

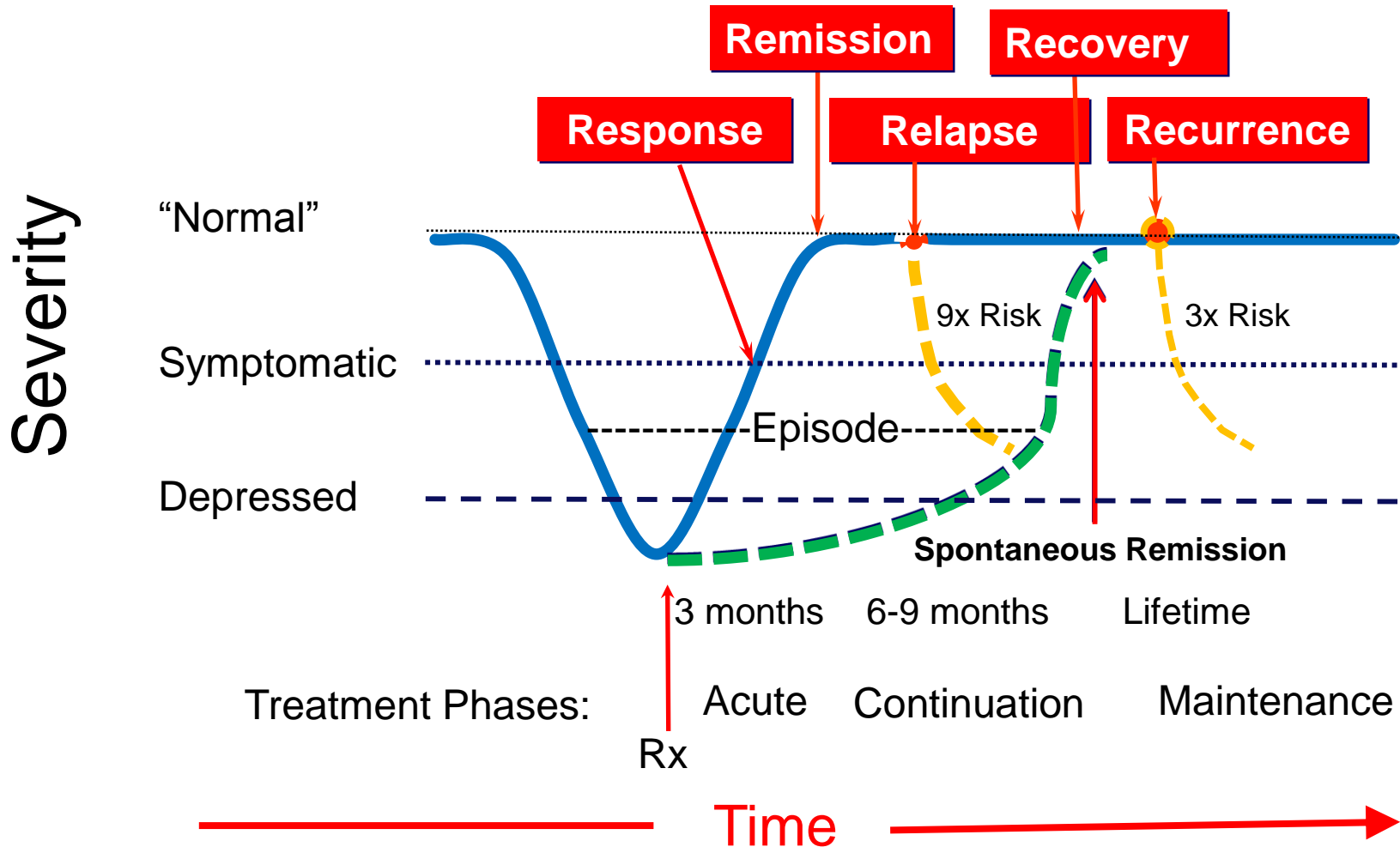
# Treatment of Mental Illness

## Lecture 41

# The “5 Rs” of Mental Illness

(Also Known as the “Kupfer Curve”)

