

Psychopathology & Abnormal Psychology

- We have talked about individual differences in personality, abilities, etc., but some individual differences go beyond the range of normal functioning and are usually called psychological disorders
- Just how to define psychopathology is the subject of some disagreement
 - Is it simply statistically infrequent behavior?
 - Violation of social norms?
 - Behavior that produces personal distress?
 - Maladaptive or dysfunctional behavior?
- Psychological disorders generally fit several of these criteria

Classification schemes

- Three categories (up until about 25 yrs ago)
 - *Organic brain syndromes*
 - *Neurosis*: any disorder characterized by conflict and anxiety that cause distress and impair a person's functioning but don't render him/her incapable of coping with external reality (e.g., phobias, panic disorder, obsessive-compulsive disorder, etc.)
 - *Psychosis*: any disorder characterized by severely disordered thought or perception to the point of a break with reality (e.g., schizophrenia, bipolar disorder)
 - Examples

Classification schemes

- The current emphasis is on clear, observable criteria (vs. theory-based inferences about unseen processes, e.g., “unconscious conflict”)
- Terms have changed somewhat
 - neurosis: not as widely used
 - psychosis: still used but more narrowly
- DSM-IV

Classification and Diagnosis of Mental Disorders

- Diagnostic and Statistical Manual IV (DSM-IV): The most widely used scheme for classifying psychological disorders
 - The “Bible” of mental disorders
 - Catalogue of mental disorders and how to diagnose them
 - Five Axes, or categories of evaluation

Classification and Diagnosis of Mental Disorders

- DSM-IV axes (the individual gets an evaluation on each axis)
 - Axis 1: Major Clinical Syndromes
 - Axis 2: Personality Disorders
 - Axis 3: Physical Disorders
 - Axis 4: Stressful Life Events
 - Axis 5: Overall Level of Functioning

Anxiety Disorders

- Anxiety disorders are characterized by anxiety—
A sense of apprehension or doom that is accompanied by many physiological reactions, such as accelerated heart rate, sweaty palms, tightness in the stomach, tension, fear, insomnia
 - Generalized anxiety disorder
 - Phobias
 - Panic disorder (PD)
 - Obsessive-compulsive disorder (OCD)
 - Stress disorders

Generalized Anxiety Disorder

- Anxiety is “free-floating,” not related to any clear object
- Person is visibly worried and fretful, oversensitive, can’t concentrate or make decisions, suffers from insomnia
- Physiological accompaniments: rapid heart rate, irregular breathing, excessive sweating, chronic diarrhea

Specific Phobias

- Irrational, persistent fears, anxiety, and avoidance that focus on specific objects, activities, or situations
- People with phobias realize that their fears are unreasonable and excessive, but they cannot control them

Specific Phobias

Name	Object or Situation Feared
Acrophobia	Heights
Agoraphobia	Open spaces
Algophobia	Pain
Astraphobia	Lightning and thunder
Claustrophobia	Enclosed spaces
Hematophobia	Blood
Monophobia	Being alone
Mysophobia	Dirt or germs
Nyctophobia	Darkness
Ochlophobia	Crowds
Pathophobia	Disease
Pyrophobia	Fire
Taphophobia	Being buried alive
Triskaidekaphobia	Thirteen
Zoophobia	Animals, or a specific animal

Social Phobias

- Social phobias are very common and often involve, for example,
 - Fear of embarrassment or humiliation in front of others
 - Avoidance of situations of possible exposure to public scrutiny
 - Avoidance of public speaking or performing for fear of failure
 - Avoidance of restaurants for fear of choking on food

Phobias – Possible Causes

- Classical conditioning, e.g.,
 - Fear of dogs after a dog bite
 - Fear of heights after a fall
- Oversensitivity to some stimuli
- Unrealistic beliefs
- Evolutionary: phobias are excessive manifestations of otherwise useful fears, e.g., fear of heights could have been naturally selected, because it was useful to our ancestors to avoid falling to death

Panic Disorders

- Panic Disorder (without Agoraphobia):
Characterized by sudden attacks of acute anxiety and a feeling of terror, accompanied by high levels of physiological arousal. Lasts from a few seconds to a few hours
 - Panic Attack: Feels like one is having a heart attack, going to die, or is going insane
 - Symptoms include vertigo, chest pain, choking, fear of losing control
- Panic Disorder (with Agoraphobia): Panic attacks and sudden anxiety still occur, but with agoraphobia

