavior that is notable because of their absence.
  - Flattened affect, poverty of speech and thought, lack of motivation. May be more serious in that it occurs earlier and creates social problems with others making it difficult to be supported by others.
### Types of Schizophrenia

#### Paranoid
- Characterized by a belief system in which the individual thinks he is being threatened or harmed.
- Elaborate hallucinations and delusions
- The delusions have pronounced themes of persecution and grandeur.
- Other thought problems tend to be less pronounced, and some people with paranoid schizophrenia are relatively intact cognitively.

#### Undifferentiated
- Deterioration of daily functioning
- Hallucinations
- Delusions or thought disorders
- Inappropriate emotions
- None of the symptoms is unusually pronounced or bizarre.
- Often used as a category to place psychotic personalities who do not seem to fit the other categories.
- **Residual type**
  - Individuals recovered from schizophrenia but still manifest some remnants of illness

### Environmental Influences in Schizophrenia

#### The Family and Schizophrenia
- "Schizophrenogenic Mother." May have been a reaction rather than a cause.
- Family atmosphere very important in patient coping with illness. Families that are critical, hostile, overinvolved or intrusive related to relapse.
- However, children of schizophrenics who are adopted are more likely to become schizophrenic in their new families than are other adopted children.
- Adult schizophrenics are more likely to have been described as strange as children, indicating problems early on.

#### Biological abnormalities develop in Brain
- Frontal lobe atrophy helps to explain greater distractibility to stimuli and lack of focus found in thinking and speech, and disconnect with limbic system may explain the emotional disconnect with thought.
- The hippocampus and parts of the cerebral cortex are smaller than normal.
- About a third of long-term schizophrenics show enlarged ventricles, indicating neural atrophy of brain.
- People with schizophrenia have smaller neurons and fewer synapses in the prefrontal cortex.
- Chicken and egg problem. Did these abnormalities develop first or did the illness cause the brain abnormalities.

### Environmental Influences on Schizophrenia

#### Relation to early neurological assaults
- Difficult pregnancy, poor nutrition, head injury, abnormally small birth weight, or in identical twin who had a lower birth weight.
- Season of birth effect, 20% risk for those born in winter or early spring, found in colder northern climates, with effects reversed below the equator. Suggests exposure to viral infection is key and effect found in mothers who contract influenza during the second trimester in the fall of the year when the disease is more prevalent.

### The Neurodevelopmental Hypothesis of Schizophrenia
Genetics and Schizophrenia

Heritability (how much is due to genes) of schizophrenia is 50-83%

Diathesis-Stress model of Schizophrenia

- A diathesis can be inherited (genetics)
- But stressful conditions needed to trigger its development (environment)
- This may mean that the gene causes individual to react differently to his/her environment, e.g. show greater susceptibility to flu viruses, or to react more strongly to stresses, etc..

Genetics of Schizophrenia

Over a dozen genes have been found to be related to schizophrenia.

- A gene could have a direct effect maybe in controlling the development of the NS, or an indirect effect, such as activity level, which may serve to bring the individual in to situations causing greater stress causing problems for an individual who is vulnerable.
- Genes can be turned on and off. Just the presence of a gene may not cause you a problem but if the gene is triggered it does. This may help to explain the concordance rates of monozygotic twins.

The Dopamine Hypothesis

Dopamine Hypothesis: schizophrenia is the result of excess dopamine activity.

- Patients appear to have a greater number of dopamine receptors (6X) in the brain.
- Drugs that decrease block dopamine show amelioration, and have the greatest effect on positive symptoms
- Drugs that increase dopamine (amphetamines) increase symptoms, or create them (psychotic paranoid reaction).
- Release of dopamine regulated by glutamate, an excitatory neurotransmitter, and it appears that schizophrenics show less glutamate activity in the frontal lobes.

Drug Treatment

Antipsychotic drugs

- Anti-psychotic Drugs alleviate symptoms. Dopamine blockers-Chlorpromazine (Thorazine), Haloperidol (Haldol). The effectiveness of the drug related to its ability to block dopamine.
- Drugs decrease positive symptoms (hallucinations, delusions, bizarre behavior) but less effective with negative (flattened affect, poverty of speech and thought, lack of motivation). Does not restore zest and pleasure for living. Do not seem happier.
- Most recovery takes place early in disease process, greater the deterioration less recovery, and about 30% do not respond to drug therapy.
Atypical antipsychotic drugs

- Newer drugs that block both dopamine and serotonin: risperidone (Risperdal), olanzapine (Zyprexa), clozapine (Clozaril). Fewer side effects and more beneficial for the negative effects of schizophrenia.
- More expensive and patients may have to be monitored for serious medical side effects.

Tardive Dyskinesia

Side effects of prolonged drug treatment
- Tardive Dyskinesia - 20%, involuntary jerking of tongue and face.
Declining Patient Population Mental Hospitals

Deinstitutionalization—Move from inpatient to outpatient

• “Revolving Door”—over 2/3 of hospital admissions are former patients
• Homeless—1/3 suffering from Schizophrenia or mood disorders

Affective or Mood Disorders

Major Depressive Disorder

• A long-term episode of intense sadness, or loss of interest in pleasurable activities that cannot be explained by changes in life events alone. The inability to experience happiness more pronounced. Depression is the number 1 reason people seek help.

Symptoms—Duration must be for two or more weeks.

• Poor appetite, insomnia or hypersomnia, agitated or listless, fatigue, not able to concentrate, feelings of guilt, recurrent thoughts about suicide, negative feelings about abilities.
• Women are twice as likely to have major depression (incidence is 2-3% for men and 5-9% for women).
• Untreated may go on for 6 months or more.

