
Social Anxiety Disorder

Franklin Schneier, MD

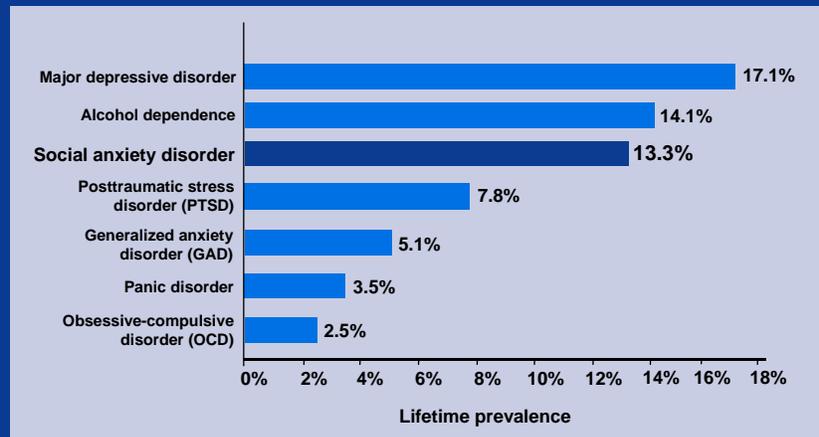
Overview

- Diagnostic Criteria
 - Clinical Phenomenology
 - Etiologic Factors
 - Treatments
-

Clinical Importance Of Social Anxiety Disorder (Social Phobia)

- Highly prevalent, chronic
- Significant social and occupational disability
- Risk factor for depression, alcohol abuse, suicide
- Treatments available but underutilized

Prevalence of Common Psychiatric Disorders



- Social anxiety disorder is the most common anxiety disorder

Kessler 1994; Kessler 1995; DSM-IV-TR™ 2000.

Social Anxiety Disorder: Prevalence in Community

- Lifetime prevalence up to 15%
- Point prevalence about 7-8%
- About half of this represents generalized subtype

Features of DSM-IV Social Anxiety Disorder

- Marked & persistent fear of embarrassment or humiliation in social or performance situations
- Exposure usually provokes anxiety
- Recognition that fear is excessive/unreasonable
- Avoids feared situations or endures with distress
- Interferes with function or causes marked distress

Social Anxiety Disorder Subtypes

- Generalized: Anxiety in most social situations
 - Most impairment
 - Most studied
- Nongeneralized (a.k.a. Discrete, Performance)
 - Predominantly performance anxiety
 - Most commonly related to public speaking
 - Social interactions relatively spared

Feared social situations in community

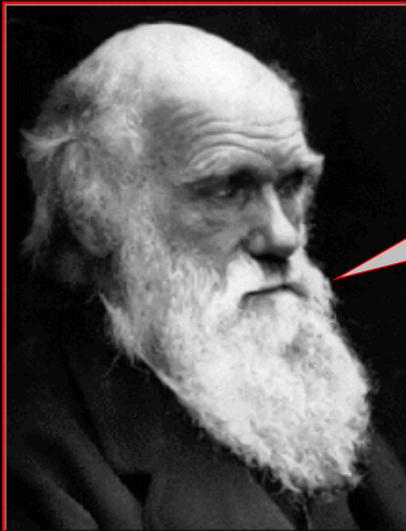
- Performing on stage (18%)
- Public speaking (13%)
- Talking with others (6%)
- Social gatherings (5%)
- Eating/drinking in public (4%)
- Also: dating, assertiveness/conflict, school

Wittchen, 1999

Social Anxiety Disorder: Common Symptoms

- Cognitive
 - Self consciousness (appear foolish, awkward)
 - Social Inferiority (“I won’t measure up to...”)
 - Fear of negative evaluation (“She won’t like me”)
- Physiological
 - Blushing, Sweating, Tremor
 - Panic attacks may occur only social situations
- Behavioral: Avoidance, Poor Eye Contact, Passive

The Origin of Social Anxiety Research?



