Anxiety Disorders

What is an Anxiety Disorder?

- Class of psychiatry disorders that purport to share *features of responding:*
- Prototypical fear
  - Comprised of escape behaviors, physiological arousal, thoughts of imminent threat
- Prototypical anxiety
  - Comprised of avoidant behaviors, tension, and thoughts of future threat

Craske et al. (2009)

Fear	Anxious
Immediate threat	Future threat
Sympathetic arousal	Muscle tension
Escape	Avoidance

Anxiety vs Fear

- Separate, yet highly correlated
- Social phobia seems to straddle between fear and anxious, but the others are more distinct
- Anxiety-disordered show differences from controls in both experimental and clinical ways
  - Conditioning, attention to fear stimuli, info processing

Craske et al. (2009)

Anxiety Disorder Characteristics

- Elevated sensitivity to threat
- Preconscious attentional bias toward personally relevant threat stimuli
- Bias to interpret ambiguous information in a threat-relevant manner
- Elevated amygdala responses to specific *and* general threat cues

Craske et al. (2009)

Culture & Anxiety Disorders

- US and European rates generally converge
- Compared to other national surveys, though
  - Higher 12-month rates of PD, Specific Phobia, and SAD
  - Similar AWOPD, OCD, and GAD rates
- Lowest rates are found in Asia and Africa
  - Replicated by lower rates of disorder among US populations of Asian and African descent

Lewis-Fernandez et al. (2011)

Impact of Anxiety Disorders

- Highest overall prevalence rate among psychiatric disorders
  - 12-month rate of 18.1%; lifetime rate of 28.8%
- 31.5% of total expenditures for mental health, around $46.6 billion
- Huge impact on QoL and functioning

Olatunji et al. (2007)

Impact of Anxiety Disorders

- Increased marital and financial problems
- Lowered educational attainment
- Higher rates of public assistance
- Role limitations
- Higher rates of divorce and disability

Olatunji et al. (2007)

Evidence-Based Practice

- Refers to using best available *scientific* data to guide treatment choices
- Two broad classes of evidence-based treatment: psychotherapy and pharmacology

EBP - Pharmacology

- Anxiety disorders show a strong placebo response, especially at mild-moderate levels
- In milder, recent-onset anxiety disorders consider “watchful waiting” or therapy
- SSRIs are considered the “first line” drug, and are effective across many disorders

Baldwin et al. (2005)

EBP - Pharmacology

- Benzodiazepines are effective, but should only be used short-term except in treatment-refractory cases
- With all, careful monitoring of side effects and discussion of withdrawal symptoms

Baldwin et al. (2005)

EBP - Psychotherapy

- Overall, equal initial efficacy for *certain* kinds of therapy to pharmacology, and better long-term outcomes
- Cognitive and behavioral approaches are superior to other therapies for anxiety

Empirically Supported Treatments

Level of empirical support					
Disorder and treatments	Overall status	Cognition	Physiology	Behavior	Subjective
Specific phobia					
SD	Experimental	Exp	Exp	Exp	Exp
OST	Well-established	Exp	Exp	Prob	Well Est
Social phobia					
BT	Probably efficacious	Exp	Exp	Prob	Prob
GCBT	Probably efficacious	Exp	Exp	Exp	Prob
Obsessive-compulsive disorder					
ICBT	Well-established	Exp	Exp	Exp	Exp
GCBT	Experimental	Exp	Exp	Exp	Exp
CBT + Med	Probably efficacious	Exp	Exp	Exp	Exp
Posttraumatic stress disorder					
ICBT	Well-established	Exp	Exp	Prob	Prob
GCBT	Experimental	Exp	Exp	Exp	Exp
Childhood anxieties (combined)					
ICBT	Probably efficacious	Prob	Exp	Prob	Prob
GCBT	Well-established	Exp	Exp	Prob	Well Est
Family-focused	Probably efficacious	Exp	Exp	Exp	Exp
CBT + Med	Probably efficacious	Exp	Exp	Exp	Exp
Bibliotherapy	Probably efficacious	Exp	Exp	Prob	Exp

Note: SD = systematic desensitization; CBT = cognitive-behavioral therapy; OST = ones session CBT; BT = behavior therapy; I = individual; G = group; Med = Medication; Exp = experimental empirical status; Prob = probably efficacious empirical status; Well Est = well-established empirical status.

