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Qualitative Methods for Studying Psychotherapy Change Processes
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Introduction
Originally, research on psychotherapy, counselling and related mental health interventions fell into two divisions, outcome research, which dealt with the extent to which clients change over the course of treatment, and process research, which investigated what occurs within treatment sessions. Change process research (CPR) was proposed by Greenberg (1986) to bridge these two fields, pointing to the need to study the processes that bring about changes, including the temporal course of those changes. Thus change process research concerns itself with explaining both how and why change occurs (Elliott, 2010).

It is my hope in this chapter to encourage the use of a broader range of options for qualitative data collection and analysis in change process research. To do this, I first briefly summarize two useful tools for collecting useful and interesting qualitative data about change processes. After this, I turn briefly to an example of qualitative data analysis methods appropriate to CPR. However, prior to doing this I will briefly outline some of the epistemological issues associated with CPR.

Epistemological issues and the history of change process research.
In spite of having a great deal of psychological theory about what brings change about, we still know relatively little about how change actually occurs in most mental health interventions, making qualitative, discovery-oriented methods especially appropriate.

Traditionally the mode of understanding assumed to operate in CPR has been realist and causal in nature, as revealed by the use of implicit physicalist metaphors such as “change mechanisms” (change process as machine) and “effective ingredients” (a pharmaceutical metaphor).

Accordingly, most change process research to date has been quantitative and hypothesis-testing, reflecting not only the influence of positivism but also researchers’ desires to test strong causal theories, such as Rogers’ (1957) mechanistic formulation of the necessary and sufficient conditions for change in therapy. Most commonly, researchers have used measures of process such as rating of therapeutic alliance to predict outcome (e.g., questionnaires measuring client distress). For most researchers, causal inference and quantitative assessment have been perceived as tightly linked elements of the standard modus operandi.

In fact, although the process-outcome genre of quantitative change process research has produced large numbers of findings, these have tended toward either restating the obvious (general quality of helping relationship is important) or have resulted in contradictory results (cf. Shapiro et al, 1994). Furthermore, Stiles and Shapiro (1989) has strongly criticized the
quantitative process-outcome paradigm on various grounds, mostly having to do with the simplistic assumptions it makes about the nature of the therapy process (e.g., if something is good, then more of it must always be better. i.e., the dose-response metaphor). Even at their best, quantitative process-outcome research designs are blunt instruments for understanding anything as complex and nuanced as the process of change in psychotherapy or other mental health interventions. Thus, the vast accumulation of general or contradictory research findings conceals our fundamental ignorance about how individual clients actually grow and change in the course of their therapies. In the absence of careful prior qualitative research, tightly focused process-outcome research is analogous to poking a long stick into a deep hole: If you do it enough times, eventually you will hit something, but you may still not be sure what it is!

In fact, since the mid-1990’s qualitative CPR research studies now appear regularly (e.g., recent special section of *Psychotherapy Research*, see Elliott, 2008). However, Polkinghorne’s (1994) lament still holds: The range of qualitative research strategies applied to date has been fairly limited to qualitative interview studies analysed with variations of Grounded Theory or Interpretative Phenomenological Analysis. Thus, the potential of qualitative approaches drawing on hermeneutic, constructivist or social constructionist epistemologies remains to be fully tapped. Specifically, narrative, conversation and discourse analysis approaches to change process research on mental health treatments have so far been under-utilized.

**Research Questions in Change process research**

By definition, qualitative CPR is organized around a central research question: How does change occur in some particular mental health intervention? This then opens up into several subsidiary and partially overlapping research questions, each of which points to a different genre or approach to CPR (whose strengths and limitations have recently been reviewed by Elliott, 2010):

- What factors (i.e., client, therapist or relational processes) bring about client change? (=**helpful factors** research)
- Which client processes are facilitated by which therapist responses under which conditions? (=**discourse analytic or micro-analytic sequential process** research)
- What happens in important episodes of therapeutic change (=**significant events** research)

Each of these genres of CPR has an emerging body of research around it. Cutting across each of these research genres are sets of still more detailed research questions that follow from a broad orienting framework of the change process in mental health interventions (Elliott, 1991). These include the role of the different parties (or persons) to the therapeutic process:

- What **therapist** processes facilitate client change?
- What **client** processes (types of action, content, style/manner or skillfulness) facilitate (or constitute) client change?
- What **relational** processes facilitate client change?

