Social Anxiety Disorder (Social Phobia)

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“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

- Diagnosis
- Neurobiology
- Comorbidity
- Treatment

Question #1

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

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

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

*

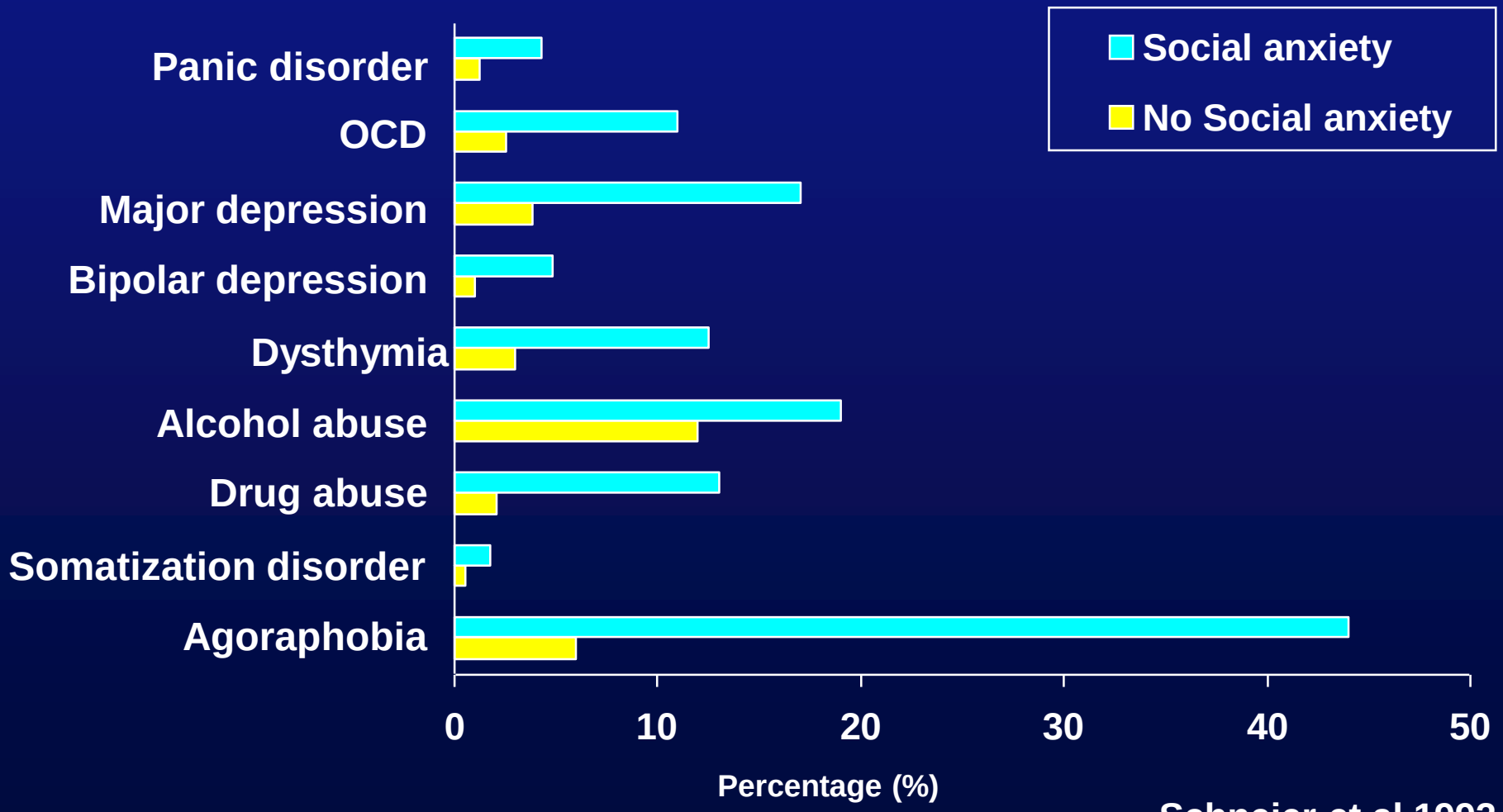
DSM-IV Social Anxiety Disorder (SAD)

- 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)

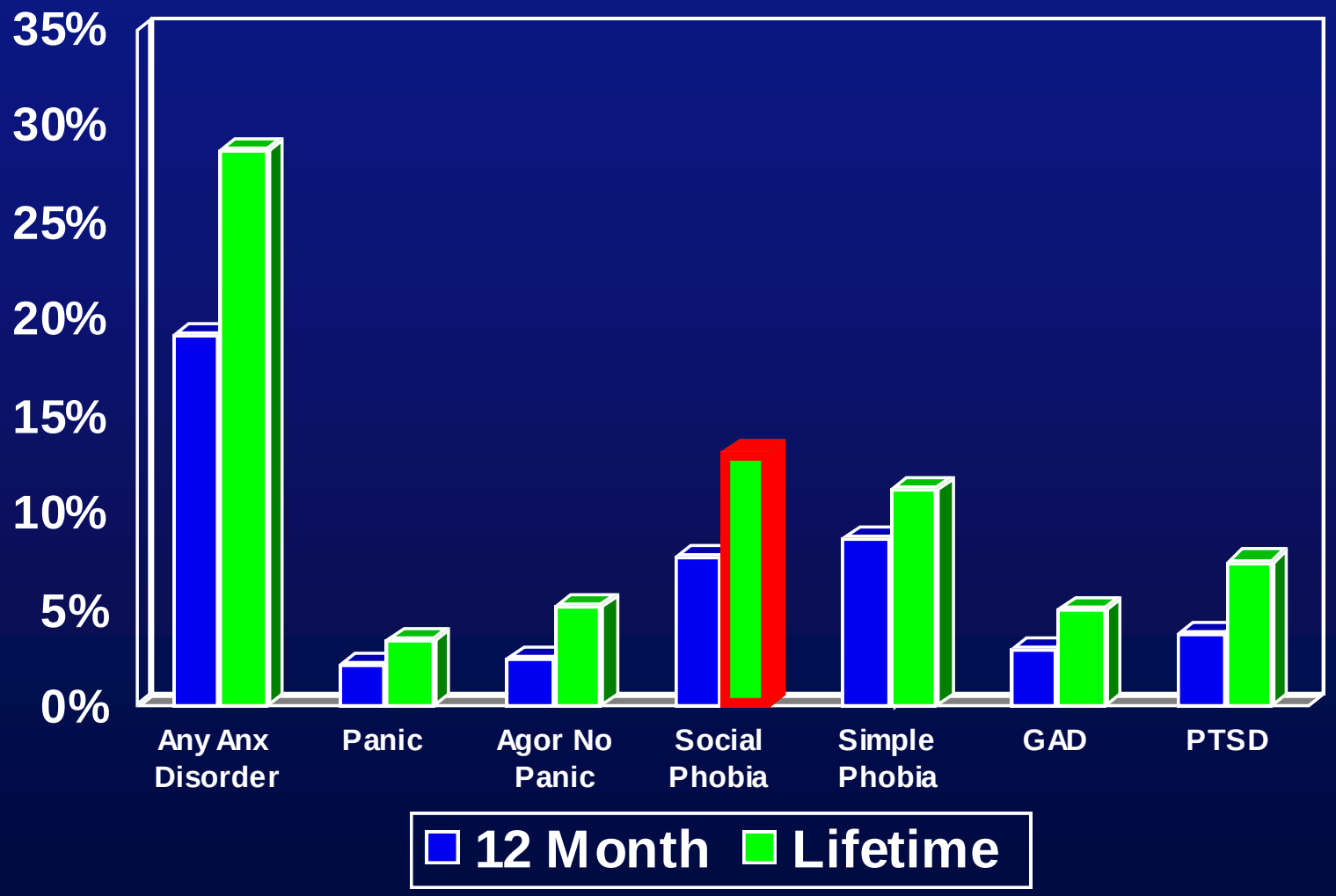
** Treatment of secondary SAD may help some individuals

Lifetime Comorbidity in Social Anxiety Disorder



Schneier et al 1992

SAD: Highest Lifetime Prevalence of all Anxiety Disorders



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

SAD Subtypes

- **Generalized**
  - **Most social situations**
- **Non-Generalized**
  - **Public speaking most common**

*

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

*

*

Typical Social Feared Social Situations

Interactive

- 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

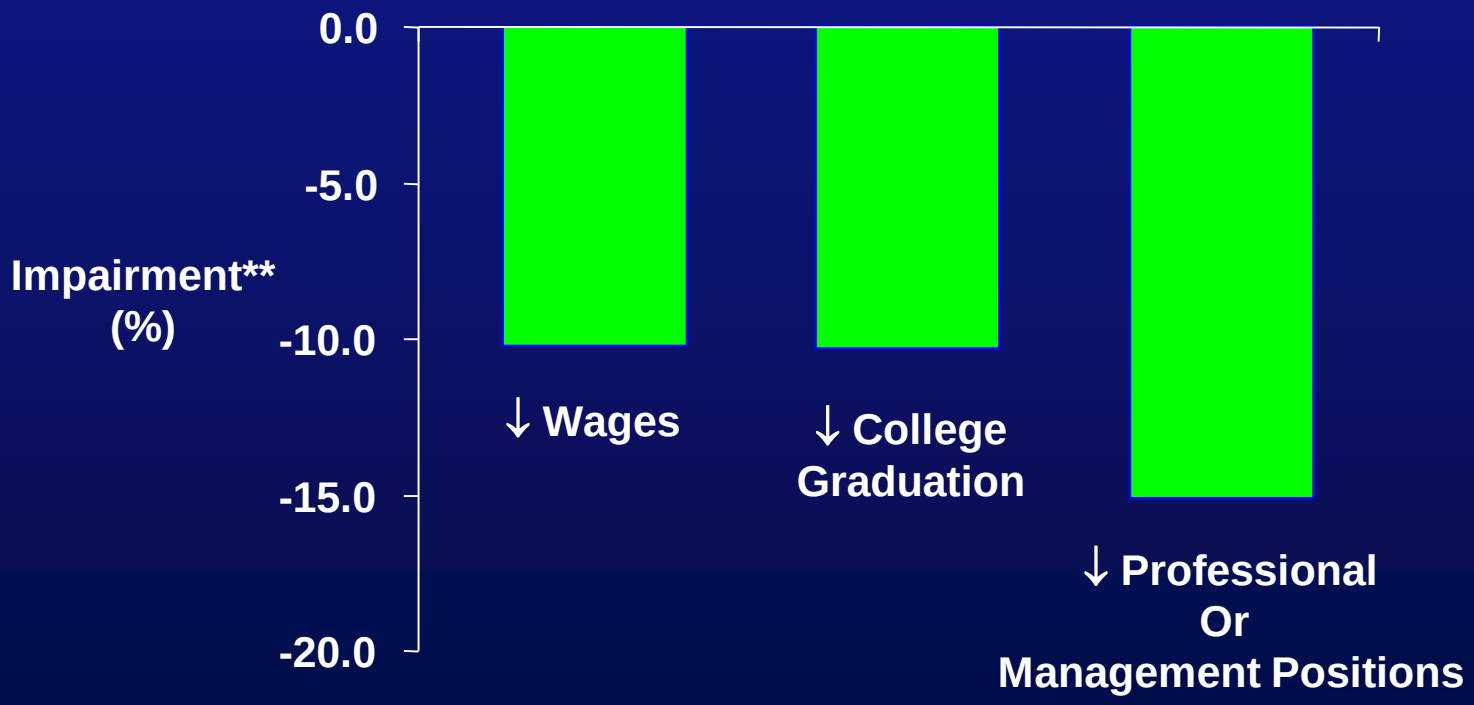
- Chronic
- Modal Onset at 13 years
- Average Duration at Diagnosis is 20 Years
- Only 27% of Recover