Davis et al. (2011)

Barriers to Treatment

- Large discrepancy between efficaciousness of EBP treatment and patient access to it
- This is particularly true when it comes to CBT, which is more cost effective and enduring than pharmacological treatments
- CBT has both efficacy and effectiveness data

Gunter & Whitall, (2010)

What's the Problem?

- Fear of harm from exposure techniques
- Lack of training opportunities
- Non-CBT orientation and resistance
- Clinical-research gap and mistrust of evidence
- Organizational / economic concerns

Gunter & Whitall, (2010), Olatunji et al. (2009)

Anxiety Comorbidity

- "Pure" anxiety disorders are an exception, with extremely high comorbidity rates seen
- GAD at 66-83% is the highest, but all the others are over 50%
- Severity tends to increase concurrent with comorbidity

Lack et al. (in press)

Anxiety Comorbidity

- This has raised concerns about generalization of treatment outcome research
- Overall, research shows that comorbidity does *not* decrease treatment effects from CBT
- Both transdiagnostic and specifically developed treatments have support for treating comorbid anxiety disorders

Lack et al. (in press)

Specific Phobias

Operational Definition

A. Marked fear or anxiety about a specific object or situation

B. The phobic object or situation consistently provokes fear or anxiety.

C. The phobic object or situation is actively avoided or endured with intense fear or anxiety.

D. The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation.

Operational Definition

E. The duration is at least 6 months.

F. The fear, anxiety or avoidance cause clinically significant distress or impairment

G. The fear, anxiety and avoidance associated with the specific object or situation are not restricted to the symptoms of disorder

Types of SP

- *Animal type* (e.g., spiders, insects, dogs)
- *Natural environment type* (e.g., heights, storms, water)
- *Blood-injection-injury type* (e.g. needles, invasive medical procedures, dental phobia)
- *Situational type* (e.g., flying, driving, bridges, tunnels, enclosed places)
- *Other type* (e.g., situations that may lead to choking or vomiting; in children, loud sounds or costumed characters)

Phobia Prevalence

- Animal phobia – 3.3-7%
- Natural environment – 8.9-11.6%
- B-I-I – 3-4.5%
- Situational – 5.2-8.4%

LeBeau et al. (2010)

Gender Differences

- 21.2-26.5% of women and 10.9-12.4% of men met criteria for a SP
- Animal, situational, and storm/water overwhelmingly female
- Heights (60% female) and B-I-I (35-65% female) more evenly distributed

Gamble et al. (2010); LeBeau et al. (2010)

SES & Cultural Differences

- Appear to be few differences in type prevalence across SES, family structure, or age
- Some research on cultural differences
  - Af-Am endorse SP at three times white rates
  - Af-Am endorse more animal phobias, less B-I-I phobias than whites
  - Asian and Hispanics show lower rates than whites

Chaptman et al. (2008); Ollendick et al. (2010)

Etiology

- Two possible frameworks
  1. Associative
     - Direct conditioning, vicarious conditioning, modeling
  2. Nonassociative means
     - Preparedness, innate fears
- May also be an interaction between the two

Coelho & Purkis (2009)

Specific Phobia Treatment

- Gold-standard treatment for phobias is exposure with response prevention
- Specifically, Öst's "One Session Treatment" protocol has been shown to work very well
- Two phases: assessment and treatment

Davis et al. (2009)

Medications for SP

- OST is gold-standard, meds alone are not effective for treatment
- Orally administered cortisol before exposure has enhanced treatment outcomes
  - Both post-treatment and follow-up
- Unstudied outside of lab, needs replication

de Quervain et al. (2011)

Social Anxiety Disorder

Operational Definition

A. Marked fear or anxiety about one or more social situations in which the person is exposed to possible scrutiny by others.

B. The individual fears that he or she will act in a way, or show anxiety symptoms, that will be negatively evaluated

C. The social situations consistently provoke fear or anxiety

Operational Definition

D. The social situations are avoided or endured with intense fear or anxiety

E. The fear or anxiety is out of proportion to the actual danger posed by the social situation.

F. The duration is at least 6 months.

G. The fear, anxiety, and avoidance cause clinically significant distress or impairment in social, occupational, or other important areas of functioning

Operational Definition

H. The fear, anxiety, and avoidance are not due to the direct physiological effects of a substance or a GMC

I. The fear, anxiety, and avoidance are not restricted to the symptoms of another mental disorder

J. If a general medical condition is present, the fear, anxiety, or avoidance is clearly unrelated to it or is excessive.

