ASSESSING THE INFLUENCE OF THREE THERAPY MODALITIES ON CLIENT CHANGE

using single-case methods and abductive reasoning

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1. AIMS AND OBJECTIVES

Two key questions posed in the Medical Research Council's latest guidance on 'Developing and evaluating complex interventions' (2008) are addressed in this study:

(1) Does the intervention work in everyday practice?
(2) What are the active ingredients within the intervention and how are they exerting their effects?

Following this, the specific questions to be answered by this research are:

(a) Can observed changes be reasonably attributed to the therapy process?
(b) What are the principles of change that are common across modalities or specific to a particular approach?
(c) How does change occur: what are the mediators and causal mechanisms explaining observed change

2. METHOD

(a) Design

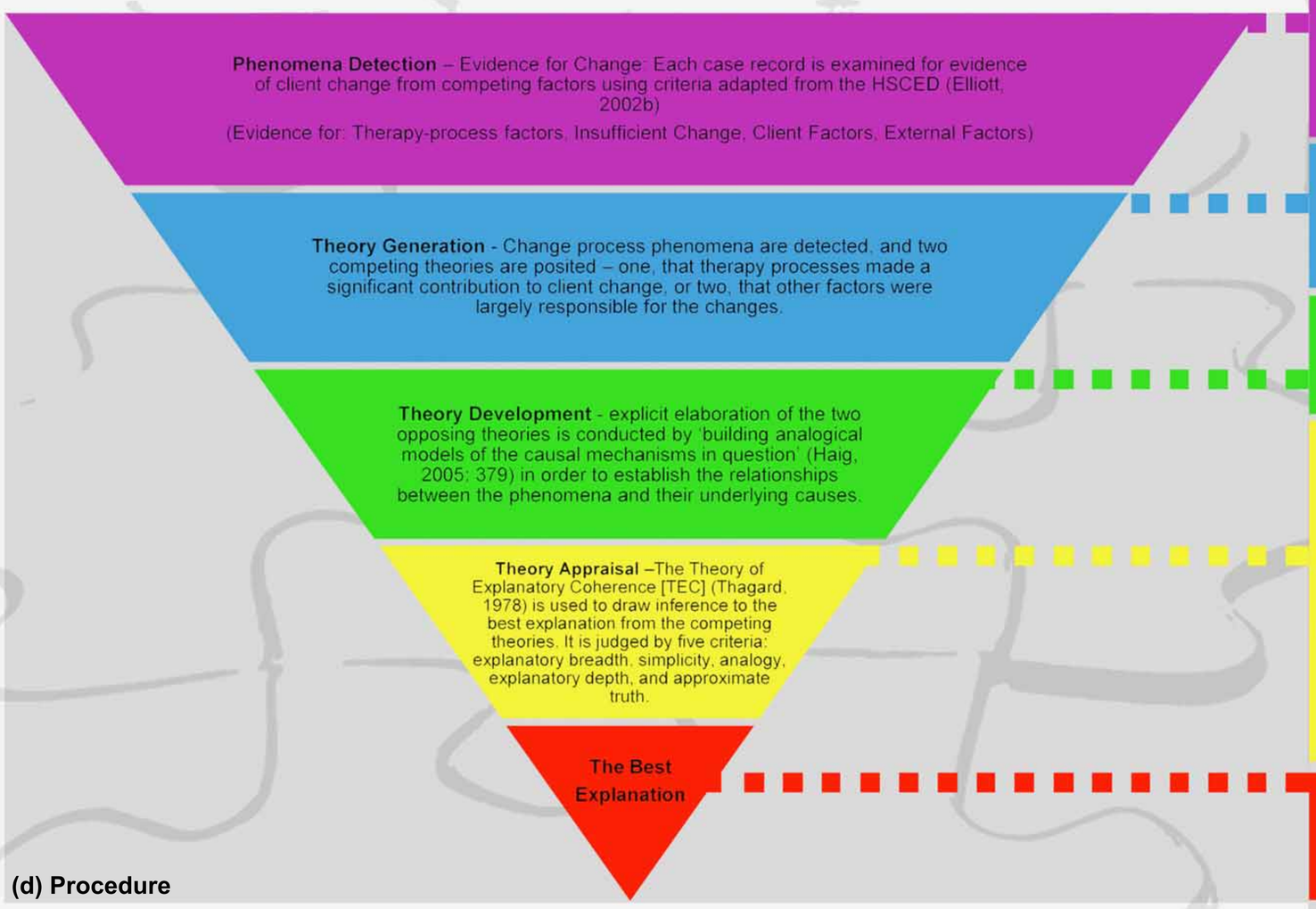
- First, the Hermeneutic Single Case Efficacy Design [HSCED] developed by Elliott (2002b) is employed to build a rich case record of the therapy process in each case. Quantitative and qualitative data is collected, and triangulated across sources and time points.
- Second, a process of abductive reasoning is used to draw inference to the best explanation from competing theories presented.