After Kupfer & Frank (1991), as Modified by Hollon (2005)



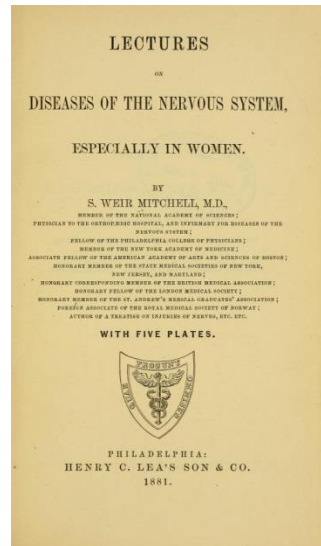
# Intervention in Psychopathology

- Diathesis-Stress Framework for Etiology
- Implications for Intervention
  - Eliminate/Reduce Diathesis
  - Eliminate/Reduce Stressors
- Complete Cures Eliminate *Pathology*
  - Not Enough to Suppress Symptoms
  - Address *Both* Diathesis and Stress
- In Absence of Cure
  - Amelioration of Symptoms
  - Enhance Coping with Chronic Condition

# Passive Treatment of Mental Illness

Grob (1973, 1994)

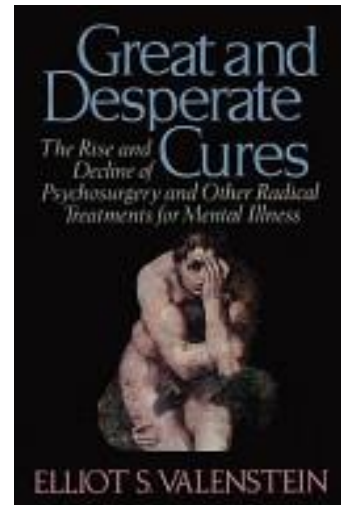
- Custodial Care
  - “Warehousing” the Mentally Ill
    - Pennsylvania Hospital (1751)
    - New York Hospital (1771/1791)
    - Virginia Asylum (1769/1786)
- The “Rest Cure”



# Active Treatment of Mental Illness

Grob (1973, 1994)

- **Psychotherapy** (Breuer & Freud, 1893-1895)
  - Correct, Cope with Psychological Deficits
  - Alter Maladaptive Mental Functions, Contents
  - Change Maladaptive Behavior
- **Biological Therapy**
  - Correct Presumed Biological Disorder
    - Psychosurgery (Moniz, 1935)
    - Electroconvulsive Therapy (Meduna, 1934)
    - **Medications**
      - Thorazine (Chlorpromazine, 1950)
      - Librium (Chlordiazepoxide, 1957)



# Drug Treatments for Schizophrenia

- Major Tranquilizers

- Phenothiazines

- Thorazine, Stelazine, Prolixin, Mellaril
    - Decrease dopamine levels

- Butyrophenones

- Haldol

- Thioxanthenes

- Navane

- “Atypical” Antipsychotics

- Clozaril, Risperidal, Zyprexa, Abilify



drugs.com

# Drug Treatments for Depression

Also Used for Anxiety Disorder

- Tricyclic Antidepressants

- Tofranil, Elavil, Sinequan

- Increase Norepinephrine, Serotonin

- MAO Inhibitors

- Nardil, Parnate

- MAO deactivates Norepinephrine, Serotonin

- Selective Serotonin Reuptake Inhibitors

- Prozac, Zoloft, Paxil, Celexa

- Increase Serotonin Levels at Synapse



# Drug Treatments for Anxiety Disorder

Also Used for Phobias, Panic Disorder, Depression

- Barbiturates
  - Nembutal, Seconal
- Propanediols
  - Miltown, Equanil
- Benzodiazepines
  - Librium, Valium, Xanax
- “Atypical” Anxiolytics
  - Buspar