*

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

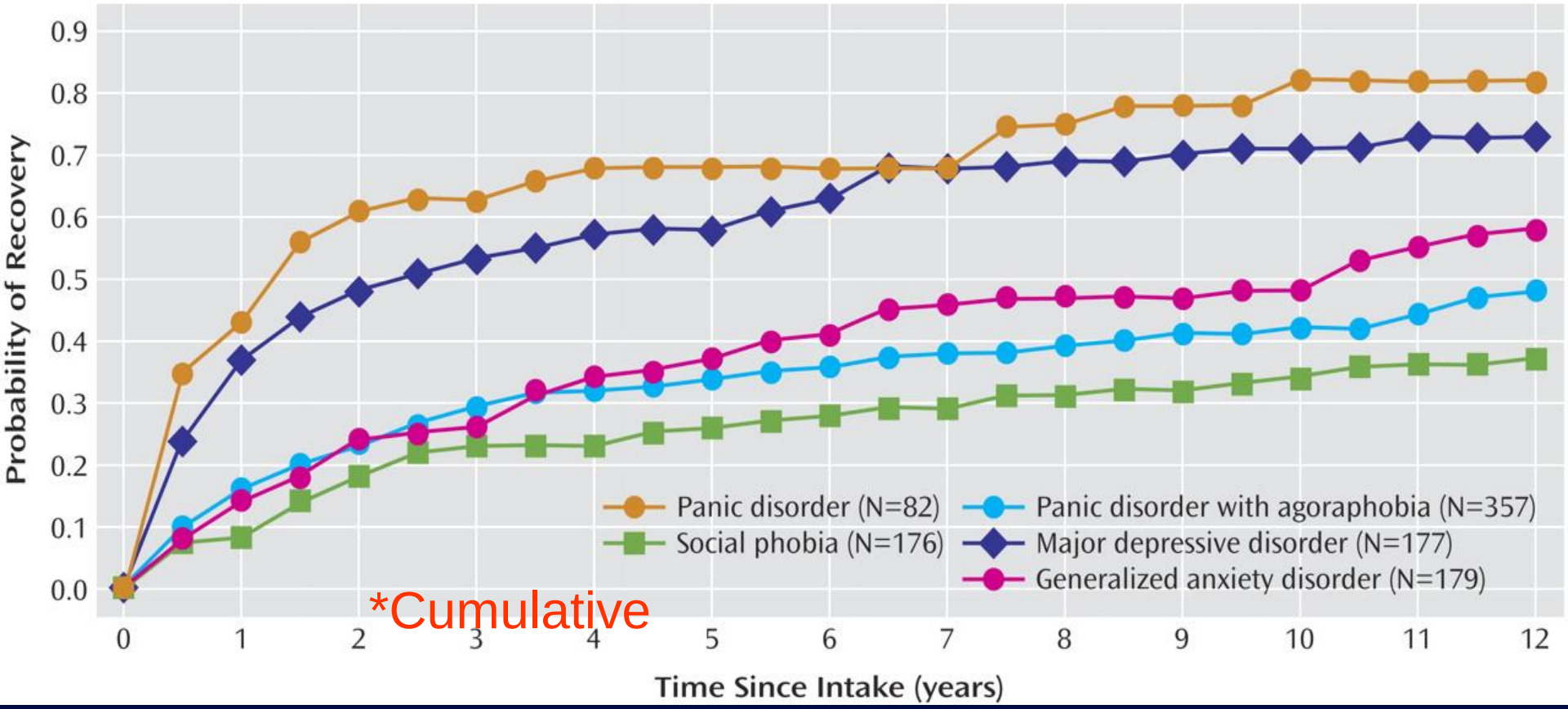
*

Magee et al 1996

*

* SAD: 12-yr (p) Remission

Social Anxiety - Lowest rate of remission

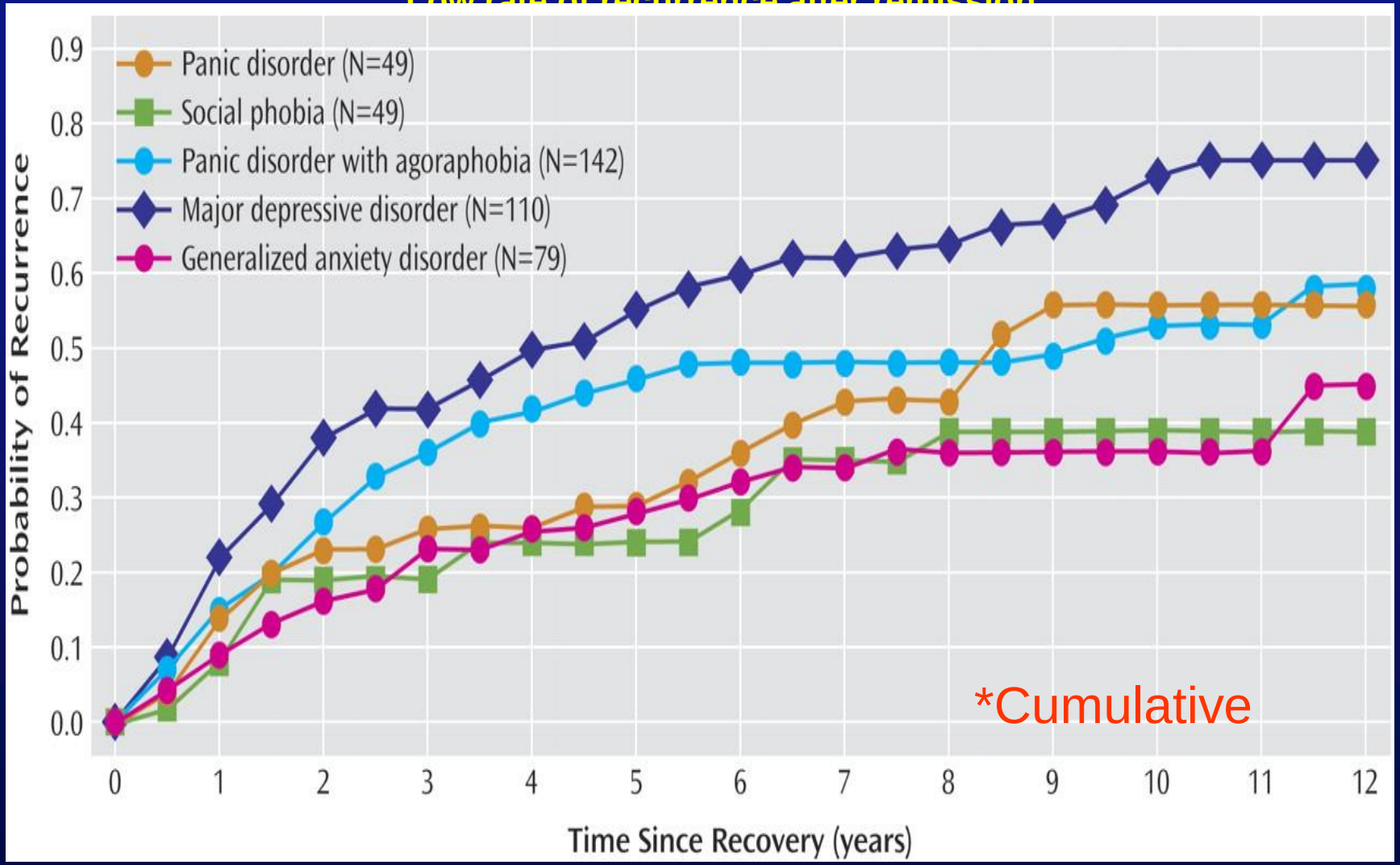


* Bruce et al, AJP2005 162:1179-87 Harvard Anxiety Research Program

Keep in mind that these were patients being treated!!

* SAD 12-Yr (p) 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

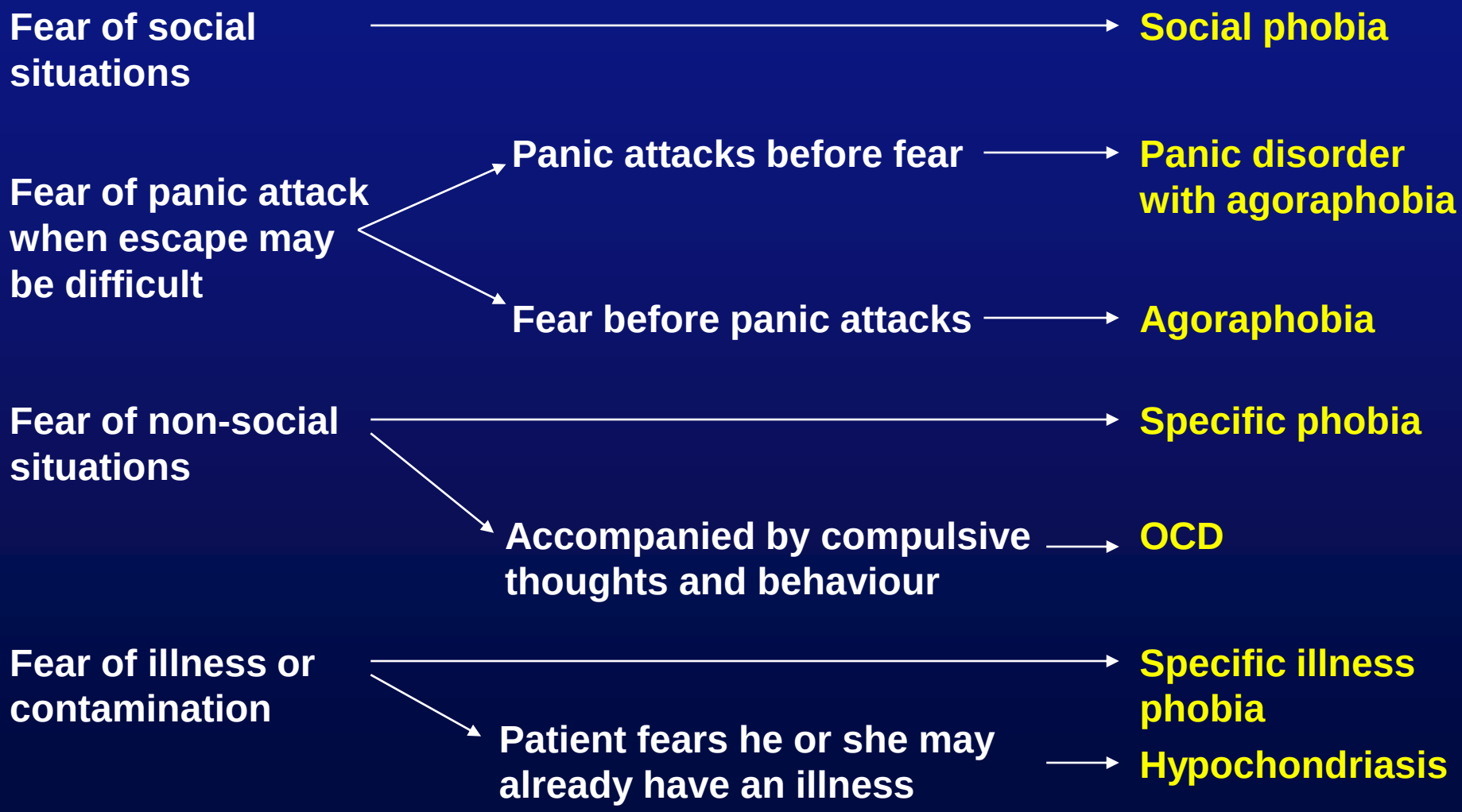
*

MINI-SPIN

- 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 in positive ID GSAD in 344 patients with vs 673 controls with no SAD

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.

* Differential Diagnosis of Social Anxity



SAD in Adolescents

- **May present with:**
  - **Depression**
  - **Truancy or Other Conduct Problems**
  - **Substance Abuse (especially EtOH)**

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
- **DA function**
  - Catechol-O-methyl transferase (COMT) polymorphism
- **Inherited abnormalities in Fear Circuit**
    - (see panic disorder lecture)
- **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

- . Neuroanatomical areas implicated in SAD include:
  - amygdala
  - prefrontal cortex
  - hippocampus
  - striatum

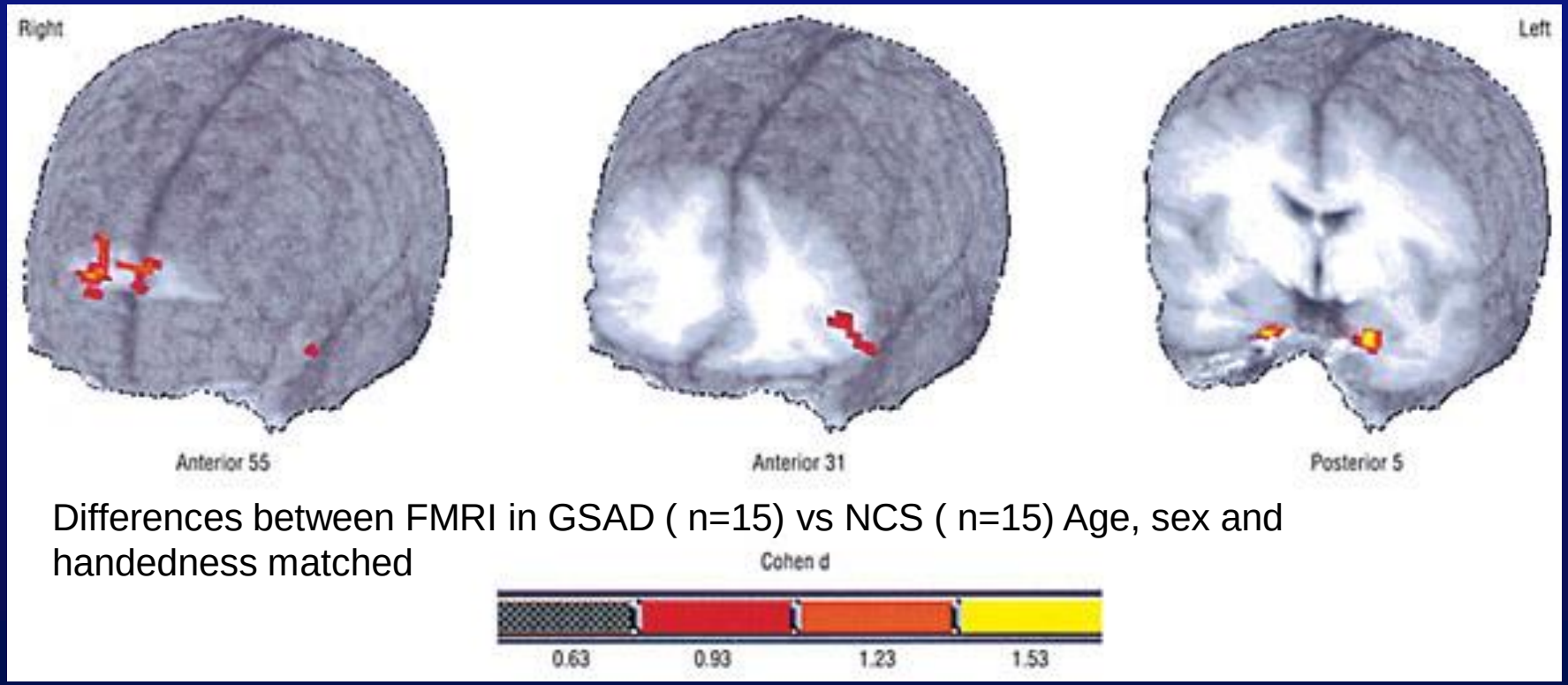
Evidence for DA Dysfunction in SAD

- 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
- Lower CSF levels of HVA in patients with panic disorder and comorbid social anxiety disorder
- High association with Parkinson's disease
- Increased phobic symptoms during haloperidol treatment
- in patients with Tourette's disorder
- Response to MAOIs but not to tricyclic antidepressants

Mathew et al, AJP 2001; 158: 1558-67

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.

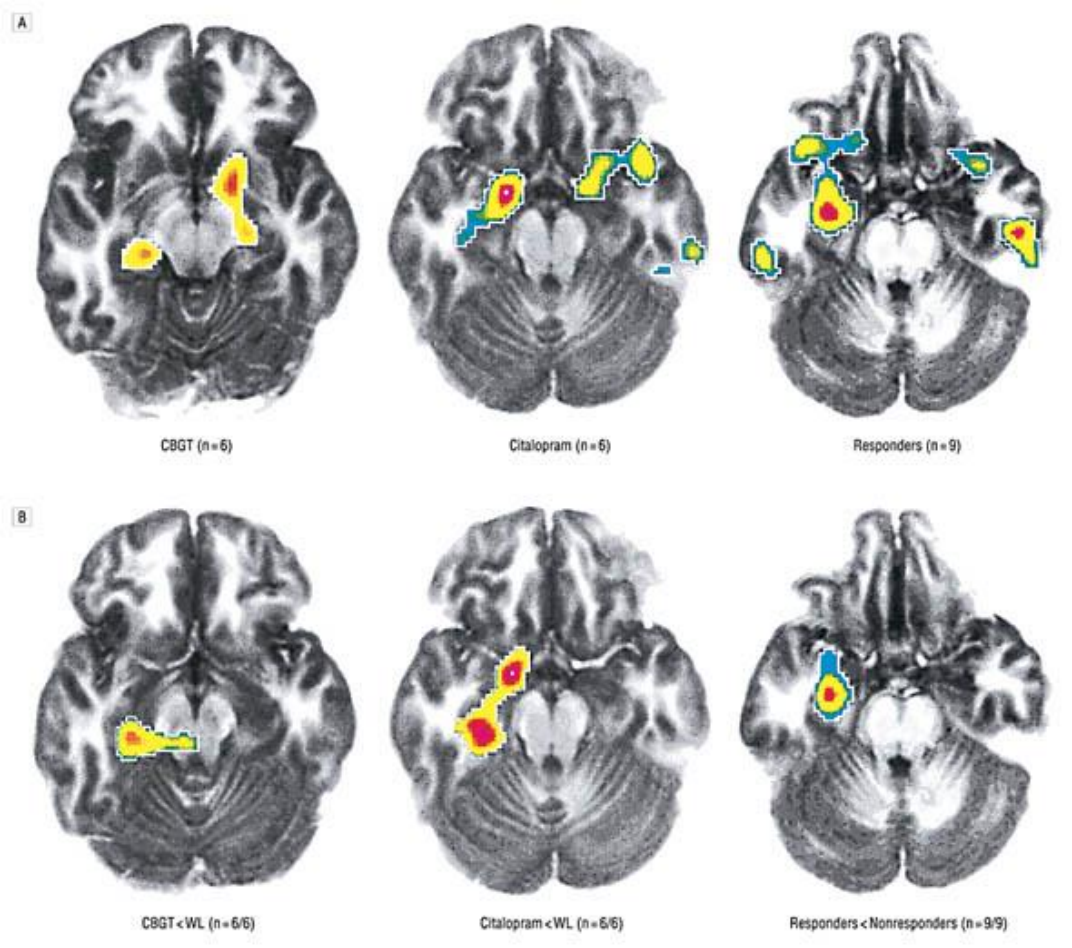
GSAD : Reduction in Reactivity to Public Speaking with Treatment

