Social Anxiety Disorder (Social Phobia)

R. Bruce Lydiard, PhD, MD

Clinical Professor, Department of Psychiatry and Behavioral Medicine
and
Ralph H. Johnson VA Medical Center
Charleston, SC

James Ellison, MD

Harvard Medical School
Associate Professor of Psychiatry, Harvard Medical School
Clinical Director of the Geriatric Psychiatry Program
McLean Hospital
Belmont, MA

“The human brain is a wonderful thing. It operates from the moment you’re born, until the first time you get up to make a speech.”

–Howard Goshorn, Toastmasters

Social Anxiety Disorder (SAD) Outline

- DSM-IV Diagnosis/ DSM-V
- Neurobiology
- Comorbidity
- Treatment

Question #1

What are the 2 Social Anxiety Disorder (SAD) Subtypes?

Question #2

Which SAD Subtype is…

- **More Common**
- **Familial**
- **Earlier onset**
- **Greater Impairment**
- **Lower Remission Rate**

Question #3

True or False

Patients with SAD are more likely, as compared to those without SAD, to do the following…

- **Remain Single**
- **Not Finish High School**
- **Earn Lower Income**

Question #4

What are three psychiatric illnesses that are commonly comorbid with SAD?

Question #5

What is First Line Treatment for SAD and… Does it vary between the 2 Subtypes?

Teaching Point #1

Social Anxiety Disorder has TWO SUBTYPES:

Early Onset Generalized Familial Subtype

Later Onset Non-Generalized Non-Familial Subtype

Teaching Point #2

Social Anxiety Disorder (SAD) usually has

ONE or more COMORBID Psychiatric Illnesses

with SAD usually PRECEDING the Comorbidity

Teaching Point #3

Pharmacologic Treatment varies between the two Subtypes…

Generalized Type -

SSRI or SNRI

Non-Generalized Type -

PRN Pharmacotherapy Targeting Symptoms

Social Anxiety Disorder
Part One

Diagnosis

Social Anxiety Disorder Historical Perspective

Symptoms as Described by Hippocrates:

[A man who] "…through bashfulness, suspicion and timorousness, will not be seen abroad; … his hat still in his eyes, he will neither see nor be seen by his goodwill. He dare not come in company for fear he should be misused, disgraced, overshoot himself in gestures or speeches or be sick; he thinks every man observes him."

Robert Burton: Anatomy of Melancholy (1652)

Social Anxiety Disorder
Historical Perspective

Name	Author
Ereuthrophobia	Casper, 1842
Kontacktneurosen	Stockert, 1929
Tai-jin-kyofu	Morita, 1932
Social Neurosis	Shilder, 1938
Social Anxiety Neurosis	Myerson, 1945
Social Phobia	Marks, 1968

*

DSM-IV Social Anxiety Disorder (SAD)

- Believes performance will be negatively evaluated with resulting embarrassment or humiliation
- Exposure to feared situation predictably elicits anxiety
- Avoids or endures feared social situation(s) with distress
- Recognizes fear as excessive*
- Impairs occupational, social, or family roles
  - Not better explained by other condition**
    - Depression (social reticence), Parkinson's Disease, obesity, burns, stuttering

*Not always recognized as excessive initially (clinical experience of authors)

** Treatment of secondary SAD may help some individuals

SAD: Most Prevalent Anxiety DSM-IV Disorder

Adapted from Kessler et al. *Arch Gen. Psychiatry.* 1994;51:8

Proposed DSM-V Modifications to Social Anxiety Disorder (SAD) Criteria

- **Generalized: If the fear is of most social situations (and is not restricted to performance situations**

- **Performance only: If the fear is restricted to speaking or performing in public (similar to non-generalized SAD)**

- **Selective Mutism: Consistent failure to speak in specific social situations (in which there is an expectation for speaking, e.g., at school) despite speaking in other situations (NEW)**

  - **American Psychiatric Association 2010**

DSM-IV SAD Subtype Characteristics

*

Generalized (~70%)

- Pervasive social fears, avoidance
- Early onset
- Familial
- >80% comorbidity
- More impairment
- Low remission Rate
- Continual treatment

Non-Generalized* (~30%)

- Few social fears, (mostly public speaking)
- Later onset
- Not familial
- Less comorbidity
- Limited impairment
- Remission common
- PRN treatment usually adequate

*~ Same as Performance

*

Typical Social Feared Social Situations

Interactive/Generalized

- Attending Social Events
- Conversing in a Group
- Speaking on Telephone (esp. in public)
- Interacting with Authority Figures
- Making Eye Contact
- Ordering Food in a Restaurant

Performance

- Public Speaking
- Eating in Public
- Writing a Check
- Using a Public Toilet
- Taking a Test
- Trying on Clothes in a Store
- Speaking up at a Meeting

Non-generalized subtype: 1 or 2 situations (esp. public speaking.
Generalized subtype : most interactions aside from family and close friends

Social Anxiety Symptoms

- **Physical**
  - **Tachycardia**
  - **Trembling***
  - **Blushing***
  - **Shortness of Breath**
  - **Sweating***
  - **Abdominal Distress**
  - **Socially-Cued Panic Attacks**

*more bothersome because they are visible to others

- **Cognitive**
  - **Perceived scrutiny and certainty of negative evaluation**
  - **Misinterpretation or failure to note social cues**

- **Behavioral**
  - **Avoidance**
  - **Freezing**

*

Beidel. J Clin Psychiatry. 1998;59(Suppl 17):27; van Vliet et al, 1994; Taylor and Arnow, 1991

The Course of SAD

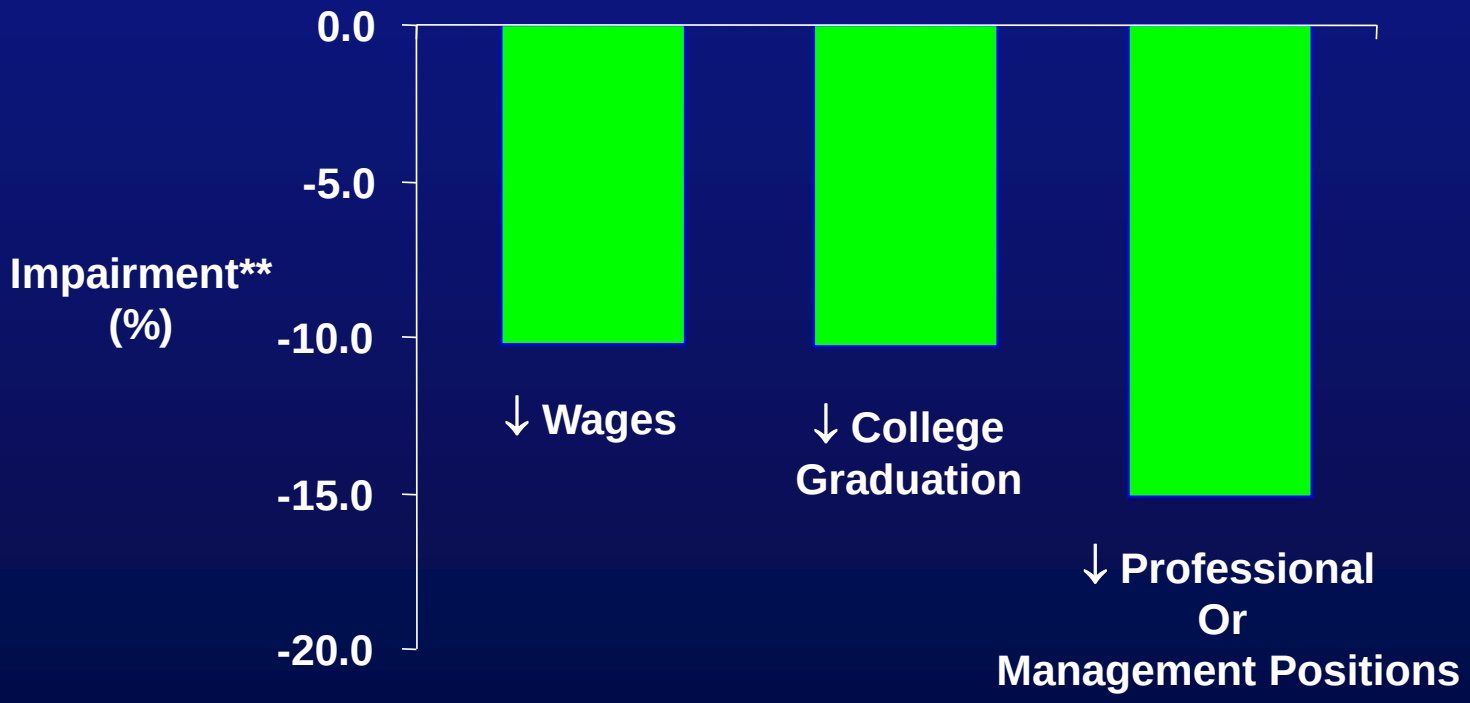
- Chronic
- Modal Onset at 13 years
- Average Duration at Diagnosis is 20 Years
- Only 27% of Recover

*

Davidson et al 1993

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.

Katzelnick et al. Presented at 37th Annual Meeting of the American College of Neuropsychopharmacology; December 14-18, 1998; Los Croabas, Puerto Rico.

SAD-Related Impairment

- Individuals with SAD
  - Lower educational status
    - Less likely to graduate high school
    - Less in skilled occupation
  - Earn lower income
  - Less likely to marry
  - More often live with parents

