

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)

Panic Attacks

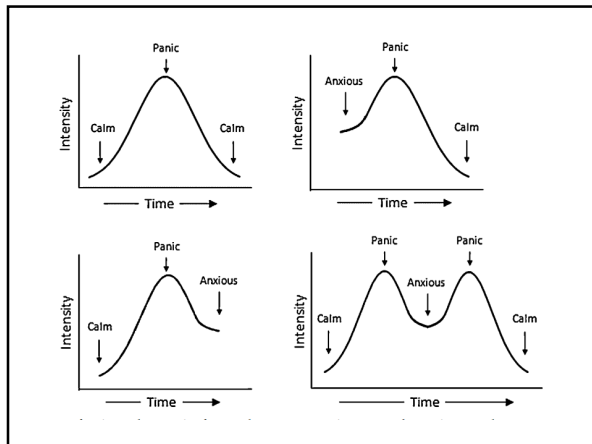
- Less common symptoms predict severity of PA
 - Paresthesias ,choking, and fear of dying
- Under four symptoms is called a “limited symptom panic attack”
- Risk for suicide attempts and ER use was elevated by 20% for reach additional PA symptom

Craske et al. (2010)

Panic Attacks

- No difference between early (< 10 minutes) and later (> 10 minutes) peakers
- PAs are a risk factor for developing other anxiety disorders (SP, SAD, OCD)

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

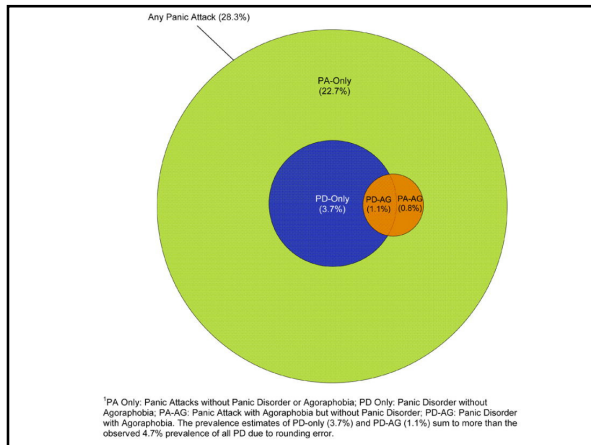
- B. The individual fears and/or avoids these situations because escape might be difficult or help might not be available in the event of incapacitation or panic-like symptoms
- C. The agoraphobic situations consistently provoke fear or anxiety

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

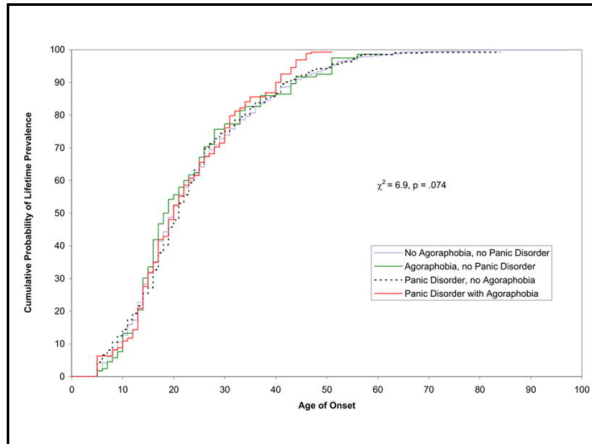
- G. Cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- H. Not restricted to the direct physiological effects of a substance or GMC
- I. Not restricted to the symptoms of another disorder



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)

Comorbidity

	PD	PD-AG	AG
Anxiety	• 66%	• 93.6%	• 77.9%
Mood	• 50%	• 73.3%	• 64.2%
SUD	• 27%	• 37.3%	• 31.4%

Kessler et al. (2006)

Impact of PD

- High rate of medical visits, procedures, and laboratory tests
- Report dissatisfaction with their medical treatment, and physicians rate them more difficult to care for
- Increased risk of suicide

Deacon et al. (2008); Roy-Byrne et al. (2006)