*

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

Pre-Treatment

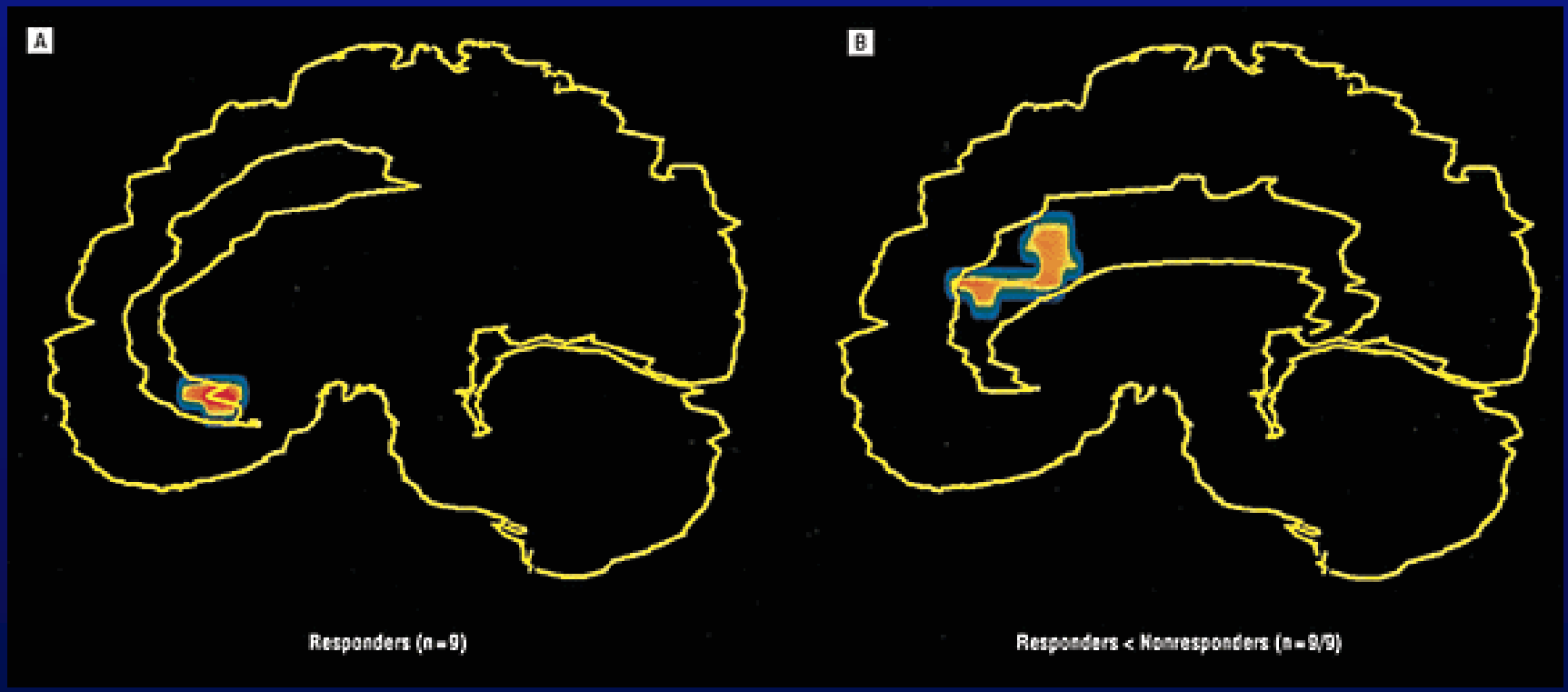
Post-Treatment



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: Subgenual Cingulate and Anterior Cingulate Cortex Differentiate Responders vs Nonresponders to RX



Sagittal PET significantly reduced regional cerebral blood flow in the rostral-ventral (subgenual) cingulate cortex corresponding to areas 25/32 for treatment responders (A) and a greater reduction in regional cerebral blood flow in the responders relative to nonresponders in the affective division of the anterior cingulate cortex corresponding to areas 24/33 (B)

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

GSAD: rCBF Before vs After Treatment With CBGT or Citalopram

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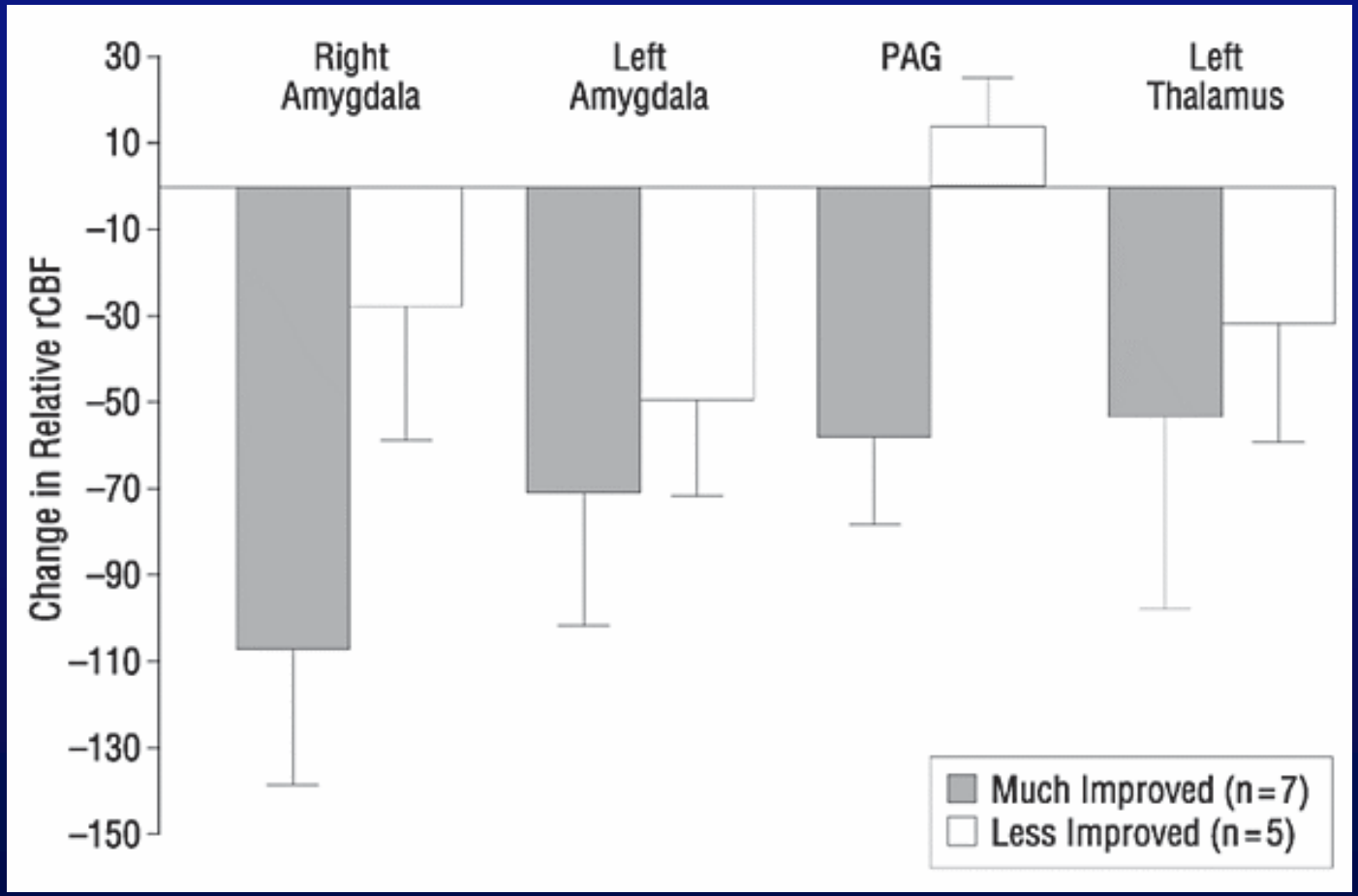

Regional cerebral blood flow (rCBF) redistribution after treatment (mean relative rCBF ± SE, after minus before therapy) in 4 subcortical regions of interest. Discriminant analysis showed that the initial degree of rCBF change in these regions was associated with clinical status (much or less improved) 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.

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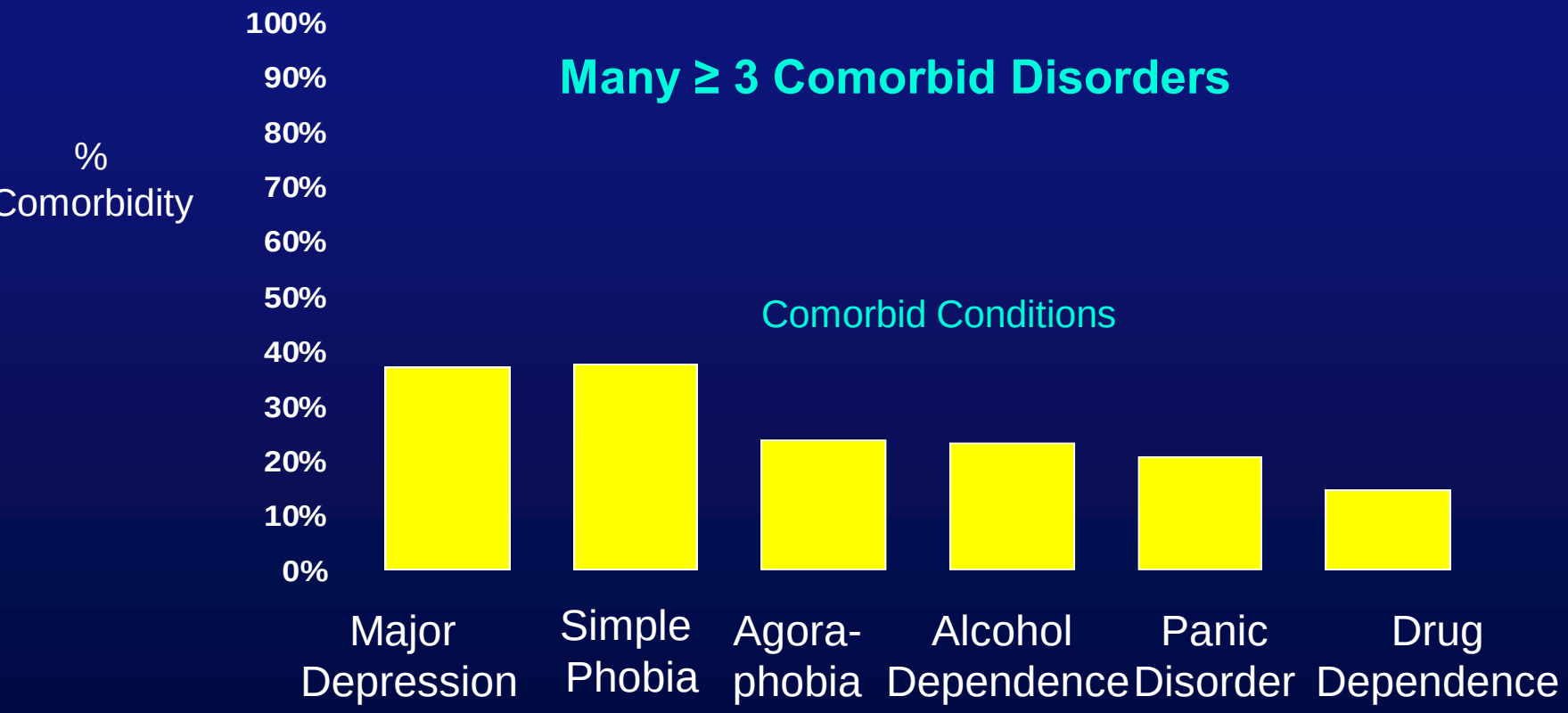
Comorbidity

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

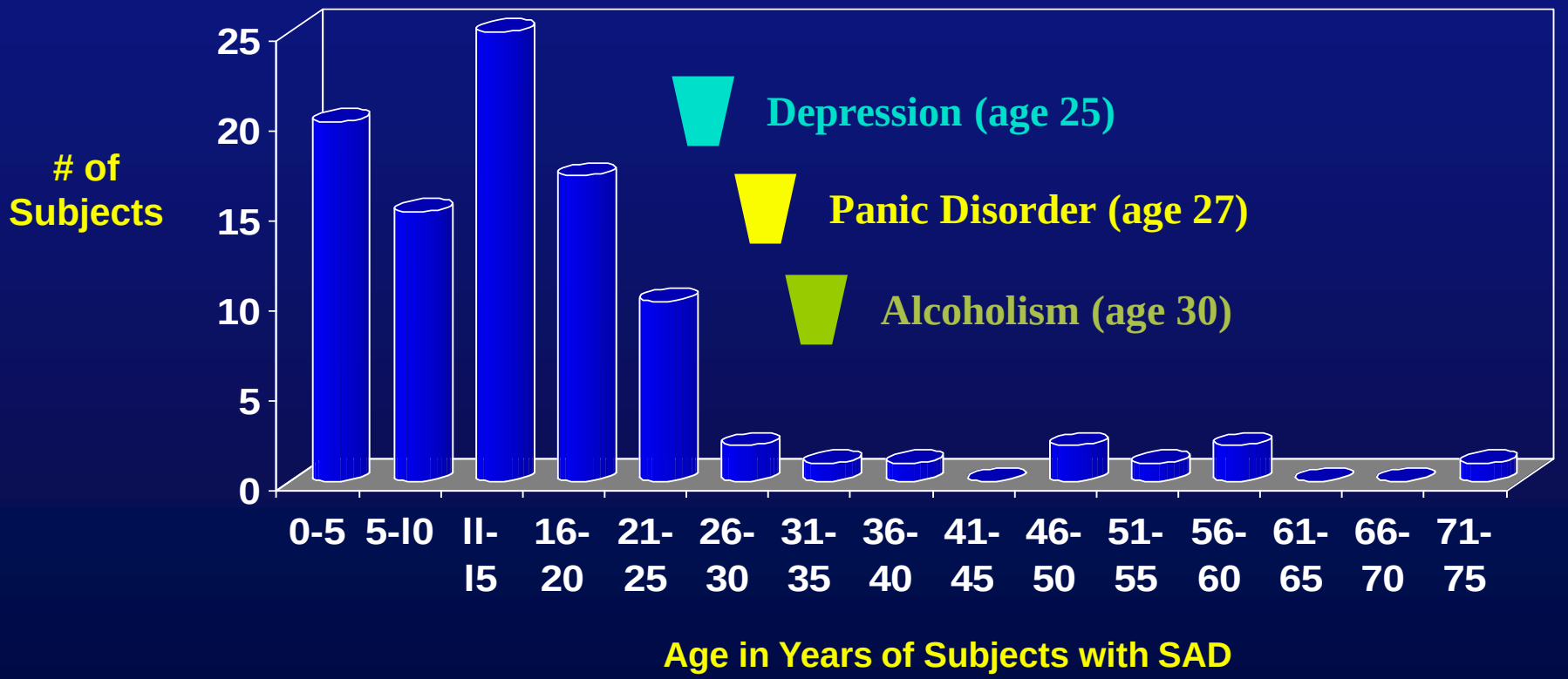
(Magee et al, 1996; Schneier et al, 1992)

> 80% with Generalized Subtype at least Two Psychiatric Disorders



Magee et al, 1996

* SAD: Typical Order of Onset of Additional Disorders

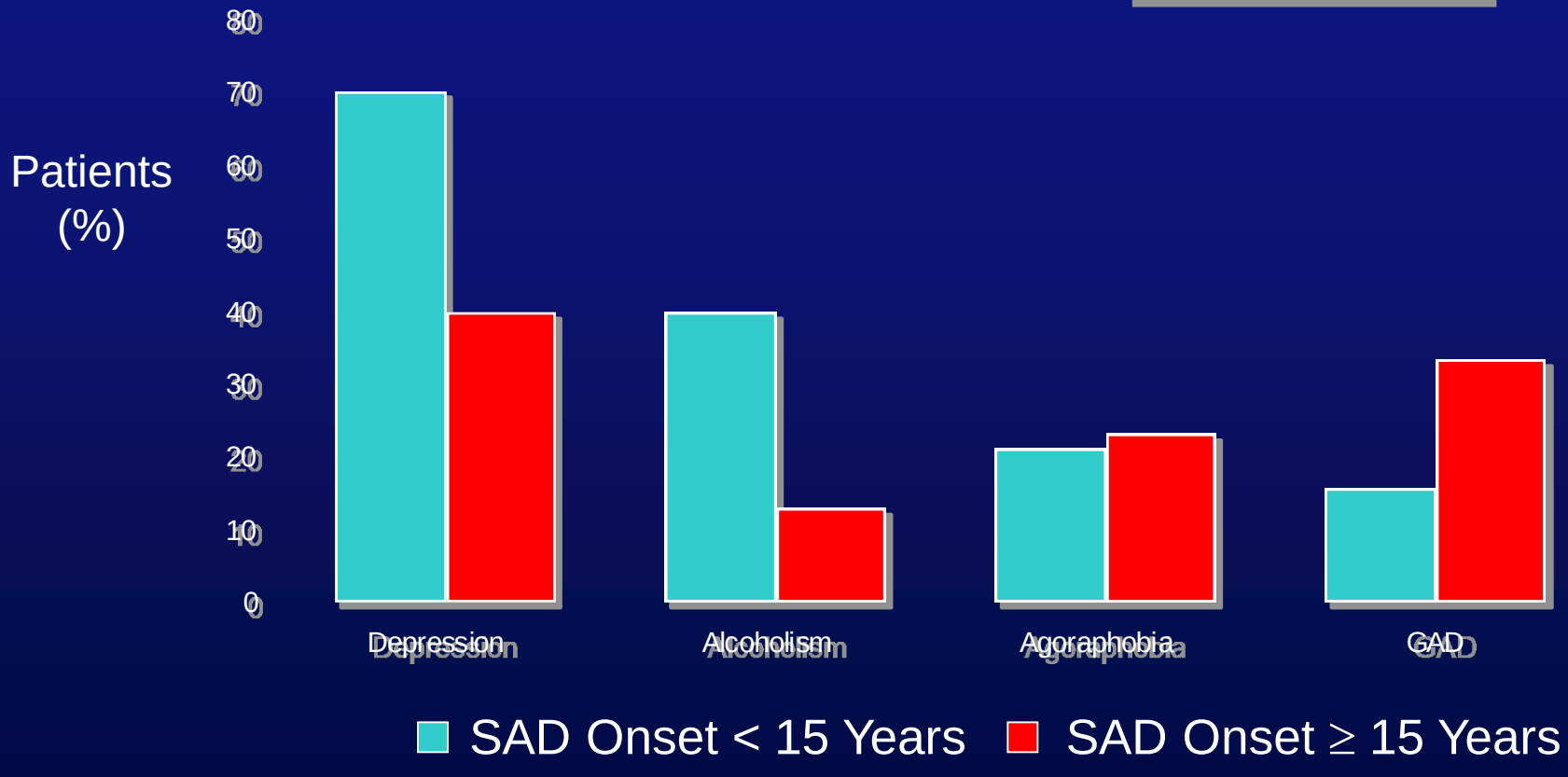


Schneier et al, 1992

* Social Anxiety Disord
Comorbid Illness

Bruce Lydiard:

Does anyone know how to get rid of shadows?