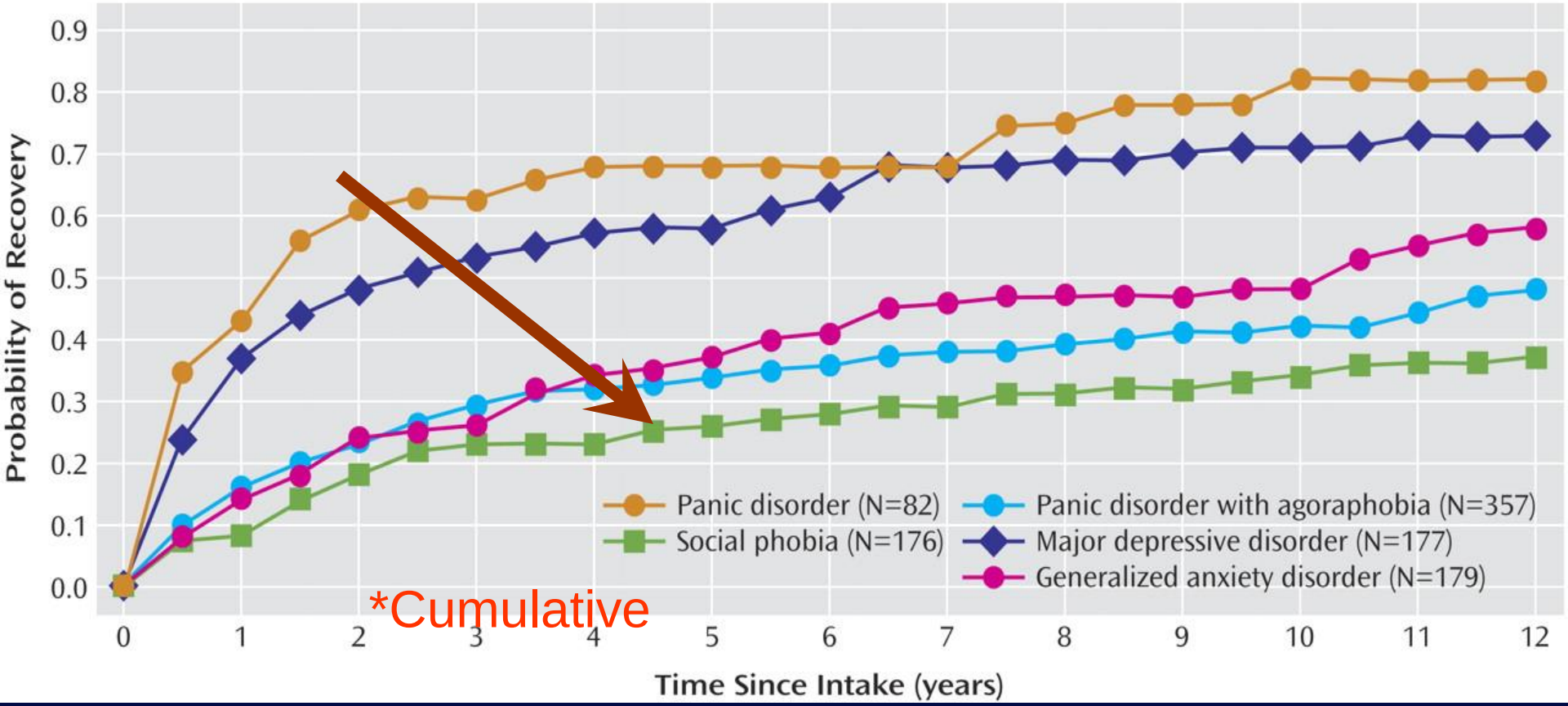
*

Magee et al 1996

*

* SAD: 12-yr Cumulative Remission Probability

Social Anxiety - Lowest rate of remission

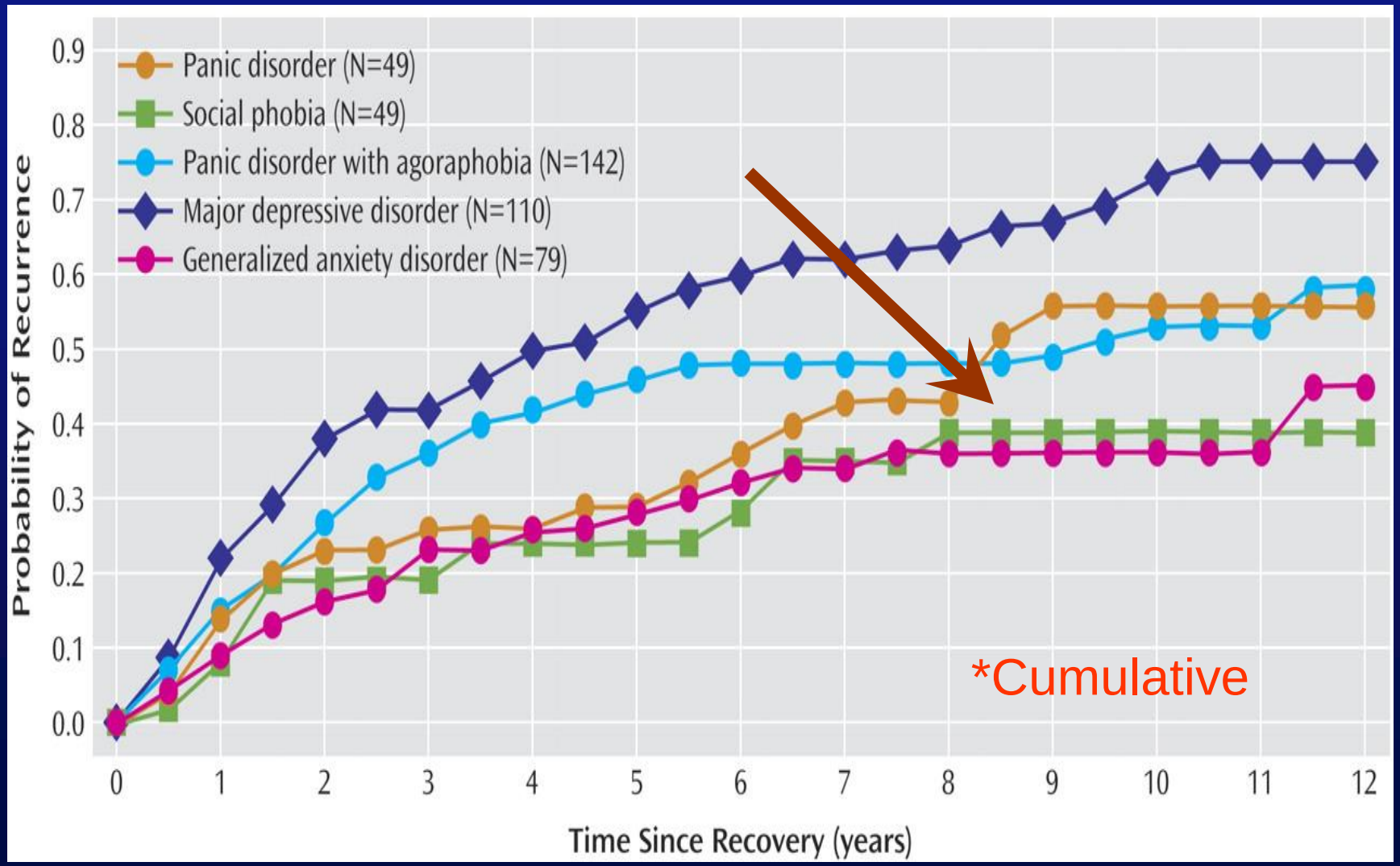


* Bruce et al, AJP2005 162:1179-87 Harvard Anxiety Research Program

Keep in mind that these were patients being treated!!

* SAD 12-Yr Probability of Recurrence after Remission

Low rate of recurrence after remission



Bruce et al, AJP 2005 162:1179-87;Harvard Anxiety Research Program

Keep in mind that these were patients being treated!!

* SAD Differential Diagnosis

- Avoidant Personality Disorder*
- Panic Disorder / Agoraphobia
- Posttraumatic Stress Disorder
- Depression-Related Social Avoidance
- Atypical Depression
- Schizotypal / Schizoid Personality Disorder
- Body Dysmorphic Disorder

*very large overlap with GSAD; Avoidant PD disappears with treatment in many

* Screening for Generalized Social Anxiety

MINI-SPIN (Social Phobia Inventory)

- Fear of embarrassment causes me to avoid doing things or speaking to people
- I avoid activities in which I am the center of attention
- Being embarrassed or looking stupid are among my worse fears
  - 90% accurate dection of GSAD in 344 patients

Connor KM, Kobak KA, Churchill LE, Katzelnick D, Davidson JR. Mini-SPIN: a brief screening assessment for generalized social anxiety disorder. *Depress Anxiety*. 2001;14:137-140.

SAD in Adolescents

- **May present with (as):**
  - **Depression**
  - **Conduct Problems (truancy, etc)**
  - **Substance or ETOH Abuse**

Social Anxiety Disorder: Neurobiological Aspects

- **Familial Transmission**
  - Generalized SAD-10x greater vs general population
- **5-HT Function**
  - Genetic Polymorphism **Serotonin transporter (SLC6A4)**
  - **Reduced 5-HT1a receptor density**
  - **Tryptophan depletion reverses SSRI effects**
- **DA function**
  - Low striatal dopamine D2 binding in primate subordinates (PET) and in humans with generalized social anxiety disorder (SPECT)
  - Decreased dopamine reuptake site density in the striatum
  - **Catechol-O-methyl transferase (COMT) polymorphism**
- **Behavioral Inhibition in children**
  - As adults more likely to have anxiety, especially SAD
  - BI-possibly learned from parental behavior

Biederman et al, Depress Anx 2005; 22:114–120

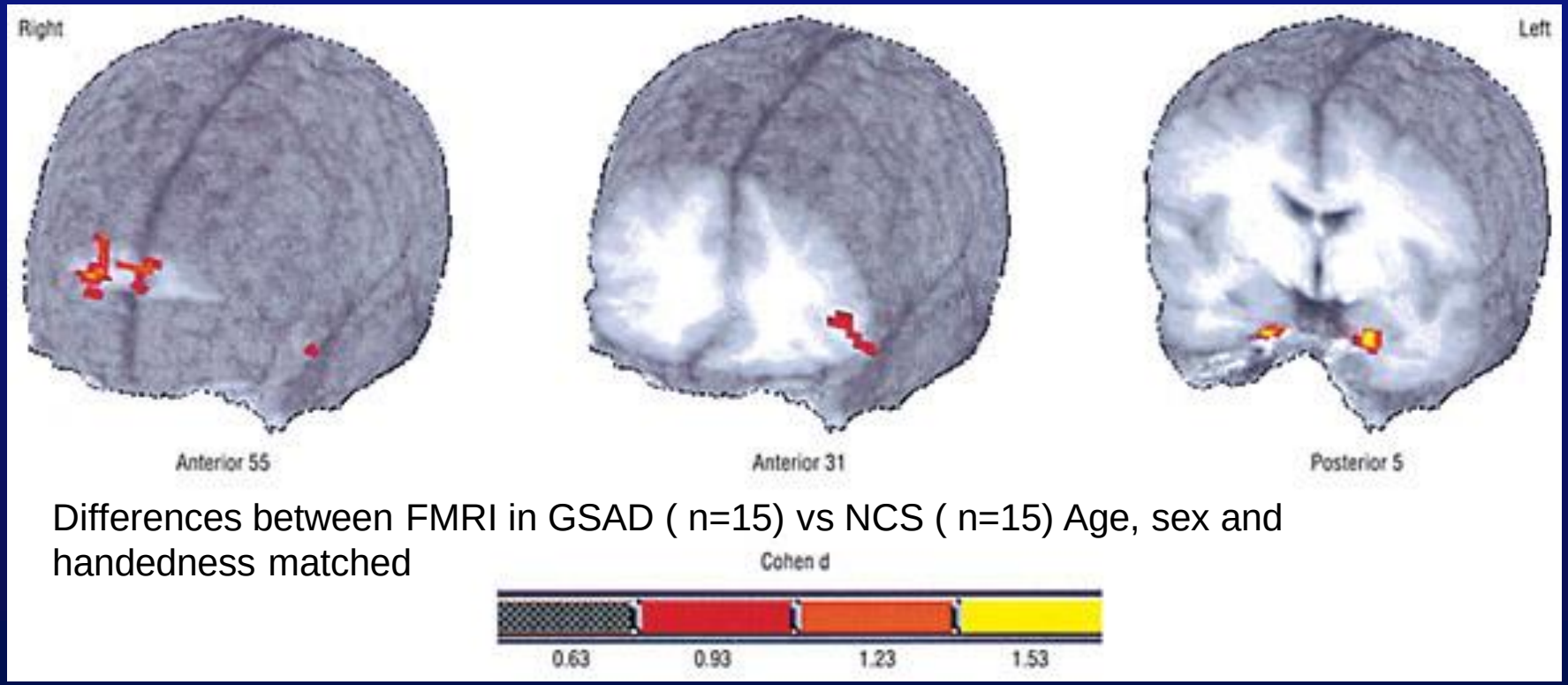
See notes for more references

Fear Circuit in SAD

- **Brain areas implicated in SAD include:**
  - **Amygdala**
  - **prefrontal cortex**
  - **hippocampus**
  - **striatum**

Altered Processing of Social-Emotional Cues in Generalized SAD

Differences between FMRI in GSAD (n=15) vs NCS (n=15)
Age, sex and handedness matched



Contemptuous or angry faces activated left amygdala, uncus, and parahippocampal gyrus more in GSAD vs normals or other stimuli (happy faces) vs normals

Stein, M. B. et al. Arch Gen Psychiatry 2002;59:1027-1034.

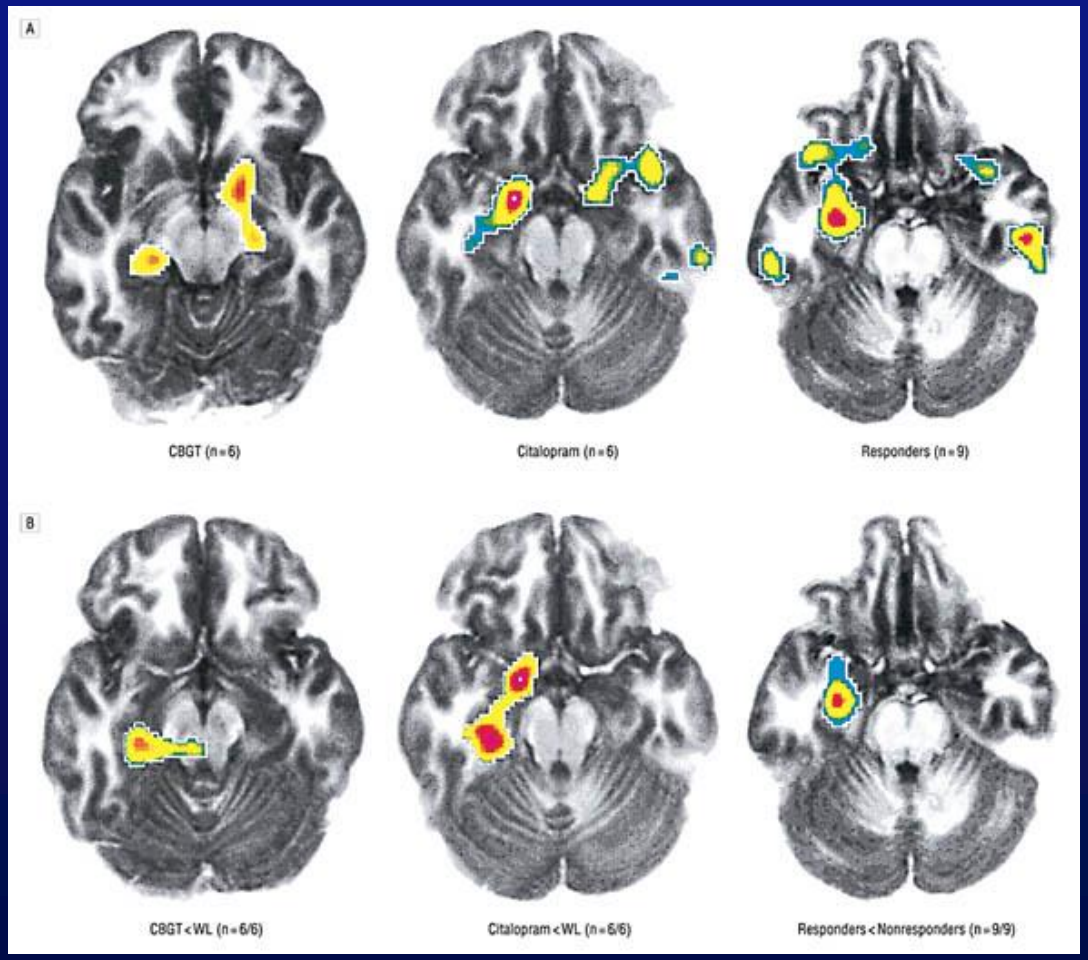
GSAD : Reduction in Reactivity to Public Speaking with Treatment