Agoraphobia

- Agoraphobia (with Panic Disorder): Intense, irrational fear that a panic attack will occur in a public place or in an unfamiliar situation
 - Intense fear of leaving the house or entering unfamiliar situations
 - Can be very crippling
 - Literally means fear of open places or market (agora)
- Agoraphobia (without Panic Disorder): Fear that something extremely embarrassing will happen away from home or in an unfamiliar situation

Obsessive-Compulsive Disorder (OCD)

- Extreme preoccupation with certain thoughts and compulsive performance of certain behaviors
- **Obsession:** Recurring images or thoughts that a person cannot prevent
 - Cause anxiety and extreme discomfort
 - Enter into consciousness against the person's will
 - Most common: Being dirty, wondering if you performed an action (turned off the stove), or violence (hit by a car)
- **Compulsion:** Irrational acts that person feels compelled to repeat against his/her will
 - Washing hands, counting, checking, cleaning
 - Help to control anxiety created by obsessions
- Treatment typically involves certain antidepressants and cognitive behavioral therapy including 'exposure-response-prevention'
- Seems to have a genetic component

Stress Disorders

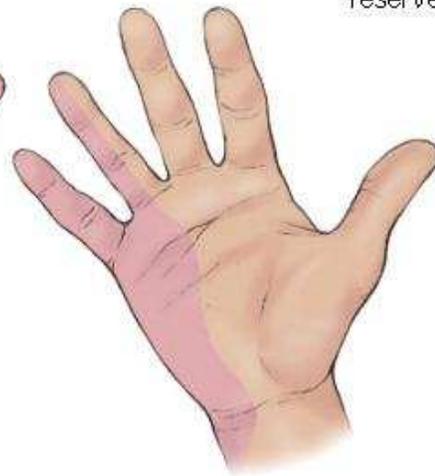
- Occur when stresses outside range of normal human experience cause major emotional disturbance
 - Symptoms: Reliving traumatic event repeatedly, avoiding stimuli associated with the event, recurrent nightmares, flashbacks, and numbing of emotions
- Acute Stress Disorder: Psychological disturbance lasting up to one month following stresses from a traumatic event
- Post Traumatic Stress Disorder (PTSD): Lasts more than one month after the traumatic event has occurred; may last for years
 - Typically associated with combat and violent crimes (rape, assault, etc.)
 - Terrorist attacks on September 11th, 2001, likely led to an increase of PTSD

Somatoform Disorders

- ***Hypochondriasis***: Person is preoccupied with having a serious illness or disease
 - Interpret normal sensations and bodily signs as proof that they have a terrible disease
 - No physical disorder can be found
- ***Conversion Disorder***: Severe emotional conflicts are “converted” into impairment of sensory or motor function such as paralysis, anesthesia, blindness, deafness, etc.
 - Caused by anxiety or emotional distress but not by physical causes, e.g., [glove anesthesia](#)
 - Examples: Soldier with battle fatigue becomes paralyzed; child who hates school is sick in the morning before the school bus comes
 - Often considered a defense or way of escaping an intolerable situation



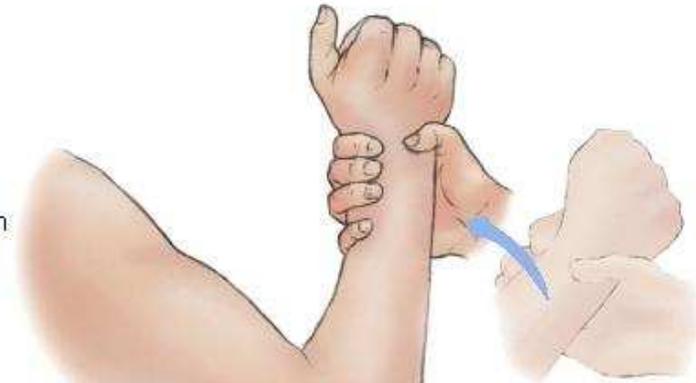
(a)



(b)

Response in Conversion Reaction

Arm extension is followed by involuntary flexion of the stretched muscle, indicating reserve strength



Response in Organic Paralysis

Arm is easily extended by examiner's force



“Glove” anesthesia is a conversion reaction involving loss of feeling in areas of the hand that would be covered by a glove (a). If the anesthesia were physically caused, it would follow the pattern shown in (b). (right) To test for organic paralysis of the arm, an examiner can suddenly extend the arm, stretching the muscles. A conversion reaction is indicated if the arm pulls back involuntarily. (Adapted from Weintraub, 1983.)