**“Blushing is the
most human
of expressions”**

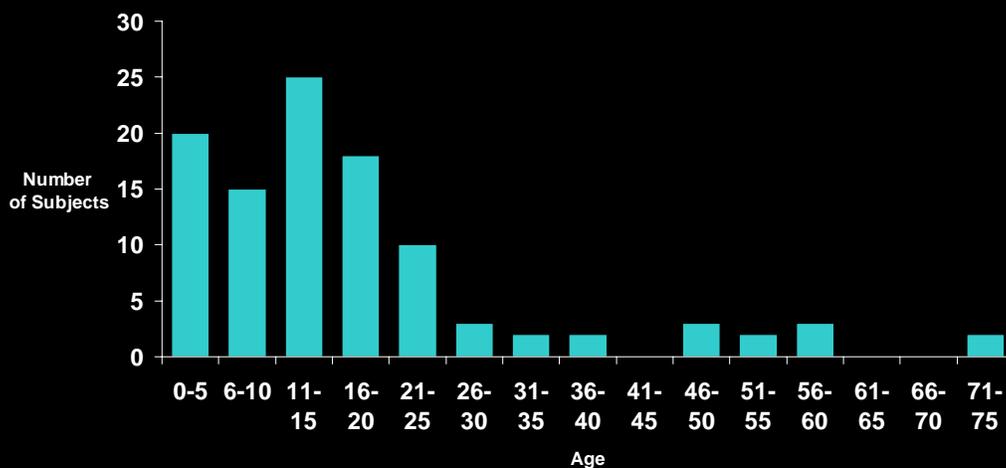
Darwin. *Expression of Emotion in Man and Animals*, 1873.

Charles Darwin: on Blushing

- Universal, heritable
- Involuntary vasomotor response to scrutiny
- Not a sign from God that one had sinned

Darwin. *Expression of Emotion in Man and Animals*, 1873.

Age of Onset of Social Anxiety Disorder



Schneier et al. *Arch Gen Psychiatry*.1992;49:262.

Social Anxiety Disorder: Educational And Occupational Impairment



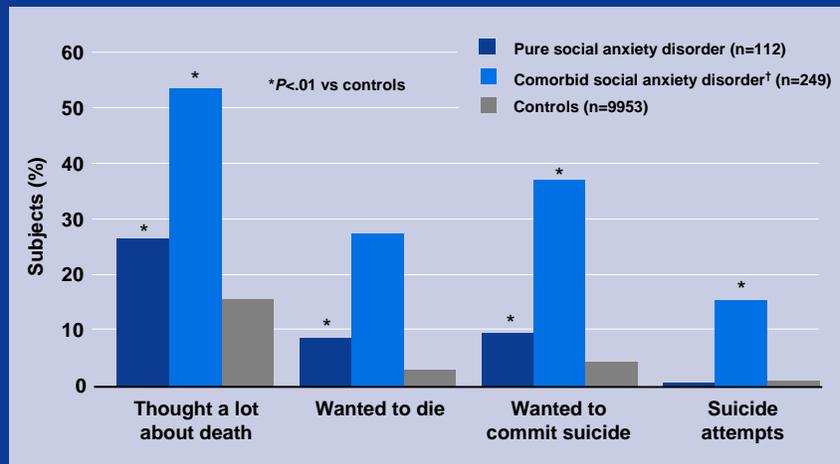
* Impairment (%) refers to percentage change in wages and percentage point changes in probabilities of college graduation and having a technical, professional, or managerial job (controlling for age, sex, parents socioeconomic status).
Katzelnick et al., AJP, 2001

Complications of Social Anxiety Disorder

- Elevated rates of secondary major depression
- Elevated rates of secondary alcohol abuse

Many patients only seek treatment after developing a complication.

Potential for Suicidal Ideation in Social Anxiety Disorder



†With any DSM-III major disorder.

Based on a subset of persons in the ECA study, which assessed rates and risks for psychiatric disorders based on a probability sample of more than 18,000 adults aged 18 years and over.

Schneier 1992.