Furthermore, the framework also identifies research questions corresponding to the main *phases* surrounding the change process:

- What **contexts** (immediate or more distant) precede change processes?
- What are the **effects** (immediate or delayed) of a particular change process?
Any of these research questions can be asked of the different perspectives on the therapeutic process: How do client, therapist, or research/third party observers perceive these processes? Finally, we might want to know what a particular change process looks like at different levels of resolution within the intervention we are studying: speaking turn, episode (i.e., a coherent sequence of speaking turns within a session), session, or relationship as whole. Clearly, there is great scope for CPR!

**Collecting CPR Data**

The possibilities for collecting qualitative data on change processes are numerous, including post-treatment interviews (e.g., the Change Interview, Elliott, Slatick & Urman, 2001), post-session open-ended questionnaires (e.g., the Helpful Aspects of Therapy Form, Llewelyn et al., 1988), therapist process notes and reports (Todd, Jacobus & Boland, 1992), various forms of open-ended and semi-structured tape-assisted recall interviews (Elliott, 1986; Rennie, 1990), and audio or video recordings of psychotherapy or counselling sessions themselves, which can be transcribed. Similar to other forms of qualitative research, the number of participants depends on several factors, but principally on the purpose of the research, the complexity of the process being studied, and the richness of the data collected. First, research attempting to describe a process generally (as opposed to providing an in-depth understanding of one or more single instances) will require more participants of a more diverse character. Second, more complex or diverse phenomena will require more participants and longer interviews to effectively represent them. Third, “thinner” data protocols, such as post-therapy self-report questionnaires, and rarer phenomena, such as hindering processes, will require substantially more informants. Generally, however, the number of informants involved, and the amount of data collected from each is a function of how much data it takes before one stops finding new categories (types or aspects) for the phenomenon. This point of diminishing returns is generally referred to as saturation (Strauss & Corbin, 1998), although it is important to recognize that this is always a matter of degree.

The Research Alliance in CPR is particularly worthy of mention, as in any form of applied social science research, relevant codes of ethical practice are followed in qualitative CPR, based on the core ethical values of beneficence, nonmaleficence, autonomy, fidelity, and justice (Kitchener, 1984). More specifically, following Mearns and McLeod (1984), the principles of Person-Centered Therapy apply equally to in qualitative CPR, especially those that involve direct interaction with participants (as opposed to discourse or text-based methods):

1. **Empathy.** The researcher focuses on understanding, from the inside, the research participant’s lived experiencing.
2. **Unconditional Positive Regard.** The researcher accepts, does not judge, and even prizes the research participant’s experiencing.
3. **Genuineness.** The researcher tries to be an authentic and equal partner with the research participant, treating them as a co-researcher and allowing them to see the researcher as a fellow human being.
4. **Flexibility.** The researcher creatively and flexibly adapts research methods to the research topic and questions at hand.

These principles form the basis of the Research Alliance in CPR, comparable in some ways to the therapeutic alliance in mental health interventions, although there are some important differences (for further discussion of the ethical issues associated with the research relationship, see chapter 3). At the same time, CPR offers a natural strategy for systematically involving
mental health service users in the evaluation of their care, providing them with a voice that both allows them to speak in their own words and that can be validated by the use of systematic, scientifically rigorous procedures. In fact, I would argue that the Helpful Aspects of Therapy Form and the Change Interview, both described below, should be used more often as vehicles for enabling mental health service users to have their voice heard. This could be done by offering them to service user organizations and advocacy groups.

**Examples of Qualitative CPR Data Collection Methods**

I begin by describing and giving examples of two qualitative data collection methods which lend themselves to therapy change process research, the Helpful Aspects of Therapy (HAT) form, a post-session self-report measure, and the Change Interview, an open-ended interview.

