Psychotherapy Research I

Roles of Clinical Psychologists
- Scientists: evaluate their area of focus and related theoretical propositions using the scientific method
- Practitioners: utilize a research-based understanding of human behavior and psychosocial issues to help others to resolve psychological difficulties and achieve adjustment

Efficacy versus effectiveness
- Efficacy
  - Using a well-controlled experiment, can we show that the treatment affects the outcome?
- Effectiveness
  - Does the treatment affect the outcome in the real-world?
Methodological Issues

- Design
- Procedures
- Measuring Change

Types of control groups I

- No-treatment control
  - Withhold treatment
- Considerations:
  - Ethical issues: withholding treatment from distressed individuals
  - Validity issues: diffusion of treatment, resentful demoralization
  - Potential bias: subject role, negativistic

Types of control groups II

- Waiting List Control
  - Delay rather than withhold treatment
- Considerations:
  - No possibility of long-term comparison
  - Ethical issues – withholding treatment to very distressed clients
  - Validity issues – diffusion of treatment, resentful demoralization
  - Potential bias: client's expectancies
Types of control groups III

- Attention-placebo control
  - Clients experience non-specific aspects
- Considerations
  - Used when goal is to address internal and construct validity
  - Conceptual definition of placebo
  - Credibility
  - Ethical issues: providing an ineffective tx to distressed individuals

Types of control groups ... Again

- Standard treatment control
  - Control group receives the current standard care
- Considerations
  - Avoids ethical issues
  - Minimizes attrition and social threats to internal validity
  - Eliminates possible impact of non-specific factors

Other design issues

- Random assignment
  - Simple or randomized blocks
- Timing of assessments
  - Follow-up assessment, repeated assessments
Comparing treatments
- Comparability of groups
  - Blocked random assignment
  - Compare on factors relevant to outcome
- Comparability of therapists
- Comparability of interventions
- Adequacy of assessment
  - Coverage of targets for change
  - Side effects
  - Not biased toward one type of tx or another

Procedure Issues
- Using manual based treatments
- Integrity (manipulation) checks
- Generalizability across settings
- Generalizability across samples

Measuring Change
- Sources of assessment
  - Use multiple sources when possible
  - Use blind raters when possible
- Targets of Assessment
  - Assess multiple targets when possible
- Multi-method assessment
**Procedure Issues**

**Intent-to-Treat Analyses**
- Designed to address effects of attrition
- Perform two sets of analyses
  - Completers Analysis
    - Establishes efficacy
  - Outcomes for all clients enrolled
    - More conservative approach
    - Endpoint analyses
    - Analyses at completion
    - Pre-test as post-test analyses

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**Statistical versus clinical significance**
- Statistical significance – probability based criterion for deciding whether an effect is reliable
- Effect size – magnitude of the effect
- Clinical significance – importance of the effect in everyday life, or to some applied criteria

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**Measuring clinical significance**

**Comparison Methods**
- Normative Samples – after intervention, do clients fall in “normal” range
  - Reliable Change Index (RCI) – proportion of individuals moving from dysfunctional to normative range
  - Who should normative group be?
  - Should normative level be the goal?
- Dysfunctional Samples – after intervention, do clients differ markedly from dysfunctional persons (about 2 SD)
Measuring clinical significance

- No longer meeting diagnostic criteria
- Subjective evaluation
  - Usually global rating scales
  - Subjective and vulnerable to bias
  - Nonspecific – difficult to detect differences in tx conditions
  - Overall, subjective ratings are useful in conjunction with other measures of change

Measuring clinical significance

Social Impact Measures

- Assesses change according to outcomes relevant to society at large
- Prevention research
- Impact public policy
- Gross measures may not be sensitive to some interventions
- Outcomes are influenced by factors other than intervention
- Vulnerable to instrumentation

Process Research Methods

- What happens in psychotherapy?
- Do therapies differ and if so how?
- Do clients act and behave differently?
- What are the common factors across therapy modalities?
- What are the effective ingredients in treatment?
- What happens as clients improve?
What happens in psychotherapy?
- Naming, describing, classifying, and counting therapist behaviors.
- Naming, describing, classifying, and counting client behaviors.
- Measures differ according to many factors.

Do therapies differ?
- Differences in participants’ verbal behavior
- Differences in adherence ratings
- Qualitative differences in treatments

Systematic clients differences?
- Client differences in semantics
- Core Conflictual Relationship Theme
  - Look for patterns in clients’ verbalizations in terms of
    - Wishes toward others
    - Responses of others
    - Responses of self
Systematic clients differences?

- Differences in cognition
- Differences in interpersonal behavior
  - The interpersonal circumplex
  - Dimensions underlie interpersonal processes
    - hostility to friendliness
    - dominance to submission
  - Can rate client or tx behaviors to examine adaptive interpersonal behaviors

Common psychotherapy factors

- Therapist common process factors
  - Warmth
  - New perspective
- Client common factors
  - Self-disclosure
  - Attention to experience
- Common relationship factors (alliance)
  - Attachment component
  - Collaborative component

Active therapy ingredients?

- Drug metaphor
  - Effective treatments administered with strength and integrity, should see positive change
- Correlate process and outcome measures across clients
- Criticism is that process and outcome are not related in a linear manner
Identifying active ingredients

**Dismantling**
- Experimental methods
- Isolate components of a tx package
- Identify necessary and sufficient ingredients for change
- Limitation is that tx characteristics may be hard to isolate and to intentionally add or remove

What happens as clients improve?

- Focus on processes that predict change across the course of therapy
- Qualitative methods typically used
- Procedures involve a detailed intensive examination of therapeutic discourse
- Often 1 or a few cases
- Useful in model development stages
- Conclusions should be viewed tentatively