Dissociative Disorders

- A class of rare disorders in which trauma-related anxiety is reduced by a sudden disruption in consciousness, which then affects memory and identity—a whole set of events (acts, thoughts, feelings, memories) are ‘dissociated’ or shoved out of ordinary consciousness
 - *Dissociative Amnesia*: sudden inability to remember important personal events or identity-related information that’s too extensive to be due to normal forgetting, e.g., inability to recall one’s name, address, or past
 - *Dissociative Fugue*: Sudden travel away from home and confusion about personal identity as in dissociative amnesia, despite ability to remember matters unrelated to identity
 - *Dissociative Identity Disorder*: also known as ‘multiple personality disorder, a rare disorder in which two or more distinct personalities exist within the same person, taking turns to dominate

Dissociative Identity Disorder (DID)

- Popularized by books and movies such as 'Dr. Jekyll and Mr. Hyde,' 'The Three Faces of Eve,' and 'Sybil'
- Seems usually to begin with horrific childhood experiences (e.g., abuse, molestation, etc.)
- Therapy often makes use of hypnosis
- Goal: Integrate and fuse identities into single, stable personality
- Controversy over just how real or common this disorder is; if it's real, it's quite rare

Mood or Affective Disorders

- Major disturbances in affect or emotion, such as depression or mania
- Depressive Disorders: Sadness or despondency are prolonged, exaggerated, or unreasonable
- Bipolar Disorders: Involve both depression and mania
 - Mania – Excessive emotional arousal and wild, exuberant mood unjustified by any external event. Hyperactivity, restlessness, grandiose plans. Rarely occurs by itself
 - Strong heritability factor: identical twins 72% vs. fraternal twins 14%
- Dysthymic Disorder: Moderate depression that lasts for at least two years
- Cyclothymic Disorder: Moderate manic and depressive behavior that lasts for at least two years

Mood Disorders

- Major depression – causes
 - Cognitive: exaggerated or unrealistic negative thought patterns can cause depression
 - Heritability: identical twins (40%) vs. fraternal twins (11%)
 - Brain biochemistry: low levels of serotonin and norepinephrine
 - Antidepressants typically act to increase levels of serotonin or norepinephrine in the brain

