Research, Evidence and Practice: Recursive Relationships

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What is Evidence Based Medicine?

The practice of Evidence Based Medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research, in a particular context.

Sackett et al 1996
Efficacy versus Effectiveness

- Efficacy research: demonstrate treatment effects under *optimal* research conditions eg carefully selected participants with discrete symptomatology, high therapist support etc

- Effectiveness research shows reasonable treatment effects across several well designed RCTs, in *real world clinical settings*
Conditions with Effectiveness Evidence

- Adult depression and bipolar affective disorder
- Childhood depression
- Anxiety disorders
- Substance abuse, especially adolescent drug addiction
- Delinquency and conduct disorder
- Eating disorders, especially under 21 yrs.
- Schizophrenia
- Marital conflict and distress
- Child and adolescent difficulties
Evidence Based Practice:
Hierarchies of Evidence

- Level 1: Single RCT or meta-analysis of RCTS
- Level 2a: At least one well designed controlled study without randomisation
- Level 2b: At least one other well designed quasi-experimental study
- Level 3: Evidence obtained from well designed non-experimental descriptive studies, e.g. case studies, correlation studies
- Level 4: Expert committee reports or opinions and/or clinical experiences of respected authorities

www.nice.org.uk
www.cochrane.org/cochrane-reviews
What do the RCTs give us as clinicians?

- Ethically accountable for our practice
- Treatment model shares importance with: school, client, therapist, family and cultural factors……..
- The Florida study (1993)
- Experience of the therapist is linked with higher success with engagement
- Be more change focused
- Be more interested in clients’ models of change
- Try to potentiate change in the future
Systemic Intervention Effectiveness Includes:

- Procedures for engaging families and significant members of the professional network in the therapeutic process

- Procedures for developing understanding of problematic episodes and exceptions to these

- Middle therapy >> problem specific procedures
Systemic Intervention Effectiveness Includes:

- Generic methods for understanding and helping ‘resistance’ to change
- Procedures for disengagement and relapse prevention
- Effective interventions address difficulties at multiple levels within clients’ social systems
What do We Want from RCTs?

- Interventions with children/adults with complex trauma/attachment difficulties
- Therapy process – what is going on?
- Contextual factors that hinder/optimise effectiveness
- Possible harmful effects of therapy
- The statistical ‘outliers’
- Families’ experiences of therapy
What do We Want from RCTs?

- Long term change in developmental pathways
- Neuro-developmental change
- Translation to real-world clinical settings
- Replace existing evidence hierarchies with multiple evidence requirements
- Adequate conceptualisation of complex difficulties: attachment/trauma related difficulties for children, their developmental underpinnings, and the context of social care systems
External Validity of Psychotherapy RCTs

- Conceptual validity of psychological constructs that are the focus of therapy eg ADHD
- Extent to which such constructs can be accurately measured or estimated
- (Whose?) Definitions of meaningful change
- Timeframes over which meaningful change should be measured
- Clinical representativeness of participants?
Evaluating Second Order Change

- Second order change – a transformation of the system itself
- If we think about change differently, why look for the same manifestations of change?
- EBP approaches privilege RCT data over clients’ narratives
- How can we operationalise and test second order change? Perhaps it is not a specific something?
- Trends in systemic practice: use of self; cultural competency; postmodern practice
Evaluating Second Order Change

- EBP can: acknowledge bias as clinicians; ensure individual differences are honoured; and clinicians do not impose expert beliefs on clients’ constructs
- Relationship between first order and second order practice?
- Rule change: process research and growth curve modelling
- Reframing: ethnography
- Rebalancing or non-linear changes: sequential analysis (Gottman’s 5:1 ratio!), grounded theory
Genres of Psychotherapy Process Research: Robert Elliott

Types of Question and Appropriate Methods:

1. Quantification

How frequent is a type of event? To what degree or intensity is a property generally present in therapy? What is typical?

Descriptive quantitative methods: surveys, rating scales, category systems, descriptive statistics
Types of Question (cont’d)

Comparison:

Does a type of therapy, event, or phase of therapy have more of something than another type, event or phase? Which therapy is better for this disorder?

Quantitative experimental and quasi-experimental designs: inferential statistics, RCTs, meta-analysis of comparisons
Types of Question (cont’d)

Relationship

Which aspects of therapy vary together? What types of event typically precede or follow another? What predicts therapy process and outcome?

Bivariate and multivariate correlational methods; sequential analysis; prediction research, path analysis, meta-analyses of relational research
Types of Question (cont’d)

Method Quality

How well (reliably, validly) can an aspect or event be measured by means of a particular process or outcome measure?

Psychometric or measure development research
Types of Question (cont’d)

Definition

What is the nature of a particular therapeutic phenomenon? What defines or constitutes it?

Phenomenological research (IPA, theme analysis), grounded theory, ethnographic research
Types of Question (cont’d)

Description

What kinds of events or aspects exist in therapy? What features, types or patterns do these events or aspects have?