SAD Specifiers

- **Performance only**: If the fear is restricted to speaking or performing in public
- **Generalized:** If the fear is of most social situations (and is not restricted to performance situations)
- **Selective Mutism**: Consistent failure to speak in specific social situations (in which there is an expectation for speaking, e.g., at school) despite speaking in other situations

SAD Prevalence

- 7.1% for 12 months, 12.1% for lifetime in US
- Similar rates across Western countries, seen across all cultures in varying rates
- *Taijin kyofusho* in Eastern countries appears to be a culturally specific form of SAD

Stein & Stein (2008)

SAD Onset

- Early onset compared to many disorder, with rates of 6.8% in children
- 50% of adult cases report onset in childhood, over 80% reported starting by age 20
- Only half ever seek treatment, average time is after 15-20 years of diagnosable problems

Bogels et al. (2010); Stein & Stein (2008)

Gender Differences

- Higher rates of females in both adult and adolescent samples
- However, men more likely to seek treatment
- Different common symptoms
  - Men – eating in restaurants and writing in public
  - Women – using public restrooms and speaking in public

Ranta et al. (2007); Weinstock (1999)

SES & Cultural Differences

- More prevalent in low SES and less educated
- Fear of embarrassing self (Western) versus fear of offending others (Eastern)
- Native Americans at higher risk that whites or African-Americans, but this changes across ages

Lewis-Fernandez et al. (2009)

Etiology

- Behaviorally inhibited temperaments place individuals at high risk for SAD
- Modest heritability of SAD, likely due to BI or introversion, but could be shared environment
- Multiple gene variants and neurotransmitters seem to play a role (no one pathway)

Morreale et al. (2010)

Etiology

- Family environment reported to be more overprotective, less affectionate
- Families also emphasize concern of other's opinions, lack of family sociability
- CBT model emphasizes role of negative aspects of self and situation

Morreale et al. (2010)

SAD Treatment

- Large evidence base for pharmacology and psychotherapy, individually but not combined
- Effect sizes are roughly equal for SSRIs and CBT (1.5 vs 1.8)
- SSRIs work sooner, but CBT effects last longer

Stein & Stein (2008)

Generalized Anxiety Disorder

Operational Definition

A. Excessive anxiety and worry (apprehensive expectation) about two (or more) domains of activities or events

B. The excessive anxiety and worry occur on more days than not for three months or more

C. The anxiety and worry are associated with one or more of the following symptoms:

Operational Definition

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

* = key symptom

Operational Definition

D. The anxiety and worry are associated with one (or more) of the following behaviors:
   1. Marked avoidance of situations in which a negative outcome could occur
   2. Marked time and effort preparing for situations in which a negative outcome could occur
   3. Marked procrastination in behavior or decision-making due to worries
   4. Repeatedly seeking reassurance due to worries

Operational Definition

E. The focus of the anxiety and worry are not restricted to symptoms of another disorder.

F. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

G. The disturbance is not due to the direct physiological effects of a substance or a general medical condition

GAD Prevalence

- Very frequently observed in epidemiological studies
- 1.5-3% current, 4-7% lifetime rates in USA
- 1.2-1.9% current, 4.3-5.9% lifetime in Europe

Tyler & Baldwin (2006); van der Heiden et al. (2011)

GAD Course

- Generally considered a chronic problem, but newer research shows
  - Under 20% chronicity
  - Much higher remission than assumed
- Still, poor prognosis without treatment, and only 40% seek treatment

Tyler & Baldwin (2006); van der Heiden et al. (2011)

Gender Differences

- Prevalence is doubled in females:
  - Lifetime ratio of 1 male to 1.9 females
  - 12-month rate of 1 male to 2.2 females
- Differing comorbidity rates
  - More SUD and ASPD in males
  - More mood and anxiety disorders in females
- Higher disability rates in females

Vesaga-Lopez et al. (2008)

SES & Cultural Differences

- Being female, middle-aged, non-married, and low income increases risk
- Being Asian, Hispanic, or Black decreases risk
- Eastern cultures may show more somatic symptoms than Western