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

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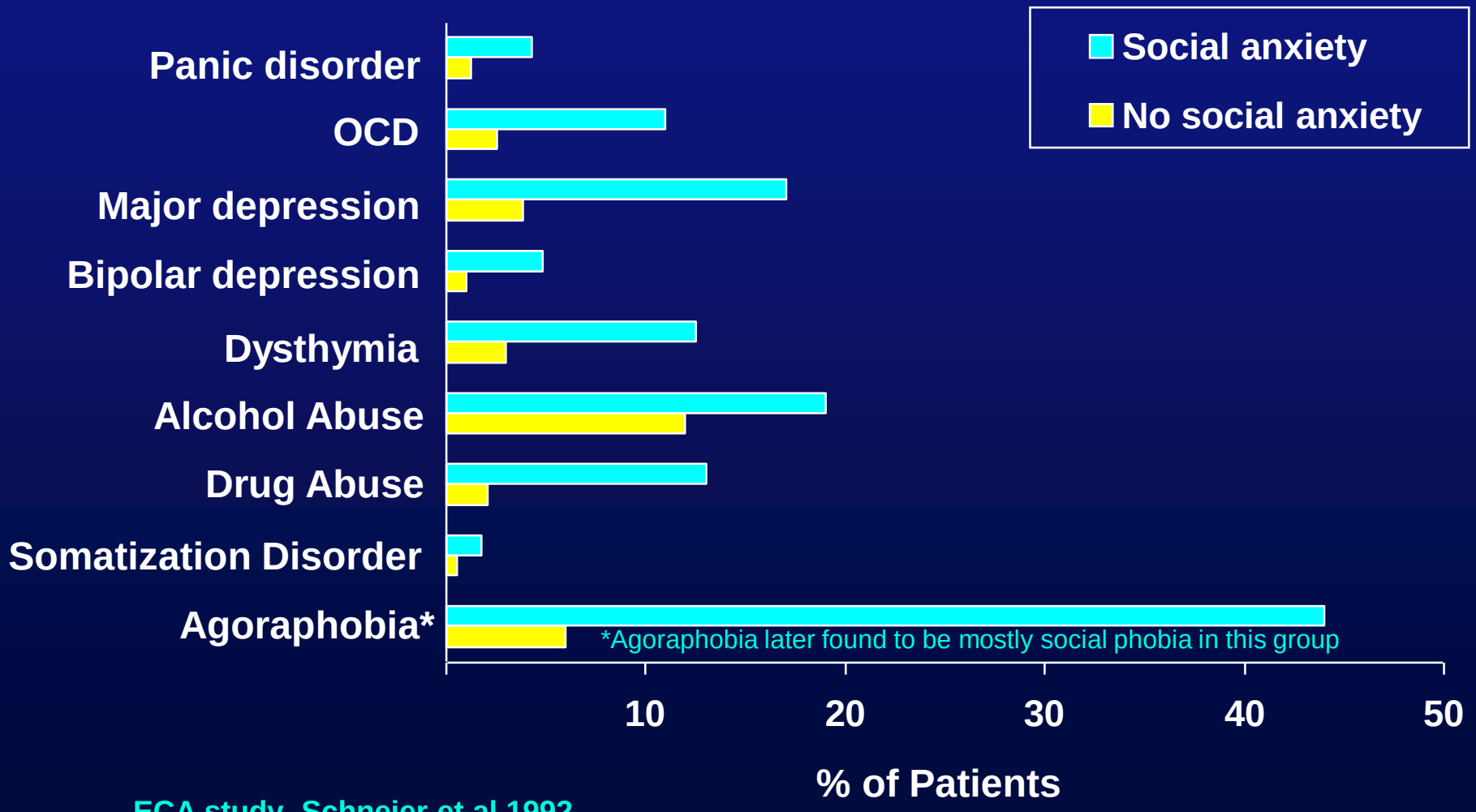
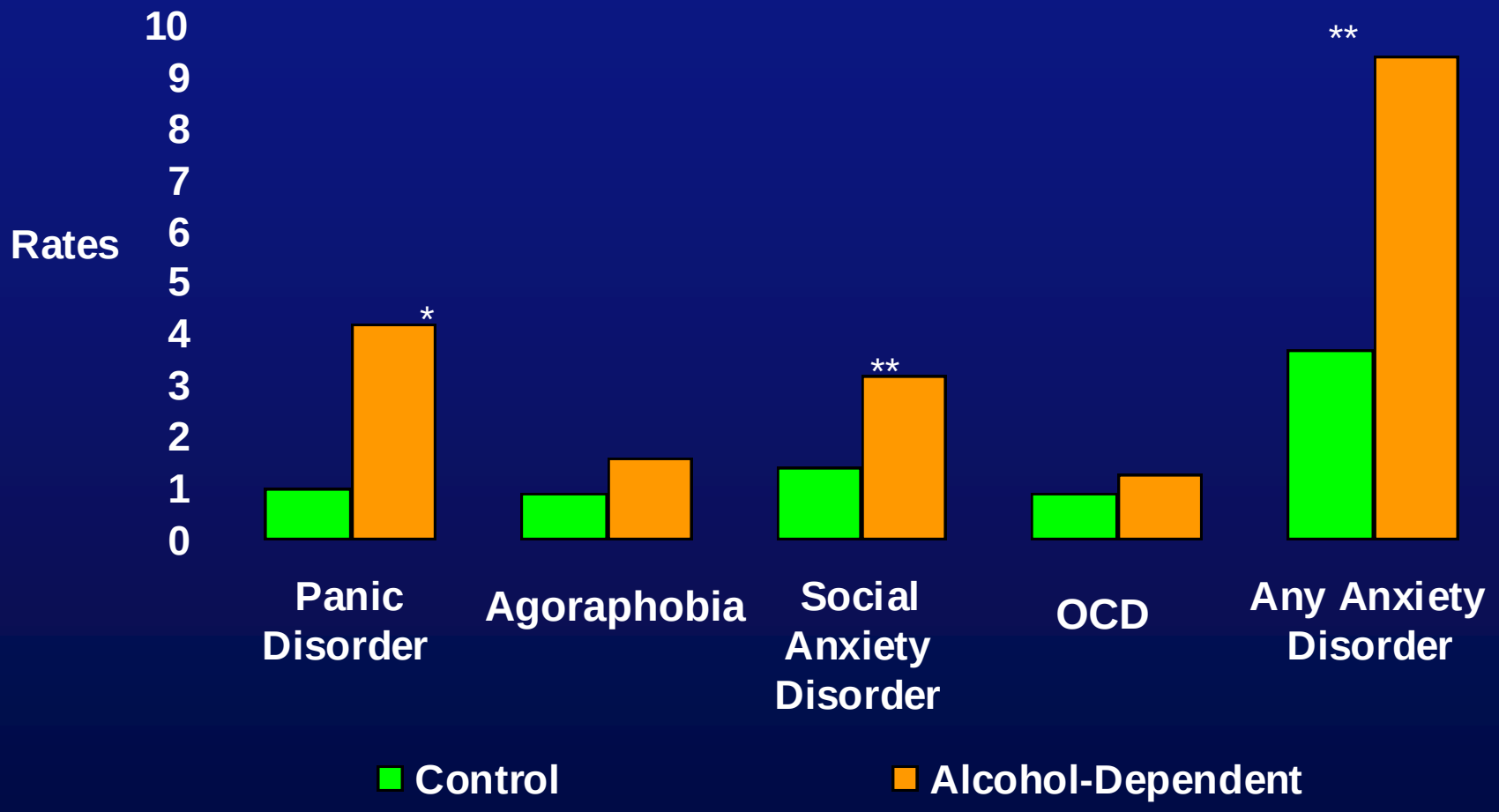
SAD: Comorbidity



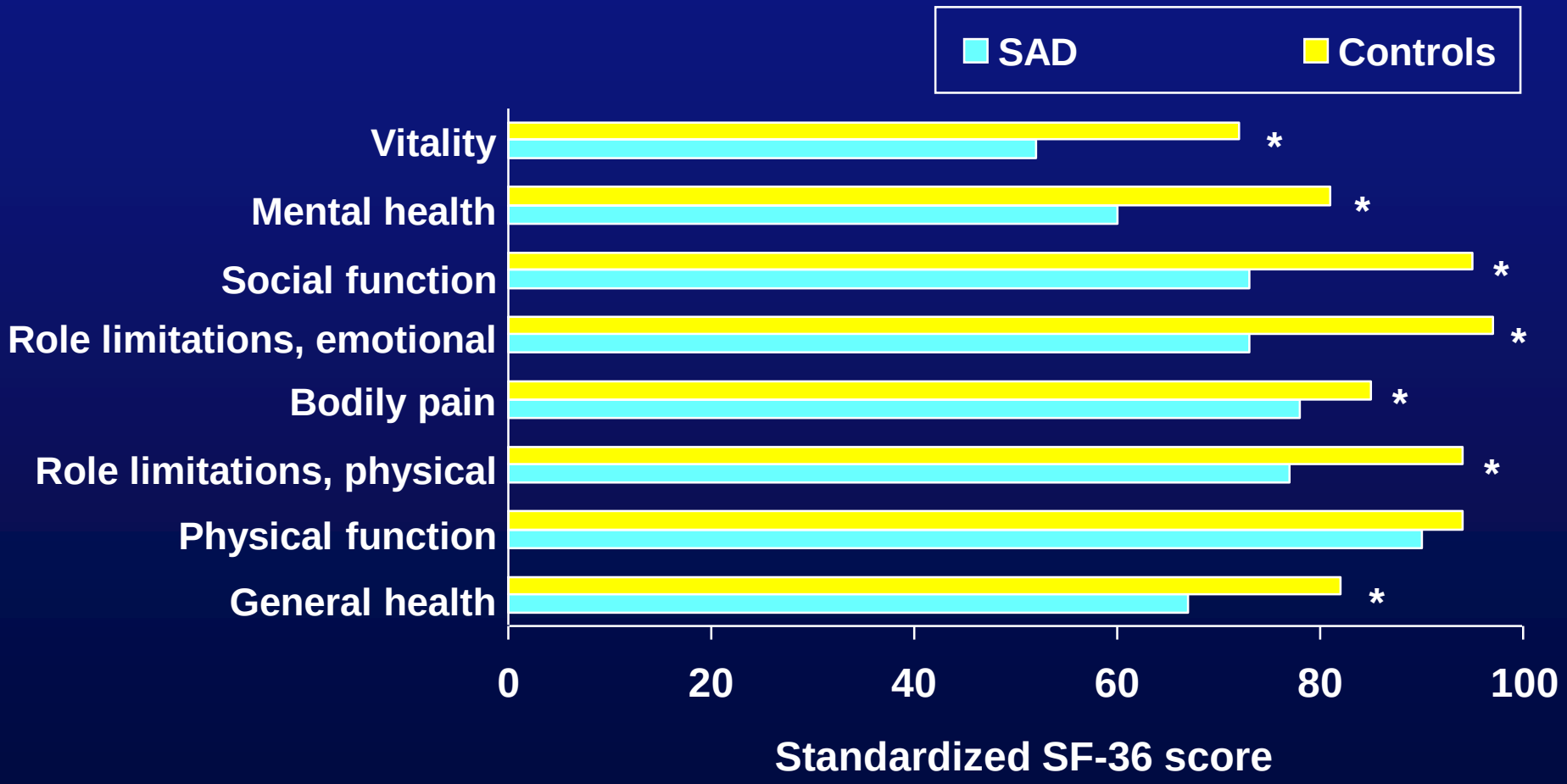
ECA study ,Schneier et al 1992

Lifetime Rates Of Anxiety Disorders In Alcohol-Dependent Patients



* *P*<.001; ** *P*<.01.
Schuckit et al. *Addiction.* 1997;92:1289.

