The Phenomenology, Biology, and Treatment of Anxiety Disorders

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What is Anxiety?

- Anxiety is a normal unpleasant, anticipatory affective state with cognitive, autonomic, neuroendocrine, behavioral, and experiential components.
- Fear behavior is the response response to specific environmental stimuli that are perceived as potentially dangerous. (Davis 1998)
Anxiety and Fear

• Normal Emotions
• Purpose
• Three Components
Three Components of Anxiety

- Physical Feelings
- Cognition (Thoughts, Interpretations, Images)
- Behaviours
The Physical Component

» Increased Heart Rate
» Breathlessness
» Dizziness
» Shaking
» Sweating
» Unreality/Detachment
» Blurred Vision
» Blushing
» Numbness/Tingling
The Cognitive Component

» Anxious Thoughts
» Anxious Predictions
» Anxious Beliefs and Interpretations
» Biases in Attention and Memory
» Mental Images
The Behavioural Component

- Avoidance of Situations and Activities
- Subtle Avoidance Strategies, Safety Signals, and Overprotective Behaviours
- Alcohol, Drug, and Medication Use
DSM-IV Spectrum Of Anxiety Disorders

- Panic Disorder
- Social / Simple Phobias
- OCD
- PTSD
- GAD
Prevalence Of Anxiety Disorders

49% of social anxiety disorder patients have panic disorder**

50% to 65% of panic disorder patients have depression†

70% of social anxiety disorder patients have depression**

67% of OCD patients have depression*

49% of social anxiety disorder patients have panic disorder**

11% of social anxiety disorder patients have OCD**

Lifetime Rates Of Anxiety Disorders In Alcohol-Dependent Patients

* P<.001; ** P<.01.
Economic Burden Of Anxiety Disorders
Total Costs = $42.3 Billion Per Year

- Pharmaceutical Costs: 2%
- Total Direct Psychiatric Treatment Costs: 31%
- Total Workplace Costs: 10%
- Mortality Costs: 3%
- Direct Nonpsychiatric Medical Treatment Costs: 54%

What is a Panic / Anxiety Attack?

An episode of intense fear or discomfort that peaks rapidly (within 10 minutes) and in which at least 4 of the following symptoms were experienced:

- palpitations, pounding or racing heart
- sweating
- trembling or shaking
- shortness of breath or smothering sensations
- feeling of choking
- chest pain or discomfort
- nausea or abdominal distress
- feeling dizzy, unsteady, faint or lightheaded
- feeling unreal or detached
- fear of losing control or going crazy
- fear of dying
- numbness or tingling sensations
- chills or hot flushes
Diagnostic Criteria For Panic Disorder

Criterion A: Recurrent, unexpected panic attacks followed by ≥1 month(s) of persistent concern about another panic attack, worry about possible implications or consequences of panic attacks, or significant behavioral changes related to panic attacks.

Criterion B: Diagnosis of panic disorder +/- agoraphobia*

Criterion C: Panic attacks not due to physiologic effects of a substance or medical condition.

Criterion D: Panic attacks not better accounted for by another mental disorder.

* Agoraphobia is an intense fear of being alone in a place where help might not be available or escape might be difficult. Adapted with permission from American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th ed. 1994.
Panic Attacks 7.3% Recurrent Panic Attacks 4.2%
Panic Disorder 3.5%

Fearful Spells** 15.6%
Without Agoraphobia 2%
With Agoraphobia 1.5%

Prevalence of DSM-III-R Panic Disorder and related experiences in the US population based on data from respondents in the National Comorbidity Survey.

Agoraphobia

Anxiety about being in places or situations from which escape might be difficult or embarrassing in the event of a panic attack

Examples
Enclosed Places
Standing in Lines
Driving
Public Transportation
Being Alone
Crowds
Shopping Malls and Supermarkets
Quality Of Life In Panic Disorder

Diagnosis And Treatment Lower Costs Of Panic Disorder

N = 61.
Specific Phobia

Excessive fear of a specific object or situation causing significant distress or impairment

Common Specific Phobias

Animals and Insects
Blood and Injections
Heights
Storms or Water
Flying
Enclosed Places
Driving
Choking
Vomiting
Indiana Jones Syndrome
(Fear of Snakes)

“Snakes. Why did it have to be snakes?”
Social Anxiety Disorder
(Generalized Social Phobia)

Intense fear of social or performance situations causing significant distress or impairment

Common Feared Situations
- Parties
- Meetings
- Public Speaking
- Performing
- Eating, Drinking, or Writing in Public
- Crowded Places
- Initiating and/or Maintaining Conversations
Social Anxiety Disorder (DSM-IV)

• Fear/avoidance of social situations
• Feared situations avoided or endured with intense anxiety or distress
• Fear recognized as excessive or unreasonable
• Fear/avoidance interferes with work, social, family activities

Comorbidity In Social Anxiety Disorder

Social Anxiety Disorder: Educational And Occupational Impairment

LSAS Score = 74*

* LSAS score in controls = 25; ** Impairment (%) refers to percentage change in wages and percentage point changes in probabilities of college graduation and having a technical, professional, or managerial job.
Missed Opportunity For Treatment: 195 Patients With Generalized Social Anxiety Disorder

Katzelnick et al., 1998
Obsessive-Compulsive Disorder

Recurrent and persistent

**Obsessions**
intrusive thoughts, impulses, images
and/or
**Compulsions**
repetitive behaviours or mental acts

Symptoms cause marked distress or impairment
Time consuming (more than 1 hour/day)
Obsessions