*

CBGT **Citalopram** **All Responders**

Pre-Treatment

Post-Treatment

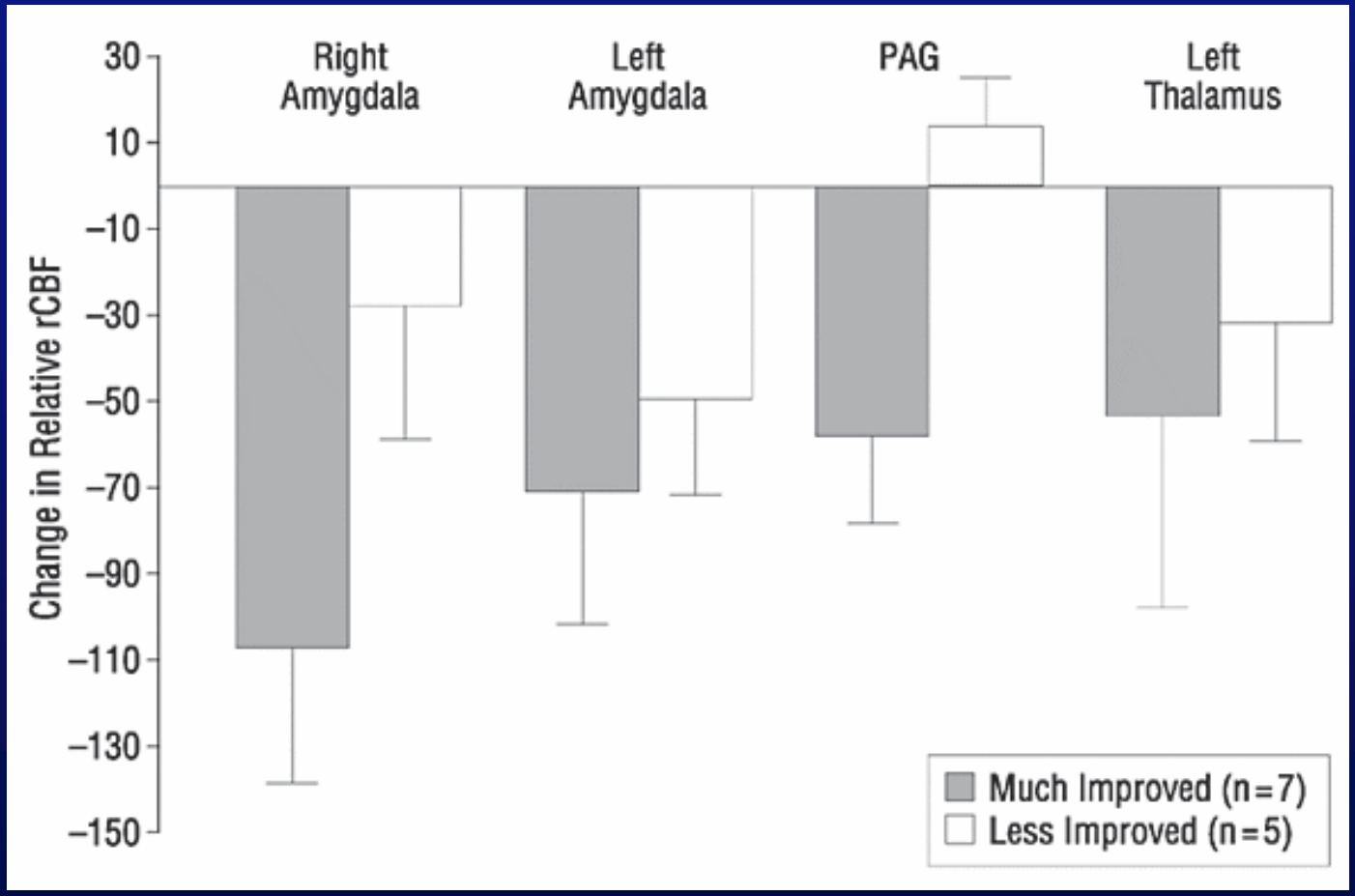


Furmark, T. et al. Arch Gen Psychiatry 2002;59:425-433.

Transverse positron emission tomographic images, superimposed on a magnetic resonance reference image, showing significant decreases in the regional cerebral blood flow response to an anxiogenic public speaking task as a function of cognitive-behavioral group therapy (CBGT; left) or citalopram treatment (middle), and for responders regardless of treatment approach (right) .

GSAD: rCBF Before vs After Treatment With CBGT or Citalopram

*



Regional cerebral blood flow (rCBF) redistribution after treatment (mean relative rCBF ± SE, after minus before therapy) in 4 subcortical regions of interest. Discriminant analysis showed that the initial degree of rCBF change in these regions was associated with clinical status (much or less improved) in patients with social phobia at 1-year follow-up assessment. Favorable long-term outcome was associated with a greater initial suppression of subcortical rCBF. PAG indicates periaqueductal gray area.

Furmark, T. et al. Arch Gen Psychiatry 2002;59:425-433.

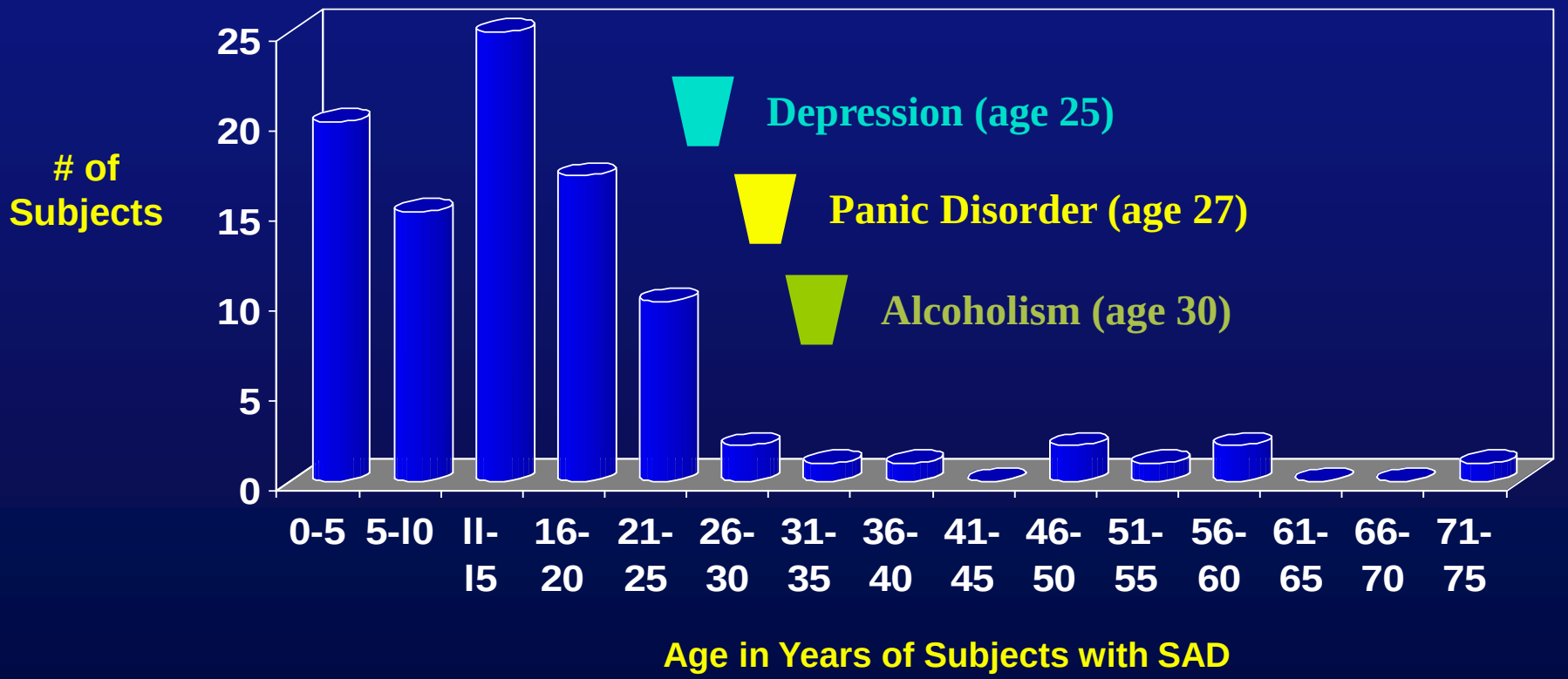
*

Comorbidity

- **More Often Seen in Generalized Subtype**
  - **80% of Patients with SAD Report at Least One other Psychiatric Disorder**
  - **SAD Typically Occurs First**

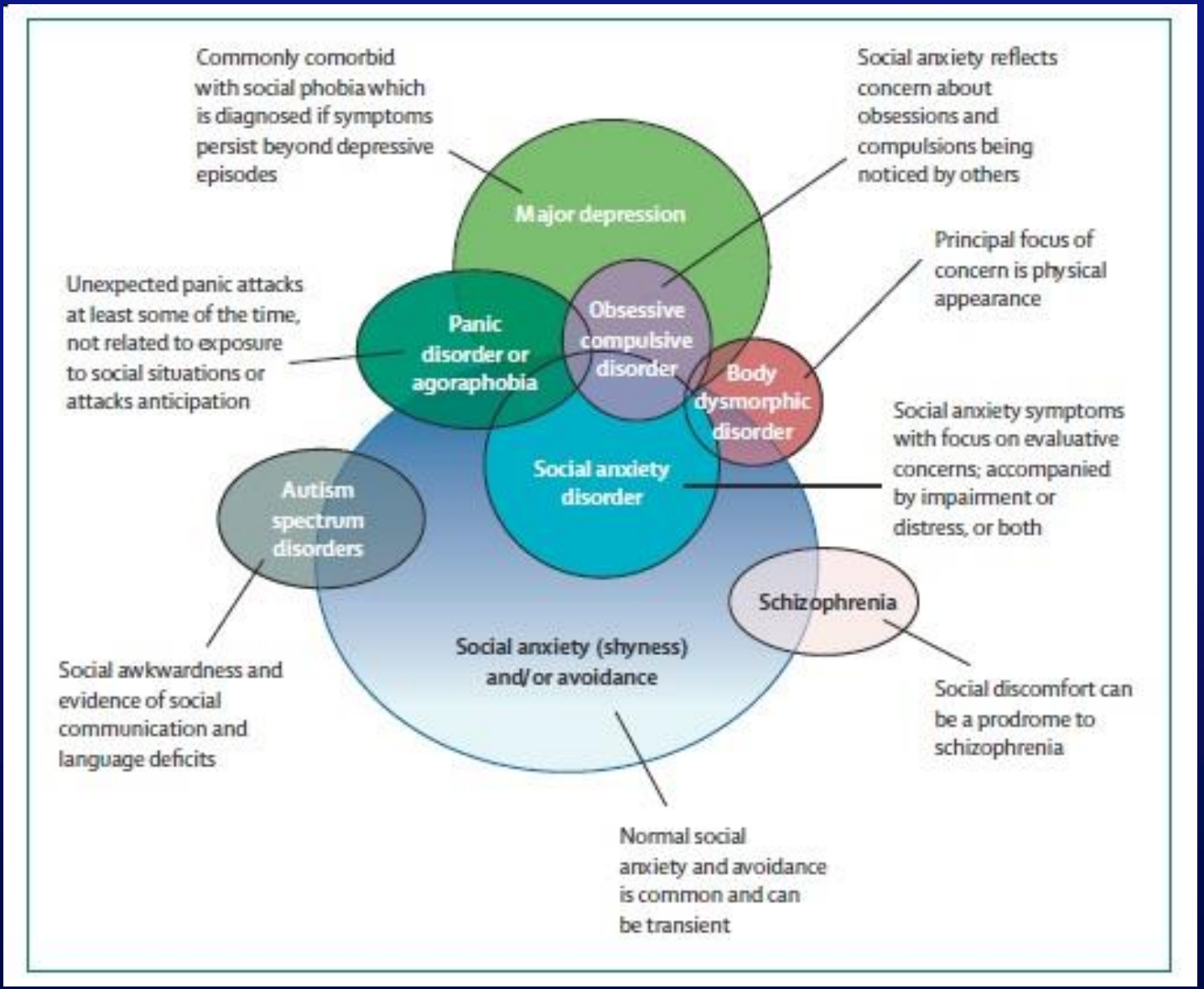
(Magee et al, 1996; Schneier et al, 1992)