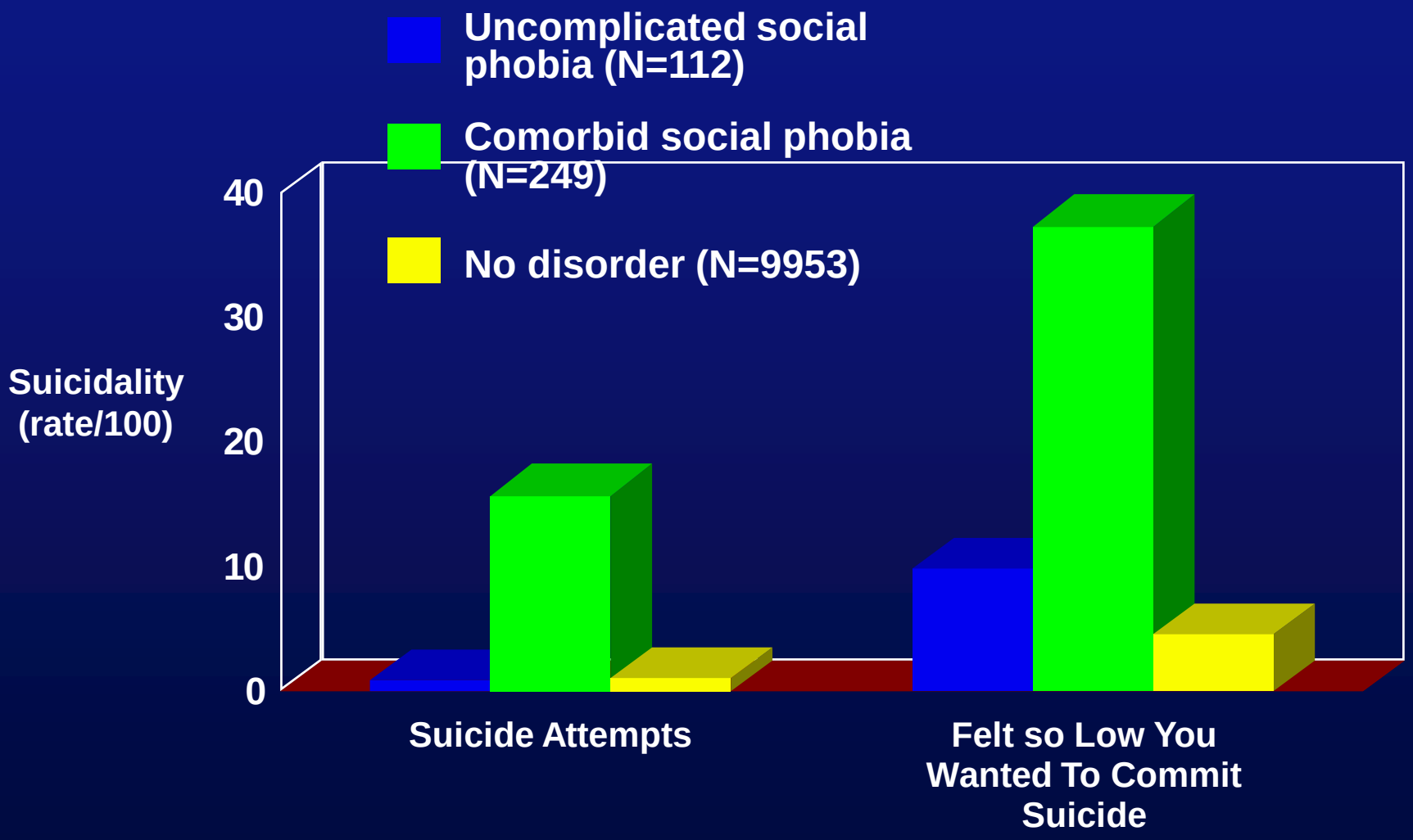
Quality of Life in Patients with SAD Assessed with the SF-36 Scale



*p<0.05

Wittchen, 1996

Suicidality In Social Phobia



Schneier et al. *Arch Gen Psychiatry*. 1992;49:282

Social Anxiety Disorder

Treatment

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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

Rating Scales

- **SPIN**
  - **Social Phobia Inventory**
- **BSPS**
  - **Brief Social Phobia Scale**
- **LSAS***
  - **Liebowitz Social Anxiety Scale**
    - **≤ 30 -normal**
    - **≥ 60 moderate and interfering**

*Most Often Used in Clinical Trials; Tracks well with BSPS

Liebowitz Social Anxiety Scale

	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

- Improvement of 30% over 8-12 weeks considered significant
- Goal- remission (<30)
  - ≥80: Severe SAD
  - 60-80: Moderate
  - ≤30: Normal

Drug Treatment Guidelines

Applies to All Disorders

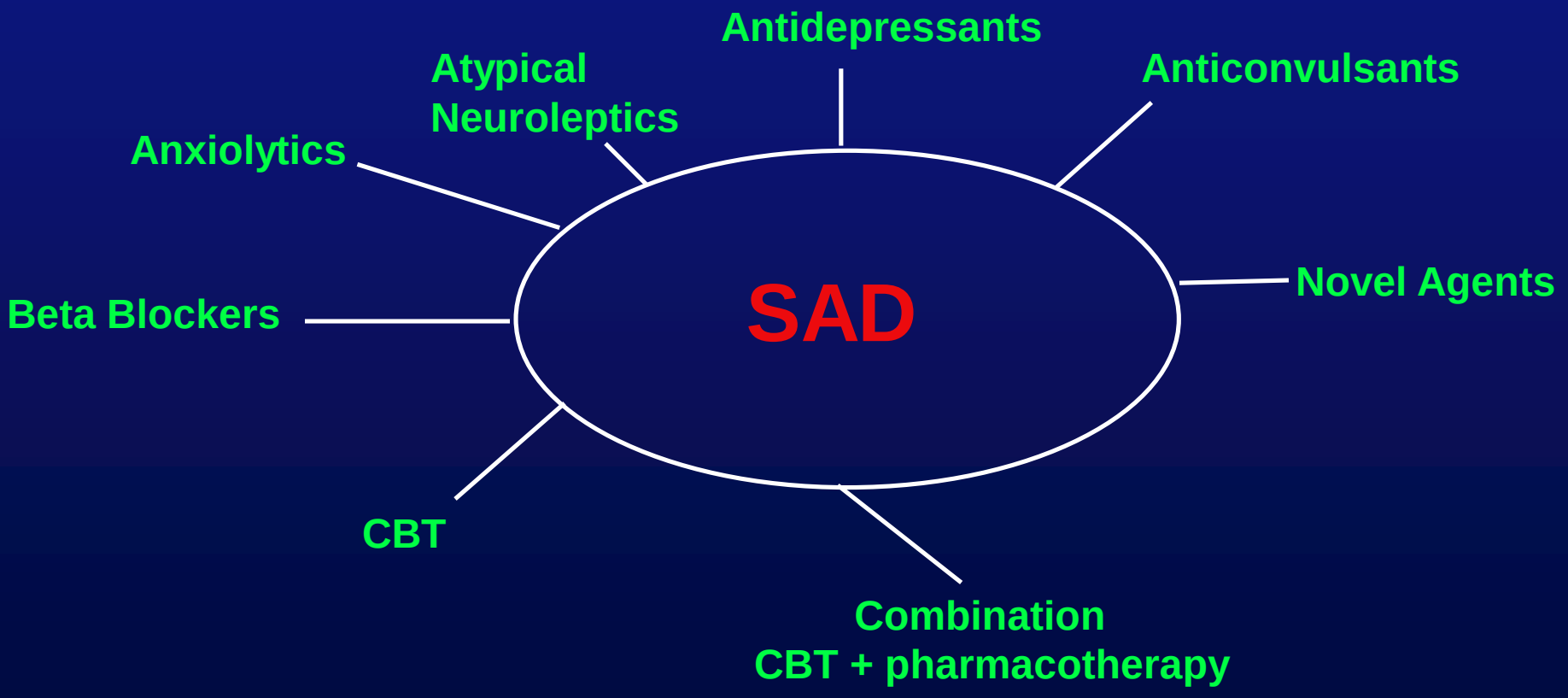
The 'correct' dose produces improvement without excessive adverse effects

Three D's of Treatment

- Dose
- Duration
- Documentation

*

Social Anxiety Disorder Treatment Options



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SAD Subtypes Treatment Considerations

Non-Generalized

- Feared situations often predictable
- PRN medication often sufficient
  - Beta-blockers
    - Atenolol
    - Propranolol
  - Benzodiazepines
    - Short-acting
      - » Lorazepam
      - » Alprazolam

Generalized

- Pervasive impairment
- Chronic treatment with antidepressant 1st line
- SSRI or SNRI
- BZs (if unable to tolerate ADS)
  - Adjunctive
    - » BZs
    - » Others
- MAOIs
  - RIMAs
  - Irreversible

CBT Treatment Effective for Both Subtypes

* Toastmasters for public speaking fears my help

Efficacy of GSAD Pharmacotherapy

Agents/ Classes with Proven Efficacy*

PD	GAD	GSAD	PTSD
SSRIs/SNRIs	SSRIs/SNRIS	SSRIs/SNRIs	SSRIs
BZD	BZD	BZD**	Venlafaxine
TCAs	TCAs	MAOIs	MAOIs
MAOIs	Buspirone	Clomipramine	TCAs
	Pregabalin	Gabapentin**	
		Pregabalin**	
		Leviteracetam**	

•Not reliably antidepressant or insufficient information

*Consideration does include comorbid disorders; Not all agents in all classes approved by FDA but all empirically supported in at least one RCT

* Adapted from: Lydiard RB. *Textbook of Anxiety Disorders*. Washington, DC: American Psychiatric Press, Inc; 2002:348-361; Gao et al J Clin Psychiatry 2006; 67:1327-9

Therapies With Limited or No Proven Efficacy in PD

PD	GAD	SAD	PTSD
AEDs*	AEDs	Bupropion	AEDs
Bupropion	Atypical NLs	*CMI- but not other TCAs*	Atypical NLs
Buspirone (adjunct)	Mirtazapine		Bupropion
Mirtazapine			Buspirone
Atypical NLs			Mirtazapine
			TCAs
			Trazodone

NL= neuroleptic

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

Adverse Effects of Pharmacotherapy

SSRIs, SNRIs	Activation , sexual dysfunction, weight gain
Benzodiazepines	Not antidepressant , physiologic dependence/ potential withdrawal, initial coordination , sedation, fear of addiction
TCAs	Limited breadth of efficacy, activation, cardiovascular adverse effects , overdose danger
MAOIs	Diet / drug interaction, postural hypotension, hyposomnia, weight gain, sexual dysfunction, overdose danger
AEDs-Varies	

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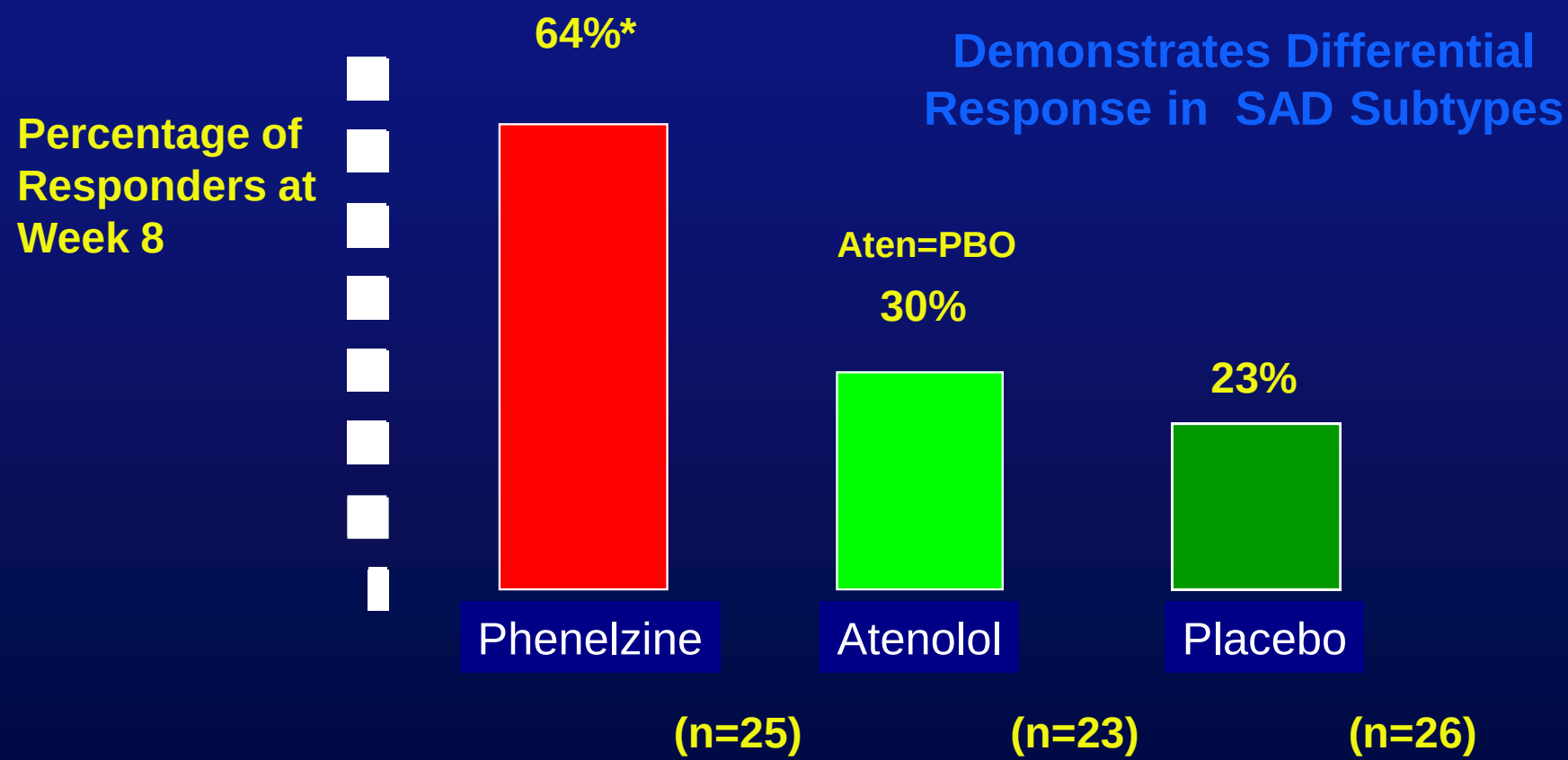
First Pharmacotherapy Study for Social Anxiety Disorder 2/3 Generalized, 1/3 Non-Generalized

*

*p<0.05



Demonstrates Differential Response in SAD Subtypes

Liebowitz et al, 1992

Beta Blockers and Stage Fright in Musicians

In 24 String Players,

Oxprenolol (40 mg):

- **Decreased Heart Rate, Tremor, Nervousness**
- **Improved Performance Subjectively and Objectively**

*

James et al. Lancet. 1977;2:952-954

* Beta Blockers (cont'd)

- 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), Not emotional experience of anxiety
    - Given 1-2 hours before event

Beta Blockers: Scholastic Aptitude Test (SAT) and Performance Anxiety

On Retest (n=32)

- Expected Improvement was: 14 points
- With Propranolol (40 mg), Improvement was: 130 points

*

Faigel HC. Clin Pediatr. 1991 (July)

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

*

Non-Generalized SAD

- Benzodiazpines also effective on prn basis
- Anecdotal and experience of authors

Classes with Proven Efficacy in Generalized Subtype*

Selective Serotonin Reuptake Inhibitors (SSRIs)

Serotonin Norepinephrine Reuptake Inhibitors (SNRIs)

Benzodiazepines*

Monoamine Oxidase Inhibitors (MAOIs)

TCAs-Clomipramine

Gabapentin and pregabalin

Leviteracetam-limited open label, one failed RCT

<- Not Reliably an Antidepressant or Insufficient Information

*Consideration includes comorbid disorders

Not all agents in all classes approved by FDA but all empirically supported in RCTs; Duloxetine insufficiently studied but likely resembles venlafaxine; Approved for GAD

vv:348-361

*

Classes with Limited or No Proven Efficacy in Generalized SAD

Bupropion
Buspirone
TCAs
(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

*

If No Response in 6-8 weeks…

- Partial response to SSRI-
  - — Increase dose as tolerated
  - — augment with BZ or beta blocker
- Non-response
  - — Try second SSRI
  - — Switch to SNRI
    - Augment with a Benzodiazepine or a Beta Blocker

Monotherapy alone may be insufficient See notes this slide

*

Generalized Subtype Pharmacotherapy (cont'd)

- 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

*

Generalized Subtype: SSRIs and SNRIs

- Advantages
  - Broad Efficacy
  - Safe
  - Well Tolerated
  - Easy to Use
- Disadvantages
  - Initial side effects (jitteriness, insomnia, nausea)
  - Long-term side effects (weight gain, sexual dysfunction)
  - Expense
    - (many SSRIs now generic)

