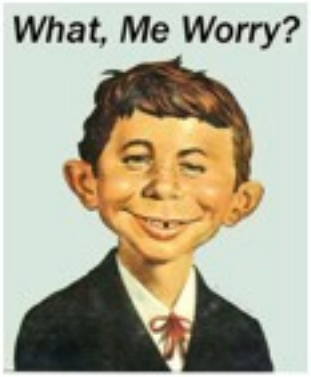


Pharmacological Treatment of Anxiety Disorders

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

LENSES
Bio-Psycho-Social

Bio - anxiety disorders are disease states of the brain

Psycho - anxiety disorders represent behaviors arising from defenses, drives, etc.

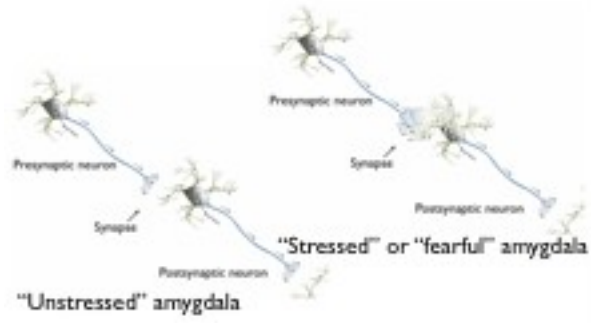
Social - anxiety disorders represent unjust social institutions, the pace of modern life, etc.

Symptoms common to both depression and anxiety may mean similar root causes in the brain, e.g. in serotonin systems

- sleep/appetite disturbance
- difficulty concentrating
- fatigue
- psychomotor agitation, irritability

Amygdala - center for primitive emotions like fear

Neuroplasticity - "neurons that fire together, wire together"



Is this an anxiety disorder?

- You patient, a 34 year old woman, complains of "years" of worry, of "feeling like I have butterflies in my stomach all the time," "shakiness", "on edge all the time", constant muscle tension, being "tense all the time", being easily startled, difficulty concentrating, constant fatigue.

Maybe, but first medical causes must be considered

- hyperthyroidism
- street drugs (e.g. stimulants)
- medications
- mitral valve prolapse, or other cardiac disease

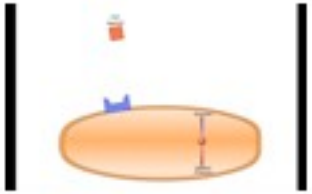
Medications for anxiety disorders

- Benzodiazepines
- SSRIs

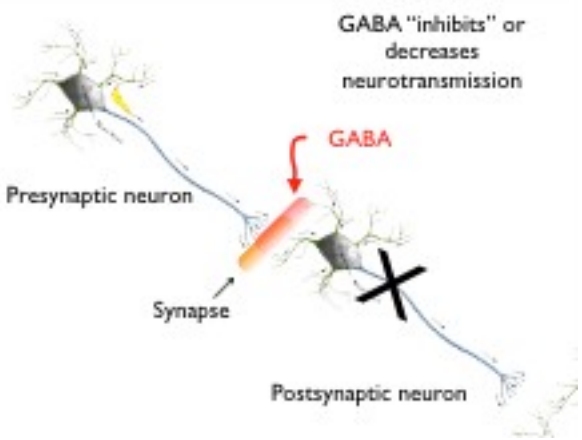
Why benzos for anxiety?

- Benzodiazepines act as if they were GABA agonists

What would you expect a "GABA agonist" to do?



GABA is the primary *inhibitory* neurotransmitter - increasing GABA activity tends to be *anxiolytic*



Four commonly used benzodiazepines

Benzodiazepine	Time to action	Half life	Category
alprazolam (Xanax)	1/2 - 2	6 - 12	Faster onset of action
lorazepam (Ativan)	1 - 2	10 - 20	Shorter half life
diazepam (Valium)	2 - 3	40 - 100	Slower onset of action
clonazepam (Klonopin)	3 - 4	20 - 50	Longer half life

(times in hours)

Common side effects from benzos

- Sedation
- Dizziness
- Fatigue
- Unsteadiness (may be a factor in elderly or those taking other medications)

What's the big problem with benzodiazepines?