* SAD: Typical Order of Onset of Comorbid Disorders



Schneier et al, 1992

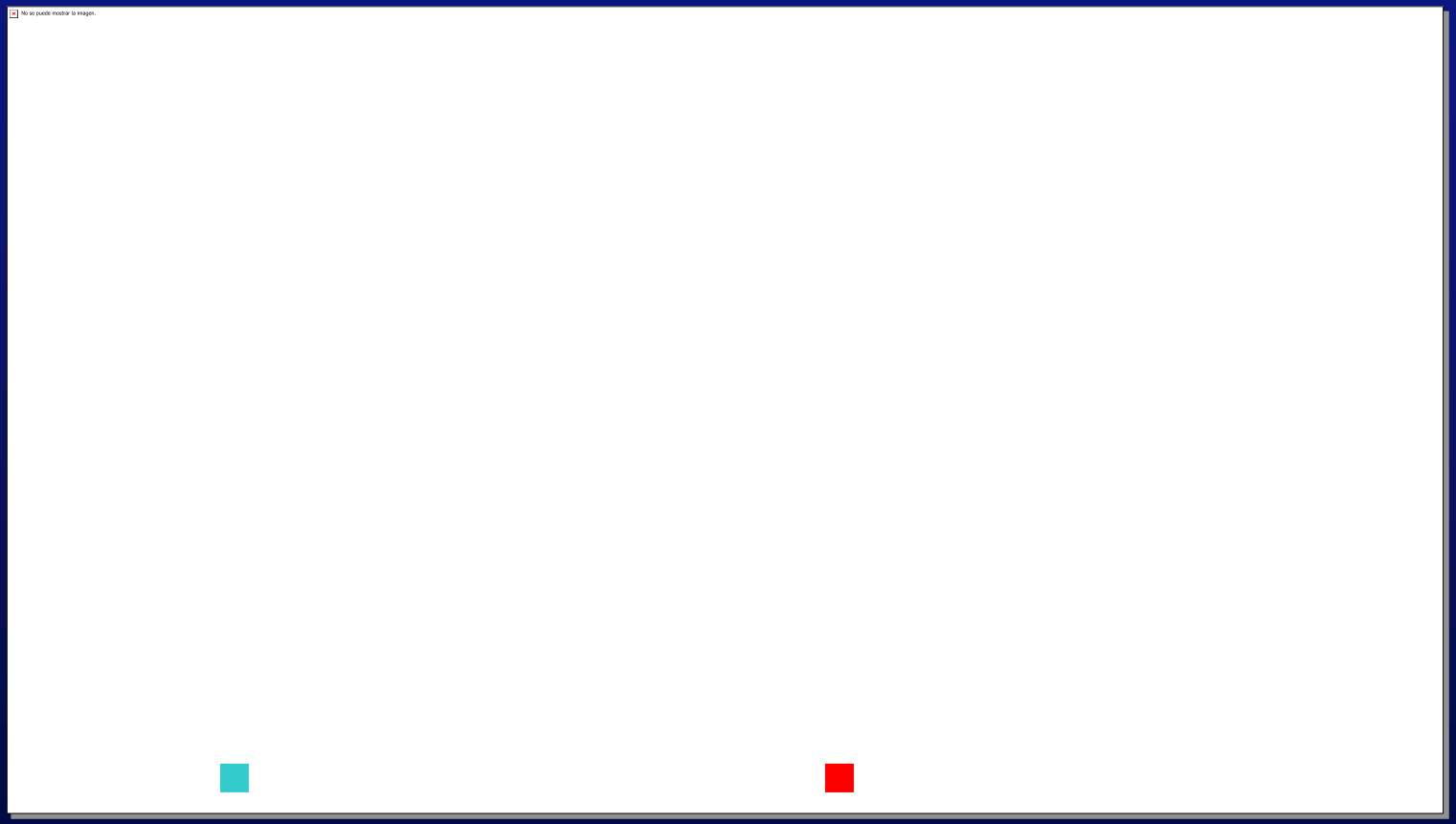
Social Anxiety in Other Disorders



Stein and Stein Lancet 2008; 371: 1115–25

Age at Onset of SAD Predicts Risk for Comorbid Illnesses

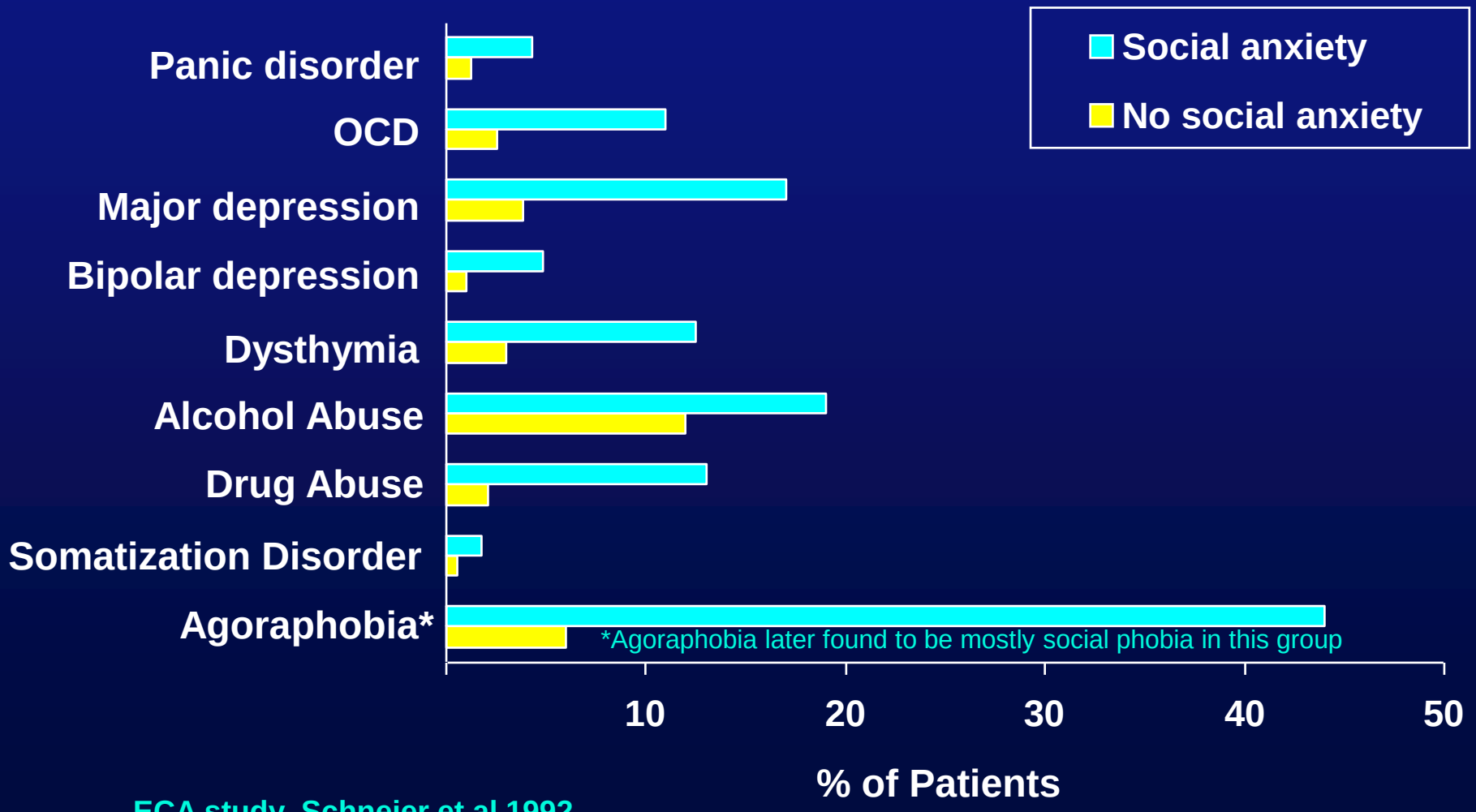
Patients (%)



Lecrubier. *Eur Neuropsychopharmacol*. 1997;7(Suppl 2):S85

*

SAD: Comorbidity



ECA study ,Schneier et al 1992

Social Anxiety Disorder

Treatment

*

SAD Treatment Goals

- Determine subtype: non-generalized vs. GSAD
- Reduce anxiety symptoms -distorted cognitions
- Reduce phobic avoidance
- Reduce disability and impairment
- Identify and treat comorbid disorders

Summarized from Davidson. *J Clin Psychiatry*. 1998;59(Suppl 17):47

SAD Assessment Tools

- **Liebowitz Social Anxiety Scale (LSAS)** Most Often Used in Clinical Trials; Tracks well with BSPS
- **SPIN**
  - **Social Phobia Inventory**
- **BSPS**
  - **Brief Social Phobia Scale**
- **Social Phobia and Anxiety Inventory (SPAI)**

Liebowitz Social Anxiety Scale

Clinician --or patient can learn to complete this	Fear or Anxiety	Avoidance
1. Telephoning in public. (P)		
2. Participating in small groups. (P)		
3. Eating in public places. (P)		
4. Drinking with others in public places. (P)		
5. Talking to people in authority. (S)		
6. Acting, performing or giving a talk in front of an audience. (P)		
7. Going to a party. (S)		
8. Working while being observed. (P)		
9. Writing while being observed. (P)		
10. Calling someone you don't know very well. (S)		
11. Talking with people you don't know very well. (S)		
12. Meeting strangers. (S)		
13. Urinating in a public bathroom. (P)		
14. Entering a room when others are already seated. (P)		
15. Being the center of attention. (S)		
16. Speaking up at a meeting. (P)		
17. Taking a test. (P)		
18. Expressing a disagreement or disapproval to people you don't know very well. (S)		
19. Looking at people you don't know very well in the eyes. (S)		
20. Giving a report to a group. (P)		
21. Trying to pick up someone. (P)		
22. Returning goods to a store. (S)		
23. Giving a party. (S)		
24. Resisting a high pressure salesperson. (S)		

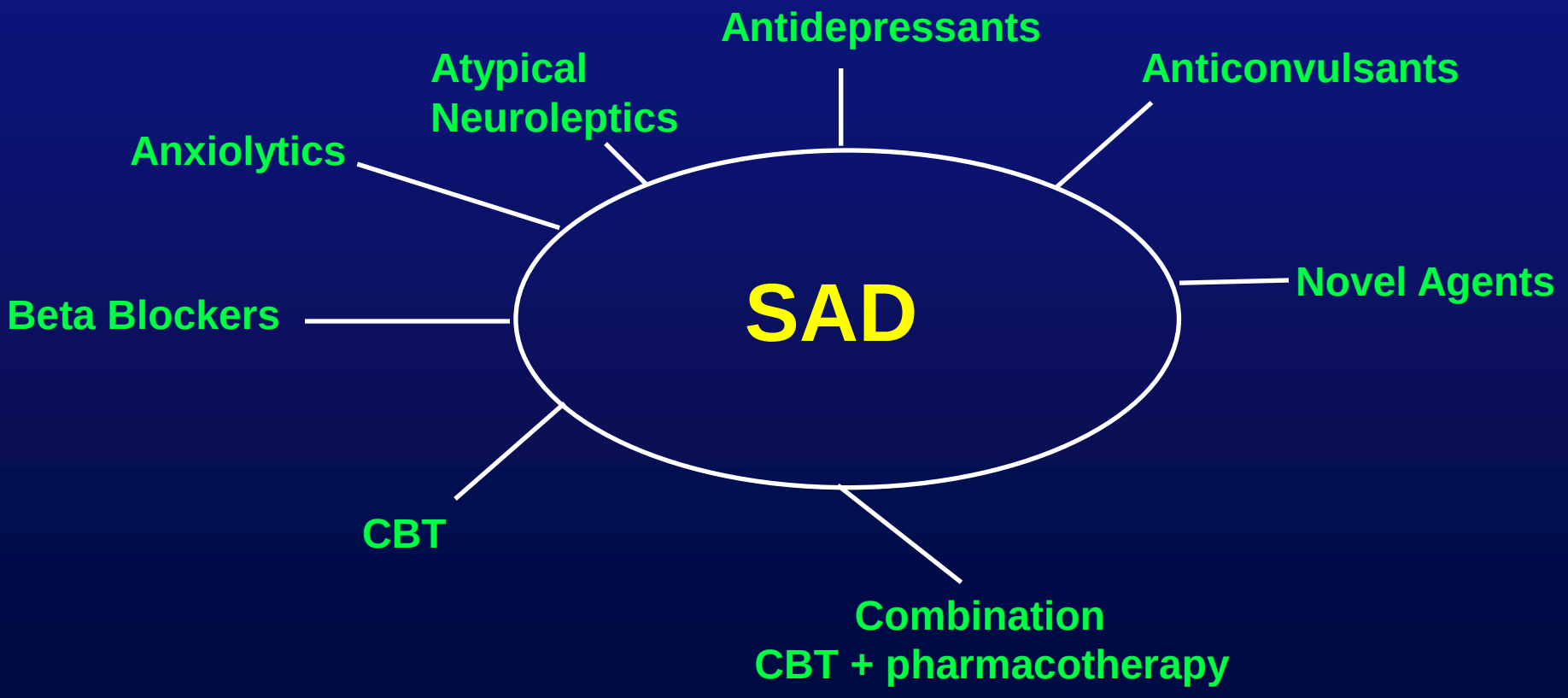
Liebowitz, MR. Mod Probl Pharmacopsychiatry 1987; 22:141-173

LSAS Interpretation

- 0-3 each item for degree of fear and avoidance
- Decrease of 30% over 8-12 weeks considered 'response' in clinical trials
- Normals total score <30
- ≥80: Severe
- 60-80: Moderate
- ≤30: Remission

Liebowitz, MR. Mod Probl Pharmacopsychiatry 1987; 22:141-173

Social Anxiety Disorder Treatment Options



*

Generalized Subtype
Continuous Treatment Indicated

*

- SSRI or SNRI=1st line-extensive evidence
- BZs (if AD not tolerated or incompletely effective)
  - Clonazepam effective as monotherapy 2 year study
    - Davidson et al. *J Clin Psychopharmacol*. 1993;13:423
- Pregabalin (2 RCTs, one relapse prevetion),
  - gabapentin probably works
  - MAOIs-
    - RIMAs Brofaramine, moclobemide: work but unavlailable in USA
    - Irreversible Phenelzine, tranylcypromine-work, but rarely used due to risk of tyramine crisis, Side effects
  - CBT effective

Ravindran & Stein, J Clin Psych 2010; 71:839

SAD Subtypes
Treatment Considerations

*

Non-Generalized (mostly performing-public speaking , musician, acting etc.)