**Helpful Aspects of Therapy (HAT) Form**

The significant events approach to CPR (Rice & Greenberg, 1984; Stiles, Shapiro & Elliott, 1986) arose as an approach to understanding the immediate effects (micro-outcomes) of important moments in psychotherapy or counseling. As such, it contrasts with research that addresses the overall change process in therapy, as assessed by the Change Interview (see next section). Features of significant events research include: (a) focus on clinically significant change events; (b) simplification by limiting investigation to relatively homogeneous classes of events (e.g. insight events); and (c) description of the therapeutic sequences by which clients accomplish specific therapeutic tasks within sessions (e.g., exploring and symbolizing trauma-related fears). Although therapist versions of the HAT exist, client-identified significant events are a crucial component of the Events Paradigm, exemplified by the two qualitative data collection methods discussed here.

The Helpful Aspects of Therapy (HAT) Form (Llewelyn et al, 1988) is a mostly qualitative post-session self-report questionnaire that uses open-ended questions to help clients write down their experiences of helpful and hindering therapy events. It is the most frequently employed method for identifying and collecting significant events for further analysis. The HAT is a simple and efficient means of soliciting information from clients about their perceptions of key change processes in therapy. Solicited accounts methods such as the HAT form are more feasible, less intrusive, and create less reactivity than more exhaustive methods such as the tape-assisted recall (Elliott, 1986). The HAT’s open-ended format generates qualitative data of sufficient detail and focus that it lends itself to various uses, including identification of significant events, descriptive and interpretive forms of qualitative data analysis and even quantitative content analysis (e.g., Castonguay et al., in press).

The HAT is typically completed by clients either immediately following therapy sessions or within a day of the session, in order to be able to recall it clearly. Most clients complete it without much difficulty, although it does require more time (roughly 5 to 10 minutes) and effort than quantitative rating scales. It is common for it to be administered following every session, providing a naturalistic account of client perceptions of significant events over the course of therapy. Under these conditions, filling out the HAT becomes a routine part of the client’s overall therapy experience, and appears to help clients process their therapy more effectively. The most common problems appear to be responses that are very brief, vague or global. Another issue that client and therapist descriptions of significant events often do not agree (e.g., Caskey, Barker & Elliott, 1984)
The descriptive data generated by the HAT appear to fall into several general types of information, including within-session processes; immediate client reactions; and less commonly, contextual information. For example, after her fifth session, a client whom I will call Rachel wrote the following on her HAT Form:

Helpful event: I placed the center of my fears in my gut [=process]. They were more abstract and therefore more uncontrollable before [=context].
Why it was helpful: It gave me a definite “thing” to overcome [=reaction] rather than external, all encompassing overwhelming fear [=context].
Helpfulness rating: 8.5 (between greatly and extremely helpful)
Where in session: (blank)
Length of event: (blank)
Other Helpful events: no
Hindering events: no

The example given illustrates the usefulness of HAT event descriptions. First, the description was specific enough for a researcher to use it to identify the significant event on the session recording. Second, it is detailed enough to enable readers to understand the kind of therapeutic event referred to even without access to the session recording. Third, it also provides information about the client’s internal experience that might not have been so easy to infer from the recording. Fourth, it offers a mini-narrative of a change process that reveals the sequence of client change. Finally, scanning such HAT protocols after therapy is over can enable a therapist very quickly to gain an overview of their client’s view of the highpoints of their therapy.

**The Change Interview**

As can be seen in Table 1, the Change Interview (Elliott, Slatick & Urman, 2001) assesses several kinds of information; its central purpose, however, is to obtain clients’ understandings of what has changed and how those changes have come about, including factors that have interfered with change. The Change Interview firstly provides a qualitative evaluation of outcome, to complement the widespread predominance of quantitative outcome assessment (McLeod, 2000), offering access to changes that may be missed by traditional measures. The interview offers a chance for clients to explain these changes in their own words and in so doing allows them an opportunity to reflect on and find words for these changes. The process therefore not only provides researchers with valuable information, but also helps clients to assimilate therapeutic work.