(b) Measures: building a rich case record

- Background Information - demographics, diagnoses, history and duration of problem, presenting problems, medication,
- Quantitative Outcome Measures - the General Health Questionnaire (Goldberg, 1978), the Beck Depression Inventory (Beck, 1996) and the CORE-OM 34 given to participants at the start, mid-point and end of therapy.
- Weekly Outcome Measure - the Simplified Personal Questionnaire [PQ] (Elliott, Shapiro & Mack, 1999), an individualised target complaint measure made up of 10 seven-point distress rating scales completed at each session.
- Qualitative Outcome Measure – a semi-structured Change Interview (Elliott, Slatick, and Urman, 2001) which is conducted at the mid-point and end of therapy. The interview asks the client about changes since therapy began, their attributions for the changes, and the helpful and hindering aspects of therapy.
- Qualitative Change Process Data - The Helpful Aspects of Therapy [HAT] form (Llewelyn, 1988) is used to assess change process data about significant events on a weekly basis.
- Direct Information about Therapy Sessions - Therapist process notes and the therapist post-session evaluation form are completed weekly for mapping to client self-report measures.

(c) Participants

- Three clients at the Psychological Therapies Service – one from each modality (Cognitive Behavioural Therapy, Personal Construct Therapy and Existential Therapy) – are included in the study
- The therapists were Clinical Psychology trainees in their first year of training on a year long placement within the service.
- The researcher was a final year trainee on the doctoral programme in Counselling Psychology, and worked in the service as an honorary clinician-in-training.



(d) Procedure

- From the rich case record established, data sources are triangulated and examined to establish evidence for change in each case.
- Drawing on criteria from the HSCED method (Elliott, 2002b), evidence for therapy-process factors, client factors, external factors, and evidence for insufficient/negative change are sought.
- Evidence is assessed using Bohart & Boyd's (2000) Plausibility Criteria, and Vertue & Haig's (2008) Validation strategies.
- These methods assist in the extraction of the phenomena from the data. In all three cases client change was detected
- Abductive Reasoning methods (Haig, 2005) were used to generate and develop competing theories of change for each case.
- The theories were appraised using Thagard's (1978) criteria to draw inference to the best explanation (Haig, 2009).

The process of abductive reasoning is illustrated above, and elaborated on the right for each of the three cases.

4. CONCLUSIONS

- All three cases argue that therapy causally contributed to client changes
- Theory development suggested that changes in therapy were analogous to different forms of learning processes
- Relational aspects including social biases, expectancy effects and client/therapist factors were active contributors to client change
- Therapy-process factors and relational factors were not mutually exclusive
- Factors common across different modalities are impacting substantially on outcome
- What may be specific to each modality is the execution of the common factor, rather than the factor itself being distinct or unique to a modality.

5. REFERENCES

- Beck , A.T., Steer ,R.A. ,and Brown ,G.K. (1996) Manual for the Beck Depression Inventory-II. San Antonio, TX: Psychological Corporation
- Bohart, A.C. & Boyd, G. (2000). A Qualitative Analysis and Study of Outcome in Psychotherapy. Paper distributed as part of a presentation at the Conference of The Society for Psychotherapy Research, Chicago, IL. (Received in personal communication with the author).
- Elliott, R. (2002b) Hermeneutic Single-Case Efficacy Design. Psychotherapy Research, 12 (1) 1 – 21
- Elliott. R., Slatick, E., and Urman, M. (2001) Qualitative change process research on psychotherapy: Alternative strategies. In Frommer, J. and Rennie, D.L. (Eds.) Qualitative Psychotherapy Research: Methods and Methodology. Lengerich, Germany: Pabst Science
- Elliott, R., Shapiro, D.A., & Mack, C. (1999) Simplified Personal Questionnaire Procedure. Toledo, OH: University of Toledo, Department of Psychology
- Goldberg, D. (1978) Manual for the General Health Questionnaire. The NFER-NELSON Publishing Company: Windsor
- Haig, B. (2009) Inference to the best explanation: A neglected approach to theory appraisal in psychology. American Journal of Psychology, 122, (2) 219 - 234
- Jacobson, N.S. & Truax, P. (1991) Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. Journal of Consulting and Clinical Psychology, 59, 12 – 19
- Llewelyn, S. (1988) Psychological Therapy as viewed by Clients and Therapists. British Journal of Clinical Psychology, 27, 223 – 238
- Medical Research Council. (2008). Developing & Evaluating Complex Interventions: New Guidance. Medical Research Council
- Thagard, P. (1978). The best explanation: Criteria for theory choice. Journal of Philosophy, 75, 76 – 92.
- Vertue, F.M. & Haig, B.D. (2008). An abductive perspective on clinical reasoning and case formulation. Journal of Clinical Psychology, 64 (9), 1046 – 1068.

3. RESULTS AND ANALYSIS

PCP CASE

Phenomena Detection
Changes: improved self-esteem, increased motivation, connection with (and release of) emotion, management of anger, asking others for support, expressing feelings to others, insight, and self-discovery.