Grant et al. (2008)

Etiology

- Anxiety is biologically useful, maybe especially so for females
- May share genetic risk factors with MDD, with environment shaping outward behaviors
- Neuroticism, which is genetically influenced, and GAD are strongly correlated

Tyler & Baldwin (2006)

GAD as GWD

- Worry is *the* defining feature of GAD
- Average person spends 15% of day worrying; person with GAD spends over 60% on average
- An avoidant coping strategy, maintained via dual types of reinforcements

Andrews et al. (2010)

GAD Treatment

- Similar effect sizes for psychological (0.7) and pharmacological (0.6) treatments
- Lack of access to trained clinicians, however, hampers outcome rates
- Leads to majority of GAD patients being treatment with medications

Tyler & Baldwin (2006)

Obsessive-Compulsive Disorder

Operational Definition

A. Either obsessions *or* compulsions:

- Obsessions as defined by (1) and (2):
  1. Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted and that in most individuals cause marked anxiety or distress
  2. The person attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with some other thought or action (i.e., by performing a compulsion)

Common Obsessions

- Unwanted thoughts of harming loved ones
- Persistent doubts that one has not locked doors or switched off electrical appliances
- Intrusive thoughts of being contaminated
- Morally or sexually repugnant thoughts

Operational Definition

- Compulsions as defined by (1) and (2):
  1. Repetitive behaviors or mental acts 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 anxiety or 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

Common Compulsions

- Hand washing
- Ordering
- Checking
- Praying
- Counting
- Thinking good thoughts to undo bad ones

Operational Definition

B. The O/C are time consuming (for example, take more than 1 hour a day) or cause clinically significant distress or impairment in functioning.

C. The O/C symptoms are not due to the direct physiological effects of a substance or a GMC

D. The content of the obsessions or compulsions is not restricted to the symptoms of another mental disorder

OCD Symptom Dimensions

- Some disagreement over how many dimensions are present
- Factor analytic and latent class analysis models have come up with different dimensions
- Dimensions appear to be temporally stable

Abramowitz et al. (2009); Leckman et al. (2010)

4-factor

- Hoarding
- Contamination/cleaning
- Symmetry/ordering
- Forbidden thoughts

5-factor

- Hoarding
- Contamination/ cleaning
- Symmetry/ordering
- Forbidden thoughts
- Over-responsibility

LCA

- Single spectrum based on severity or number of endorsed symptoms

OCD Prevalence

- Between 2-3% in the adult population
  - Large number of "sub-clinical" cases (5%)
- Around 1% in pediatric population
- 96%+ of patients have both O and C

Abramowitz et al. (2009); Leckman et al. (2010)

OCD Course

- Usually gradual onset
- Chronic, unremitting course if untreated
- Symptoms can change across time, but will rarely disappear

Abramowitz et al. (2009);

Gender Differences

- No sex differences in adults, but many more male youth are diagnosed
- Among men, hoarding associated with GAD and tic disorders, but in women with SAD, PTSD, BDD, nail biting, and skin picking

Vesaga-Lopez et al. (2008)

SES & Cultural Differences

- Similar symptom categories across cultures, but can impact content of O/C

Abramowitz et al. (2009)

Etiology

- Modestly heritable for adult onset (27-47%)
- Higher heritability for child onset (45-65%)
- Obviously, environment is still very important contributor to OCD

Abramowitz et al. (2009)

Etiology

- CBT model proposes that O/C arise from dysfunctional beliefs
- The stronger the beliefs, the greater chance a person will develop OCD
- Basis is the finding that unwanted cognitive intrusions are experienced by most people, with similar contents to clinical obsessions

Abramowitz et al. (2009)

Etiology

- Intrusions become obsession if appraised as
  - Personally important
  - Highly unacceptable or immoral
  - Posing a threat for which the individual is personally responsible
- One then attempts to alleviate distress this causes via compulsions

Abramowitz et al. (2009)

Pharmacology for OCD

- Overall, pharmacology (SRIs) shows large effect sizes in adults (0.91), but…
  - Most treatment responders show residuals
  - Very high relapse rate (24-89%)
- Only moderate effect sizes in youth (0.46)

Abramowitz et al. (2009)