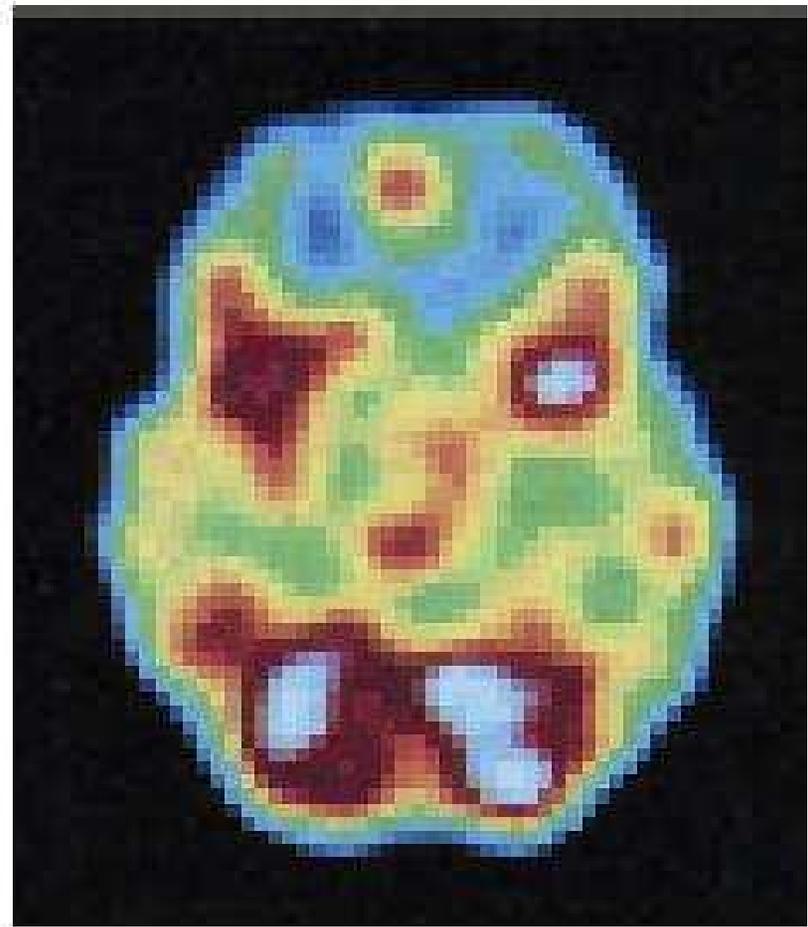
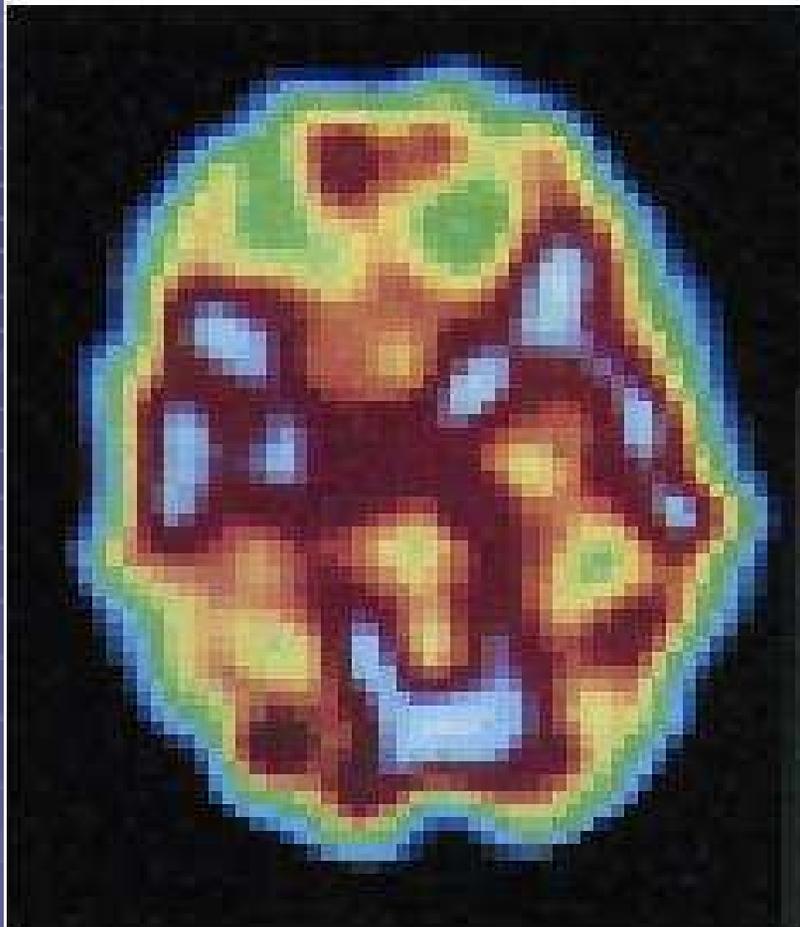
Personality Disorders

- Personality disorders are extreme, inflexible, deeply ingrained behavioral patterns that impair social or occupational functioning
 - Often the individual does not recognize the problem, but people around the person do
 - Very difficult to treat or change
 - Categories often overlap considerably

Antisocial Personality Disorder

- Also called psychopathy or sociopathy
- Characterized by
 - grossly selfish, callous, impulsive, manipulative and irresponsible behavior
 - lack of empathy or genuine feeling of love or loyalty to any person or group
 - lying, conning
 - little guilt, remorse, anxiety or conscience
 - underreactive autonomic nervous system
 - insensitivity to punishment or cues for punishment
 - seem to show unusual brain function, e.g., lower hemispheric lateralization

