Lecture 4:
Evidence-based Practice:
Beyond Colorado

I. INTRODUCTION
A. Does Psychotherapy Work?

- Many of you are in the course because you want to enter the helping professions to offer some form of psychotherapy to heal patients.
  - Does anyone know whether the activities of helping professionals are effective in healing people?
- What experience or data do you have that psychotherapy works?
  - Research evidence or first (or second) hand knowledge of the effectiveness of psychotherapy in producing positive outcomes?

I. INTRODUCTION
A. Does Psychotherapy Work?

- Research has been accumulating to suggest psychotherapy produces lasting improvements.
  - Consumer Reports (1995) concluded that patients benefited very substantially from psychotherapy.
    - Those in long-term treatment did very much better than those in short-term treatment.
    - Psychotherapy alone did not differ in effectiveness from medication plus psychotherapy.
    - No specific style of psychotherapy was shown to achieve more than any other for any condition.

I. INTRODUCTION
A. Does Psychotherapy Work?

- More evidence of psychotherapy effectiveness.
  - NIMH study of therapeutic outcomes of depression found that insight, cognitive, and drug therapy was equally effective (aprox. 66%).
    - All the therapies was compared to a drug therapy placebo which as effective for about 17% of patients.
    - Different therapies effective for different patients
- Psychotherapy even changes brain functioning.
  - Similar neurological processes change in drug and behavior therapy for psychiatric patients.

I. INTRODUCTION
B. What's Therapeutic about Psychotherapy?

- What is it about psychotherapy that makes it therapeutic?
  - What is the "active ingredient" missing in placebo control groups that helps people.
  - What kinds of variables do you think matter?
    - The patient
    - The therapist
    - Their relationship
    - The treatment method
    - The context
    - Other variables

I. INTRODUCTION
C. Predictors of Clinical Success

- Based on three decades of empirical research, Murray* (1998) concluded:
  - As a general trend across studies, the largest chunk of outcome variance not attributable to preexisting patient characteristics involves individual therapist differences and the emergent therapeutic relationship between patient and therapist, regardless of technique or school of therapy.
    - The findings suggest that *treatments do not cure disorders*, but rather that *relationships heal people*.

* **Henry, W. P. (1998). Science, politics, and the politics of science: The use and misuse of empirically validated treatment research. *Psychotherapy Research, 8*, 126–140**

I. INTRODUCTION
C. Predictors of Clinical Success.

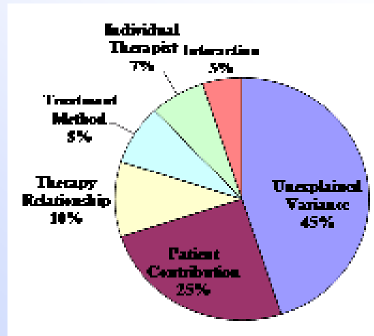
- The therapeutic relationship makes substantial and consistent contribution to psychotherapeutic outcomes, independently of the type of therapy.
  - Therapist qualities & behaviors affecting relationship
    - Empathy, warmth, positive regard, and genuineness
    - Therapeutic alliance: Trust, openness.
  - Patient qualities & behavior affecting relationship.
    - Therapist perceived as self-confident, skillful, and active
    - Openness to discuss problems
    - Pretreatment predisposition to change and to accept psychological treatment as a means of achieving this.

I. INTRODUCTION
C. Predictors of Clinical Success.

- The therapeutic alliance goes beyond patient/ therapist relationship to the quality & strength of collaboration in producing outcomes.
  - Alliance is measured as agreement on therapeutic **goals**, consensus on treatment **tasks**, and a relational **bond**.
  - Across 89 studies, the median correlation between the quality of the alliance and therapeutic outcome was .21, a modest but significant association
  - similar correlations for children, adolescents and adults.