# A “Pharmaceutical Revolution” in Mental Health?

- Effectiveness
  - Symptom Relief
  - De-Institutionalization
- Theoretical Relevance
  - Supports roles for neurotransmitters
    - Phenothiazines, Schizophrenia, Dopamine
    - Tricyclics, Depression, Monoamines
    - Benzodiazepines, Anxiety, GABA
  - Attack Biological Bases of Psychological Deficits
    - (At least in theory)



Andrew Hickey

# “Empirical” Drug Treatments

Poolsup et al. (2000); Smith & Farah (2011)

- Lithium Carbonate for Bipolar Disorder



- Paradoxical Effect of Ritalin for ADHD
  - Paradoxical Effect of Amphetamine
  - “Smart Pills”: Cognitive Enhancers for Everyone?



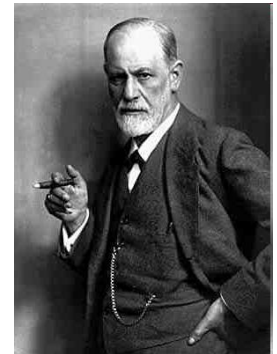
# Problems with Pharmacotherapy

- Side Effects
  - “Parkinsonism”, Tardive Diskinesia
  - “Dry Mouth”, Other Annoyances
- Lack of Specificity
  - SSRIs, Depression and Anxiety
  - Placebo Effects
- Do Not Cure the Illness
  - Relapse if Medication Discontinued
  - Help Manage Chronic Illness
    - Analogy to Insulin for Diabetes?

# Psychotherapy

Breuer & Freud (1893-1895); Freud (1915-1917, 1933)

- “The Talking Cure”
  - Essentially Educational in Nature
    - Acquire New Beliefs, Behaviors
    - Through Learning, Reflection
- Change Person’s Mental States
  - Beliefs, Feelings, Desires
- Change Behavior



“Hysterics Suffer from Reminiscences”

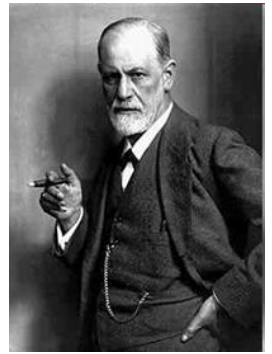
Breuer & Freud, *Studies on Hysteria*” (1893-1895)

# Pharmacotherapy and Psychotherapy Compared

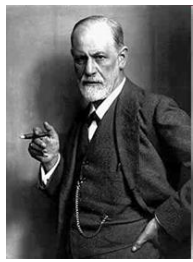
- Pharmacotherapy
  - Attempts to Alter the Mind *Indirectly*
    - By Altering the Chemistry of the Brain
- Psychotherapy
  - Attempts to Alter the Mind *Directly*
    - Through Learning, Thinking

# Classical Psychoanalysis

A. Freud (1936); Horney (1945); Sullivan (1953)



- Unconscious Conflicts
  - Primitive Sexual and Aggressive Impulses
  - Conflict with Reality, Morality
- Defenses Against Anxiety
  - Repression
- “Return of the Repressed”
  - Symptoms of Neurosis
- Insight Into Unconscious Motives



# Psychodynamic Psychotherapy

A. Freud (1936); Horney (1945); Sullivan (1953)

- “Neo-Freudian” Psychoanalysis
- Insight-Oriented
  - Unconscious Conflicts
    - In “Real World”
  - Defenses Against Anxiety
    - Based in Reality Not Fantasy
  - Relationships with Parents
- Interpersonal Therapy

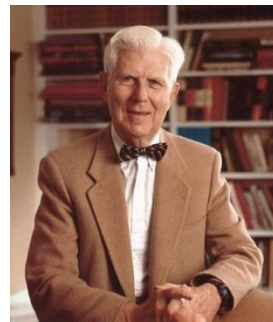


# Cognitive-Behavioral Psychotherapy

Wolpe (1958); Ellis (1962); Beck (1967)