*

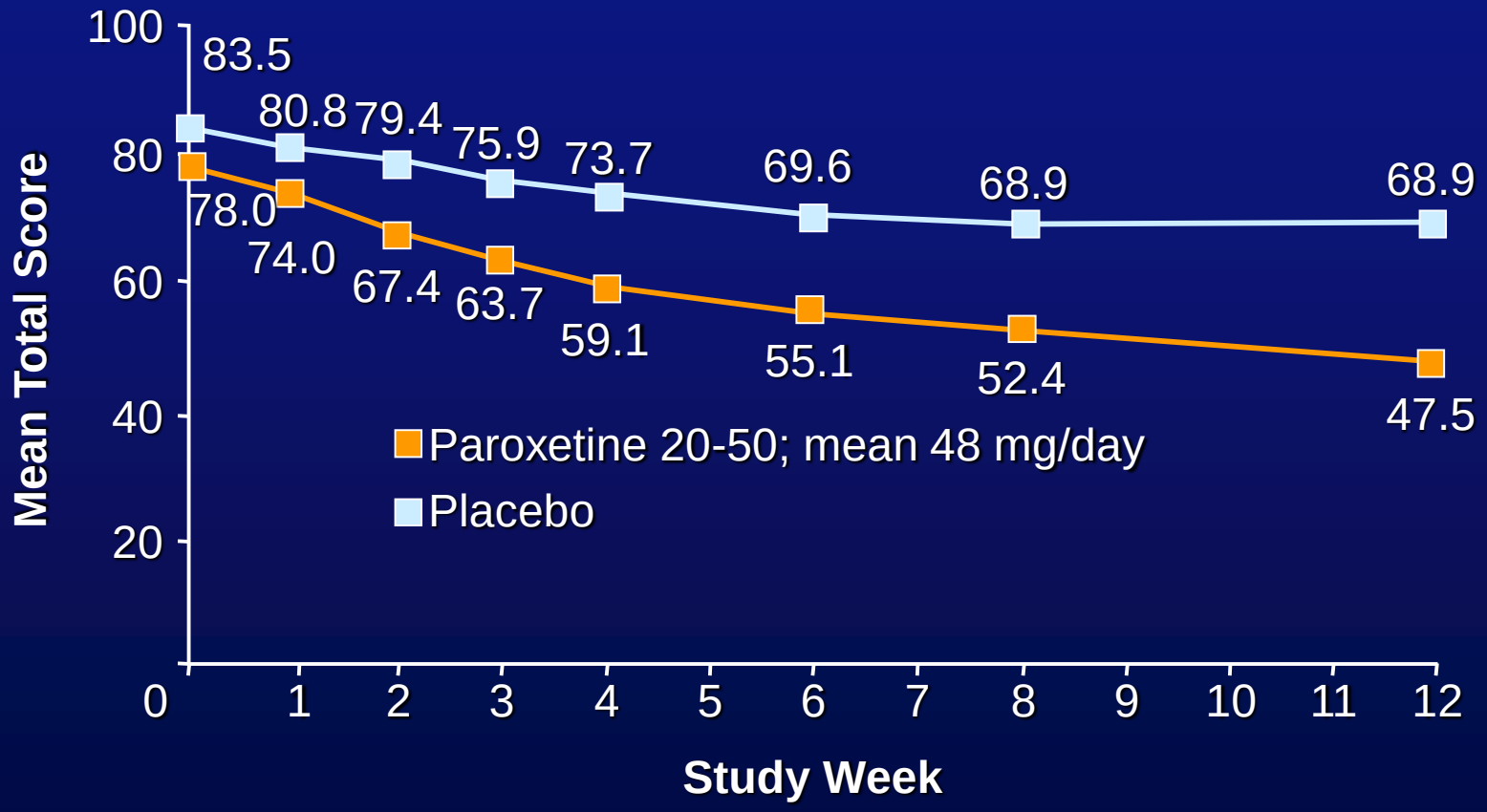
Q: “Are all your sons like you?”
A:“Yeah, we’re all alike, but our similarities are different.”
Yogi Berra

Clinical Wisdom:
Drugs swithin a class (eg., SSRIs) are the same, but “different”--like penicillins.

(Example--with SSRIs, consider trying > 1 before switching classes)

Typical SSRI vs Placebo in SAD

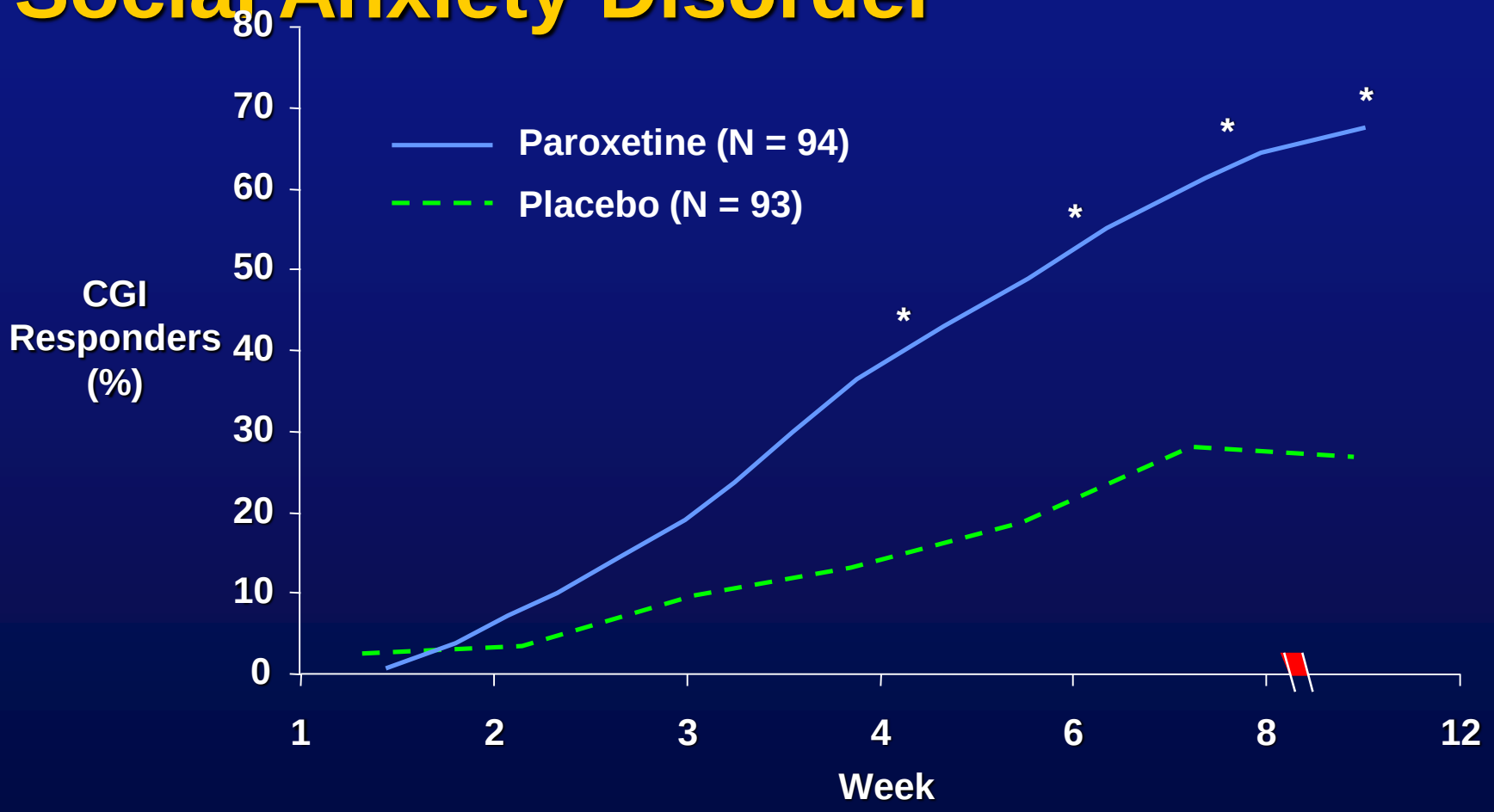
Paroxetine --Total Change in LSAS



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

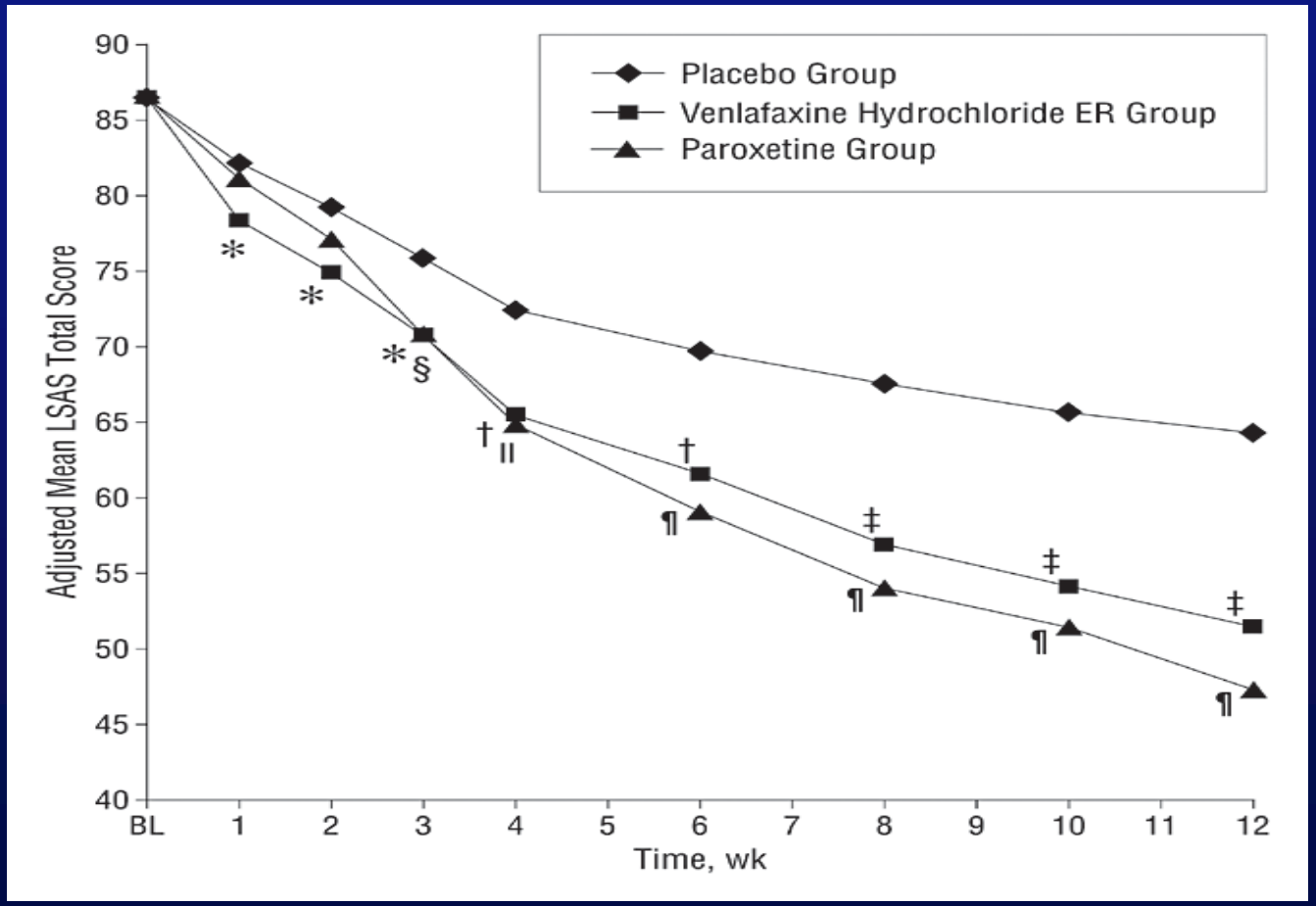
*

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

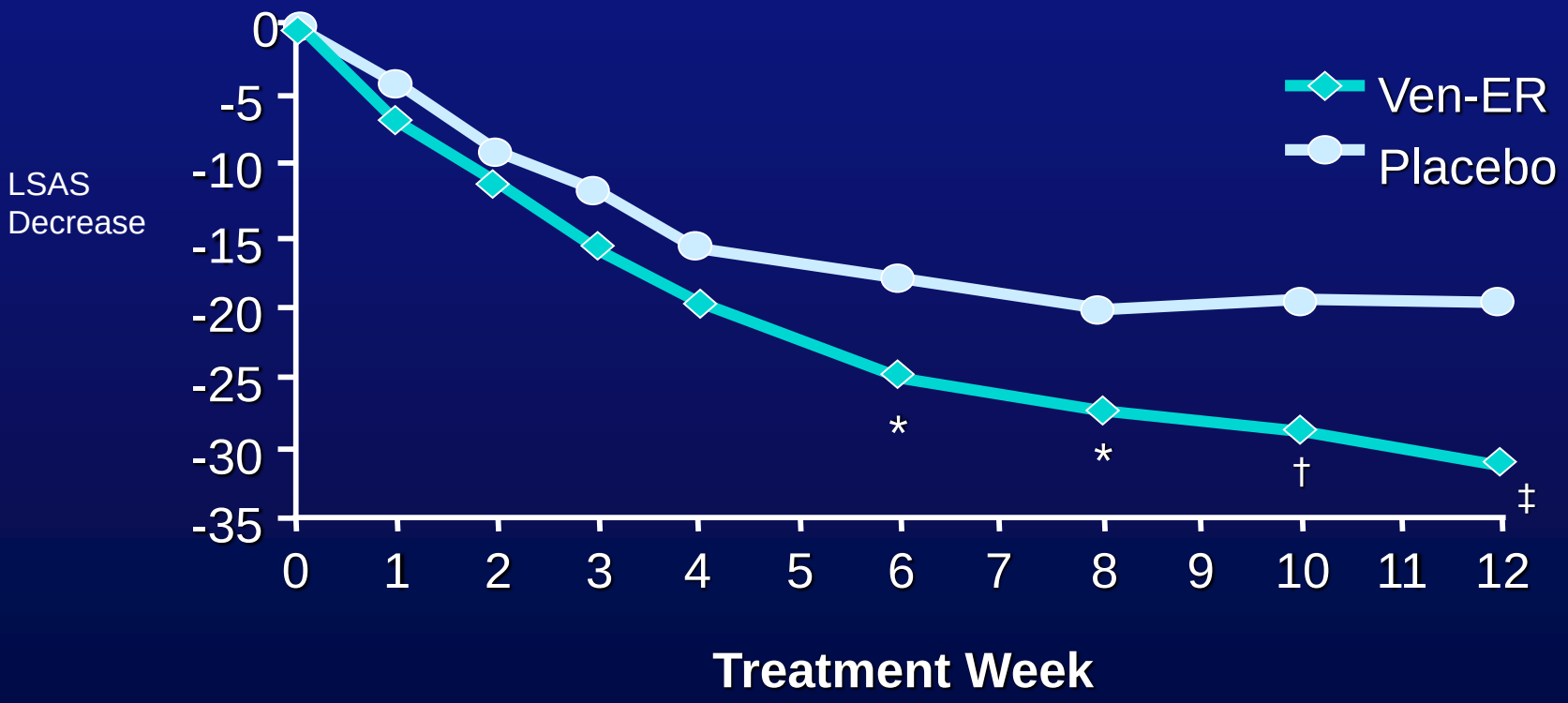
*

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

SNRI : Venlafaxine ER Flexible Dose 75-225 mg/day*

271 randomized, 173 completed

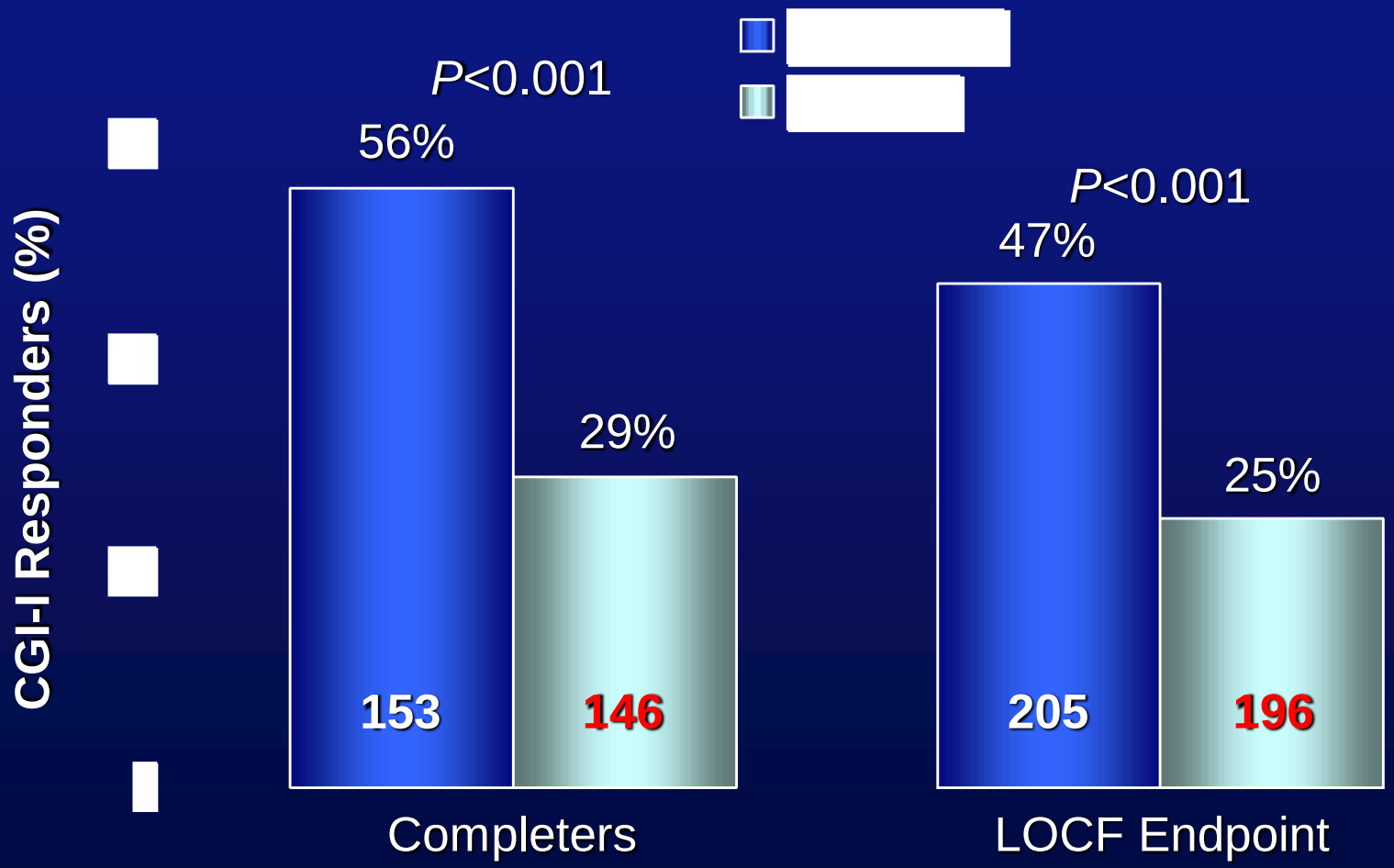
Response Ven XR 44%; PBO 30% // Remission Ven XR 20%; PBO 7 %