- Huge dependence potential
- Taking with alcohol and/or other drugs can be lethal

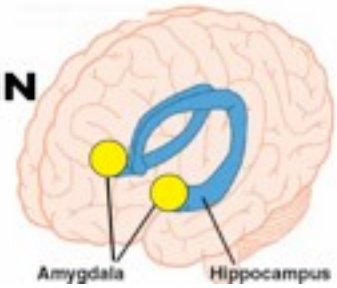
Xanax
Works on kittehs, too

SSRIs

- fluoxetine - Prozac
- sertraline - Zoloft
- citalopram - Celexa
- escitalopram - Lexapro
- paroxetine - Paxil

Role (oversimplistic) of serotonin - decrease of serotonin increases activity of amygdala

SEROTONIN



Common SSRI side effects

- Nausea
- Headache
- Anxiety, "activation"
- Problems sleeping
- Sexual side effects

Anxiety disorders

- Generalized anxiety disorder (GAD)
- Post traumatic stress disorder (PTSD)
- Panic disorder (PD)
- Obsessive compulsive disorder (OCD)

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 6 months). Note: Only one item is required in children.

(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 falling or staying asleep, or restless unsatisfying sleep).

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

E. 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 (e.g., hyperthyroidism) and does not occur exclusively during a Mood Disorder, a Psychotic Disorder, or a Pervasive Developmental Disorder.

Pharmacological treatment anxiety disorders

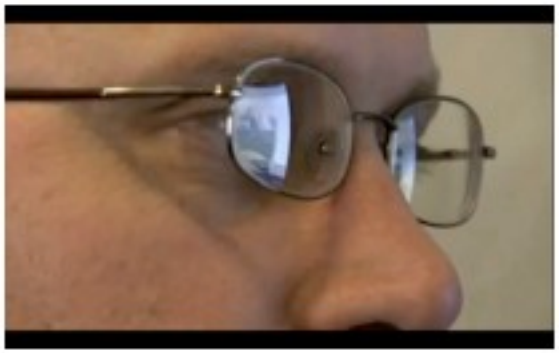
- Start SSRI
- Give prescription for benzodiazepines for symptom relief while SSRIs are taking effect
- Start therapy
- Taper benzodiazepines as effects of SSRI/ therapy increase.

Treatment

- SSRIs, most often at higher than usual doses

Pharmacological treatment for panic disorder

- Start SSRI
- Give prescription for "rescue" benzodiazepines, often a fast acting benzo
- Start therapy



Treatment of PTSD

- Treat symptoms aggressively with medication - anxiety, depression, anger, psychosis, etc.
- Maximize therapy and support - emphasize team approach
- Maximize engagement in therapy
- Educate, work with family and other support

Let's play..."You be the doc!"

- You're a psychiatrist.
- A 24 year old man arranges a first appointment with you.
- His chief complaint is, "I keep having panic attacks."

Your mission: diagnose, cure, then bill the insurance company.

Panic attacks

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:

- Palpitations, or accelerated heart rate
- Sweating
- Trembling or shaking
- Sensations of shortness of breath or smothering
- Feeling of choking
- Chest pain or discomfort
- Nausea or abdominal distress
- Feeling dizzy, unsteady, lightheaded, or faint
- Derealization (feelings of unreality) or depersonalization (being detached from oneself)
- Fear of losing control or going insane
- Fear of impending death
- Paresthesias (numbness or tingling sensations)

Chills or hot flashes

Panic disorder

Unexpected, recurrent panic attacks, followed by at least a month of a significant and related behavior change, a persistent concern of more attacks, or a worry about the attack's consequences, either with or without agoraphobia.

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 that 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, or 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 (e.g. as thought insertion)

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

1. 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 1 hour a day), or significantly interfere with the person's normal routine, occupational (or academic) functioning, or usual social activities or relationships.

D. If another Axis I disorder is present, the content of the obsessions or compulsions is not restricted to it (e.g., preoccupation with food in the presence of an Eating Disorder; hair pulling in the presence of Trichotillomania; concern with appearance in the presence of Body Dysmorphic Disorder; preoccupation with drugs in the presence of a Substance Use Disorder; preoccupation with having a serious illness in the presence of Hypochondriasis; preoccupation with sexual urges or fantasies in the presence of a Paraphilia; or guilty ruminations in the presence of Major Depressive Disorder).

E. 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.

OCD

Table. Categorizing Obsessions and Compulsions

Obsessions	Commonly Associated Compulsions
Fear of contamination	Washing, cleaning
Need for symmetry, precise arranging	Ordering, arranging, balancing, straightening until "just right"
Unwanted sexual or aggressive thoughts or images	Checking, praying, "undoing" actions, asking for reassurance
Doubts (eg, gas jets off, doors locked)	Repeated checking behaviors
Concerns about throwing away something valuable	Hoarding

OCD is different from OCPD!

- A pervasive pattern of preoccupation with orderliness, perfectionism, and mental and interpersonal control, at the expense of flexibility, openness, and efficiency, beginning by early adulthood and present in a variety of contexts. It is a requirement of DSM-IV that a diagnosis of any specific personality disorder also satisfies a set of general personality disorder criteria.