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Author: Michael Jibson, M.D., Ph.D., 2009

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Anxiety Disorders M2 Psychiatry Sequence

Michael Jibson Fall 2008



Definition of Anxiety

- An unpleasant state of anticipation, apprehension, fear, or dread
- Often accompanied by a physiologic state of autonomic arousal, alertness, and motor tension

Anxiety

Psychological Symptoms

- Fear, apprehension, dread, sense of impending doom
- Worry, rumination, obsession
- Nervousness, uneasiness, distress
- Derealization (the world seems distorted or unreal), depersonalization (one's body feels unreal or disconnected)

Anxiety

Physiological Symptoms

- Diaphoresis (sweating)
- Diarrhea
- Dizziness
- Flushing or chills
- Hyperreflexia

- Hyperventilation
- Lightheadedness
- Numbness
- Palpitations (pounding heart)
 (cont.)

Anxiety

Physiological Symptoms (cont.)

- Pupil dilatation
- Restlessness
- Shortness of breath
- Syncope (fainting)
- Tachycardia

- Tingling
- Tremor
- Upset stomach ("butterflies")
- Urinary frequency

Normal vs. Abnormal Anxiety

Normal Anxiety

 Adaptive psychological and physiological response to a stressful or threatening situation Normal vs. Abnormal Anxiety

Abnormal Anxiety

- Maladaptive response to real or imagined stress or threat
 - Response is disproportionate to stress or threat
 - Stress or threat is nonexistent, imaginary, or misinterpreted
 - Symptoms interfere with adaptation or response to stress or threat
 - Symptoms interfere with other life functions

Central Nervous System

- Frontal Cortex
 - Interpretation of complex stimuli
 - Declarative memory
 - Learning
 - Extinction of condition fear and emotional memory

Central Nervous System

- Limbic System (striatum, thalamus, amygdala, hippocampus, hypothalamus)
 - Emotional memory (especially the central nucleus of the amygdala)
 - Fear conditioning
 - Anticipatory anxiety

Central Nervous System

• Brainstem (raphe nuclei, locus ceruleus)

- Arousal, attention, startle
- Control of autonomic nervous system
- Respiratory control

Peripheral Systems

- Autonomic arousal (tachycardia, tachypnea, diarrhea)
- Hypothalamic-pituitary-adrenal (HPA) axis activation
- Visceral sensory activation

Neurotransmitters

- Norepinephrine locus ceruleus projections to frontal cortex, limbic system, brainstem, and spinal cord
- Serotonin Raphe nuclei projections to cortex, limbic system, and hypothalamus
- GABA cortex, limbic system, hypothalamus, locus ceruleus

Panic Attack

- A discrete period of intense fear or distress, accompanied by specific physical and psychological symptoms
 - Onset is rapid (seconds)
 - Peak symptoms are reached within 10 minutes
 - Symptoms may be spontaneous or in response to a specific stimulus (e.g. crowds, driving, elevators)

Panic Attack

- May occur in the context of panic disorder, social phobia, specific phobia, other anxiety disorders, or as an isolated incident
- Differential diagnosis includes many physical disorders, which must be ruled out by history, physical examination, and laboratory studies

Diagnostic Criteria for a Panic Attack

A discrete period of intense fear or discomfort, in which four (or more) of the following symptoms developed abruptly and reached a peak within 10 minutes:

(1) palpitations, pounding heart, or accelerated heart rate

- (2) sweating
- (3) trembling or shaking
- (4) sensations of shortness of breath or smothering
- (5) feeling of choking
- (6) chest pain or discomfort
- (7) nausea or abdominal distress
- (8) feeling dizzy, unsteady, lighthearted, or faint
- (9) derealization (feelings of unreality) or depersonalization (being detached from oneself)
- (10) fear of losing control or going crazy
- (11) fear of dying
- (12) paresthesias (numbress or tingling sensations)
- (13) chills or hot flushes

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Differential Diagnosis of Panic Attack

Cardiovascular	Pulmonary	Neurological
Anemia	Asthma	CVA/TIA
Angina	Hyperventilation	Encephalitis
Arrythmia	Pulmonary	Huntington's
Congestive heart	embolism	Infection
failure		Meniere's
Hypertension		Migraine
Mitral valve		Multiple sclerosis
prolapse		Seizure
Infarction		Tumor
Tachycardia		

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Cont.)