Theory Generation

Theory 1 – Therapy-Process Factors
Therapy as a process of reflection, adjustment and experimentation causally contributed to the changes in the client.

Theory 2 – Client Factors
Hope & expectations of help caused the changes in the client.

Theory Development

Analogy: Experiential learning theory
Concrete experience, reflective observation, abstract conceptualisation, and active experimentation

Analogy: The Placebo Effect
Symbolic power/meaning attributed to therapy process

Theory Appraisal

The theory has **breadth** as it explains different domains of facts and the data provides a variety of instances where the theory fits.
It is **simple** as minimal ad hoc assumptions are needed except for an hypothesis to account for client's emotional processing. The theory is strengthened by **analogy** to experiential learning strengthens the theory, and **deepened** by mechanisms such as problem solving and cognitive restructuring. Therefore, it is found to be **approximately true**.

This theory has explanatory **breadth**; it accounts for client, therapist and subsequent relational factors (domains of facts), but it is not sufficiently **simple**; it does not explain technique factors evident in the data. It is **analogous** to the placebo effect, and **deepened** by other social factors and demand characteristics. The theory has **approximate truth** but may not be mutually exclusive to the competing theory.

Inference to the Best Explanation
Therapy as a process of experiential learning is found to be the best explanation for client's changes. Client expectations of help and hope are found to be a complete subset of this theory, and possible pre-condition to the effectiveness of learning

EPT CASE

Phenomena Detection
Changes: courage to be who one feel they are (Authenticity), increased motivation, increased spontaneity, increased independence, decreased concern for what others think of her new way of being, shift in attitude around certain aspects of the self, improved sleeping pattern, sense of freedom from burdens, sense of happiness, sense of emotional control, client has a new job, client's ending of long-term relationship

Theory Generation

Theory 1 – Therapy-Process Factors
The discovery of choice and new ways of being in the presence of another causally contributed to the changes in the client.

Theory 2 – Client Factors
Social desirability caused the changes in the client.

Theory Development

Analogy: Discovery learning
As developed by theorists such as Piaget (1972) and Bruner (1961).

Analogy: Impression Management & Goal Performance
performance-avoidance goals: avoiding incompetence relative to others

Theory Appraisal

The theory has **breadth** as a variety of instances are evident in the data and more than two domains of facts are explained. It is **simple** as no ad hoc hypothesis is required to explain the facts. It is strengthened by **analogy** to discovery learning with shared properties of reflected self-discovery and problem solving, but requires **deepening** to explain the causal effect of the therapist's presence and naive questioning stance. This theory is nevertheless **approximately true.**

There are a variety of instances which give this theory **breadth,** but it is insufficient in explain the impact the therapist factors have on the process. Therefore it is not a **simple** theory. It is **analogous** to social theories of social desirability and goal orientation which helps to strengthen the theory. These analogous mechanisms **deepen** the theory and help to explain why it works. Thus it is considered **approximately true**, although less so than the competing theory.

Inference to the Best Explanation
The first theory offers the best explanation of the phenomena. However, the client factors explained by the second theory are likely interacting with the therapist factors and technique variables explained by the first theory to produce the observed change.

CBT CASE

Phenomena Detection
Changes: Having new strategies to respond differently in situations, Increased confidence in communication skills, Greater self-belief and self-acceptance, Less need to be always in control; tolerating situations that cannot be controlled, Better management of unexpected changes, Prioritising and less self-criticism for not achieving everything, Positive shifts in automatic negative thinking

Theory Generation

Theory 1 – Therapy-Process Factors
The acquisition of compensatory skills taught in therapy causally contributed to the changes in the client. (CS Model developed by Hollon, Evans, & DeRubeis, 1988; 1990)

Theory 2 – Client Factors
Expectancy artefacts causally contributed to the changes in the client.

Theory Development

Analogy: Instructional design theory
main components: problem-solving and guided discovery

Analogy: Cognitive biases and heuristics
Cognitive dissonance and confirmation bias
Social desirability & demand characteristics

Theory Appraisal

The theory has sufficient **breadth** to account for different classes of facts: therapist's interventions, relational factors, responsiveness of both client and therapist. The theory is a **simple** one as it does not require *ad hoc* assumptions to explain it. It is **analogous** to guided-discovery learning, but this does not sufficiently elaborate the "directiveness" of the therapist who leads the process to a pre-determined goal. It will be **deepened** if the therapist factors can be accounted for to explain why the theory works. The theory is **approximately true.**

It is plausible that cognitive dissonance and social desirability may be operating, but there is insufficient **breadth** for this theory can fully account for the phenomena. It only accounts for a single class of facts, thus requiring auxillary hypothesis and a reduction in **simplicity**. It is analogous to cognitive biases which are recognised in social interactions, which helps to **deepen** the theory by explaining why it works. This theory is **approximately true**, but that there is a deficit in the available evidence which prevents the theory from providing the breadth and depth to explain the phenomena.

Inference to the Best Explanation
The theory that the acquisition of compensatory skills caused the client to change is found to be the best explanation.