Personality Disorder	Description
Paranoid	Suspiciousness and extreme mistrust of others; enhanced perception of being under attack by others
Antisocial	Lack of feeling of guilt, impulsiveness, habitual lying and stealing, violence, failure to sustain enduring relationships
Narcissistic	Preoccupation with self-importance
Histrionic	Attention-seeking; preoccupation with personal attractiveness; prone to anger when attempts at attracting attention fail
Borderline	Lack of impulse control; drastic mood swings; inappropriate anger; extremely unstable relationships
Avoidant	Oversensitivity to rejection; little confidence in initiating or maintaining social relationships
Dependent	Uncomfortable being alone or in terminating relationships; places others' needs above one's own in order to preserve relationships
Obsessive-compulsive	Preoccupation with rules and order; tendency toward perfectionism; difficulty relaxing or enjoying life



© Robert Hare

Using PET scans, Canadian psychologist Robert Hare found that the normally functioning brain (left) lights up with activity when a person sees emotion-laden words such as “maggot” or “cancer.” But the brain of a psychopath (right) remains inactive, especially in areas associated with feelings and self-control. When Dr. Hare showed the bottom image to several neurologists, one asked, “Is this person from Mars?” (Images courtesy of Robert Hare.)

Psychosis

- Loss of contact with shared views of reality
- Characterized by
 - Delusions: False beliefs that individuals insist are true, regardless of overwhelming evidence against them
 - Hallucinations: Imaginary sensations, such as seeing, hearing, or smelling things that do not exist in the real world
 - Most common psychotic hallucination is hearing voices
 - Note that olfactory hallucinations sometimes occur with seizure disorder (epilepsy)
 - Disturbed emotions, e.g., flat affect, lack of emotional responsiveness
 - Disturbed communications (garbled, chaotic speech)
 - Personality disintegration
 - Problems in thought, decision making, actions and attention
- Can be produced by certain drugs or even lack of sleep
- Chronic psychosis without clear organic or other trigger typically leads to diagnosis of schizophrenia

Other Psychotic Disorders

- Organic Psychosis: Psychosis caused by brain injury or disease
 - Dementia: Most common organic psychosis; serious mental impairment in old age caused by brain deterioration
 - Archaically known as senility
 - Alzheimer's Disease: Symptoms include impaired memory, confusion, and progressive loss of mental abilities

Schizophrenia: The Most Severe Mental Illness

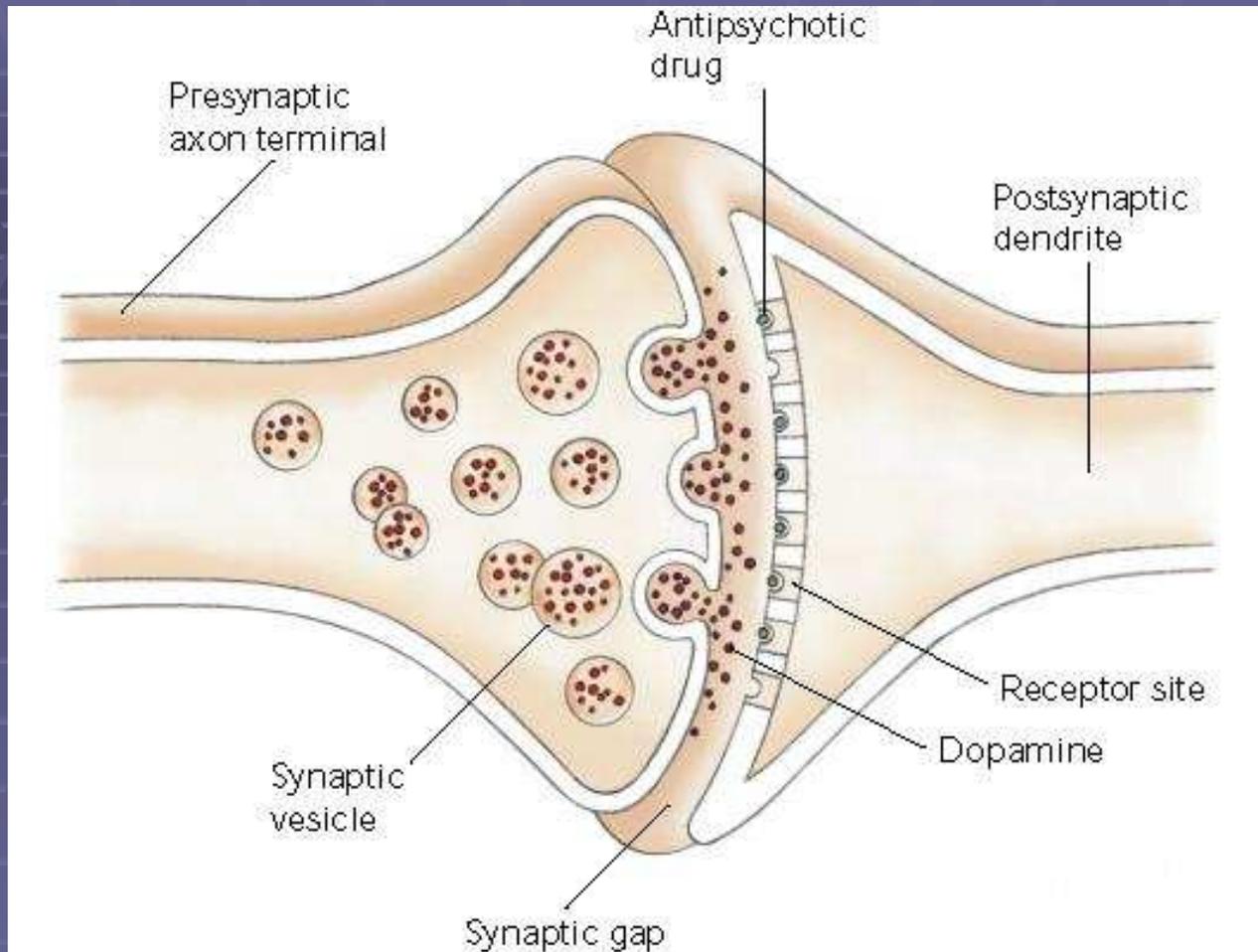
- Psychotic disorder characterized by hallucinations, delusions, apathy, thinking abnormalities, and “split” between thoughts and emotions
 - Does NOT refer to having split or multiple personalities