Differential Diagnosis of Panic Attack (cont.)

Endocrine	Substance Abuse	Other
Addison's	Intoxication:	Anaphylaxis
Cushing's	Amphetamine	B12 deficiency
Diabetes	Caffeine	Electrolyte
Hyperthyroidism	Cocaine	disturbance
Hypothyroidism	Hallucinogens	Heavy metals
Hypoglycemia	Inhalants	Systemic infection
Hypoparathyroidism	Marijuana	Systemic lupus
Pheochromocytoma	Nicotine	erythematosis
Premenstrual	Phencyclidine	Uremia
syndrome	Withdrawal:	
	Alcohol	
	Opiate	

Sedatives

Agoraphobia

- Anxiety about being in situations from which escape might be difficult, or help would not be available if a panic attack occurred. Situations such as being outside the home alone, being in a crowd, traveling in a car or airplane, being on a bridge, or being in a public place are avoided or endured with great distress.
 - Usually secondary to panic disorder
 - Often extremely debilitating

Diagnostic Criteria for Agoraphobia

A. Anxiety about being in places or situations from which escape might be difficult (or embarrassing) or in which help may not be available in the event of having an unexpected or situationally predisposed panic attack or panic-like symptoms. Agoraphobic fears typically involve characteristic clusters of situations that include being outside the home alone; being in a crowd or standing in a line; being on a bridge; and traveling in a bus, train, or automobile.

Note: Consider the diagnosis of specific phobia if the avoidance is limited to one or only a few specific situations, or social phobia if the avoidance is limited to social situations.

B. The situations are avoided (e.g., travel is restricted) or else are endured with marked distress or with anxiety about having a panic attack or panic-like symptoms, or require the presence of a companion.

C. The anxiety or phobic avoidance is not better accounted for by another mental disorder, such as social phobia (e.g., avoidance limited to social situations because of fear of embarrassment), specific phobia (e.g., avoidance limited to a single situation like elevators), obsessive-compulsive disorder (e.g., avoidance of dirt in someone with an obsession about contamination), posttraumatic stress disorder (e.g., avoidance of stimuli associated with a severe stressor), or separation anxiety disorder (e.g., avoidance of leaving home or relatives).

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Panic Disorder

 Recurrent panic attacks, accompanied by at least one month of persistent concern about having another attack, or a change in behavior due to the attacks

Panic disorder *with* agoraphobia

- Lifetime risk is approximately 1%
- Onset is in young adulthood
- Course of panic attacks is variable; agoraphobia tends to worsen if panic attacks are persistent
- Etiology Strong biological component (15-20% concordance with 1st-degree relatives). A behavioral component has been suggested.

Panic disorder *with* agoraphobia

- Comorbidity includes major depressive disorder, suicide, alcohol abuse.
- Treatment: SSRIs, tricyclic antidepressants, MAOIs, and benzodiazepines are effective for panic.
 Behavioral therapies and MAOIs are most effective for agoraphobia. Buspirone is not effective.

Panic disorder *without* agoraphobia

- Lifetime risk is 4%
- Onset is in young adulthood
- Course of panic attacks is variable
- Etiology Strong biological component (15-20% concordance with 1st-degree relatives). A behavioral component has been suggested.

Panic disorder *without* agoraphobia

- Comorbidity includes major depressive disorder, suicide, alcohol abuse
- Treatment: SSRIs, tricyclic antidepressants, MAOIs, and benzodiazepines are effective for panic. Buspirone is not effective.

