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)

Comorbidity

- Extraordinarily high, with studies showing 90% in general population, 45-98% in clinical studies
- Major depression is most common comorbid, at 60% of patients
- Other anxiety disorders, sleep problems, chronic pain, and somatic symptoms common

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

Comorbidity

- Some have questioned if GAD is a disorder or a prodrome/symptom of others
- Appears to be it's own problem, based on:
  - Reliable and valid diagnosis
  - Non-comorbid GAD seen not infrequently
  - High comorbid rates may be artifact

van der Heiden et al. (2011)

Comorbidity

- Worry and avoidance are features of most anxiety disorders, careful screening is needed
- Table 1 in van der Heiden et al. (2011) provides excellent differential diagnosis samples

van der Heiden et al. (2011)

Impact of GAD

- Higher severity of social and occupation impairment than other anxiety disorders
- Decreases in QoL similar to mood disorders, diabetes, hypertension, and CHF
- High rate and cost of non-MH physician visits; ½ patients with IBS meet criteria for GAD

Andrews et al. (2010); 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

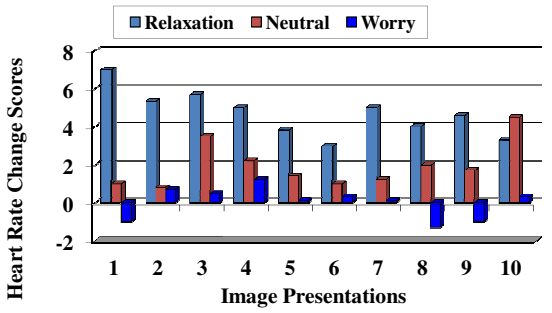
Andrews et al. (2010)

GAD as GWD

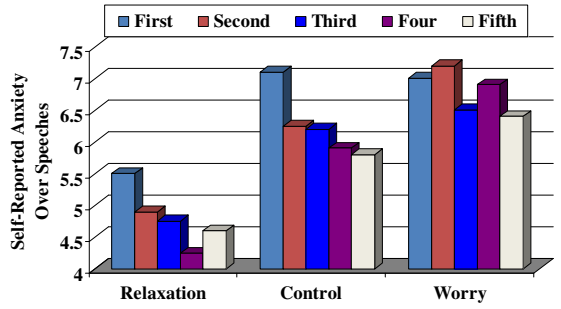
- Positive reinforcement through decreased physiological and emotional reactivity
- Negative reinforcement because the "worries" or catastrophes generally do not come true
- Causes people to see worry as a good thing

van der Heiden et al. (2011)

Worry prevents emotional processing during repeated imaginal exposures



Worry prevents emotional processing during repeated *in vivo* exposures



GAD as GWD

- People with GAD tend to view worry as positive and beneficial
  - Superstitious avoidance of catastrophe
  - Actual avoidance of catastrophe
  - Avoidance of deeper emotions
  - Coping and preparation
  - Motivating device

Andrews et al. (2010)

GAD as GWD

- Worry suppresses intensity to responses, but also has many negative consequences
- It highly increases incidence of intrusive imagery and sense of uncontrollability
- This makes one both a) more likely to worry and b) increasingly impaired

Andrews et al. (2010)

Intolerance of Uncertainty

- Another hallmark of GAD, may actually be *why* people engage in avoidant worrying
- View uncertain situations as
  - Stressful and upsetting
  - Unfair
  - Negative and should be avoided
  - Interfering with one's ability to function

Andrews et al. (2010)

Checking In

- Not the same as in OCD, where the focus is on checking objects
- In GAD, the checking focuses on achievement and relationships
- Often involves reassurance seeking and procrastination

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)

Pharmacology for GAD

- Benzodiazepines show better immediate impact, but antidepressants better long term
- Choice of AD would be best guided by symptom profile
- Little evidence, though, to suggest long-term use and evidence of high relapse