The Change Interview attempts to work against the researcher’s likely expectations that psychotherapy or counseling will be helpful and that client change is primarily due to formal mental health intervention (cf. Elliott, 2002). Thus, it probes in multiple ways for negative changes or hindering or missing factors, as well as positive changes or helpful factors. Similarly, the interview deliberately seeks information about non-therapy factors in client change. Beyond adding credibility, these kinds of information are valuable for improving therapy and locating it in a broader context (cf. Dreier, 2008). These aspects of the Change Interview reflect its use as an essential component of Hermeneutic Single Case Efficacy Design (HSCED), a complex, mixed method approach to evaluating causality in single treatment cases (Elliott, 2002).

The Change Interview is partially structured by the interview guide in Table 1, but researchers are encouraged to adopt an attitude of curiosity, using both open-ended exploratory questions and empathic understanding responses to help the client elaborate their experiences. In
general, the client is asked to provide as much detail as possible. The Change Interview is best administered at the end of therapy and at regular intervals throughout treatment (e.g., every 10 sessions). Although it is often a demanding experience for clients, it provides an invaluable opportunity to understand change from the client’s point of view.

The following example is an excerpt from a Change Interview administered after session 8. The client, whom we referred to as Rachel in the previous section, was an 18-year-old woman with crime-related PTSD, seen in Emotion-focused therapy. The focus of therapy was her pervasive and extremely debilitating fear. Here are some excerpts from her interview, in which she refers to the same significant event identified by HAT form after session 5:

Rachel: … I could never comprehend that you could stop fear because, I couldn't control it. When I was afraid, I was afraid, and it's like really helped me, it's like he's almost making me identify it [the fear] as a solid object inside of me, something that can be rid. And it helps to know that in the future, maybe it is something I could overcome. I never thought that my fear would be something I could overcome ...

[Another change is] it makes me think more rational thoughts. ... And even though I could tell myself, "That's not reality, there's no one in this house,"... it's like I could never believe the rational part of me. And it's almost like doing all this has almost made me rationalize, like "No, there's no one here," and believe it a little better, and calm down a little more. So yeah, I noticed differences.

Rachel’s responses add to our understanding of her experience of the change process. She describes specific examples of two changes resulting from the therapy process, noted in italics above. In addition, this example provides feedback about a helpful aspect of therapy.

**Qualitative Data Analysis Options**

Medium-sized sets of data generated from multiple cases using the HAT Form, the Change Interview, and other CPR data collection methods such as tape-assisted recall can be analyzed using any of the standard systematic qualitative data analysis methods common today, such as Grounded Theory Analysis (especially the Rennie Phillips & Quartaro, 1988, adaptation; see also chapter 10) or Interpretative Phenomenological Analysis (Smith, Flowers & Larkin, 2009; see also chapter 8). Similarly, smaller data sets of meaning-rich data such as HAT descriptions or transcripts of significant events can be usefully analyzed with Discourse Analysis (e.g., Madill & Barkham, 1997) or Conversation Analysis (e.g., Viklund, Holmqvist & Nelson, 2010). Many or most of these will be familiar to readers from other chapters in this book and elsewhere. Therefore, I will focus on a less-known form of analysis appropriate for transcripts of significant events: Task Analysis (Rice & Greenberg, 1984; Greenberg, 2007).

**Task Analysis of Significant Events**

Task analysis is a rational-empirical approach developed by cognitive psychologists for studying how people carry out problem-solving tasks (Ericsson & Simon, 1984). Rice and Greenberg (1984; Greenberg, 2007) adapted the method for studying how clients successfully resolve emotional processing difficulties in therapy. As originally proposed by Rice and Greenberg (1984), task analysis emphasized the later stage of quantitative analysis. Here, in contrast, I emphasize the initial qualitative analysis, which involves careful but open clinical qualitative analysis of interaction sequences in significant events.
Therapeutic Task Analysis assumes that significant events have the following general formal structure, comparable to axial coding domains in Grounded Theory:

- A **marker**, signaling the client’s experiential state of readiness to work on a therapeutic task, that is, a particular unresolved problem or issue (e.g., an internal conflict between contradictory wishes).
- A **client performance model** of the steps through which the client moves toward resolution (e.g., enactment of internal dialogue between conflicting wishes).
- **Therapist responses** that facilitate client performance (e.g., Gestalt two chair work)
- A **task resolution**, in the form of meaningful therapeutic change (e.g., integration of conflicting wishes).