Diagnostic Criteria for Panic Disorder with Agoraphobia	Diagnostic Criteria for Panic Disorder without Agoraphobia
 A. Both (1) and (2): (1) recurrent unexpected panic attacks (2) at least one of the attacks has been followed by at least 1 month (or more) of the following: 	 A. Both (1) and (2): (1) recurrent unexpected panic attacks (2) at least one of the attacks has been followed by at least 1 month (or more) of the following:
 (a) persistent concern about having additional attacks (b) worry about the implications of the attack or its consequences (e.g., losing control, having a heart attack, "going crazy") (c) a significant change in behavior related to the attacks 	 (a) persistent concern about having additional attacks (b) worry about the implications of the attack or its consequences (e.g., losing control, having a heart attack, "going crazy") (c) a significant change in behavior related to the attacks
B. Presence of agoraphobia.	B. Absence of agoraphobia.
C. The panic attacks 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., hyperthyroidism).	C. The panic attacks 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., hyperthyroidism).
D. The panic attacks are not better accounted for by another mental disorder, such as social phobia (e.g., occurring on exposure to feared social situations), specific phobia (e.g., on exposure to a specific phobic situation), obsessive compulsive disorder (e.g., on exposure to dirt in someone with an obsession about contamination), posttraumatic stress disorder (e.g., in response to stimuli associated with a severe stressor), or separation anxiety disorder (e.g., in response to being away from home or close relatives).	D. The panic attacks are not better accounted for by another mental disorder, such as social phobia (e.g., occurring on exposure to feared social situations), specific phobia (e.g., on exposure to a specific phobic situation), obsessive compulsive disorder (e.g., on exposure to dirt in someone with an obsession about contamination), posttraumatic stress disorder (e.g., in response to stimuli associated with a severe stressor), or separation anxiety disorder (e.g., in response to being away from home or close relatives).

Agoraphobia without a history of panic disorder

- Available information on prevalence, course, and etiology is quite varied. Often chronic and incapacitating.
- Treatment: Behavioral therapy is recommended

Diagnostic Criteria for Agoraphobia without a History of Panic Disorder

- A. The presence of agoraphobia related to fear of developing panic-like symptoms (e.g., dizziness or diarrhea).
- B. Criteria have never been met for panic disorder.
- C. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.
- D. If an associated general medical condition is present, the fear described in criterion A is clearly in excess of that usually associated with the condition.

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Social Phobia

• Marked and persistent fear of embarrassment in social or performance situations, which is recognized as being excessive, and which interferes with the person's function

Social Phobia

- Lifetime prevalence: 2-5%
- 50% higher in women than men
- Onset is in adolescence, often in a shy child
- The course is typically lifelong and continuous

Social Phobia

- Etiology: The disorder is more common among 1st degree relatives, and is associated with high autonomic arousal
- Treatment: ß-Blockers for performance anxiety; behavioral therapy; SSRIs; benzodiazepines; MAOIs

Diagnostic Criteria for Social Phobia

- A. A marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The individual fears that he or she will act in a way (or show anxiety symptoms) that will be humiliating or embarrassing.
- B. Exposure to the feared social situation almost invariably provokes anxiety, which may take the form of a situationally bound or situationally predisposed panic attack.
- C. The person recognizes that the fear is excessive or unreasonable.
- D. The feared social or performance situations are avoided, or else endured with intense anxiety or distress.
- E. The avoidance, anxious anticipation, or distress in the feared social or performance situation(s) interferes significantly with the person's normal routine, occupational (academic) functioning, or social activities or relationships with others, or there is marked distress about having the phobia.

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Specific Phobia (formerly "Simple Phobia")

- Marked and persistent fear of a specific object or situation (animals, flying, heights, blood, etc.)
- Exposure to the "phobic stimulus" almost always provokes an immediate anxiety response, recognized as being excessive, which leads to avoidance of the stimulus, and interferes with the person's function

Specific Phobia

- Prevalence: 10%; 3X higher in women than men
- Onset is usually in childhood, with a 2nd peak of onset in the 20's
- The course is usually lifelong and continuous
- Etiology: The disorder is more common among 1st degree relatives

Specific Phobia

- Comorbidity: Vasovagal fainting; alcohol abuse
- Treatment: Behavioral (exposure) therapy is most effective; benzodiazepine for scheduled exposures (e.g. airline flight)
Social and Specific Phobias

Diagnostic Criteria for Specific Phobia

- A. Marked and persistent fear that is excessive or unreasonable, cued by the presence or anticipation of a specific object or situation (e.g., flying, heights, animals, receiving an injection, seeing blood).
- B. Exposure to the phobic stimulus almost invariably provokes an immediate anxiety response, which may take the form of a situationally bound or situationally predisposed panic attack.
- C. The person recognizes that the fear is excessive or unreasonable.
- D. The phobic situation(s) is avoided, or else endured with intense anxiety or distress.
- E. The avoidance, anxious anticipation, or distress in the feared situation(s) interferes significantly with the person's normal routine, occupational (or academic) functioning, or social activities or relationships with others, or there is marked distress about having the phobia.