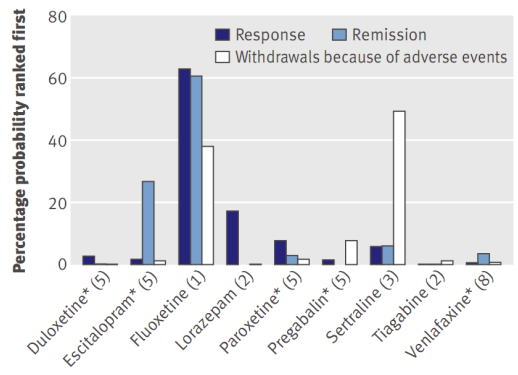
Baldwin et al. (2011); Tyler & Baldwin (2006)

Meds Treatment Rankings

Ranking	Response*	Remission†	Withdrawal‡
1	Fluoxetine	Fluoxetine	Sertraline
2	Lorazepam	Escitalopram	Pregabalin
3	Duloxetine	Venlafaxine	Fluoxetine
4	Sertraline	Paroxetine	Paroxetine
5	Paroxetine	Sertraline	Tiagabine
6	Pregabalin	Duloxetine	Venlafaxine
7	Venlafaxine	Tiagabine	Escitalopram
8	Escitalopram	NA	Duloxetine
9	Tiagabine	NA	Lorazepam

NA=not available (not all studies reported on this outcome for all drugs).
*Proportion of patients who experienced reduction of ≥50% from their baseline Hamilton anxiety scale score.
†Proportion of patients with final HAM-A score ≤7.
‡Percentage of patients withdrawing from study because of adverse events.

Baldwin et al. (2011)



Baldwin et al. (2011)

CBT for GAD

- Outperforms other therapies at both post-treatment and long-term follow-up
- No evidence for long-term treatments being superior to short-term ones (8-10 sessions)
- Superior to meds in relapse prevention, with improvements up to 2 years post-treatment

CBT for GAD

- Four traditional components
  1. Self-monitoring
  2. Relaxation training
  3. Cognitive therapy
  4. Rehearsal of #'s 2 and 3
- Newer research has also added interpersonal and emotional processing techniques

Borkovec et al. (2004)

Self-Monitoring

- Teaches patients to objectively observe their anxious responses and its triggers
- Earlier a patient can identify worry, the more effective the deployment of coping responses
- Can use both in-session techniques and homework to facilitate this

Borkovec et al. (2004)

Applied Relaxation Training

- Trained in PMR in session, then practice twice daily to achieve mastery
- Can also use DB, meditation, pleasant imagery
- Once mastery is obtained, instructed to use during *in vivo* anxious situations

Borkovec et al. (2004)

Rehearsal of Coping Responses

- In session, therapists attempt to elicit worry from client, who then practices PMR or CR
- Key to use intense imagery, not just verbal descriptions, to induce higher anxiety levels

Borkovec et al. (2004)

Other CBT Tools

- Stimulus-control techniques (Worry Time)
- Correct information about worry's "benefits"
- Teach problem-solving skills
- Exposure to worrying thoughts via recording

Borkovec et al. (2004)

CBT Outcomes

- Aggregated results show strong effect sizes
  - 1.09 compared to WLC
- Gains maintained at 6 and 12 months
- Very low dropout rates (9%), no association between med status and response

Borkovec et al. (2004)

CBT Outcomes

- Still, only about 50% of patients return to normal anxiety levels
- This led to attempts to find supplementary, treatment boosting add-ons to CBT
  - Emotional processing avoidance
  - Interpersonal problems

Newman et al. (2011)

CBT + I/EP

- Promising results initially (Newman et al., 2004)
- More well controlled study found little difference at post-treatment or follow-up
  - Very large within-group ES (1.51 & 1.9)
  - Similar rates of non-GAD (63.6% & 75%)
- May work better only for certain patients

Newman et al. (2011)