Screening for Social Anxiety Disorder

- Do you worry about embarrassment or feeling self-conscious around others?

Due to early onset and chronicity, patients may not self-recognize social anxiety disorder as a treatable condition.

Assessing Social Anxiety Disorder

- If yes to screen question:
 - What situations are uncomfortable? Offer list...
 - What do you fear in those situations?
 - Do you experience physical symptoms?
 - Do you avoid situations?
 - What situations are comfortable for you?
 - What would you be doing if you didn't have this?

Social Anxiety Disorder Patients in the Doctor's Office

- May avoid doctors due to anxiety
- May appear anxious (fearful of authority figure)
- May be self conscious of body, physical contact of examination, revealing anxiety
- "White coat hypertension" may be more prevalent
- May appear agreeable, eager to please (but may avoid suggestions rather than voice disagreement)

Relationship to Shyness

- 90% of population reports some “shyness”
- Normal social anxiety:
 - Increases arousal & attention to social interactions
 - Inhibits aggressive/inappropriate social behavior
 - Helps motivate preparation for social performance
- Social Anxiety Disorder is more severe, persistent, pervasive, impairing

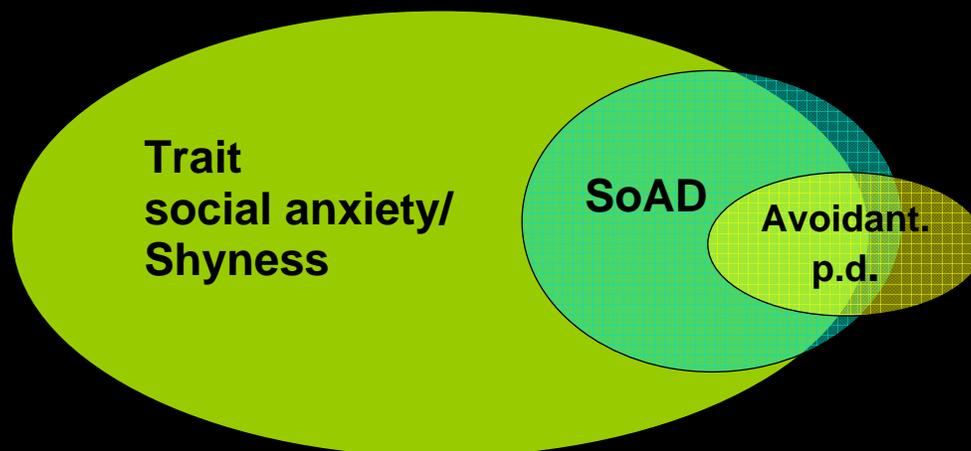
Relationship with Avoidant Personality Disorder

- High rates of overlap between generalized Social Anxiety Disorder and Avoidant Personality Disorder
- Little evidence for qualitative differences

Trait Qualities of Social Anxiety Disorder

- On continuum with normal shyness, avoidant p.d.
- Often ego-syntonic to some extent
- Early onset
- Highly chronic

Social Anxiety Disorder Overlap with Traits, Personality Disorders



Social Anxiety Disorder: Comorbidity and Differential Diagnosis

- Panic Disorder – unexpected panic attacks
- Agoraphobia – fear crowds due to fear of panic
- GAD – social fears are only part of broader worries
- Depression – loss of interest in social activities
- Psychosis – social avoidance due to fear of harm

Embarrassing Medical Conditions & Social Anxiety Disorder

- Social anxiety common in essential tremor, stuttering, parkinson's, disfigurement, obesity, etc.
- Technically not diagnosed as social anxiety disorder if due to primary medical condition
- Stress-Diathesis Model relevant
- Social anxiety disorder treatments may be useful

Social Anxiety Disorder: Possible Underlying Features

- Submissive Behavior
- Behavioral Inhibition
- Cognitive Traits (e.g. distorted assessment of social threat & consequences of negative evaluation)