The Four Subtypes of Schizophrenia

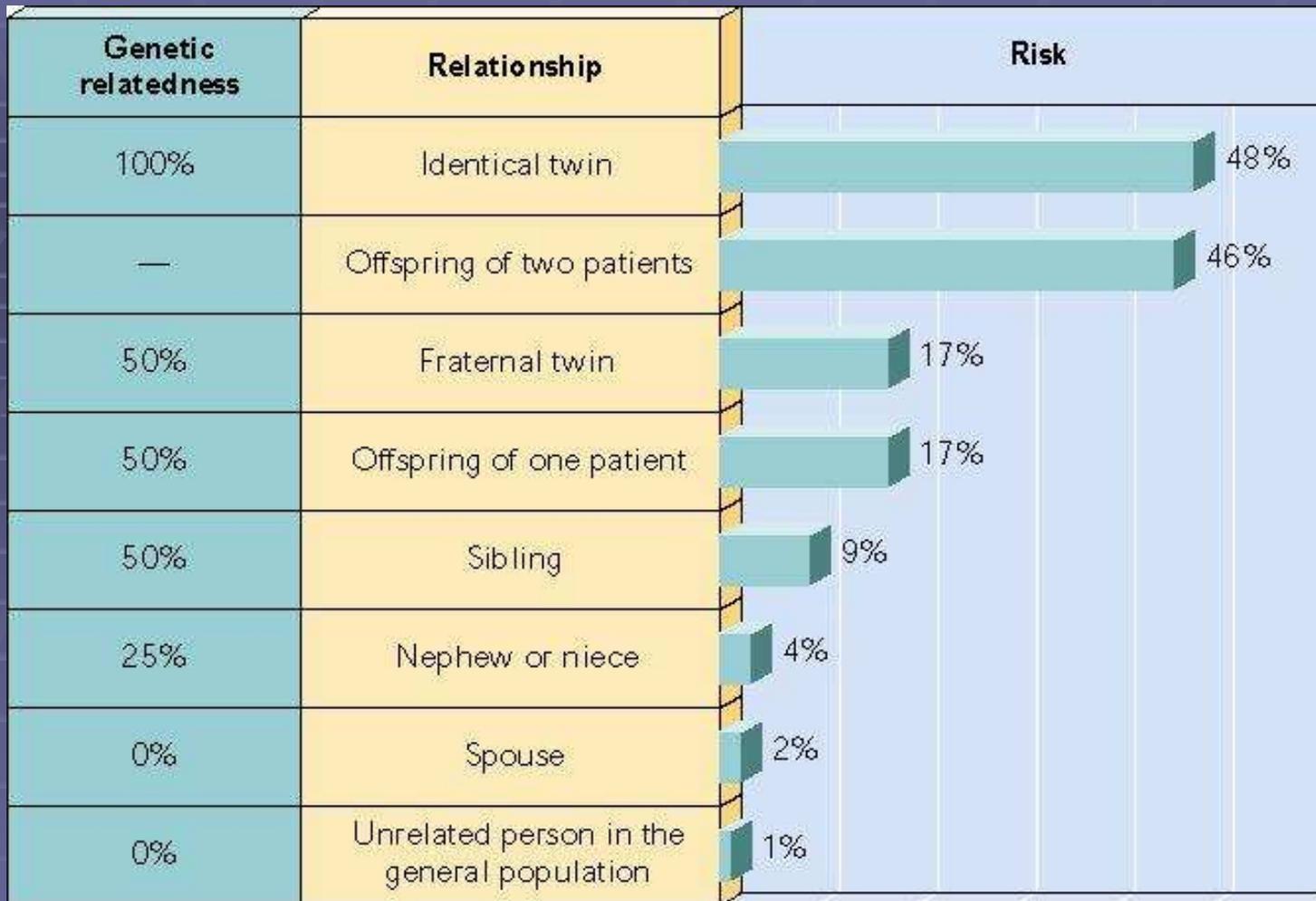
- Disorganized (Hebephrenic) Type: Incoherence, grossly disorganized behavior, bizarre thinking, and flat or inappropriate emotions
- Catatonic Type: Marked by stupor, unresponsiveness, rigidity, 'waxy flexibility,' and mutism
- Paranoid Type: Preoccupation with delusions; also involves auditory hallucinations that are related to a single theme, especially grandeur or persecution
- Undifferentiated Type: Any type of schizophrenia that does not have specific paranoid, catatonic, or disorganized features or symptoms