Contamination Obsessions
Excessive Doubting
Need for Symmetry
Accidental Harm to Others
Aggressive Obsessions
Religious Obsessions
Accidental Harm to Others
Compulsions

Checking
Washing and Cleaning
Need to Ask or Confess
Symmetry and Precision
Hoardling
Repeating Actions or Words
Hoardings

Fear of “Germs”
Coexisting Axis I Diagnoses In Primary OCD

- Major Depression: 67%
- Simple Phobia: 22%
- Social Anxiety Disorder: 18%
- Eating Disorder: 17%
- Alcohol Use Disorder/Dependence: 14%
- Panic Disorder: 12%
- Tourette Syndrome: 7%
- Separation Anxiety Disorder: 2%

Diagnosis Of OCD: Interview Questions

• Do you ever find that certain thoughts or images keep coming into your head even though you try to keep them out?
• Do these thoughts “make sense” to you or do they seem silly or absurd?
• What do you do to try to get rid of or counteract these thoughts?
• Do you sometimes feel like you have to do certain things over and over even though you don’t want to?
• Does repeating these actions seem reasonable to you or does it seem excessive?

Adapted with permission from Eddy and Walbroehl. Am Fam Physician. 1998;57:1623.
Generalized Anxiety Disorder

Excessive Worry About
  Work
  Family and Children
  Health
  Finances
  Minor Matters

Worry occurs most days (for at least 6 months)
  Difficult to control worry

Associated with disturbed sleep, irritability, restlessness, poor concentration, fatigue, muscle tension
Diagnostic Criteria for GAD

- Excessive anxiety and worry, for more days than not for ≥6 months, about many subjects
- Worry is difficult to control
- Anxiety, worry, physical symptoms impair social, occupational, and other functioning

Diagnostic Criteria for GAD (cont’d)

• Associated with ≥3 of the following
  – restlessness/keyed-up
  – easily fatigued
  – difficulty concentrating
  – irritability
  – muscle tension
  – sleep disturbances
• Cannot be confined to another Axis 1 diagnosis or the effects of a substance or medical condition
Symptom Overlap In GAD And Depression

Generalized Anxiety Disorder May Be Associated With

- Never Marrying
- Receiving Public Assistance
- Depression
- OCD
- Alcohol Use Disorder/Dependence
- Suicide Attempts

Lifetime Prevalence of Comorbid Disorders in Patients with GAD

<table>
<thead>
<tr>
<th>Disorder</th>
<th>% of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Disorder</td>
<td>90.4</td>
</tr>
<tr>
<td>Major Depression</td>
<td>62.4</td>
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<tr>
<td>Panic Disorder</td>
<td>23.5</td>
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<tr>
<td>Social Anxiety Disorder</td>
<td>34.4</td>
</tr>
<tr>
<td>Alcohol Abuse And Dependence</td>
<td>37.6</td>
</tr>
</tbody>
</table>

GAD: Impairment

- As impairing as major depression*
- High utilizers of health care**
  - 66% seek professional help
  - 44% take medication for symptoms

** Wittchen et al. *Arch Gen Psychiatry*. 1994;51:355.
Core Features Of PTSD

- Intrusive symptoms
- Avoidance behavior
- Emotional Numbing
- Hyperarousal symptoms

Trauma
Non-Combat-Related Trauma Associated With PTSD

Paroxetine is not FDA-approved for treatment of PTSD.
Diagnosis Of PTSD In Primary Care

- Must specifically ask about trauma
- Assess presence of core symptoms
- Patient self-rated scales (eg, Impact of Event Scale, MINI)
- Assess comorbidity (depression, substance use disorders, anxiety disorders)
Psychological Treatments

Cognitive Treatments
Exposure-Based Treatments
Relaxation-Based Treatments
Ritual Prevention

Biological Treatments

Medications
Cognitive Behavioural Therapy

COGNITIVE STRATEGIES

In anxiety, thoughts revolve around:
"probability overestimation"
"catastrophizing the consequences"

That is people overestimate that something bad will happen, and that when it happens, they will be unable to cope.
Cognitive Behavioural Therapy

BEHAVIOURAL STRATEGIES

• Controlled exposure to the feared situation
• Anxiety responses are allowed to "habituate" or decrease without interference
• Teaches the person that the situation is not dangerous, and that anxiety will diminish.
Medications: First Line

Selective Serotonin Re-Uptake Inhibitors (SSRIs)

- Fluoxetine (Prozac)
- Sertraline (Zoloft)
- Paroxetine (Paxil)
- Fluvoxamine (Luvox)
- Citalopram (Celexa)
- Escitalpram (Lexapro)
Medications: 2\textsuperscript{nd}-3\textsuperscript{rd} Line

Other Antidepressants (5-HT and NE Reuptake Inhibitors - SNRIs)
- Venlafaxine (Effexor)
- Imipramine (Tofranil)
- Clomipramine (Anafranil)

Anti-Anxiety Medications (Benzodiazepines)
- Alprazolam (Xanax)
- Clonazepam (Rivotril)
- Lorazepam (Ativan)
- Diazepam (Valium)

Other Antidepressants (Monoamine Oxidase Inhibitors - MAOIs)
- Selegeline (Eldepryl) – antiparkinsonian agent
- Phenelzine (Nardil)
- Tranylcypromine (Parnate)
Choosing a Medication

- Research on effectiveness
- Side effect profile
- Previous response to medications
- Previous response of a family member
- Additional problems present (e.g., depression)
- Cost