I. INTRODUCTION
C. Predictors of Clinical Success

The pie chart presents the percentage of psychotherapy outcome variance attributable to categories of therapeutic factors



I. INTRODUCTION
D. Insuring Psychotherapeutic Effectiveness

- Psychotherapy is effective but depends on complex interactions between…
  - qualities and behaviors of patients and therapists
  - relationship and alliance between patient and therapy
- There is no easy marker by which to identify effective psychotherapy
  - How can we guarantee that psychotherapy will be effective?
- **Evidence-based practice.**

II. EVIDENCE-BASED PRACTICE
A. Introduction to EBP

- International call to base all forms of clinical practice on evidence from primary research
  - Evidence-based practice integrates best research evidence with clinical expertise and patient values.
    - The EBP is used to promote accountability in medicine, psychology, education, public policy and even architecture.
  - Activities of helping professions have always been based on evidence, but there has been precious little of it, and sometimes the evidence has not been good.
- **EBP demands accountability from helping professionals based on quality evidence.**

II. EVIDENCE-BASED PRACTICE
A. Introduction to EBP

- EBP really came out of a skepticism of clinical (vs. actuarial) judgment in medicine!
  - EBP orginated with Thomas Beddoes (1760–1808)
    - English physician known in part for his criticism that turn-of-the-century medical practice had become hidebound, stagnant, and secretive (Goodman, 1992).
  - EBP furthered by Pierre Charles Alexander Louis (1787–1872).
    - Frenchman who performed the first chart reviews producing evidence to undermine belief that bloodletting cured cholera.

II. EVIDENCE-BASED PRACTICE
A. Introduction to EBP

- EBP replaces decision making processes which are exclusively clinically-based with those that are also actuarial.
  - Clinicians needed help in muddling through the vast, sometimes inaccessible, and often contradictory information.
  - Over the past 25 years, the percentage of health care practice that's based on high-quality, even gold standard (randomized clinical trials) evidence has increased.
    - Ranging from 10% to 25% of medical decisions.
- Problems include *individual* and *collective* ignorance of evidence.

II. EVIDENCE-BASED PRACTICE
A. Introduction to EBP

- EBP suggest that practitioners need to be **informed** about, **understand**, and **act on** the research, but not necessarily **generate** the research.
  - EBP has been touted as effective not only for improving health care quality, but also for reducing errors precipitated in part by clinical practice variation.
  - Practitioners will have to be able to evaluate the scientific status of their preferred activities

II. EVIDENCE-BASED PRACTICE
B. Systematic Reviews

- *Systematic Reviews* evaluate practices using rigorous, systematic, and transparent methods which minimize bias.
  - Learn more about SRs by accessing the EBP web site (from class web site) and click on page for on-line learning modules and then Systematic Review Module.
- FOR NEXT CLASS:
  - Read through the module and write a brief review summarizing what you learned and how it might apply to any helping profession!

III. EBP IN PSYCHOLOGY
A. Introduction to EBP

- APA adopted a formal statement on EBP in 2005.
  - EPB in psychology is the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences.
- Levant (2005), APA President, explained why EBP in psychology was adopted.
  - The EBP movement in U.S. society is truly a juggernaut … [P]sychology needs to define EBP in psychology or it will be defined for us. We cannot afford to sit on the sidelines.

III. EBP IN PSYCHOLOGY
A. Introduction to EBP

- Levant (2005) define 3 issues for EBP in Psych.
  - 1. To consider how a broader range of research evidence should be integrated into a definition of EBP in psychology.
    - This address and prioritize EBP evidence.
  - 2. To explicate the application and appropriate role of clinical expertise in treatment decision-making.
    - To deal with the meaning and value of *clinical expertise*.
  - 3. To articulate the role of patient values in treatment decision-making
    - Which patient variables are important to consider.

III. EBP IN PSYCHOLOGY
B. Best Available Evidence

- EBP research must balance experimental control (internal validity) and generalization (external validity) which is notoriously difficult!
- Research must address
  - Weighting of different methodologies
  - Representativeness of samples
  - Level of intervention
  - Generalizability and transportability
  - Decision making with limited research evidence
  - Appropriateness of treatments for racial/ethnic minority and other marginalized populations

III. EBP IN PSYCHOLOGY
B. Best Available Evidence

- A prioritized list of research designs.
  - Clinical observation
  - Qualitative research
  - Systematic case studies
  - Single-case experimental designs
  - Public health and ethnographic research
  - Process-outcome studies
  - Effectiveness research in naturalistic settings
  - Randomized Control Trials (RCTs) and equivalents (Placebo, No treatment, historical control)
  - Meta-analysis