Biochemical Causes of Schizophrenia

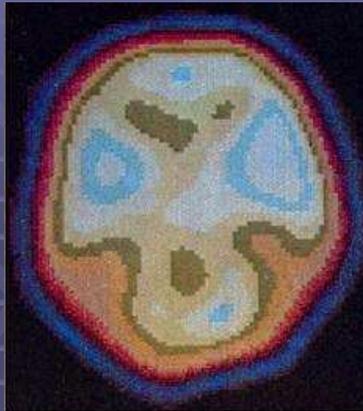
- Biochemical Abnormality: Disturbance in brain's chemical systems or in the brain's neurotransmitters
- Dopamine: Neurotransmitter involved with emotions and muscle movement
- Dopamine overactivity in brain may be related to schizophrenia
- Antipsychotic drugs act typically by blocking dopamine receptors
- Amphetamines and other dopamine agonists typically make symptoms worse



Dopamine normally crosses the synapse between two neurons, activating the second cell. Antipsychotic drugs bind to the same receptor sites as dopamine does, blocking its action. In people suffering from schizophrenia, a reduction in dopamine activity can quiet a person's agitation and psychotic symptoms.



Lifetime risk of developing schizophrenia is associated with how closely a person is genetically related to a schizophrenic person. A shared environment also increases the risk. (Estimates from Lenzenweger & Gottesman, 1994.)



NORMAL

Normal



SCHIZOPHRENIC

Schizophrenic



MANIC-DEPRESSIVE

Manic-depressive

Positron emission tomography produces PET scans of the human brain. In the scans shown here, red, pink, and orange indicate lower levels of brain activity; white and blue indicate higher activity levels. Notice that activity in the schizophrenic brain is quite low in the frontal lobes (top area of each scan) (Velakoulis & Pantelis, 1996). Activity in the manic-depressive brain is low in the left brain hemisphere and high in the right brain hemisphere. The reverse is more often true of the schizophrenic brain. Researchers are trying to identify consistent patterns like these to aid diagnosis of mental disorders.

Other Notes

- Onset of schizophrenia usually occurs by adolescence
- Prognosis is better for acute onset (sudden with clear triggers) than for gradual and chronic onset
- Stress-Vulnerability Hypothesis:
Combination of environmental stress and inherited susceptibility cause schizophrenic disorders