 Recurrent and persistent thoughts or behaviors that are recognized as being excessive and unreasonable, and either cause marked distress, are timeconsuming, or interfere with the person's function

Obsessions

• Recurrent and persistent thoughts, impulses, or images that are intrusive and disturbing

Compulsions

 Repetitive behaviors (e.g. hand washing, checking, counting) that the person is driven to perform in response to obsessions or according to rigid rules, in order to reduce distress or prevent a feared situation

Clinical characteristics

- Prevalence: 2-3%
- Onset is usually in the early teens for males, and midtwenties for females
- The course is usually lifelong, with waxing and waning of symptoms. Severe symptoms cause extreme disability.
- Etiology: The concordance rate among 1st degree relatives is 30%; between monozygotic twins it is 75%

Clinical characteristics

- Comorbidity: Major depressive disorder (30%), eating disorders, panic disorder (15-20%), generalized anxiety, Tourette's (5%), schizotypal traits
- Treatment: SSRIs, clomipramine; behavioral therapy; in severe cases psychosurgery (cingulotomy, subcaudate tractectomy, limbic leukotomy, or anterior capsulotomy)

Diagnostic Criteria for Obsessive Compulsive Disorder

A. Either obsessions or compulsions: *Obsessions as defined by* (1), (2), (3), *and* (4):

- (1) recurrent and persistent thoughts, impulses, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate, and cause marked anxiety or distress
- (2) the thoughts, impulses, or images are not simply excessive worries about real-life problems
- (3) the person attempts to ignore or suppress such thoughts, impulses, or images to neutralize them with some other thought or action
- (4) the person recognizes that the obsessional thoughts, impulses, or images are a product of his or her own mind (not imposed from without as in thought insertion)

Compulsions as defined by (1) and (2):

- repetitive behaviors (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession, or according to rules that must be applied rigidly
- (2) the behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation; however, these behaviors or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive
- B. At some point during the course of the disorder, the person has recognized that the obsessions or compulsions are excessive or unreasonable. Note: this does not apply to children.
- C. The obsessions or compulsions cause marked distress; are time-consuming (take more than an hour a day); or significantly interfere with the person's normal routine, occupational (or academic) functioning, or usual social activities or relationships.

Posttraumatic Stress Disorder (PTSD)

- Following a severe traumatic event
- the person re-experiences the trauma through flashbacks, nightmares, or disturbing memories
- consciously or unconsciously avoids stimuli associated with the trauma
- experiences increased arousal
- symptoms last more than 1 month
- symptoms significantly interfere with the person's function

Diagnostic Criteria for Posttraumatic Stress Disorder

- A. The person has been exposed to a traumatic event in which both of the following were present:
 - (1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
 - (2) the person's response involved intense fear, helplessness, or horror
- B. The traumatic event is persistently reexperienced in one (or more) of the following ways:
 - (1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions.
 - (2) recurrent distressing dreams of the event.
 - (3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur upon awakening or when intoxicated)
 - (4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
 - (5) physiologic reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

(cont.)

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Diagnostic Criteria for Posttraumatic Stress Disorder (Cont.)

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

(1) efforts to avoid thoughts, feelings, or conversations associated with the trauma
(2) efforts to avoid activities, places, or people that arouse recollections of the trauma
(3) inability to recall an important aspect of the trauma
(4) markedly diminished interest or participation in significant activities
(5) feeling of detachment or estrangement from others
(6) restricted range of affect (e.g., unable to have loving feelings)
(7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

(1) difficulty failing or staying asleep
(2) irritability or outbursts of anger
(3) difficulty concentrating
(4) hypervigilance
(5) exaggerated startle response

(cont.)