- performance situations usually predictable
- prn medication often sufficient
  - Beta-blockers (Propranolol ,Atenolol)
  - Benzodiazepines
  - Short-acting (Alprazolam, Lorazepam)
  -

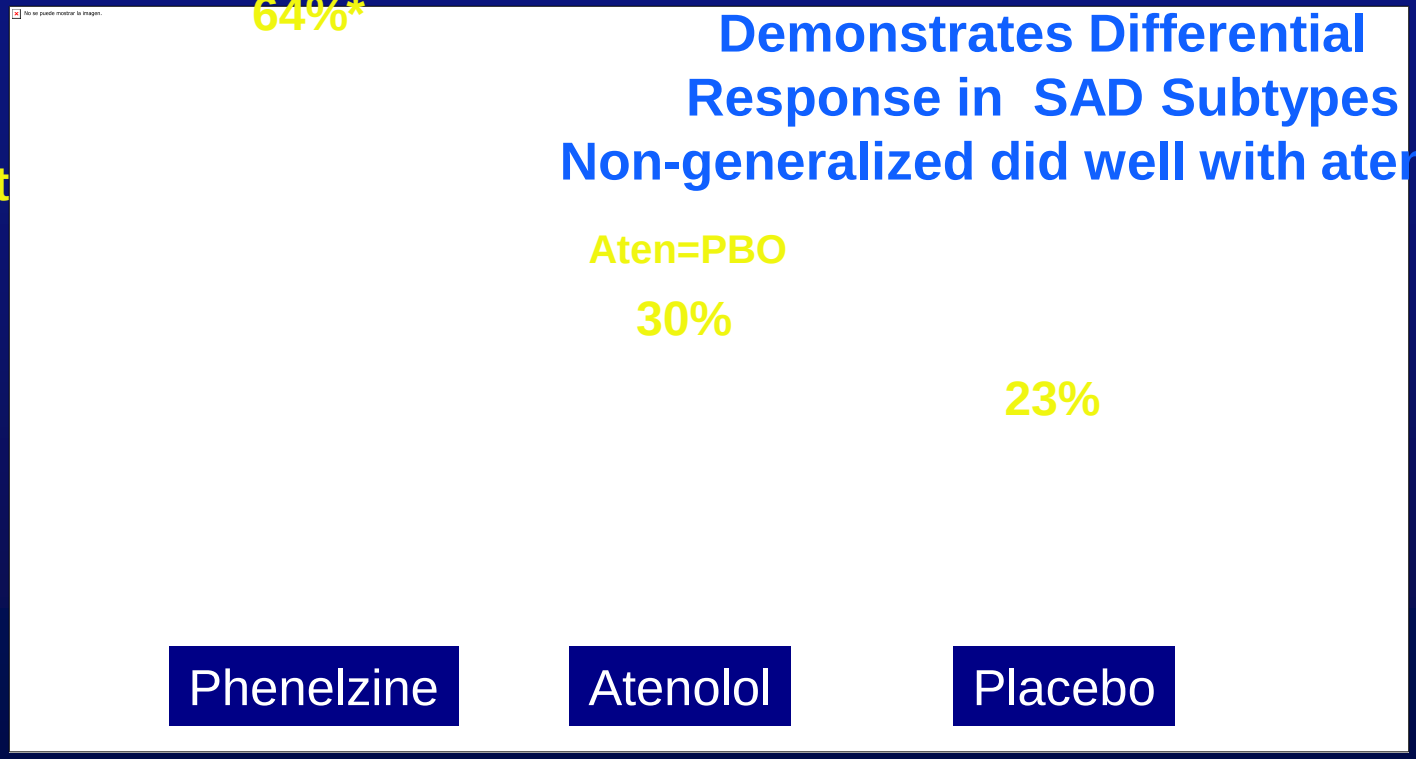
- CBT also effective

First Pharmacotherapy Study for Social Anxiety Disorder
2/3 Generalized, 1/3 Non-Generalized

*

*p<0.05

Percentage of Responders at Week 8



Liebowitz et al, 1992

Beta Blockers for SAD

*

More Information

- Effective for Discrete SAD (“Performance Anxiety”)
  - Propranolol: 10-40 mg PO
  - Atenolol: 50-150 mg PO
  - Not Effective for Generalized SAD, MDD or Other Comorbidities
    - Decrease physiologic arousal (tremor, palpitations), more than subjective anxiety
    - Administered 1-2 hours before planned event

Beta Blockers for SAD

*

More Information

- Effective for Discrete “Performance Anxiety”
  - Propranolol: 10-40 mg PO
  - Atenolol: 50-150 mg PO

  - Not Effective for Generalized SAD, MDD,Other Comorbidities
    - Decrease physiologic arousal (tremor, palpitations), but not emotional subjective anxiety
    - Given 1-2 hours before event

Generalized SAD Pharmacotherapy: Pros and Cons

- Advantages
  - Works Quickly
  - Faster Onset
  - More robust initial response
- Disadvantages
  - Patient concerns about medication
  - Cost
  - Adverse Effects
  - Relapse Rate after D/C

*

Agents with Limited or No Proven Efficacy in Generalized SAD

Bupropion
Buspirone
TCAs
Nefazodone
Levetiracetam
(clomipramine is effective)

*

Adapted from: Lydiard RB. In: *Textbook of Anxiety Disorders*. Washington, DC: American Psychiatric Press, Inc; 2002:348-3613

*

GSAD Pharmacotherapy

- Recommended First-Line = **SSRI** or **SNRI**
- Initial dose for 2-4 weeks, then increase if necessary
- Should see some benefit in 2-4 weeks
- May require doses up to 2x needed for MDD
- 40-60% respond to any one SSRI / SNRI

*

*

After 6-8 weeks…

- Partial response to SSRI-
  - — Increase dose as tolerated
  - — augment with BZ , beta blocker or CBT
- Non-response
  - — Try second SSRI
  - — Switch to SNRI
  - — Switch to CBT

Monotherapy alone may be insufficient See notes this slide

*

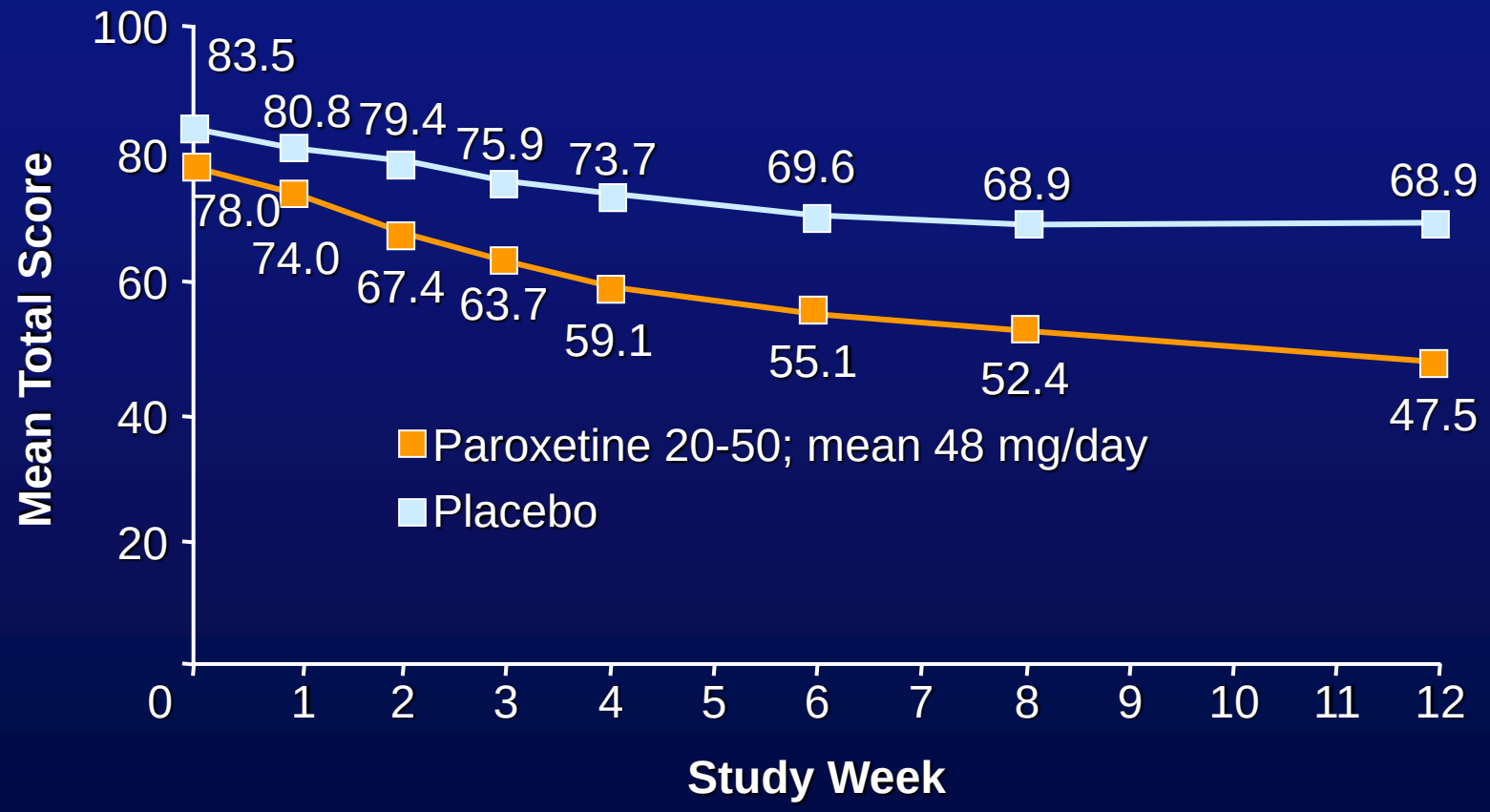
Generalized SAD Pharmacotherapy

- Typical Pattern:
  - Continued improvement over several months
  - May take ≥ 1 yr for optimal response
- Continue medication after gains maximized to Allow for resumption of psychosocial development
- Relapse after discontinuation of medication alone is high

Ravindran & Stein, J Clin Psych 2010; 71:839

Typical SSRI vs Placebo in SAD

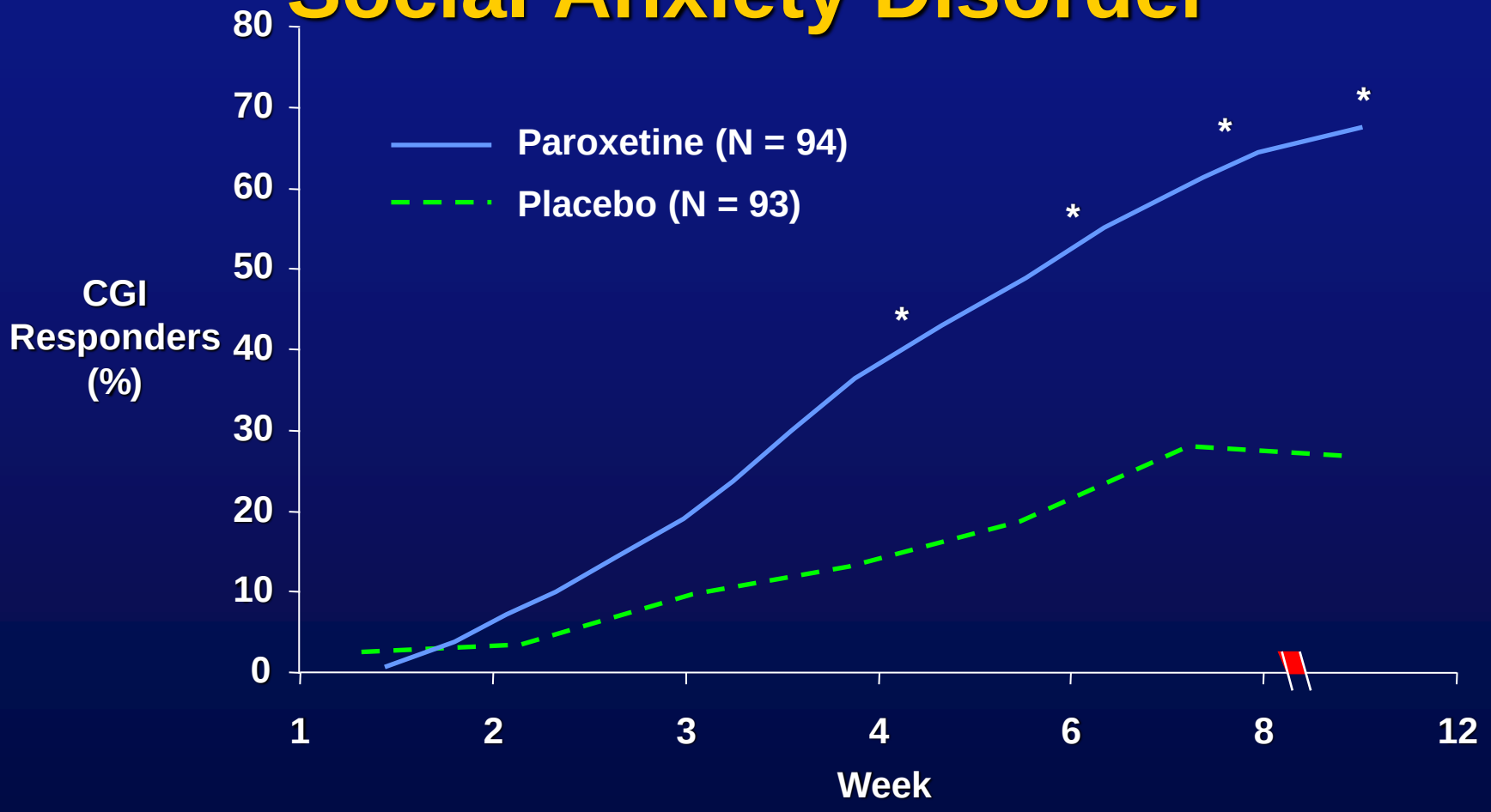
Paroxetine --Total Change in LSAS



* *P*<.05 versus placebo Stein et al. *JAMA*. 1998;280:708

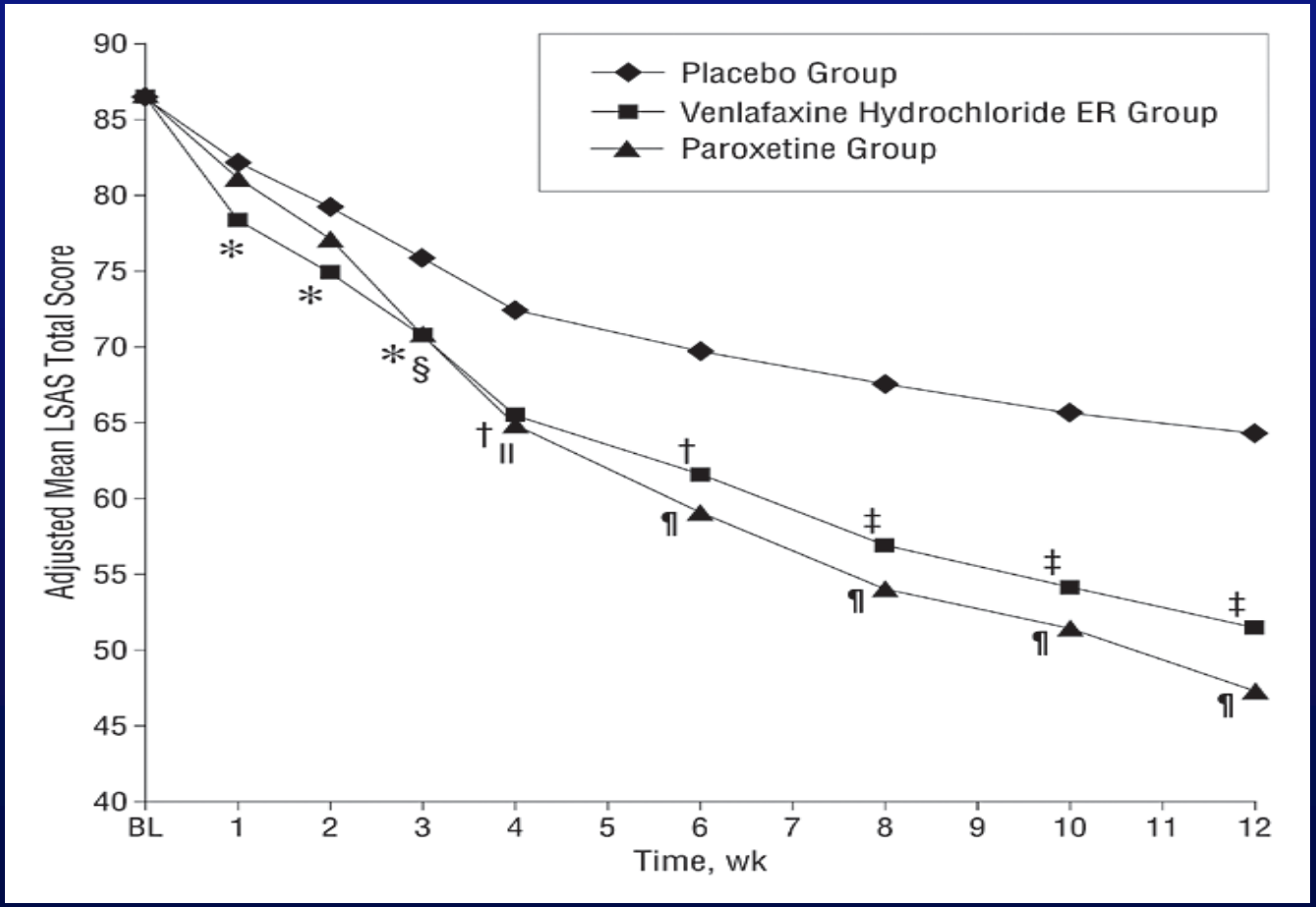
*

Paroxetine Treatment Of Social Anxiety Disorder



*P£.001 vs placebo – visit-wise dataset. Stein et al. JAMA. 1998;280:708.

GSAD:SNRI vs. SSRI vs. Placebo
Flexible Dose, Comparative



n= Ven-146; PAR n=147; PBO=147 Dose Ven 75-225 PAR 20-50

*

Liebowitz, M. R. et al. Arch Gen Psychiatry 2005;62:190-198

GSAD: SSRI Comparative Effect Sizes

Clinical Trial	Effect Size (95% CI)
Fluoxetine	
Kobak et al, 2002[56]	–0.029 (–0.548–0.490)
Fluvoxamine	
van Vliet et al, 1994[57]	0.714 (–0.089–1.518)*
Stein et al, 1999[58]	0.668 (0.229–1.108)
Davidson et al, 2004[52†]	0.542 (0.303–0.781)
Paroxetine	
Stein et al, 1998[41]	0.628 (0.332–0.925)
Allgulander, 1999[59]	1.214 (0.764–1.665)
Baldwin et al, 1999[44]	0.417 (0.184–0.650)
Liebowitz et al, 2002 (overall)[60]	0.398 (0.159–0.636)
20 mg‡	0.541 (0.244–0.837)
40 mg‡	0.309 (0.015–0.603)
60 mg‡	0.334 (0.042–0.626)
Lepola et al, 2004[46§]	0.509 (0.302–0.716)*
Sertraline	
Katzelnick et al, 1995[50]	0.796 (–0.540–2.132)
Liebowitz et al, 2003[49]	0.333 (0.139–0.526)

Westenberg, CNS Spectums 2009;14 (suppl3) :24-33

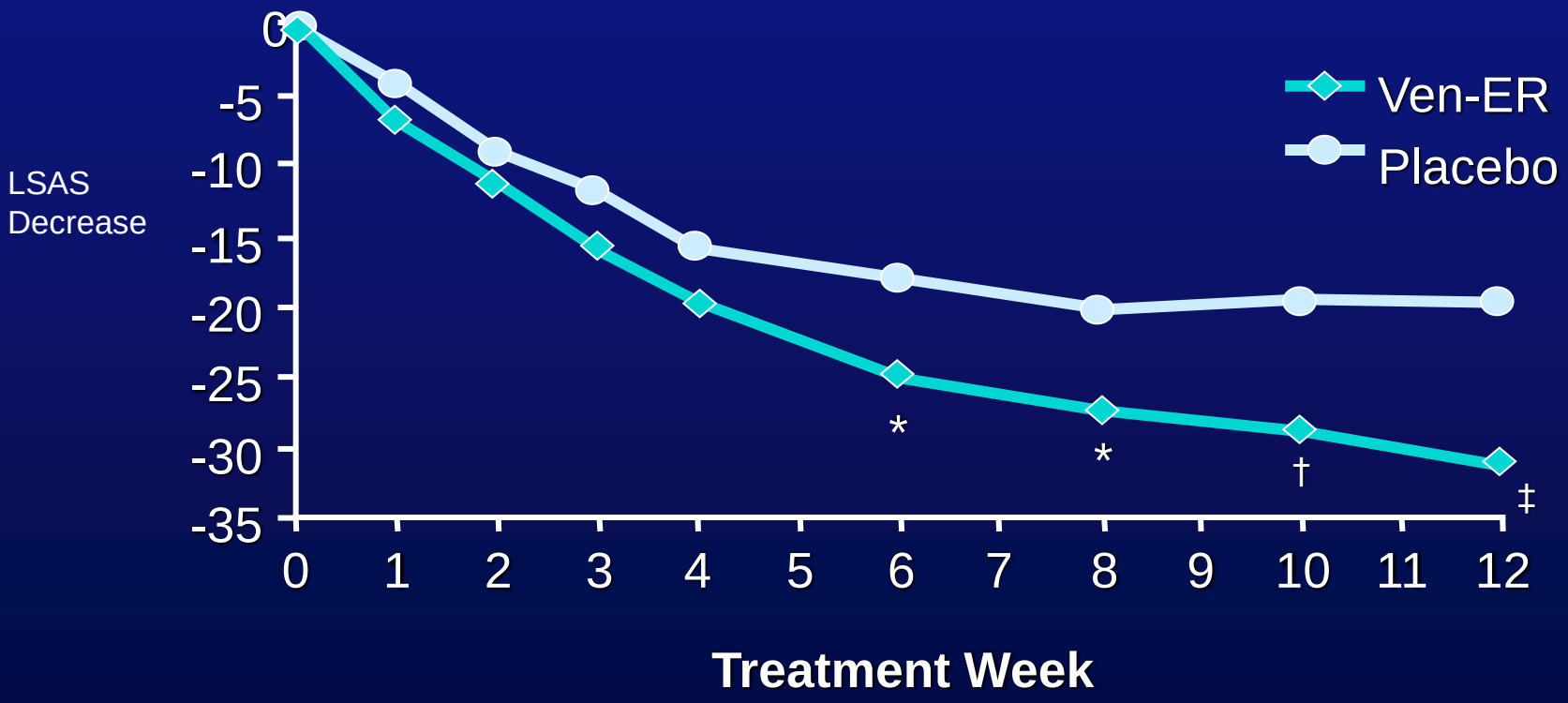
SNRI : Venlafaxine ER vs. PBO

Flexible Dose 75-225 mg/day

*

271 randomized, 173 completed

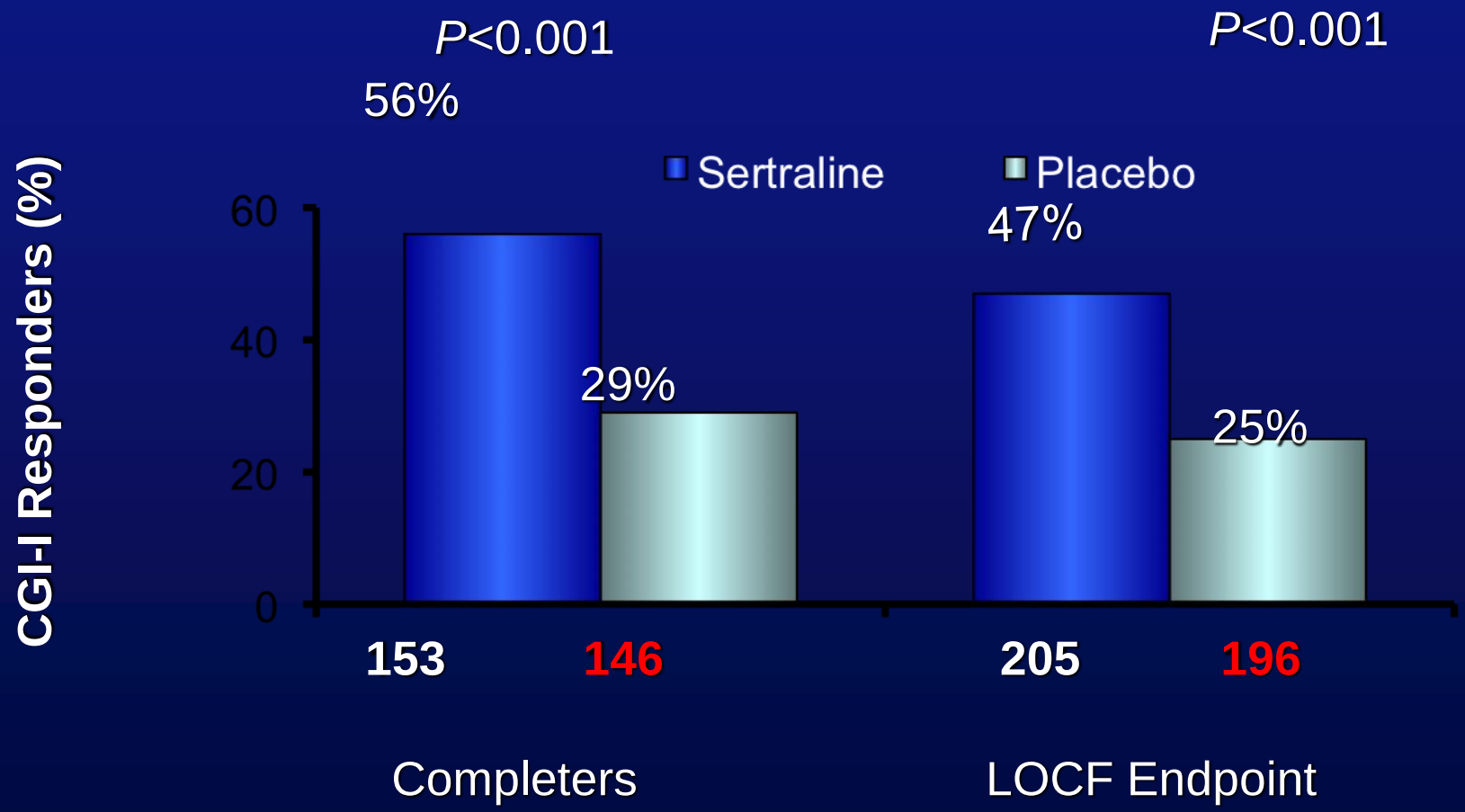
Response Ven XR 44%; PBO 30% // Remission Ven XR 20%; PBO 7 %



*P = 0.022; †P = 0.003; ‡P = 0.0002.

ITT Population, LOCF Analysis Liebowitxz et al, J Clin Psych 2005;66:238-47

Sertraline Social Anxiety Disorder US Study: CGI-I Responder* Status at Week 12 Endpoint

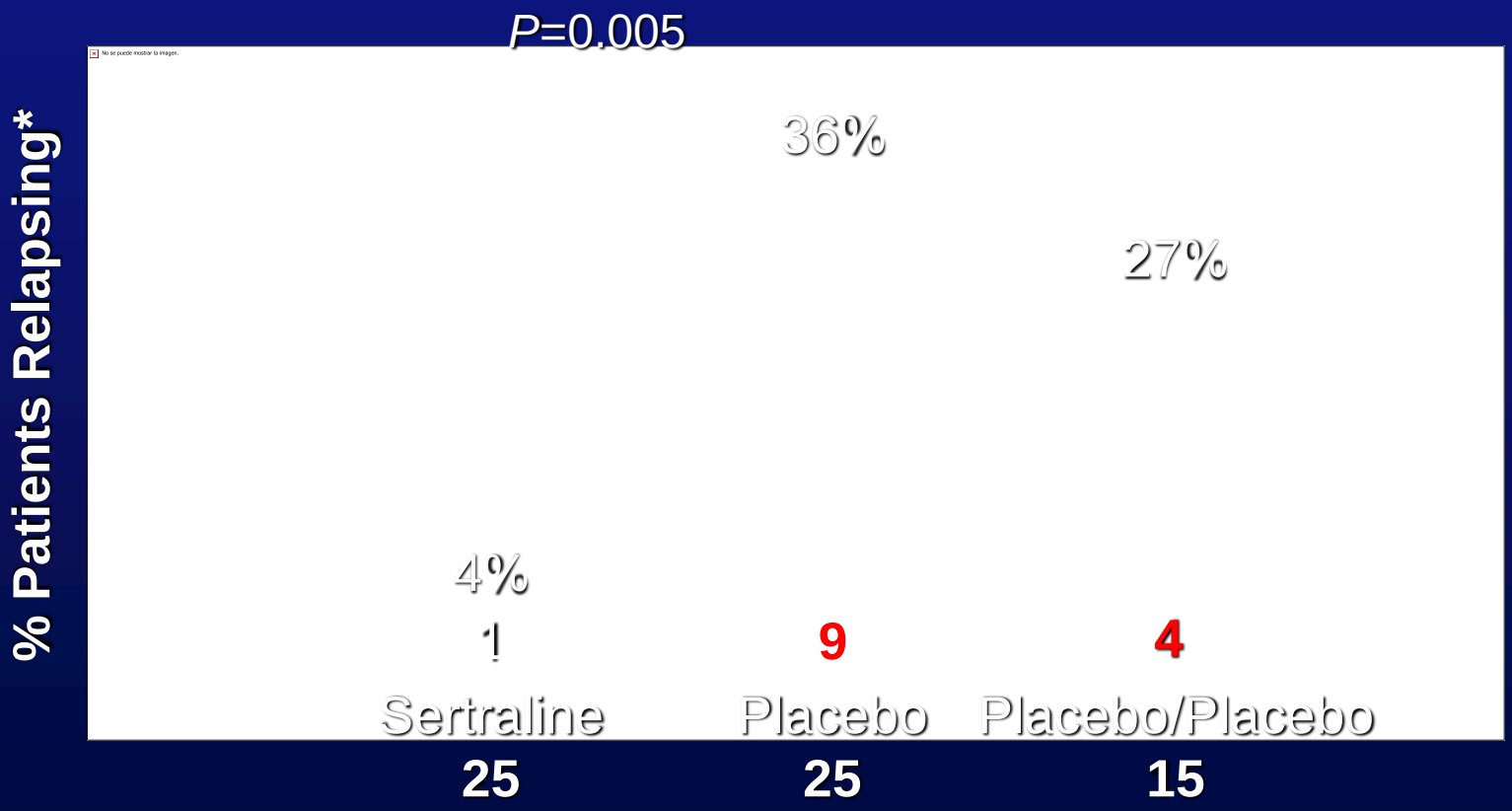


*ITT Responder: CGI-I ≤2.

Liebowitz ACNP 2001

Sertraline: Relapse* Prevention in Social Anxiety Disorder

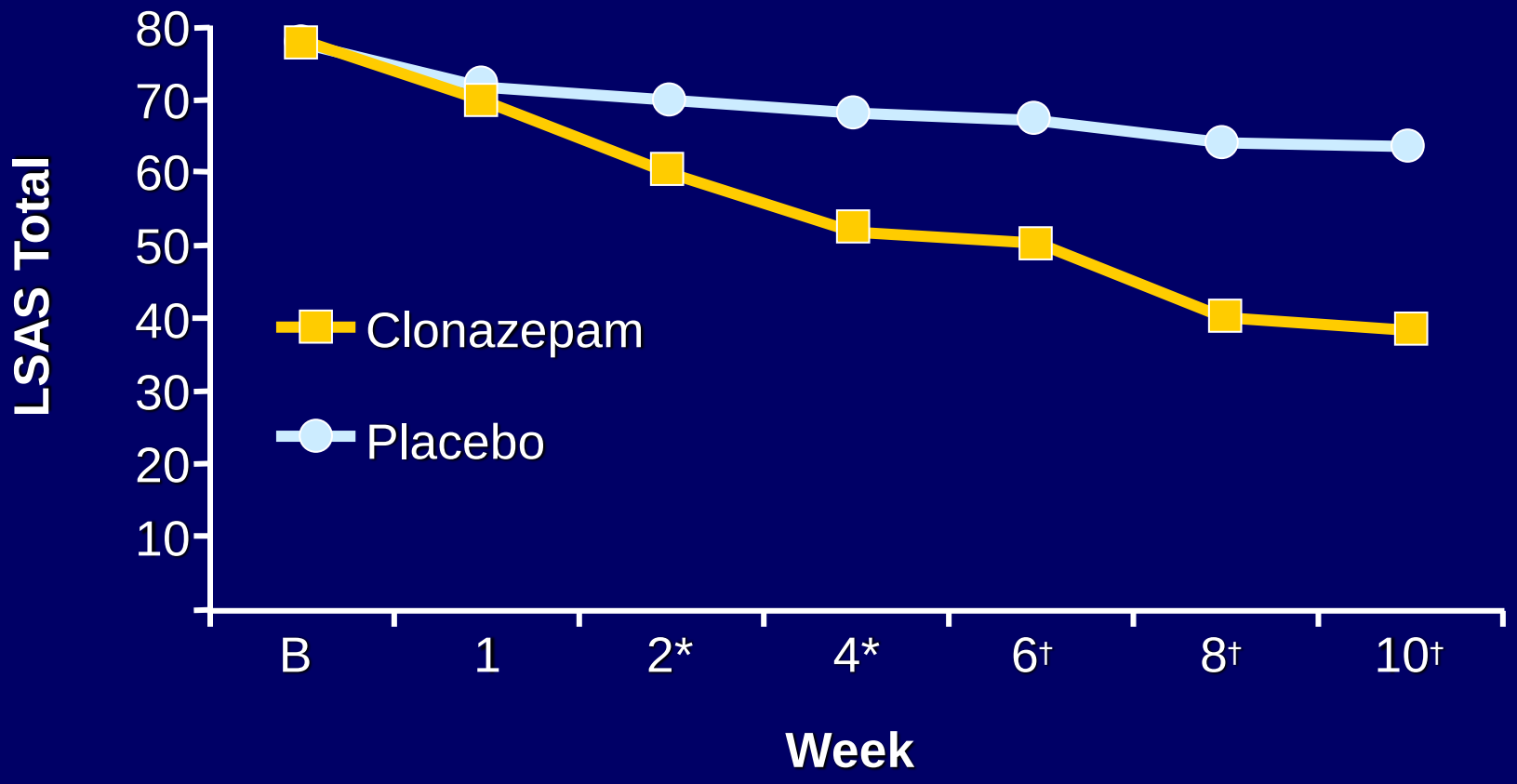
Proportion of Patients Relapsing During 24 Weeks of DB Treatment



*Relapse = CGI-S increase ≥2 from continuation study baseline *or* discontinuation due to lack of efficacy.

Walker et al. *J Clin Psychopharm*. 2000.

Benzodiazepines: Clonazepam in Social Anxiety Disorder



* $P \leq .01$; † $P \leq .0001$ (LOCF MANCOVA).

Davidson et al. *J Clin Psychopharmacol*. 1993;13:423.

Long-term Clonazepam Treatment of GSAD: Discontinuation vs. Maintenance

- Patients stable on clonazepam x 6 mo
  - Continuation treatment (CT) x 5 mo vs
  - double-blind substitution 0.25 mg/wk Pbo
- At 11 months
  - Continued med relapse =0%
  - Discontinued med relapse=21.1%
- Significant gains maintained by many
  - ~80% did well off drug!
- Supports long-term Rx with clonazepam

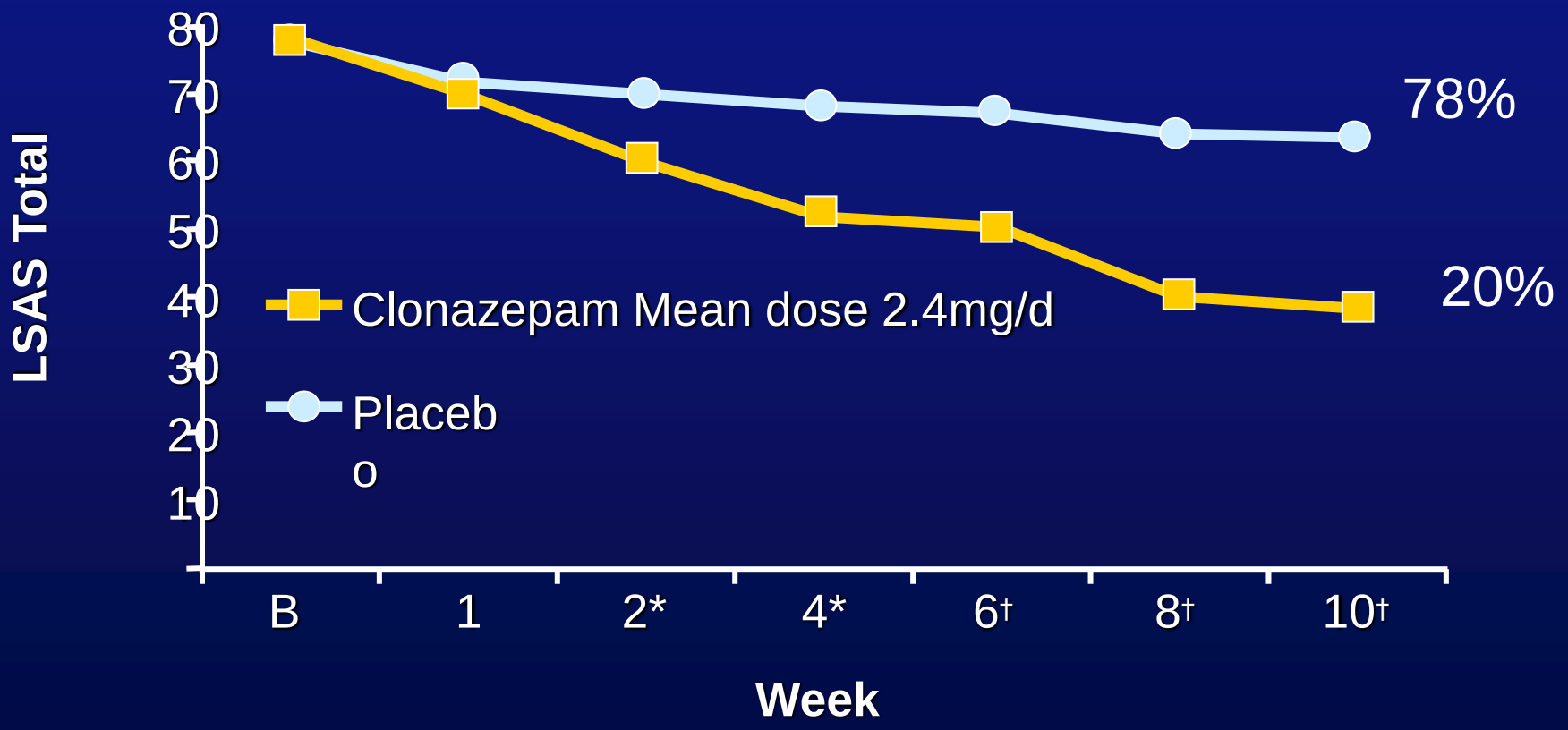
Connor, Davidson et al J Clin Pychopharm 1998; 18 (5) 373-378

Benzodiazepine (clonazepam) Treatment for Social Anxiety Disorder

- Effective--Highest Response Rates
- Potential Problems in Patients with Substance abuse
- *Not an Antidepressant*
- Side Effects
  - — Disruption of Cognition / Sedation
  - — Tolerance / Dependence / Withdrawal

*

Benzodiazepines in SAD: Clonazepam vs. Placebo



* P£.01; †P£.0001 (LOCF MANCOVA).

Davidson et al. J Clin Psychopharmacol. 1993;13:423.

*

Monoamine Oxidase Inhibitors Treatment Of SAD

- Irreversible (nonselective)
  - — **Phenelzine,**
  - — **Tranylcypromine**
    - – Superior to most other classes
    - – Poorly tolerated
    - – Interaction with Tyramine-Diet required

- Reversible Inhibitors of Monoamines (RIMAs)
  - — Reversible, selective for MAO-A
    - – Well tolerated
    - – Not Available in US
      - » Moclobemide Weak Response in US studies
      - » Brofaromine; 5-HT reuptake (-) AND inhibits MAO-A
      - » Deprenyl (Ensam) marketed in US for depression; selective at doses below 20 mg daily po

*

Tricyclic Antidepressants

- Clomipramine Appears Effective
- Imipramine - Ineffective in only Controlled Study
  - N=41, 8-week trial ; Mean dose: 149 mg/d
    - Intent-to-treat (ITT)
  - 20 dropped out (most-adverse effects)
  - Responders:
    - Imipramine: 2/18
    - Placebo 1/23