Naturalistic qualitative research (participant observation), grounded theory, ethnography, quantitative content, cluster, interaction analysis
Types of Question (cont’d)

Interpretation

What is the meaning of a therapeutic event or process? Why did it happen? How did it develop?

Interpretative research (IPA), narrative case study research, comprehensive process analysis, task analysis, discourse analysis
Types of Question (cont’d)

Critique/Action

What is wrong with how things are now? How could it be made better?

Feminist research, participant action research
Types of Question (cont’d)

Deconstruction

What implicit assumptions are made in this research? Whose interests are served or ignored?

Conceptual analysis, self-reflection, systematic analysis and critique of typical practice, discourse analysis, rhetorical analysis
The relationship between outcome research and process research

- Outcome research is interested in evaluation, and in testing hypotheses about the effectiveness and efficacy of therapeutic methods/approaches – does it work? Does it work more efficiently than another method?

- Process research is interested in change and how change happens – exploratory, illuminative research – mixed methods - how does it work? In what ways does change happen? What is the experience of change? Lay beliefs about change?

- The recursive relationship between outcome and process oriented research.....
Approaches to Structured Observation


Stage One: Perspective of the observation study

1. Is researcher a trained observer eg in use of reliable coding scheme?
2. Or an expert participant eg a psychotherapist or supervisor?
3. Or an index participant with expertise eg psychotherapy client or supervisee?
Approaches to Structured Observation

Stage Two: Focus of the observation

Which element of the behavioural process is studied:

- Is it the client or client system?
- The psychotherapist or their agency?
- Or the rated quality of their relationship? (interaction of participants)
Stage Three: What kind of behaviour or process variables are to be studied?

- Content, or what is said, meant or expressed (as ideas or themes)
- Action/intention (behaviours, tasks, response modes)
- Style, or how it is done, said or expressed (duration, frequency, intensity, mood, para-linguistic, non-verbal behaviour)
- Quality, or how well it is done, said or expressed (accuracy, skilfulness, appropriateness)
Approaches to Structured Observation

Stage Four: Selected useful units of study

Idea unit (sentence, single expressed idea)
Interaction unit (a speaking turn, a response to the other)
Topic or task unit (episode, series of actions or speaking turns)
Scene unit or occasion (e.g., time limited interaction)
Interpersonal unit (relationship between two people)
Institution unit, or organisation, system of relationships
Person (self history, sets of beliefs, organisational involvement)
Approaches to Structured Observation

Stage Five: Sequential phase, what happened before, during, after the unit of process

Context or antecedents, what led up to the process eg previous behaviours, speaking turns

Process or behaviours eg particular process observed at given level or unit

Effects or consequences, eg psychotherapy outcomes
Comprehensive Process Analysis

CPA (Elliott, 1989) was developed to analyse both individual events and themes across events, focusing on four areas of understanding:

- Expanding key or peak responses in an event eg exploring implied meanings within a response
- The context out of which the event arises, and that gives it meaning, eg what had been happening before or after the event, nature of the therapeutic alliance, background features of client and therapist, client’s preferred ways of coping, cultural attunement of the therapy,......
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- The recursive relationship between outcome and process oriented research…..
Comprehensive Process Analysis

- Important features of the event, e.g., therapist action, interpretation and style, and client expression of thoughts and feelings

- Impacts of the event, e.g., understanding, changes in mood and beliefs, anticipated changes, etc
Helpful Aspects of Therapy/Supervision Questionnaire

- Immediately following a therapy or supervision session, identify one helpful event, and rate it 1-5 on a Likert scale (least to most helpful)
- Write a brief description of the helpful event, and say why it was helpful
- Identify one unhelpful event and rate it 1-5
- Write a brief description of the unhelpful event and say why it was unhelpful
- Rate the overall helpfulness of the session, 1-5, least to most helpful
Helpful Aspects of Therapy/Supervision Questionnaire (cont’d)

- Again, using 5 point scales, each event can be rated on the following nine areas:
  - Personal insight
  - Problem clarification
  - Problem solution
  - Understanding about others
Helpful Aspects of Therapy/Supervision Questionnaire (cont’d)

- Increase in understanding
- Reassurance
- Sense of relief
- Involvement in the therapy/supervision
- Personal contact with the therapist/supervisor
Process Moments as Outcomes

- Please work in pairs
- Think of a process moment in your therapy practice
- How can it be considered an outcome
- Turn it into a research question
- Hone the question
- How would you investigate it
- Present the ‘moment’ to the group
Publishability Guidelines: Quantitative & Qualitative Research: Elliott et al

- Explicit scientific context and purpose
- Appropriate methods
- Respect for participants
- Specification of methods
- Appropriate discussion
- Clarity of presentation
- Contribution to knowledge
A few references....


Bryman A (2006) Integrating quantitative and qualitative research: how is it done? Qualitative Research, 6, 97-113


A few references....