CBT for OCD

- The treatment of choice, for both adult and child OCD; superior to meds alone
- Primarily focuses on EX/RP, which has shown effect sizes of 1.16-1.72
- Low (12%) relapse rate, but up to 25% will drop out prior to completion of treatment

Panic Disorder & Agoraphobia

Panic Attack Operational Definition

- An abrupt surge of intense fear/discomfort that reaches a peak within minutes, and during which time four or more of the following symptoms occur.
  1. Palpitations, pounding heart, or accelerated heart rate
  2. Sweating
  3. Trembling or shaking
  4. Sensations of shortness of breath or smothering

Panic Attack Operational Definition

5. Feelings of choking
6. Chest pain or discomfort
7. Nausea or abdominal distress
8. Feeling dizzy, unsteady, lightheaded, or faint
9. Chills or heat sensations
10. Paresthesias (numbness or tingling sensations)
11. Derealization (feelings of unreality) or depersonalization (being detached from oneself)
12. Fear of losing control or going crazy
13. Fear of dying

Panic Attacks

- Common across all anxiety disorders, especially in the phobias and PTSD
- Heart-pounding and dizziness are most common symptoms
- Heterogeneous from PA to PA, even within the same person

Craske et al. (2010)

PA Prevalence

- 11.2% for 12-month, 28.3% for lifetime
- Over 22% of college students report having a PA in the last year

Craske et al. (2010); Kessler et al. (2006)

PD Operational Definition

A. Recurrent unexpected panic attacks

B. At least one of the attacks has been followed by 1 month (or more) of one/both of the following:
   1. Persistent concern or worry about additional panic attacks or their consequences
   2. Significant maladaptive change in behavior related to the attacks

PD Operational Definition

C. The Panic Attacks are not restricted to the direct physiological effects of a substance or GMC

D. The Panic Attacks are not restricted to the symptoms of another mental disorder.

PD Prevalence

- 2.7% 12-month, 4.7% lifetime rates in US
- Lower international rates seen
  - Ukraine at 1.27% and 1.94%
  - Japan at 0.5% 12-month
  - Germany at 1.8% 12-month
- Very low rates in children and adolescents

Craske et al. (2010); Roy-Byrne et al. (2006)

Agoraphobia

- Recommended to be included as a separate disorder in DSM-V, based on
  - Psychometric evaluations of the construct
  - Epidemiological investigations
  - Impact on clinical course and outcome
- Already a separate disorder in ICD-10

Craske et al. (2010)

AG Operational Definition

A. Marked fear or anxiety about at least two agoraphobic situations, such as the following
   - 1) being outside of the home alone
   - 2) public transportation
   - 3) open spaces
   - 4) being in shops, theaters, or cinemas
   - 5) standing in line or being in a crowd.

AG Operational Definition

B. The individual fears and/or avoids these situations because escape might be difficult or help might not be available in the event of incapacitation or panic-like symptoms

C. The agoraphobic situations consistently provoke fear or anxiety

AG Operational Definition

D. The agoraphobic situations are avoided, require the presence of a companion, or are endured with intense fear or anxiety

E. The fear or anxiety is out of proportion to the actual danger posed by the agoraphobic situations.

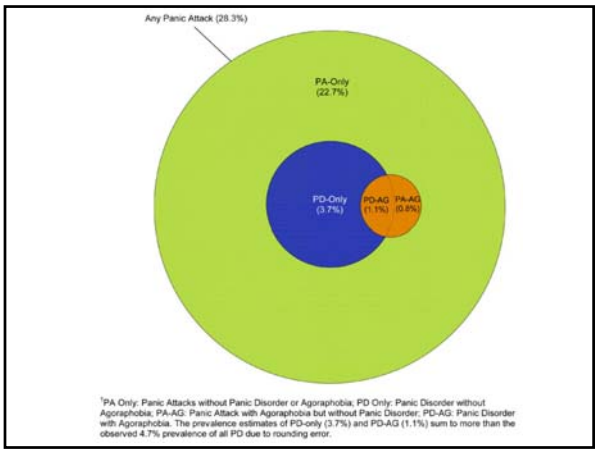
F. The duration is at least 6 months.