III. EBP IN PSYCHOLOGY
B. Best Available Evidence

- In support of *clinical efficacy*
  - Clinical opinion, observation, and expert consensus.
  - Sophisticated empirical methodologies including quasi-experiments and randomized controlled experiments (RCEs).
- In support of *clinical utility*
  - Attention to generality of effects
  - Robustness of treatments across modes of delivery
  - Feasibility with which treatments can be delivered in real-world settings
  - Costs associated with treatments

III. EBP IN PSYCHOLOGY
B. Best Available Evidence

- Empirical issues which shuld be addressed
  - Generalizability and transportability of interventions shown to be efficacious
  - Patient x therapist x treatment effects
  - Efficacy and effectiveness of treatments with underrepresented groups (ethnic, age, etc.)
  - Development of treatments based on practices of clinicians with the most positive outcomes
  - Criteria for discontinuing treatment
  - Development of profession-wide consensus, rooted in the best available evidence, on psychological treatments that are considered discredited!

III. EBP IN PSYCHOLOGY
C. Clinical Expertise

- **Clinical expertise** refers to competence attained by education, training and experience.
  - *Not* to an extraordinary performance by an elite group
  - Expertise is essential for identifying and integrating research evidence with clinical data.
    - No cookie cutter or manual-based approach to treatment. Treatment can not be therapist-proof.
  - Fostered by scientist-practitioner training (broadly defined).
    - It may redefine scientist-practitioner training

III. EBP IN PSYCHOLOGY
C. Clinical Expertise

- Clinical expertise include multiple components:
  - Assessment and diagnostic skills and knowledge
  - Clinical decision making
  - Interpersonal expertise (Therapeutic Alliance)
  - Continual self-reflection and acquisition of skills
  - Appropriate evaluation and use of basic and applied evidence
  - Understanding influence of individual and cultural differences on treatment
  - Seeking available resources
  - Having a cogent rationale for clinical strategies

III. EBP IN PSYCHOLOGY
C. Clinical Expertise

- Cognitive science study expertise
  - They have well developed *automatic* cognitive skills
    - They automatically recognize meaningful patterns, disregard irrelevant information, and acquire and organize info in ways reflecting a deep understanding of a domain.
  - There are risks associated with the automatic processing of experts
    - Idiosyncratic interpretations, overgeneralizations, confirmatory biases, and other errors in judgment.
    - Experts should seek out consultation and systematic feedback from the patients and others to mitigate biases.
- More research needed on strengths, limits, biases, and conditions which promote clinical expertise.

III. EBP IN PSYCHOLOGY
D. Patient Characteristics

- Patient is key to therapeutic success
  - Treatment is most likely to be effective when it is responsive to the patient's specific problems, strengths, personality, socio-cultural context, and preferences
- EBP requires integration of patient characteristics along with psychologist experience and the available research.
  - These characteristics include values, beliefs, worldviews, goals and preferences.
    - Research indicates that different strategies and relationships may prove better suited for different populations.

III. EBP IN PSYCHOLOGY
D. Patient Characteristics

- Sources of individual differences in patients
  - Developmental processes impact adult and child psychopathology
  - Multiple social variables shape personality, values, worldviews, relationships, psychopathology, and attitudes towards treatment
  - Culture influences not only psychopathology but also the client's understanding of health and illness.
  - Consideration of race and its association with power, status, and opportunity.
    - Power differentials between clinicians and their patients, as well as systematic biases and implicit stereotypes, contribute to inequitable care

III. EBP IN PSYCHOLOGY
E. Training Issues

- Training in EBP will require new training to promote knowledge and skills in
  - Epidemiology
  - Clinical trials methodology
  - Quantitative research methods and measurement
  - How to conduct and appraise systematic reviews and meta-analyses
  - Build skills in informatics and electronic database searching necessary to find best relevant and available evidence

III. EBP IN PSYCHOLOGY
F. Conclusions

- EBP is critical for the future of Psychology
  - Medicare and other funding agencies (Medical Insurance Companies) are requiring evidence of EBP in order to receive payments.
    - Asserts that the practice of psychology is evidenced-based, improving the image of the discipline.
  - Remaining concerns
    - Status of qualitative research
    - Manual requirement.
    - Approach to adverse effects or complications caused by or resulting from otherwise good treatments.
- Students entering the helping professions would be wise to understand the requirements for EBP