Impact of PD

- Higher med rates than other anxiety disorders

Twelve months utilization of general and specialty medical services

Medical setting	Panic disorder, n = 41 (percent)	OCD, n = 31 (percent)	Social phobia, n = 31 (percent)	GAD, n = 36 (percent)	Specific phobia, n = 31 (percent)	χ^2 (4)
Cardiology	46.3	16.1	16.1	27.8	18.8	12.78*
Dermatology	34.1	19.4	22.6	27.8	31.3	2.54
Endocrinology	4.9	9.7	6.5	5.6	12.5	1.99
Emergency medicine	43.9	16.1	22.6	27.8	25.0	7.89*
ENT	17.1	3.2	6.5	8.3	6.3	5.19
Family medicine	46.3	19.4	16.1	25.0	31.3	10.31*
Gastroenterology	7.3	6.5	6.5	8.3	3.1	0.85
Internal medicine	43.9	38.7	25.8	44.4	43.8	3.37
Neurology	12.2	0.0	3.2	8.3	9.4	5.08
Preventive and occupational medicine	24.4	9.7	29.0	16.7	15.6	4.85
Urgent care	48.8	32.3	35.5	47.2	31.3	4.16

Note. *p < .10; †p < .05.

Deacon et al. (2008)

Etiology

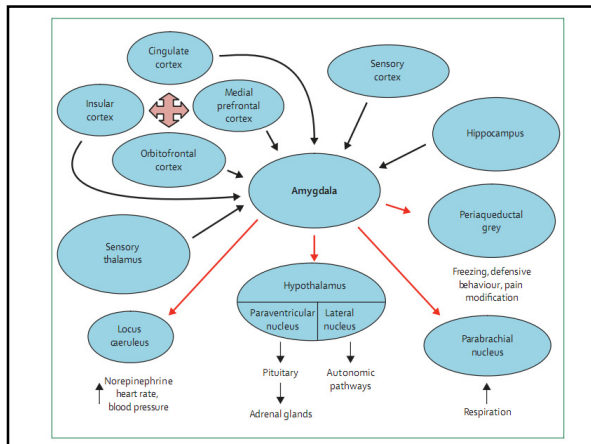
- Behavioral inhibition is highly implicated, and parents with PD are more likely to have BI children
- Heritability of 40%, with shared (10%) and unshared (50%) environments contributing
- Early trauma/maltreatment a risk factor

Roy-Byrne et al. (2006)

Neural Etiology

- Amygdala is the anxiety way-station that mediates incoming stimuli from the environment (thalamus and sensory cortex) and stored experience (frontal cortex and hippocampus)
- This impacts the anxiety and panic response by stimulating various brain areas responsible for key panic symptoms
- The periaqueductal gray in the midbrain could be especially important for mediating panic-anxiety

Roy-Byrne et al. (2006)



Neural Etiology

- Pharmacology can target all parts of this system, affecting amygdala and frontal-lobe interpretation of stimuli, or output effects
- CBT affects the frontal-lobe areas, especially in the medial prefrontal cortex, which is known to inhibit input to the amygdala by using a braking action

Roy-Byrne et al. (2006)

Psychological Etiology

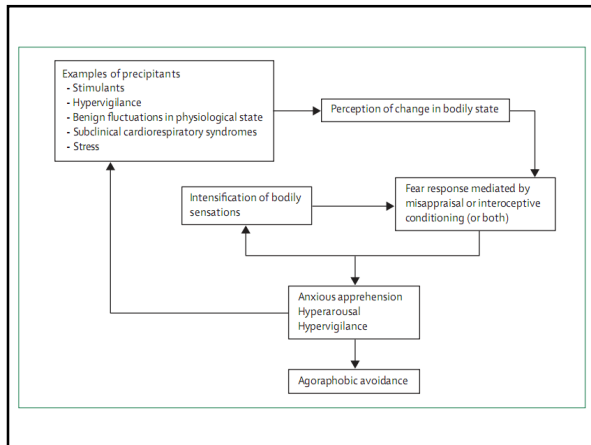
- Anxiety sensitivity is key
 - Belief that anxiety could cause severe physical, social, and psychological consequences that extend beyond any discomfort during a PA
- Acquired via direct experience, vicarious observations, information transmission, or parental reinforcement

Roy-Byrne et al. (2006)

Psychological Etiology

- Fear of PAs is maintained via two factors
- 1. Interoceptive conditioning
 - Early somatic symptoms of anxiety cause pronounced bursts of anxiety
- 2. Catastrophic misappraisals of sensations
 - “I’m losing control” or “I’m going to die”

Roy-Byrne et al. (2006)



Pharmacology for PD

- SSRIs are preferred treatment, with medium to large effect sizes across all types
- Tricyclics and benzodiazepines 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 for PD

- Emphasizes psychoeducation about panic, cognitive restructuring, interoceptive exposure to feared bodily sensations, and in-vivo exposure to feared situations
- Retraining of breathing to help patients cope with their panic and anxiety has been found to be unnecessary

Roy-Byrne et al. (2006)

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