Diagnostic Criteria for Posttraumatic Stress Disorder (Cont.)

- E. Duration of the disturbance (symptoms in criteria B, C, and D) is more than one month.
- F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:

Acute: if duration of symptoms is less than 3 months **Chronic:** if duration of symptoms is 3 months or more

Specify if:

With delayed onset: onset of symptoms at least six months after the stressor

Posttraumatic Stress Disorder (PTSD)

- Prevalence: 2-9%
- The highest prevalence is following war experiences and sexual assault. Lower prevalence is observed following motor vehicle accidents, fires, and natural disasters. Prevalence is higher in females than in males.
- Onset of the symptoms may be immediate (within 6 months of the trauma), or delayed (>6 months after the trauma)
- Course is variable

Posttraumatic Stress Disorder (PTSD)

- Etiology: Predisposing factors include anxiety, depression, and antisocial traits in the individual or family
- Comorbidity: Suicide, major depressive disorder, substance abuse
- Treatment: Behavioral therapy, SSRIs, tricyclic antidepressants, MAOIs

Acute Stress Disorder:

- Similar to PTSD, but
- onset is within 1 month of the traumatic event, and
- the symptoms subside within 1 month of onset

Generalized Anxiety Disorder

- Excessive anxiety and worry about several events or issues
- accompanied by at least 3 somatic or psychological symptoms
- lasting at least 6 months
- interfering with the person's ability to function

Diagnostic Criteria for Generalized Anxiety Disorder

- A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).
- B. The person finds it difficult to control the worry.
- C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past six months).
 - (1) restlessness or feeling keyed up or on edge
 - (2) being easily fatigued
 - (3) difficulty concentrating or mind going blank
 - (4) irritability
 - (5) muscle tension
 - (6) sleep disturbance (difficulty failing or staying asleep, or restless unsatisfying sleep)

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Generalized Anxiety Disorder

- Prevalence: 5%. Slightly more common in females than in males.
- Onset is usually early in life, but may occur at any age
- Course is chronic, with waxing and waning, often in response to stressful situations
- Etiology: There is a weak association with anxiety disorders of all types among 1st degree relatives

Generalized Anxiety Disorder

- Comorbidity: Other anxiety disorders are very common (80%); major depressive disorder (7%)
- Treatment: Benzodiazepines, buspirone, SSRIs, tricyclic antidepressants, behavioral (relaxation) therapy

Adjustment Disorder with Anxiety

- Significant anxiety, worry, or nervousness arising in response to an identifiable psychosocial stressor
 - Onset must be within 3 months of the stressor
 - Symptoms must resolve within 6 months of onset

Anxiety Disorder Due to a General Medical Condition

- Anxiety, panic attacks, or obsessive compulsive symptoms arise as a direct physiological effect of the medical condition
- Anxiety arising as an emotional response to the stress of an illness should be diagnosed as an adjustment disorder

Substance Induced Anxiety Disorder

 Anxiety, panic attacks, or obsessive compulsive symptoms arising from substance intoxication or withdrawal

Substance Induced Anxiety Disorder

Substances commonly associated with anxiety symptoms

Intoxication

- Amphetamine
- Caffeine
- Cocaine
- Hallucinogens
- Inhalants
- Marijuana
- Nicotine
- Phencyclidine

<u>Withdrawal</u>

- Alcohol
- Opiate
- Sedatives

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Slide 18: Sadock BJ, Sadock VA: *Kaplan and Sadock's Synopsis of Psychiatry*, 9th ed, Philadelphia, Lippincott Williams & Wilkins, p. 605
Slide 19: Sadock BJ, Sadock VA: *Kaplan and Sadock's Synopsis of Psychiatry*, 9th ed, Philadelphia, Lippincott Williams & Wilkins, p. 605
Slide 19: Sadock BJ, Sadock VA: *Kaplan and Sadock's Synopsis of Psychiatry*, 9th ed, Philadelphia, Lippincott Williams & Wilkins, p. 605
Slide 21: *DSM-IV-TR*, pp. 396-97
Slide 27: *DSM-IV-TR*, pp. 440-441
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