- Behavior Therapy
  - Behavior Modification
  - Focus on Symptom Modification
    - “The Symptoms *Are* the Disease”
  - Symptoms as Learned Behaviors
- Cognitive Therapy
  - Change Maladaptive Thoughts, Beliefs

Focus on “Here and Now”  
vs. “There and Then”

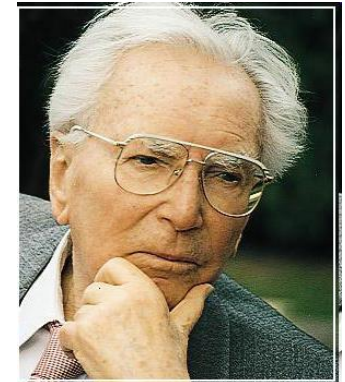
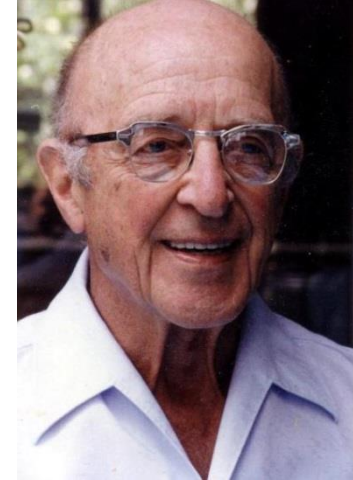




# “Humanistic” Psychotherapy

Rogers (1951); Frankl (1959)

- Existential Therapy (Logotherapy)
  - Meaning in Life
- Client-Centered Therapy
  - Non-Directive
  - Unconditional Positive Regard
  - Self-Actualization (Maslow)



“Patient” as “Client”

# Exposure Therapies

Wolpe (1958); Stampfl (1967)

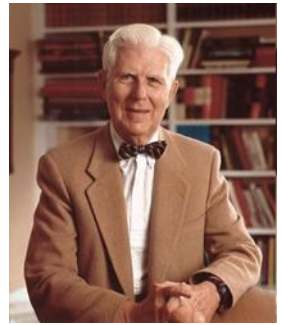
- Systematic Desensitization
  - Graded Exposure to Feared Object
- Implosion Therapy (Flooding)
  - Highest Level of Exposure
  - Prevent Normal Coping Responses
- Alleviation of Anxiety
  - Extinction
  - Acquisition of Adaptive Coping Behaviors





# Cognitive Restructuring

Ellis (1962); Beck (1967)

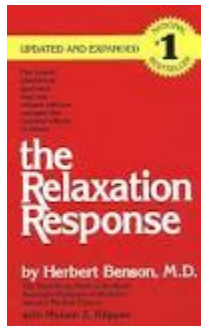


- **Alter Depressogenic Schemata**
  - Negative Beliefs About Self, World, Future
    - Arbitrary Inference
    - Selective Abstraction
    - Overgeneralization, Magnification, Minimization
  - Persuasion; Arrange Success Experiences
- **Alter Depressogenic Attributional Style**
  - Lead to Helplessness, Hopelessness
  - More Realistic Causal Attributions



# Relaxation Therapies

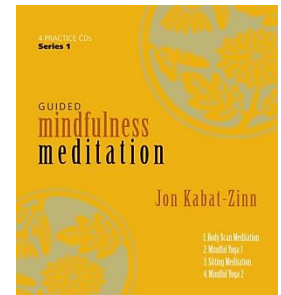
Benson (1975)



If You Can't Remove the Stressor...

Change the Response!

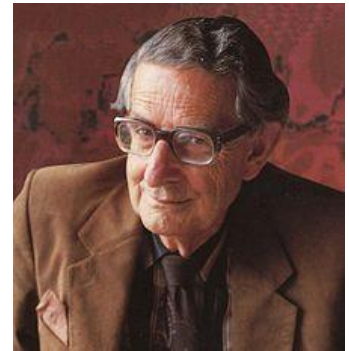
- Relaxation Training
  - Modify Autonomic Responses to Stress
- Meditation (“Transcendental” or “Mindful”)
- Biofeedback
  - Electromyogram
  - Electrocardiogram





# But Does Psychotherapy Work?

- The “Woody Allen Bugaboo”
- Eysenck’s 1952 Review
  - Psychoanalysis
  - Other Psychodynamic Approaches
- Pharmacotherapy



# Evidence-Based Practice

Institute of Medicine (2001); McFall (1991); Chambless & Ollendick (2001)

- Modeled on Evidence-Based Medicine
  - Stimulated by “Managed Care”
    - Test Traditional Beliefs, Practices
    - Evaluate Innovative Treatments
  - Randomized Clinical Trials for Drugs
    - Comparison with Placebo, “Standard of Care”
- Objective, Quantitative Assessment
- Comparison Group
  - No Treatment, Placebo
  - Traditional Practice, “Standard of Care”





# Effectiveness of Psychotherapy (Compared to Untreated Controls)



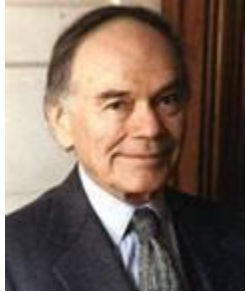
Smith & Glass (1977); Smith et al. (1980)

<u>Treatment Type</u>	<u>%ile</u>
Psychodynamic	75
Gestalt	72
Client-Centered	71
Transactional Analysis	74
Systematic Desensitization	85
Behavior Modification	77
Cognitive-Behavioral	88



# Effectiveness of Psychotherapy: Is a “Dodo Bird” Verdict Warranted?

Luborsky et al. (1975)



## *Alice’s Adventures in Wonderland*

(Lewis Carroll, 1865)

### Caucus-Race

**“Everyone has won  
and all must have prizes”**



# Comparisons of “Effect Size”

Cohen (1977)

- Difference between mean outcomes
  - Expressed in Standard Deviation (SD) Units
    - An Effect Size of 1.0 means that the average subject in the experimental group scored **1 SD** higher than the average subject in the control group
- Classification of Effect Sizes
  - Small  $d = .20$
  - Medium  $d = .50$
  - Large  $d = .80$

# Psychotherapy Comparison Revisited

Smith & Glass (1977); Smith et al. (1980)

<u>Therapy Type</u>	<u>Effect Size</u>
Humanistic	.63
Psychodynamic	.78
Behavioral	.91
Cognitive-Behavioral	1.24
Cognitive	1.31

# Psychotherapy Comparison Revisited

Weiss & Weisz (1995), Children and Adolescents

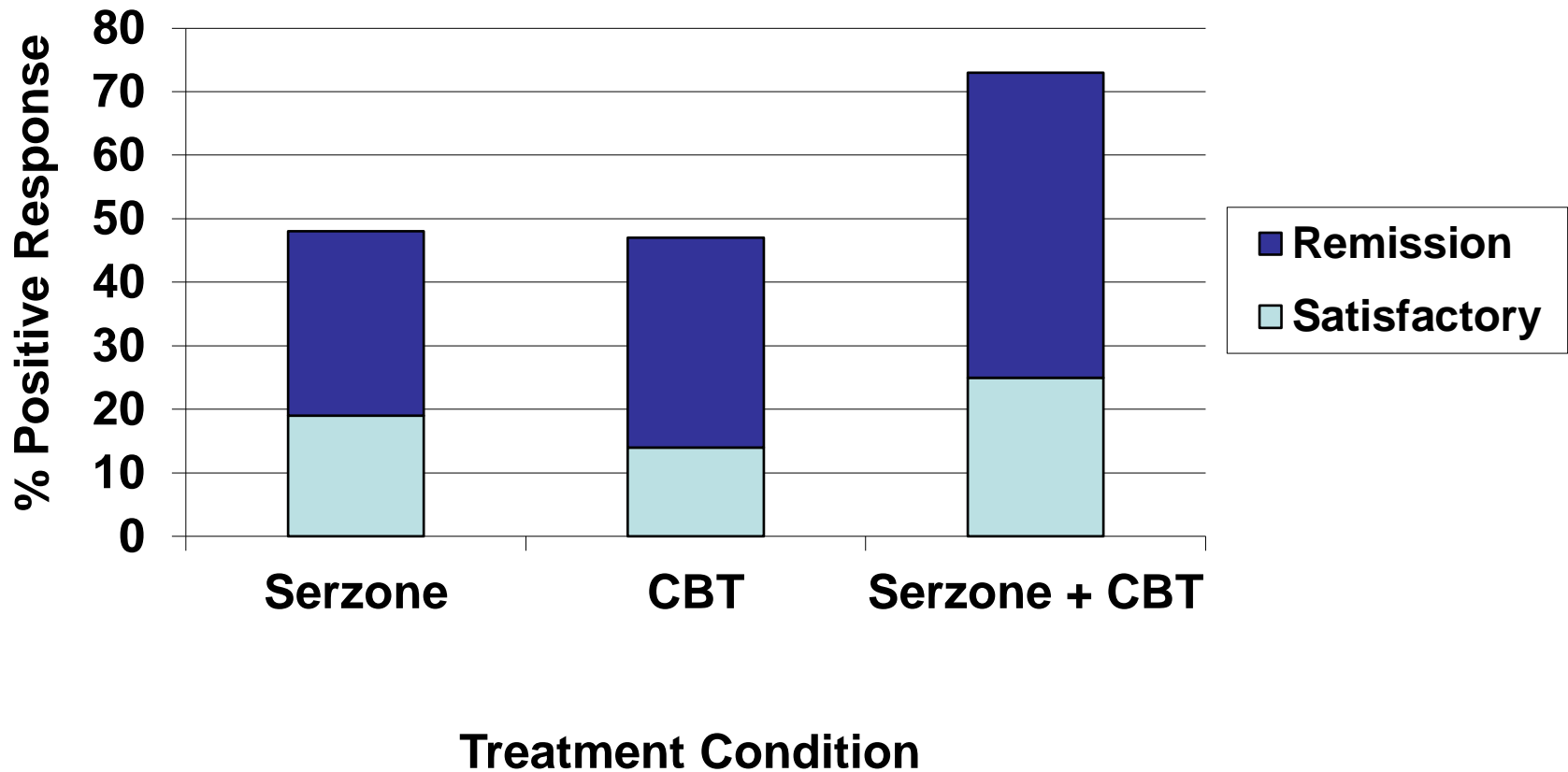
<u>Therapy Type</u>	<u>Effect Size</u>
Non-Behavioral	.42
Behavioral	.85

# All Psychotherapies Are *Not* Created Equal

- Specificity
  - “Treatment of Choice” for Particular Syndromes
- Efficiency
  - Cost-Benefit Analysis
- Cognitive-Behavioral Therapy
  - The Standard of Care

# Psychotherapy and Pharmacotherapy for Depression

Keller et al. (2000)



# Why Combinations Might Work Best

- Drug Effects
  - Rapid Symptom Relief
  - Correct Underlying Biological Substrates
  - Effects of Withdrawing Drugs
- Psychotherapy Effects
  - Coping Skills
    - Deal with Illness
    - Adjust to Life Post-Recovery
  - Learning Lasts Longer than Drugs



Edward S Curtis  
"The Smelt Fisher, Trinidad Yurok" (1923)

*Give a Man a Fish.... Teach a Man to Fish....*