Evolved Submissive Behaviors may share diathesis with Social Anxiety Dz

- Group-living species: social anxiety has survival value
 - Subordinates must recognize dominants and show submissive behavior
- Subordinates & persons w/ Social Anxiety Dz show:
 - Anxious Arousal
 - Vigilance re. Social Comparison
 - Submissive and Inhibited Behavior

Ohman 1985, Gilbert 2001

Behaviorally Inhibited Temperament is specifically associated with Social Anxiety Disorder

- 15% of young children respond to unfamiliar lab situation with extreme physiologic reactivity and behavioral inhibition
- Increased Social Anxiety Disorder in families (17.5% vs. 0%)
- Increased generalized social anxiety at age 13 (61% vs. 27%)
- Significant heritability

Family and Twin Studies of Soc Anxiety

- Increased risk of SoAD in 1st degree relatives, 10-fold increased risk within generalized subtype

Mannuzza et al, 1995, Stein et al, 1998

- 30-40% genetic influence in twin studies

Kendler et al, 1992, Nelson et al, 2000

Biological Findings in Social Anxiety Disorder and Related Traits

- Increased sympathetic NS activity in nongeneralized Social Anxiety Disorder
- Some evidence for low CNS Dopamine, Serotonin
- Increased amygdala activation to social stimuli
- Subcortical activation and cortical deactivation during social anxiety state

fMRI Study of Direct Gaze and Submissive Behavior

- Direct gaze is salient and potent stimulus
- Response is automatic, nonverbal
- We assess differences in response to direct vs. indirect gaze
 - Regional brain activation with fMRI
 - Gaze aversion with eye tracking device

Eyes Neutral



Eyes Up



Compared to...

Eyes Neutral



Eyes Direct



Psychosocial Risk Factors in the Development of Social Anxiety Disorder

- Parental modeling of socially avoidant behavior
- Hypercritical parenting
- Overprotective parenting

Socially anxious children may benefit from expectations that they participate in social activities and praise for their attempts.

Treatments for Social Anxiety Disorder

- Cognitive-Behavioral Therapy (Typically 12-16 weekly sessions, collaborative approach)
 - Characterize problem situations and cognitions in detail
 - Learn and practice techniques to develop adaptive cognitions and goals
 - Practice exposure through roleplaying and homework

Rationale for CBT in Social Anxiety Disorder

Disorder is maintained by:

- Phobic Avoidance
 - ⊖ Limits chance to disprove fears, gain skills
 - ⊖ Reinforces fears, increases symptoms
- Negative Cognitions
 - ⊖ Biased, unhelpful, “automatic”
 - ⊖ Increase symptoms, avoidance
 - ⊖ Block extinction, even if exposure occurs

From automatic negative thoughts → useful rational responses

- **Everyone will notice I'm sweating** → → →
Even if I'm sweating I can still... (e.g. give the talk)
- **I'll probably be rejected** → → →
I'll feel good I had the guts to... (e.g. ask her out)

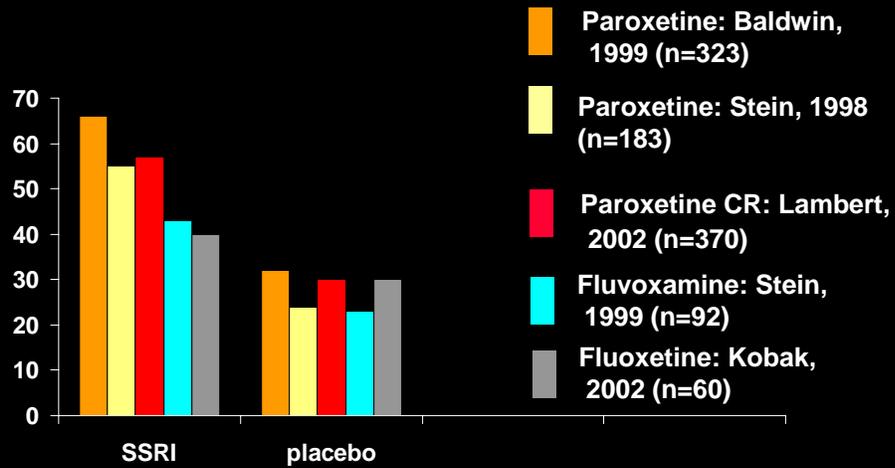
Exposure to Feared Situations

- Begin with easiest situations (e.g. conversation with an acquaintance)
- Set modest initial behavioral goal (e.g. ask three questions in conversation)
- Use a rational response (e.g. I'd like to get to know him better.)

Psychopharmacology of Social Anxiety Disorder: Efficacy in R_z'd Clinical Trials

- SSRIs/SNRI
 - paroxetine, sertraline, venlafaxine, fluvoxamine, escitalopram
 - Benzodiazepines
 - clonazepam
 - MAOIs
 - Phenzelzine
 - Gabapentin
 - Beta-blockers
 - Propranolol (for performance anxiety only)
-

SSRI Response Rates (%)



Sertraline—Overview of Clinical Trials in Social Anxiety Disorder

- Two flexible-dose trials
 - 12 weeks (N=415)
 - 20 weeks (N=204)
- Long-term maintenance of response (N=65)
 - 44-week total treatment time (24-week continuation trial in sertraline responders to an initial 20-week trial)

Data on file. Pfizer Inc.; Liebowitz 2002; Van Ameringen 2001; Walker 2000.

Sertraline—12-Week Trial Baseline Characteristics

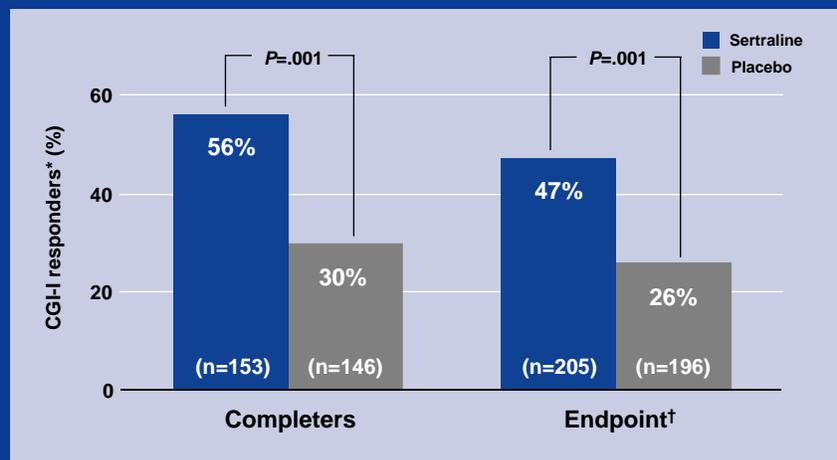
| | Sertraline (n=211) | Placebo (n=204) |
|-----------------------------------|-----------------------|--------------------|
| No. subjects ITT* | 205 | 196 |
| % male† | 60 | 59 |
| % white† | 67 | 77 |
| Mean age (yr)† | 35 | 35 |
| Mean duration of illness (yr)† | 21 | 22 |
| Age at social anxiety onset (yr)† | 13 | 13 |
| Mean LSAS score | 91 | 93 |

*ITT=Intent-to-treat efficacy sample (ie, all randomized patients who took ≥ 1 dose and had ≥ 1 postrandomization efficacy evaluation).

†All randomized subjects.

Data on file. Pfizer Inc.; Liebowitz 2002.