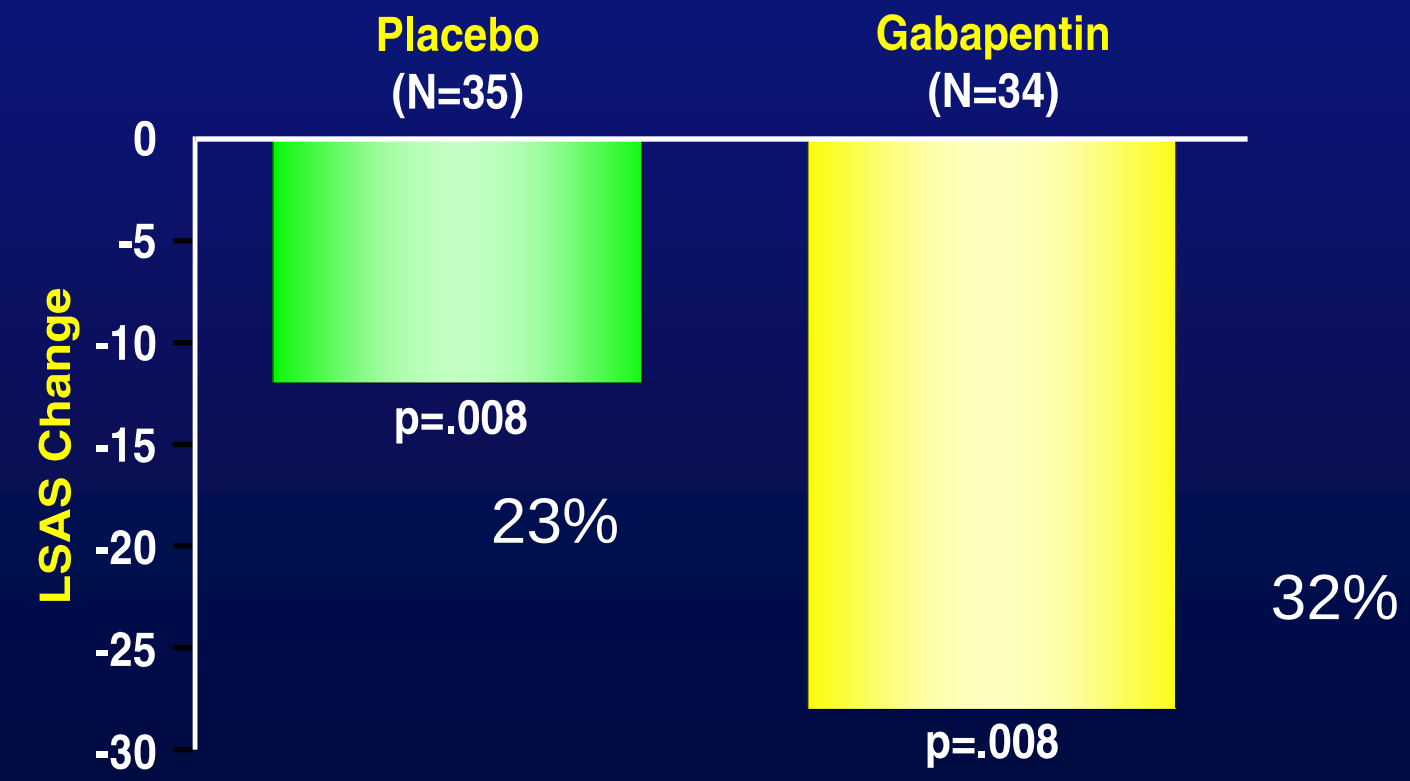
*

Emmanuel, Lydiard et al, ACNP 1997

Novel Treatments: Gabapentin in SAD

8-week study ITT Analysis--Marginal efficacy

300-1200 mg tid



*

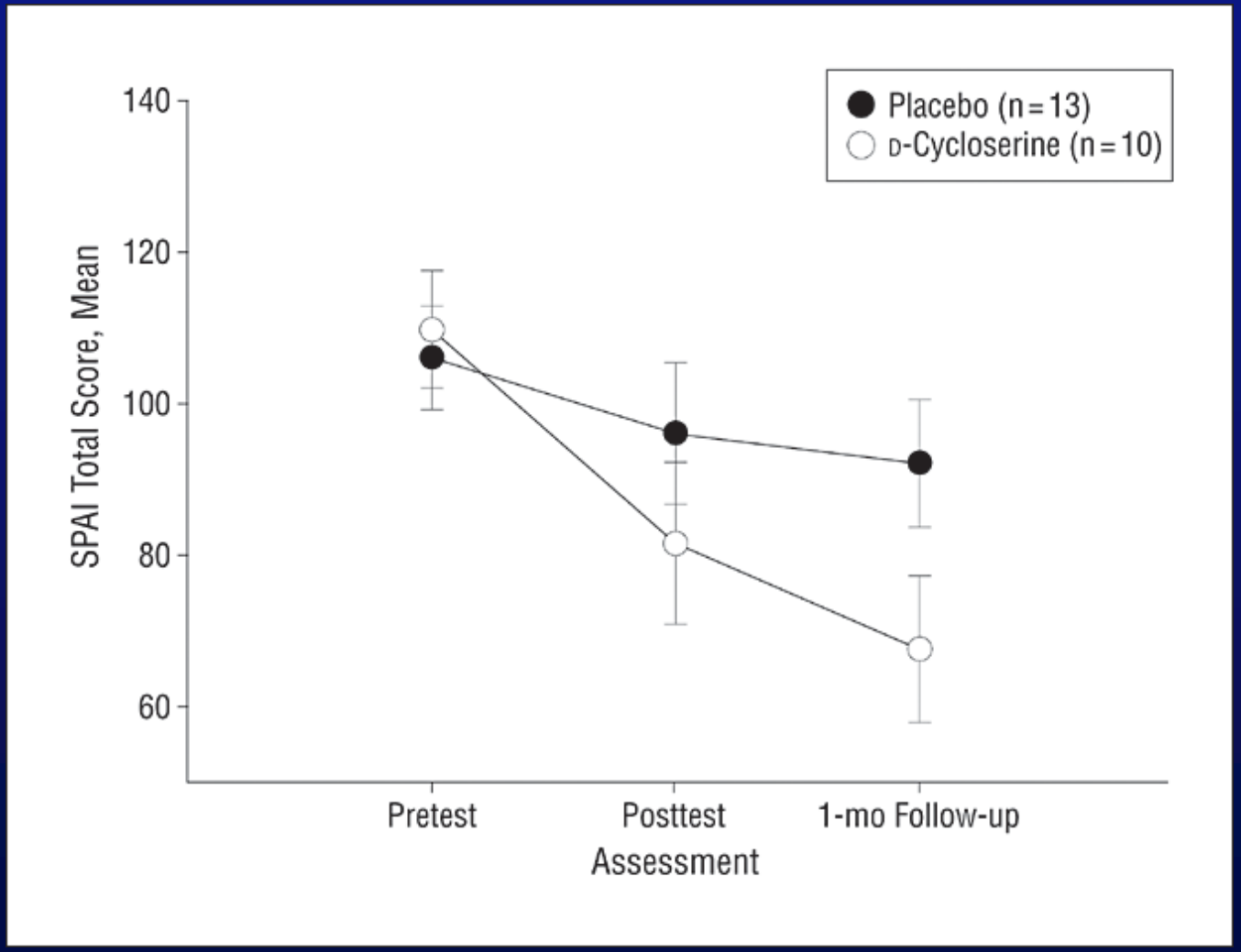
Pande AC et al J Clinical Psychopharmacol 2004; 24:141-149

Adverse Effects

- SSRIs, SNRIs- **Activation , sexual dysfunction, weight gain**
- Benzodiazepines **Not antidepressant , physiologic dependence/ potential withdrawal, initial coordination , sedation, fear of addiction**
- **Pregabalin-sedation, dizziness, wt gain, edema (not much different than placebo)**
- TCAs **Limited breadth of efficacy, activation, cardiovascular adverse effects , overdose danger**
- MAOIs **(Irreversible) Diet / drug interaction, postural hypotension, hyposomnia, weight gain, sexual dysfunction, overdose danger**

D-cycloserine + Exposure in Social Phobia

Social Phobia and Anxiety Inventory (SPAI) scores at pretest, posttest, and 1-month follow-up assessments of treatment completers



Hofmann, S. G. et al. Arch Gen Psychiatry 2006;63:298-304.

Atypical Antipsychotics in SAD

Insufficient data to support use for anxiety disorders

Depping et al, Cochrane Database Syst Rev. 2010 Dec 8;(12):CD008120

- 1 open label and one RCT with quetiapine
  - Vaishnavi et al, Prog Neuropsychopharm Biol Psych 2007;31:1464-69; Schutters et al JCP 2005;66:540-42
- 1 open-label study with olanzapine
  - Barnett et al J Psychopharmacol 2002;66:365-8

Antipsychotics for Anxiety

- **FDA did not approve indication for quetiapine in GAD and MDD (4/09)**
  - **Despite positive short-term studies**
- **Risk for continuous exposure did not warrant approval**
  - **Sudden death**
    - **dose-related for both atypicals and typicals**
    - **Samples of >40,000 each group**
    - **Former users no risk**
  - **Metabolic consequences**
    - **Illness being treated long-term may contribute**

Sudden Death Ray et al NEJM 2009; 360:225-35

FDA http://www.fda.gov/ohrms/dockets/ac/09/briefing/2009-4424b2-01-FDA.pdf

Daily Dose Range for GSAD and Most Comorbid Disorders*

● Venlafaxine	75-300 mg
● Paroxetine	20-80 mg
● Sertraline	50-300 mg
● Escitalopram	10-40 mg
● Fluvoxamine	50-300
● Citalopram	20-60 mg
● Clomipramine	25-300 mg
Clonazepam	0.5- 4 mg
● Alprazolam	1-8 mg
● Diazepam	5-40 mg
● Phenelzine	1 mg/kg
● Tranylcypromine	0.7 mg/kg

* Not in order of preference; Based on literature and experience of authors

*

Other Treatments

- **Pregabalin-effective in placebo-controlled RCT with evidence for relapse prevention over 26 weeks**
- **Agomelatine (not yet in US) may be beneficial**
- **Repetetive Transcranial Stimulation-insufficient evidence**

Greist JH et al International Clinical Psychopharmacology 2011;26:243-51;Crippa et al, Prob Neuropsychopharmacol Biol Psychiat 2010; 34:1357-8 ; Pallantii & Bernardu Int Clin Psychopharmacol. 2009 ; 24:163-73

*

Pearls…

- Start Low and Titrate Individually Based on Side Effects and Efficacy
- The “Right” Dose is the One which Provides Efficacy *and* Tolerability

*

Tips (cont'd)…

- May Require Higher Doses for Anxiety or SAD and Comorbid Disorder(s)
- Document Your Rationale and Patient Assent if Using Outside Labeling Dosage

*

CBT: Pros and Cons

- **Advantages**
  - It Works
  - Durable effect
  - Most People Like It
  - Time-Limited
  - Few side-effects
- **Disadvantages**
  - More Time & Work
  - Limited Supply
  - May Not be Covered by Insurance
  - Not for Everyone

SAD: Psychosocial Treatments

- Psychoeducation
- Social Skills Training
- Cognitive Behavioral Therapy (CBT)
- Individual or Group Therapy

Heimberg 2001 J Clin Psych

Combined CBT and Medication

- **Commonly held belief: combination is CBT+ meds superior to either alone**
  - **Very limited data due to few high quality studies**
- **Differences getting smaller over time due to more rigorous design**
- **CBT+Meds for panic and GAD in short term superior to CBT + placebo**
- **OCD and SAD not much different**
- **At 6 months- not much different**
- **Still needs more empirical examination**

Hofmann et al Int J Cogn Ther 2009; 2: 260-75

Psychosocial Treatment vs. Pharmacotherapy

Phenelzine vs. CBGT (Group CBT):

Phenelzine Results in Greater Improvement Short-Term

- **CBGT Shows More Durable Improvement at Follow-Up**

*

Social Phobia II
Response by Subtype to CBGT *

*Intent to treat. Heimberg et al, AGP 1998;55:133-41; n= 30-35 per group.

Long Term Treatment is Required by Many Patients to Maintain Gains

*

Long-Term Treatment Indications

- Persistent, Impairing Social Anxiety Symptoms
- History of Relapse After Stopping Prior Treatment
- Comorbid Conditions Requiring Prophylaxis

Selection Considerations

- Evidence for Efficacy
- Safety
- Tolerability
- Half-Life
- Drug-Drug Interactions
- Protein Binding

Conclusions

- SAD is Common and Disabling
- SAD Requires Prompt Diagnosis to Prevent Long-Term Disability
- SAD is
  - Underdiagnosed
  - Undertreated
- SAD Demands Increased Awareness from Health Professionals and the Public

Additional Resources

Anxiety Disorders Association of America www.adaa.org

National Institute for Mental Health: **www.nimh.nih.gov/anxiety/anxietymenu.cfm**

Rating scales, neuroscience: www.neurotransmitter.net

Stein DJ, Ipser JC, Balkom AJ. Pharmacotherapy for social phobia. Cochrane Database Syst Rev. 2004;(4):CD001206.

Swinson RP, Antony MM, Bleau PB, et al. Clinical practice guidelines: management of anxiety disorders. Can J Psychiatry. 2006;51(suppl 2):1S≳92S.

Saeed SA, Bloch Rm, Antonocci DJ Herbal and dietary supplements for treatment of anxiety disorders. Am Fam Physician. 2007 15;76:549-56.

Hofmann SG, Sawyer AT, Korte, KJ et al. Is it beneficial to add pharmacotherapy to CBT? A meta-analysis Int J Cogn Ther 2009 2:160-75

Question #1

What are the 2 Main Subgroups of Social Anxiety Disorder (SAD)?

Question #2

Which SAD Subtype would be Described as…

- **More Common**
- **Familial**
- **Earlier onset**
- **Greater Impairment**
- **Lower Remission Rate**

Question #3

True or False

Patients with SAD are more likely, as compared to those without SAD, to do the following…

- **Remain Single**
- **Not Finish High School**
- **Earn Lower Income**

Question #4

Which three psychiatric illnesses are commonly comorbid with SAD?

Question #5

What is First Line Treatment for SAD and… Does it vary between the 2 Subtypes?

Answer #1

Non-Generalized Subtype(DSM-V Performance)

Generalized Subtype

Answer #2

Generalized Subtype

Answer #3

TRUE!

Answer #4

- Agoraphobia… in almost 1/2 of patients with SAD
- Alcohol Abuse… in almost 1/5 of patients with SAD
- Major Depressive Disorder… in almost 1/5 of patients with SAD

Answer #5

Yes.

Pharmacotherapy can vary between the 2 Subtypes.

Generalized… First Line: SSRI or SNRI; BZs Effective

Non-Generalized… PRN Pharmacotherapy Targeting Symptoms

Acknowledgements

James Jefferson, MD*

John Greist, MD*

David Katzelnick, MD*

University of Wisconson &

Health Technology Systems. Madison WI

J.R.T. Davidson, MD

Duke University