Depression

Minor Depressive disorder

• In a major depression people unable to function. Dysthymia, a less severe depression, occurring over a longer period (two years) but not as debilitating as major depression.
  – More likely found in women especially around 40 (21% women vs. 13% men).

Depressive Disorders

Heritability estimates range from 32 to 45%

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Genetic relatedness</th>
<th>Concordance rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identical twins</td>
<td>100%</td>
<td>70%</td>
</tr>
<tr>
<td>Fraternal twins</td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Heritability greater for depression that occurs early in life, and for major depression than minor.

Seasonal Affective Disorder

• SAD – Seasonal affective disorder
  – It can be relieved by light therapy, which requires the depressed person to sit in front of a broad spectrum light source for a few hours each day.
Depressive Disorder (etiology)

Environmental-
- Severe losses especially early in life and lack of social support increase vulnerability to depression
  - However, there is little relationship between the scale of the event and the intensity and duration of the depression.
- Negative Thinking.
  - Thinking negatively about yourself, the situation you are in, or your future (negative triad) makes you prone to depression.
- Ruminating a factor. May explain gender difference.
  - Men generally try to distract themselves when they are feeling depressed. Women tend to dwell on their feelings more.
  - Rumination between friends.
  - To avoid effects of rumination, take the perspective of a disinterested 3rd party. Remembering the event as you causes strong emotional reaction that came with it.

Depression and Negative Thinking Style

Treatment for Depressive Disorder

Drug treatment
- Monoamine Hypothesis - Depression related to low levels of norepinephrine and serotonin, neurotransmitters known as amines.

Antidepressant drugs
- Mono Amine Oxidase Inhibitors (MAOIs), Phenelzine (Nardil) prevents the breakdown of norepinephrine, serotonin, and dopamine.
- Seldom used, difficult side effects such as dizziness and loss of sexual interest, and hypertensive reaction to cheese, aged meat, sausage, wine.

Anti-Depressive Drugs

Trycyclics
- Imipramine (Tofranil), amitriptyline (Elavil) – retards reuptake of NE, D and S. Side effects include constipation, dizziness, and dry mouth, causing them to be less prescribed

Selective Serotonin Reuptake Inhibitor (SSRIs)
- Fluoxetine (Prozac), citalopram (Celexa), paroxetine (Paxil) prevents reuptake of serotonin exclusively, fewer side effects than others

Outcomes of Drug Treatment
- 60-65% on drugs show improvement but 30% of patients on placebos, so drugs help about 35%.
- Only 20% on drugs for year or more relapse vs. 80% w.o.
- Takes time to respond, 2-6 weeks even though effect at the synapse takes place in mere hours. No one knows why they help. May encourage synaptic growth and neuronal health.

Mood Disorders

Suicide
- Mood disorders and suicide
  - People suffering from depression and bipolar disorders consider or attempt suicide.
  - The true frequency of suicides is unclear - some are disguised to look like accidents.
  - Suicide rates vary as a function of gender, culture and age

TABLE 16.5 People Most Likely to Attempt Suicide
- People who have recently endorsed the death of a spouse or a child, and men who recently have been divorced or separated (Lumestahl & Rapier, 1986, Ott & Mortensen, 2003)
- People who have had major recent setbacks in their job, finances, or social life (Hendlin, Mahsberger, Lipschitz, Haas, & Byke, 2001).
- People with depression or bipolar disorder, especially those not in treatment and those who feel hopeless (Biederman, Tofto, & Hennert, 2001; Beck, Steer, Beck, & Newman, 1993)
- People who have made previous suicide attempts (Beck, Steer, & Brown, 1993)
- Drug or alcohol abusers (Beck & Steer, 1995)
- People who, during their childhood or adolescence, lost a parent by death or divorce (Adam, 1986)
- People with guns in their home (Beare, 2001)
- People whose relatives committed suicide (Lumestahl & Rapier, 1986)
Suicide Rates

ECT

Electroconvulsive Shock Therapy
- Recovery faster than drug therapy but therapeutic mechanism not known.
- Given while patient is sedated and under muscle relaxants.
- Shock delivered to frontal part of brain or to the right side is as effective as whole brain therapy. Again we do not know how ECT works.

Bipolar Disorders

Bipolar Affective Disorder
- Alternating periods of mania and depression Bipolar disorder involved alternating episodes of mania and depression
  - Milder version known as cyclothymia
- During manic period, racing thoughts, impulsive, talkative, hyperactive, tireless, self confident, may experience delusions of grandeur.
- Bipolar Disorder: types
  - Bipolar I disorder involves the experience of at least one episode of mania.
  - Bipolar II disorder involves alternation between major depression and hypomania, which is a milder form of mania.

Unipolar vs. Bipolar disorder

Bipolar Disorder

Age and Onset of Bipolar Disorder
Bipolar Disorder

Bipolar disorder much less common than depressive disorder.
- Lifetime risk is low (0.5-1.6%)
- Heritability is high, around 50%
- Appears more often in upper classes, and people who achieve high levels of education, and in young adults
- Treatment of Bipolar disorder
  - Lithium Carbonate

Bipolar Disorder

Relation to creativity in artists and writers
- "Men have called me mad, "but the question is not yet settled, whether madness is or is not the loftiest intelligence--whether much that is glorious--whether all that is profound--does not spring from disease of thought--from moods of mind exalted at the expense of the general intellect"
- Likely bipolars: