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
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)
“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 (Logootherapy)
  – 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
Social Skills Training
Salter (1961); Argyle (1974); Kaplan (1975); Dodge (1983)

• Social Competence
• Assertiveness Training
  – Assertiveness Problems
  – Public-Speaking Anxiety
• Sex Therapy
  – Maintaining Arousal
  – Achieving Orgasm
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)

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<th>Treatment Type</th>
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<td>Psychodynamic</td>
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<td>Gestalt</td>
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<td>Client-Centered</td>
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<td>Cognitive-Behavioral</td>
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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)

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<th>Therapy Type</th>
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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

Give a Man a Fish…. Teach a Man to Fish…. 