AG Operational Definition

G. Cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

H. Not restricted to the direct physiological effects of a substance or GMC

I. Not restricted to the symptoms of another disorder



[1]PA Only: Panic Attacks without Panic Disorder or Agoraphobia; PD Only: Panic Disorder without Agoraphobia; PA-AG: Panic Attack with Agoraphobia but without Panic Disorder; PD-AG: Panic Disorder with Agoraphobia. The prevalence estimates of PD-only (3.7%) and PD-AG (1.1%) sum to more than the observed 4.7% prevalence of all PD due to rounding error.

PD Course

- Rate of PD shows gradual increase during adolescence, particularly in girls, possibly following onset of puberty
- Lower chronic problems than GAD or SAD, as 30% remit within few years and 35% show notable improvements
- PAs appear to decrease with old age

Craske et al. (2010); Roy-Byrne et al. (2006)

Gender Differences

- Many more females than males
- Observable gender difference by age 14, widening gap in adolescence

Craske et al. (2010)

SES & Cultural Differences

- Certain symptoms more/less common
  - Paresthesias among African Americans
  - Trembling among Caribbean Latinos
  - Dizziness among several East Asian groups
  - Fear of dying among Arabs and African Americans
  - Depersonalization/derealization and loss of control in Puerto Ricans

Hinton & Lewis-Fernandez (2010)

SES & Cultural Differences

- *Khyâl* attacks in Cambodia are characterized by a mix of PA and culture-specific symptoms
  - Tinnitus and neck soreness w/ dizziness
- *Ataque de nervios* (attack of nerves) among Latin Americans and *trunggio* (wind)-related attacks in Vietnam are cultural PAs

Hinton & Lewis-Fernandez (2010)

Etiology

- Behavioral inhibition is highly implicated, and parents with PD are more likely to have BI children
- Heritability of 40%, with shared (10%) and unshared (50%) environments contributing
- Early trauma/maltreatment a risk factor

Roy-Byrne et al. (2006)

Pharmacology for PD

- SSRIs are preferred treatment, with medium to large effect sizes across all types
- Tricyclics and benzodiazipines are effective, but used less for side-effect reasons
- In treatment-refractory patients, SSRIs can be supplemental with benzos, or MAOIs can be used

Roy-Byrne et al. (2006)

Pharmacology for PD

- Substantial (25-50%) relapse within 6 months when medications are discontinued
- High potential for withdraw symptoms to become interoceptive cues for a PA

Roy-Byrne et al. (2006)

CBT for PD

- Most well studied and validated treatment, with effect sizes of 0.9-1.55
- Equally effective in individual or group format, standard or brief sessions
- As with all CBT treatments for anxiety, though, there is a massive underutilization

Roberge et al. (2008)

CBT + Pharma

- Both effective alone, although CBT more so
- No benefit for combining the two, as CBT alone is as effective as the combination
- CBT also yields larger long-term effect sizes (0.88-0.99 vs 0.40-0.55)

Agoraphobia Treatment

- As with other phobias, CBT is the best treatment available
- Relies heavily on EX/RP, but also includes psychoeducation and cognitive restructuring

Posttraumatic Stress Disorder

Operational Definition

A. The person was exposed to one or more of the following event(s): death or threatened death, actual or threatened serious injury, or actual or threatened sexual violation, in one or more of the following ways:
   - Experiencing the event(s) him/herself
   - Witnessing, in person, the event(s) as they occurred to others
   - Learning that the event(s) occurred to a close relative or close friend; in such cases, the actual or threatened death must have been violent or accidental
   - Experiencing repeated or extreme exposure to aversive details of the event(s)

Operational Definition

B. Intrusion symptoms that are associated with the traumatic event(s) (that began after the traumatic event(s)), as evidenced by 1 or more of the following:
   - Spontaneous or cued recurrent, involuntary, and intrusive distressing memories of the event(s).
   - Recurrent distressing dreams in which the content and/or affect of the dream is related to the event(s).
   - Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the event(s) were recurring
   - Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the event(s)
   - Marked physiological reactions to reminders of the event(s)

Operational Definition

C. Persistent avoidance of stimuli associated with the traumatic event(s) (that began after the traumatic event(s)), as evidenced by efforts to avoid 1 or more of the following:
   - Avoids internal reminders (thoughts, feelings, or physical sensations) that arouse recollections of the traumatic event(s)
   - Avoids external reminders (people, places, conversations, activities, objects, situations) that arouse recollections of the traumatic event(s).