Sertraline—Effective for Acute Treatment

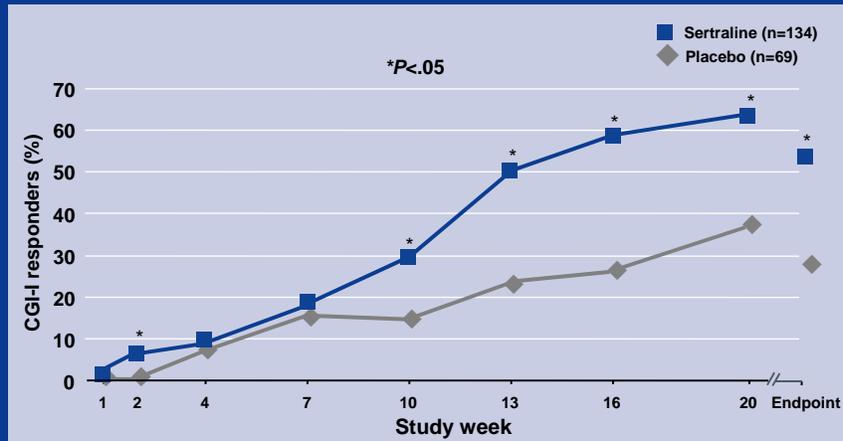


*Responder: CGI-I ≤ 2 .

†Last observation carried forward (LOCF) for all randomized patients who took ≥ 1 dose and had ≥ 1 postrandomization efficacy evaluation.

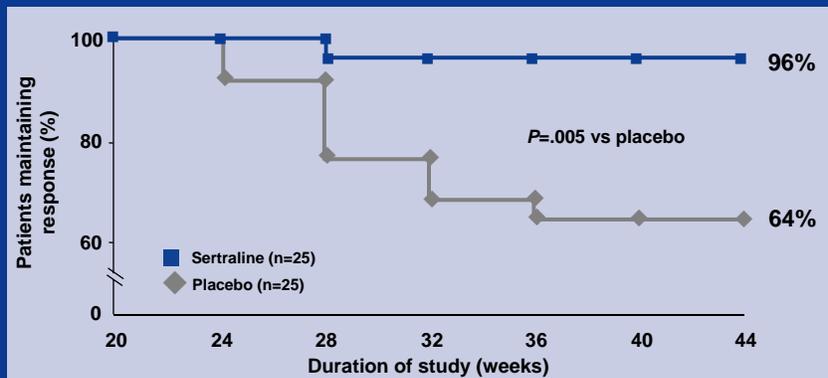
Data on file. Pfizer Inc.; Adapted from Liebowitz 2002.

Sertraline—Significantly Greater Response Rate vs Placebo



Data on file. Pfizer Inc.; Adapted from Van Ameringen 2001.

Sertraline—96% Maintained Response in a Longer Term Continuation Trial

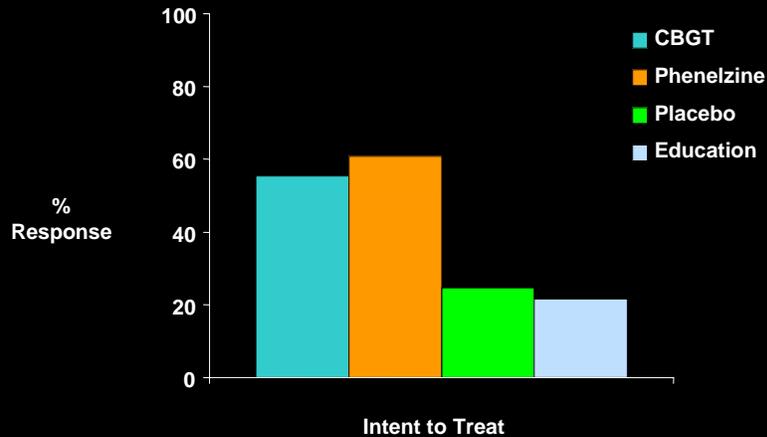


In a rerandomized, 24-week continuation trial of responders to an initial 20-week trial (total treatment time=44 weeks).

In patients receiving ZOLOFT for extended periods, its usefulness should be evaluated periodically.

Data on file. Pfizer Inc.; Adapted from Walker 2000.

Cognitive-Behavioral Therapy (CBGT) vs. Phenelzine Study



Heimberg et al. *Arch Gen Psychiatry*. 1998;55:1133.

Social Anxiety Disorder Research at P.I.

- Clinical trials of medication and CBT
- PET studies (e.g dopamine function)
- fMRI studies (response to direct gaze)
- Studies of submissive behavior, ethological models
- Decision making
- Cross-cultural studies