*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

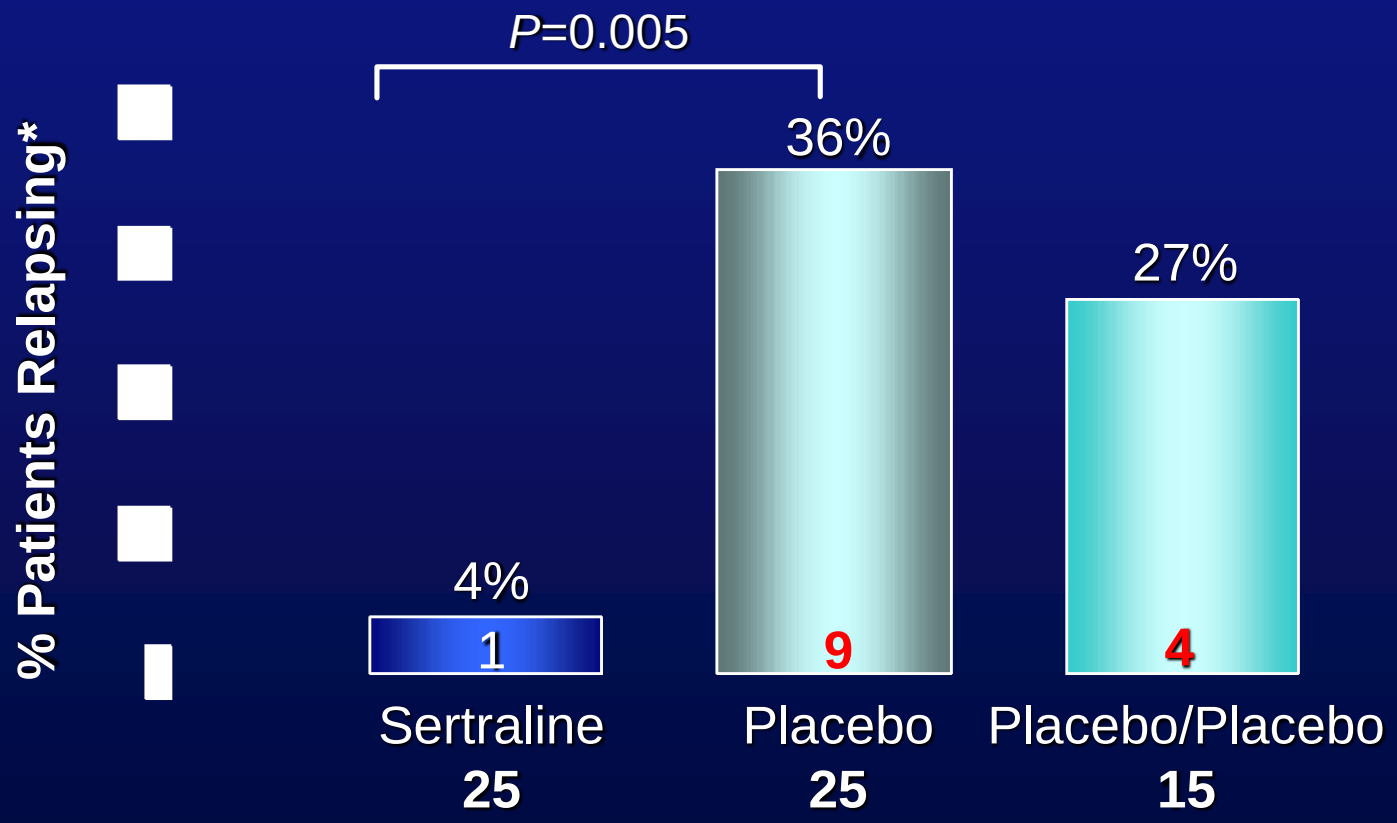


*ITT Responder: CGI-I ≤2.

Liebowitz ACNP 2001

Sertraline: Relapse* Prevention in Social Anxiety Disorder

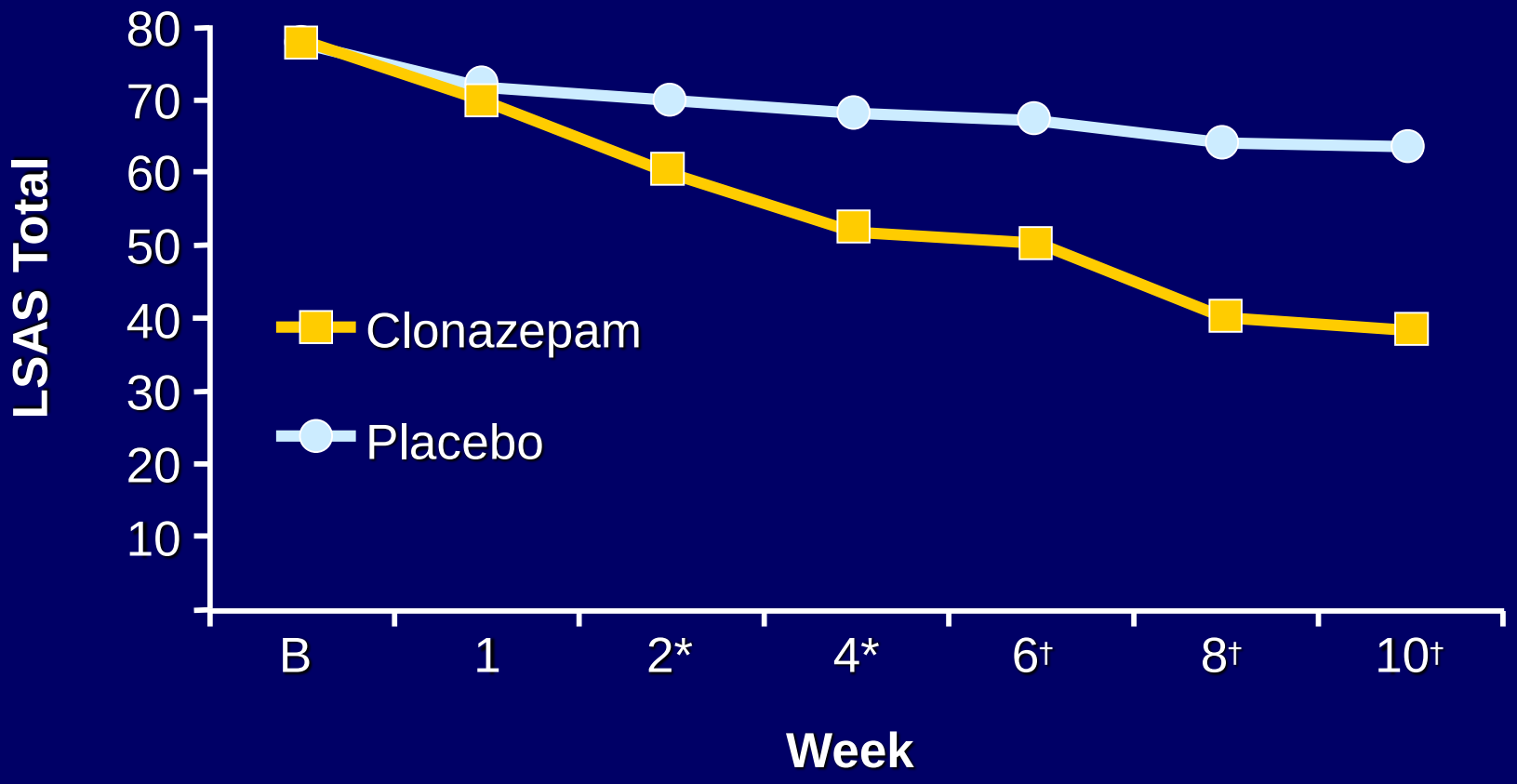
Proportion of Patients Relapsing During 24 Weeks of DB Treatment



*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 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

*

Monoamine Oxidase Inhibitors Treatment Of SAD

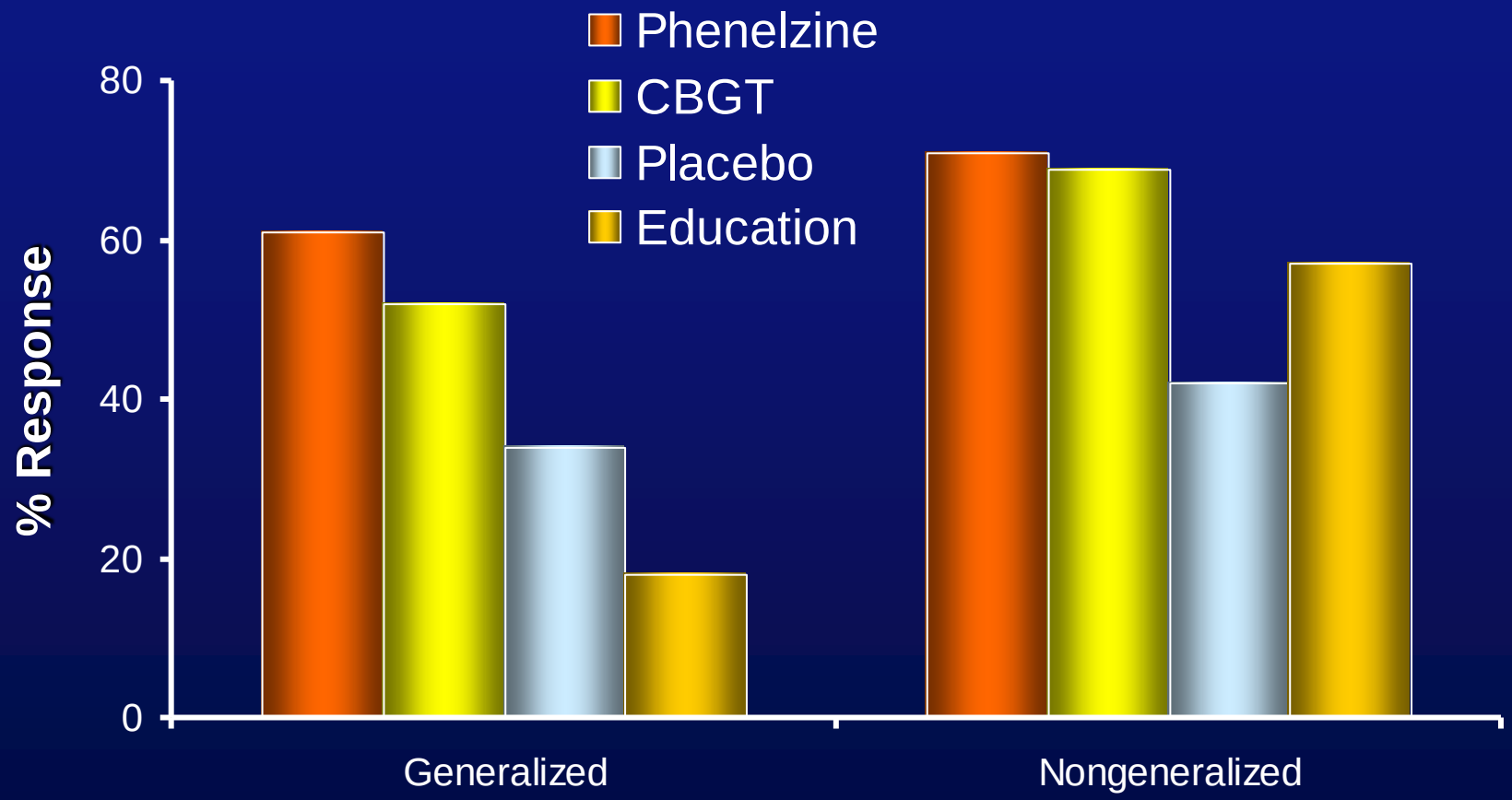
- Irreversible (nonselective)
  - — **Phenelzine,**
  - — **Tranylcypromine**
    - – Superior to most other classes
    - – Poorly tolerated
    - – Interaction with Tyramine-Diet required

- 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; seletive at doses below 20 mg daily po or

*

Response by Subtype of SAD

CBT (Group) vs. MAOi



*Intent to treat.