Operational Definition

D. Negative alterations in cognitions and mood that are associated with the traumatic event(s), as evidenced by 3 or more of the following:
   - Inability to remember an important aspect of the traumatic event(s)
   - Persistent and exaggerated negative expectations about one's self, others, or the
   - Persistent distorted blame of self or others about the cause or consequences of the traumatic event(s)
   - Pervasive negative emotional state
   - Markedly diminished interest or participation in significant activities.
   - Feeling of detachment or estrangement from others.
   - Persistent inability to experience positive emotions

Operational Definition

E. Alterations in arousal and reactivity that are associated with the traumatic event(s), as evidenced by 3 or more of the following:
   - Irritable or aggressive behavior
   - Reckless or self-destructive behavior
   - Hypervigilance
   - Exaggerated startle response
   - Problems with concentration
   - Sleep disturbance

Operational Definition

F. Duration of the disturbance (symptoms in Criteria B, C, D and E) is more than one month.

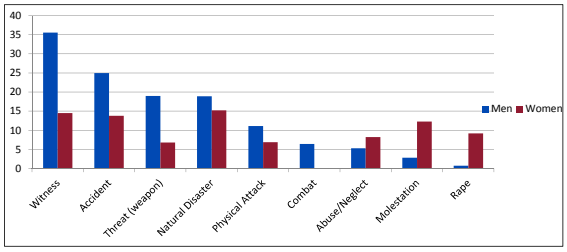
G. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

H. The disturbance is not due to the direct physiological effects of a substance or GMC

PTSD Prevalence

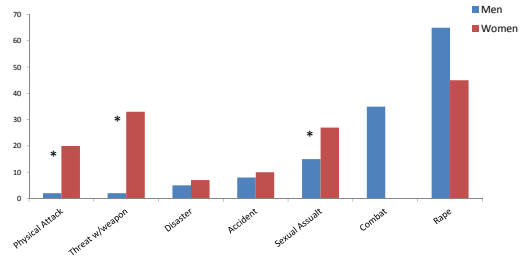
- 61% of men and 51% of women experience a trauma in their lifetime
- More than 25% experience multiple traumas
- Lifetime rate 6.8%, current rate 3.6%

Kessler et al., (1995, 2005)



(Kessler et al., 1995)

PTSD Varies as a Function of Type of Trauma



* Significant gender difference in prevalence

Kessler et al., 1995, 1999

PTSD Prevalence in Vets

- Lifetime prevalence of PTSD is **39%** among male combat veterans
- Male combat vs. all other male trauma
  - Higher lifetime PTSD prevalence
  - Greater likelihood of delayed onset
  - Greater likelihood of unresolved symptoms

PTSD Course

- Course is highly variable
- Onset usually occurs within 1-2 years of trauma, but can be long-delayed
- Median duration was three years in people who received treatment, five years in people who did not

PTSD Risk Factors

- Pretraumatic event:
  - Female gender
  - Some genetic factors
  - Childhood trauma
  - Previous psychiatric problems
  - Lower level of education
  - Lower socioeconomic status
  - Minority race

PTSD Risk Factors

- Peritraumatic event:
  - Greater perceived threat or danger, and helplessness increases risk
  - Unpredictability and uncontrollability of traumatic event also increases risk
- Posttraumatic event:
  - Lack of social support, life stress, attributions

Gender Differences

- Much higher rates in females in civilian populations
- Equal rates seen in military populations, although some controversy over this

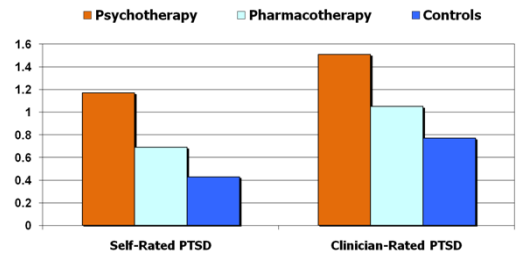
Etiology

- It is adaptive to have strong reactions when your life is threatened
- But, these reactions should decrease when the threat is no longer present
- This does not occur in people with PTSD, it can be seen as a failure to adapt

Treatment

- CBT, particularly Prolonged Exposure, is much more effective than medications
- Medication, however, is more readily available and useful for treating comorbid problems

Meta-Analysis of PTSD Treatments



Van Etten & Taylor, 1998