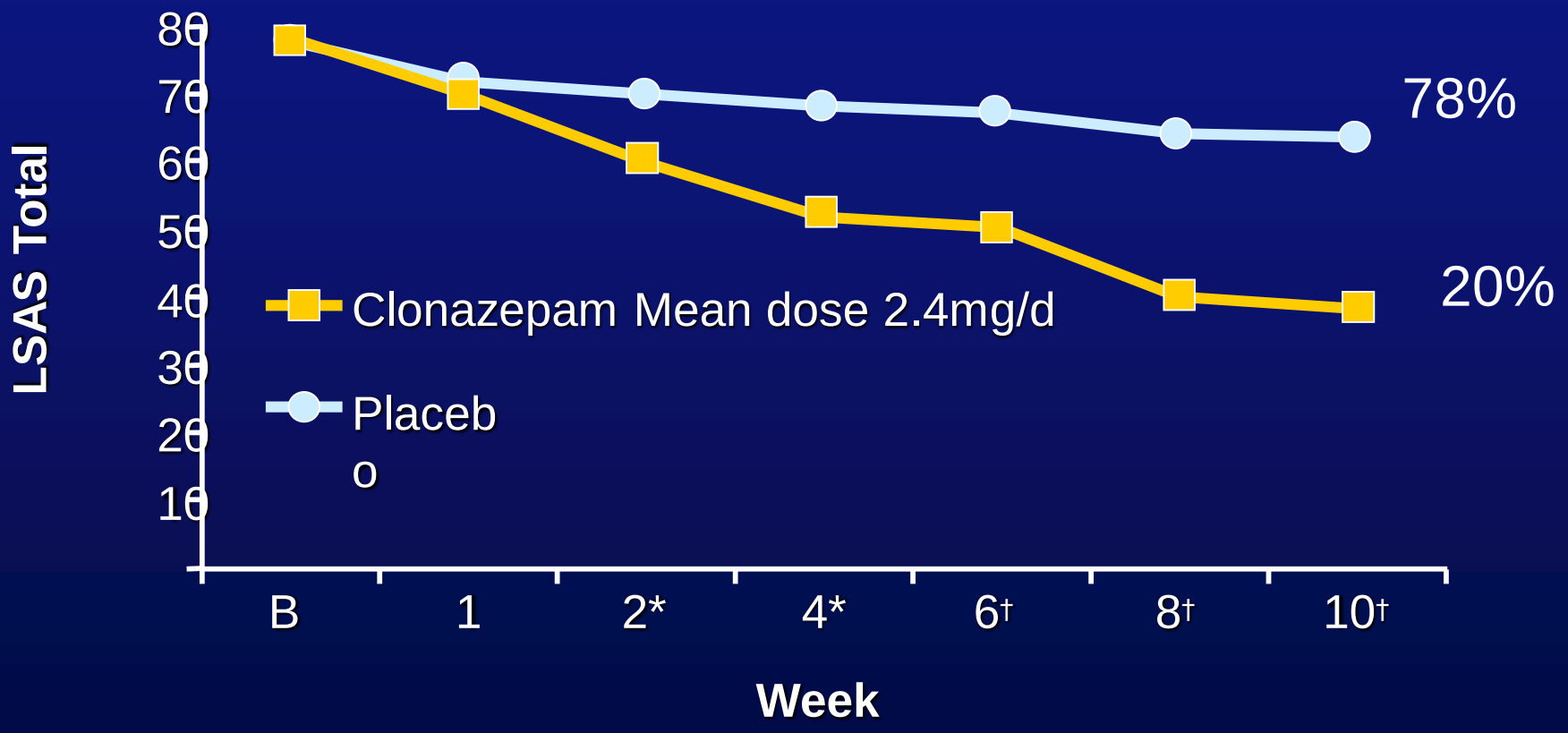
Two-site study; One Pharmacotherapy-Oriented, the Other CBT-oriented.

No outcome differences between sites--VBT vs drug experience

*

Heimberg, Liebowitz, et al Arch Gen Psych 1998;55:.1143-41

Benzodiazepines in SAD: Clonazepam vs. Placebo



* P£.01; †P£.0001 (LOCF MANCOVA).

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

*

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

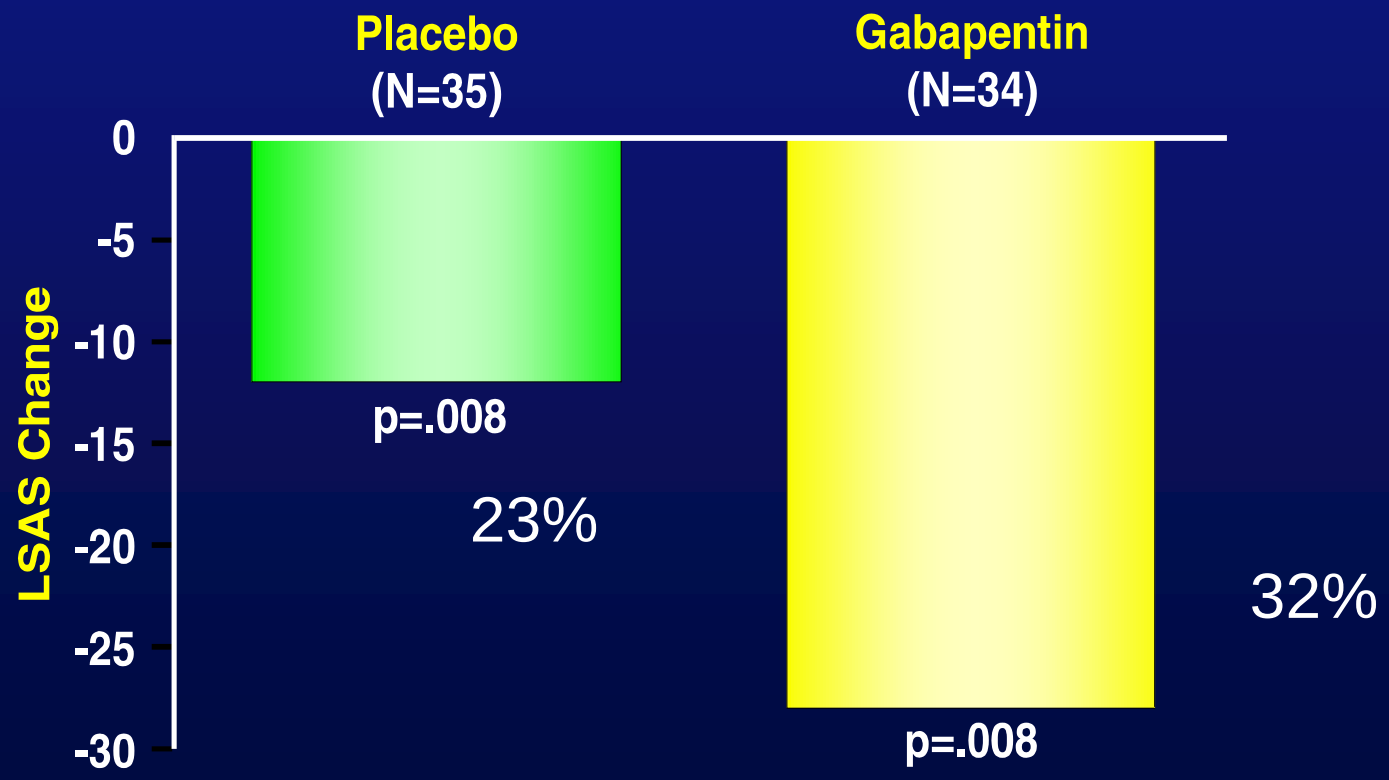
*

Emmanuel, Lydiard et al, ACNP 1997

Novel Treatments: Gabapentin in SAD

8-week study ITT Analysis--Marginal efficacy

300-1200 mg tid



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

Summary of Pharmacological Management of SAD

Generalized SAD

First Line: SSRI or SNRI

(Broad Spectrum Activity Against Comorbid Disorders)

Titrate over 2-4 weeks, then Increase if Necessary

Some Benefit often Evident by 2-4 weeks

*

Summary of Pharmacological Management of SAD (cont'd)

If No Response by 6-8 weeks,

Switch to Another Drug

or

Augment

Continue Pharmacotherapy for ≥ 1 year
After Maximal Gain is Achieved

CBT is a Reasonable Therapy

*

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
Buspirone	30-60 mg
Clonazepam	0.5- 4 mg
Alprazolam	1-8 mg
Diazepam	5-40 mg

*

* Based on literature and experience of authors

Tips…

- 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

Combination Treatment Summary

- PD-most information-evidence for advantage of combined treatment in research volunteers
  - Preliminary evidence for utility in incomplete response
- GAD and social anxiety-no evidence for advantage of combined treatments; data sparse

Psychosocial Treatment vs. Pharmacotherapy

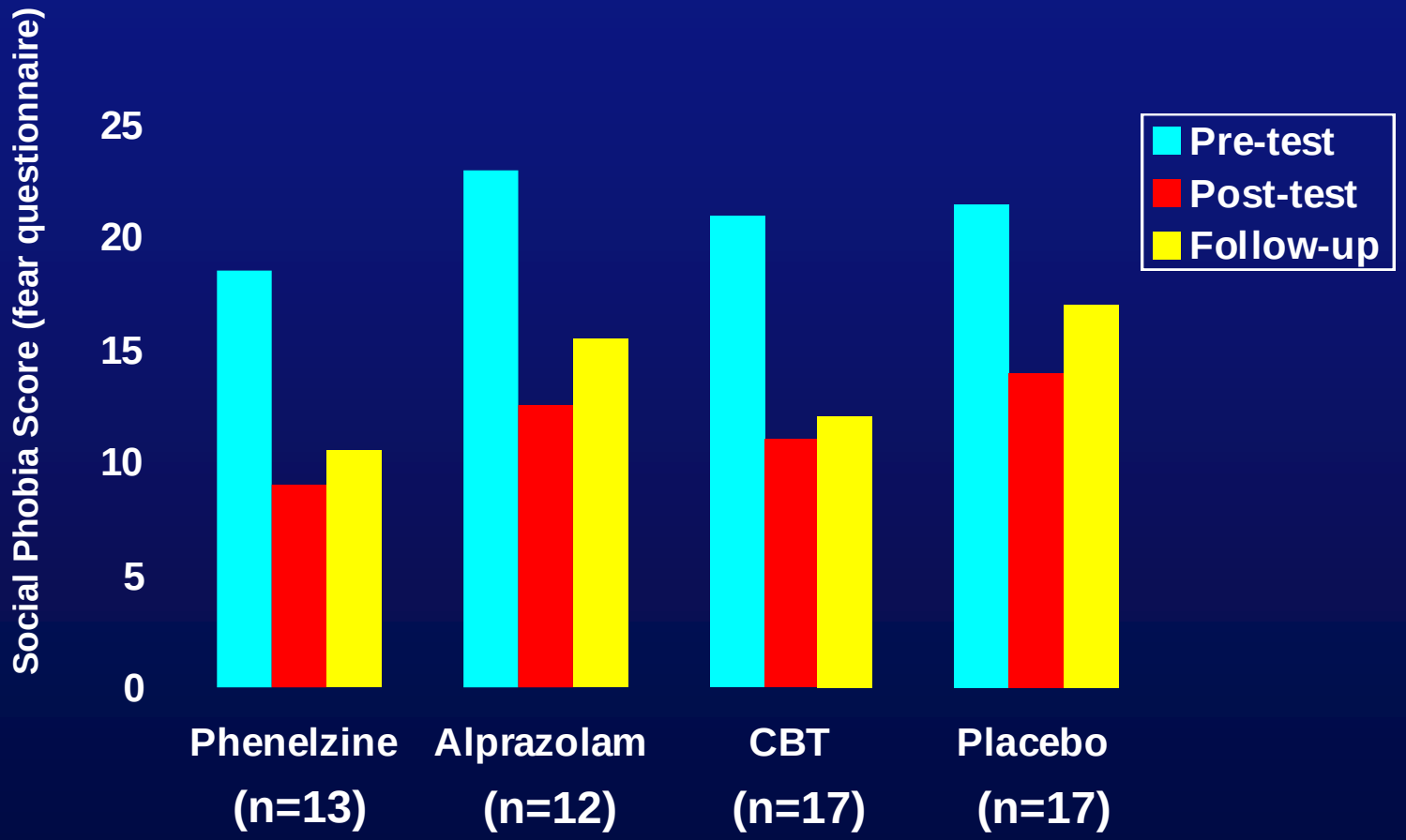
Phenelzine vs. CBGT (Group CBT):

Phenelzine Results in Greater Improvement Short-Term

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

*

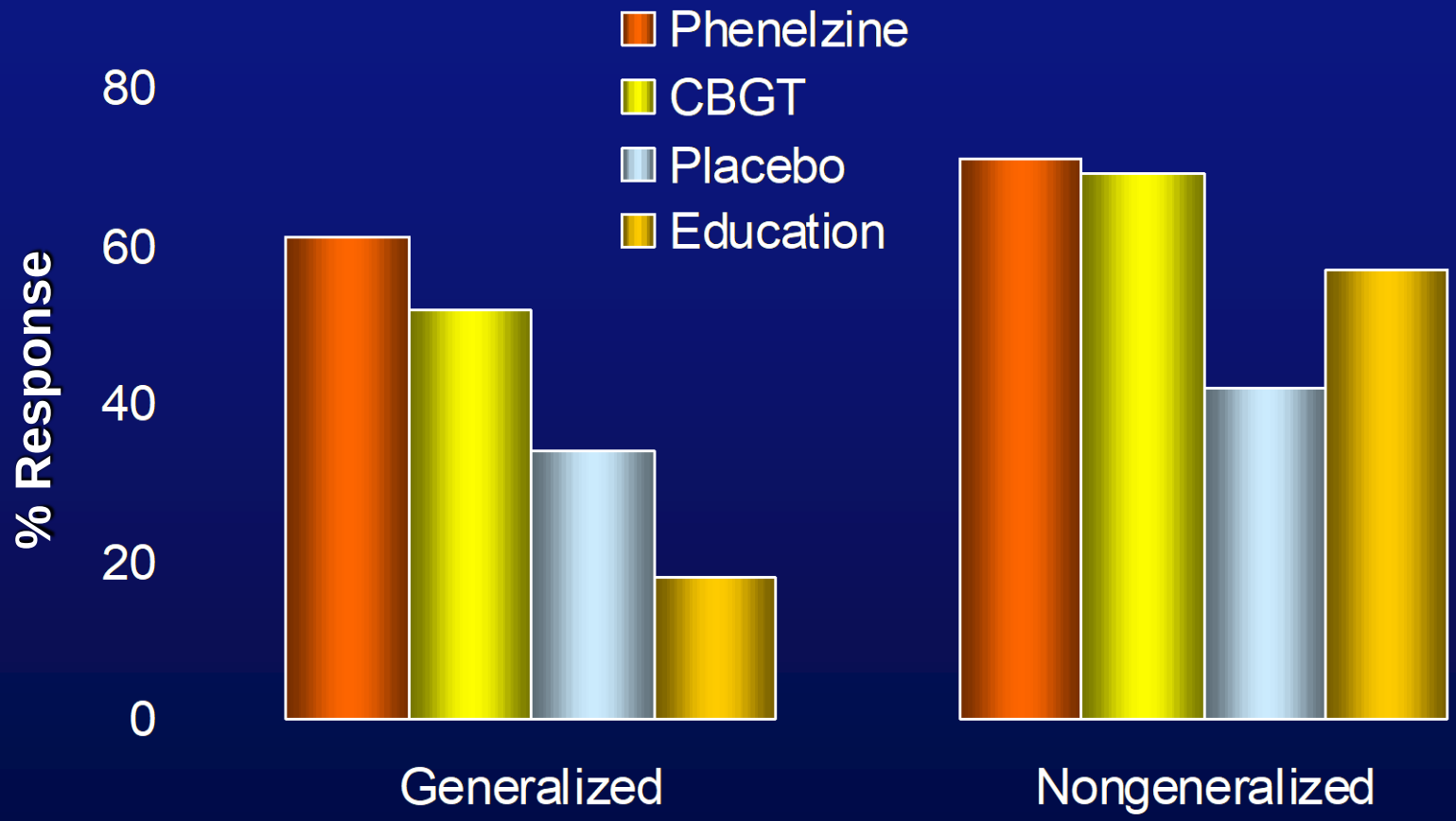
Social Phobia -1st CBT Study
Phenelzine, Alprazolam, CBT and Placebo



CBT=cognitive behavioral therapy.

Gelernter CS et al. *Arch Gen Psychiatry*. 1991;48:938-945.

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 Social Anxiety Symptoms which Cause Impairment
- History of Relapse After Stopping Prior Treatment
- Comorbid Conditions which Require 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**

Blanco C, Schneier FR, Schmidt A, et al. Pharmacological treatment of social anxiety disorder: a meta-analysis. Depress Anxiety. 2003;18:29-40.

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

Baldwin DS, Anderson IM, Nutt DJ, et al. Evidence-based guidelines for the pharmacological treatment of anxiety disorders: recommendations from the British Association for Psychopharmacology. J Psychopharmacol. 2005;19:567-596.

Bandelow B, Zohar J, Hollander E, et al. World Federation of Societies of Biological Psychiatry (WFSBP) guidelines for the pharmacological treatment of anxiety, obsessive-compulsive and posttraumatic stress disorders. World J Biol Psychiatry. 2002;3:171-199.

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

Fedoroff IC, Taylor S. Psychological and pharmacological treatments of social phobia: a meta-analysis. J Clin Psychopharmacol. 2001;21:311-324.

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

Question #1

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

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

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

Non-Generalized… PRN Pharmacotherapy Targeting Symptoms

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