Returning again to the client Rachel’s significant event from session 5, Elliott et al (2001) carried out a qualitative Task Analysis by first articulating a rudimentary rational model of the marker, client steps, end state and therapist facilitating actions for empathic exploration, based on an earlier formulation of the “empathic exploration” task (which space precludes presenting). The second step in a task analysis is to collect examples of successful resolutions. For this example, Elliott et al (2001) used the transcript of significant event in which Rachel identified her “fear-thing” as the source of her PTSD. The third step was to develop an intensive qualitative description of the sequence from marker to resolution. In this case, the researchers put their preliminary rational model “in brackets” and attempted to develop an individualized understanding of the process involved in this significant event. Thus, they conducted a qualitative, turn-by-turn analysis of the sequence of client and therapist responses in the event. To do this, each of the three authors separately characterized the series of relevant client and therapist responses, then met to develop a consensus version of the sequence.

Finally, the results of the qualitative sequence analysis were used to modify the initial rational model, yielding a much more detailed revised task model, as presented in Table 2 including revised more precise client marker (referred to as presentation of undifferentiated client experience) and performance model, featuring three phases (Task initiation, Exploration work, and Closure work). In addition, the researchers examined the therapist’s responses in order to generate a set of specific therapist treatment principles, which became the revised therapist responses part of the model. Finally, they revised the description of client resolution, in the form of a clarification of a key client emotion scheme.

The revised task model presented here needs further study with additional significant events, the usual procedure in Task Analysis, cycling between evolving model and concrete examples, until the model appeared reasonably stable.

**Discussion: Issues in Qualitative CPR**

*Quality Criteria for Qualitative CPR.*

What makes for good qualitative change process research? Of course, this depends on the standards of good practice specific to the particular qualitative research genre and the data collection and analysis procedures employed. For the most part, these standards are the same as those proposed by Elliott, Fischer & Rennie (1999; e.g., ground themes/categories in examples; promote experiential validity; see also Chapter 16)

Ultimately, qualitative CPR must be judged against the ambitions of CPR in general: helping us to understand how particular kinds of change occur in psychotherapy and other mental health interventions. Thus, the results of CPR studies must go beyond the broad scientific goals.
of definition and description in order to provide guiding explanations and practical applications. In other words, does this study give us a better understanding of how it works?; does it help us do a better job with our clients? For example, the Task Analysis of Rachel’s empathic exploration of her trauma-related fear was the basis for a revised model of that process in Elliott, Watson, Goldman & Greenberg’s (2003) emotion-focused therapy therapy manual.

**CPR and Evidence-based Practice.**

I have recently argued that randomized clinical trials do not constitute a sufficient basis for evidence-based practice, because they focus narrowly on establishing the *existence* of a causal relationship between a mental health intervention and client change, but do not specify the *nature* of that relationship (Elliott, 2010). Mental health interventions are complex conglomerations of intertwined relational and technical elements. Knowing that a type of therapy is associated causally with positive client outcome does not tell us what specifically in that therapy clients use to bring about change in themselves. For this, we need the various forms of CPR: quantitative process-outcome studies, qualitative helpful factors research, micro-analytic discourse analysis of therapeutic sequences, and comprehensive analyses of significant change events (e.g., Task analysis). In fact, truly evidence-based practice should be based on multiple lines of CPR evidence.

**Whither qualitative CPR?**

In spite of their inherent potential to support clinic practice, CPR methods are (a) underutilized, (b) too often restricted to one particular research design, and (c) need to be used in concert (Elliott, 2010). It appears to me that the range of qualitative CPR methods currently being employed in the published literature is gradually broadening beyond Grounded Theory analysis etc of qualitative interview data to include, for example, Conversation Analysis (e.g., Viklund et al., 2010), Comprehensive Process Analysis (Elliott et al., 1994), and Hermeneutic Single Case Efficacy Design (Elliott, 2002), among others. Generic CPR research such as Rennie’s (1990) classic study of client in-session experience has been done, and we are now seeing the emergence of research on the experiences of particular kinds of clients or particular kinds of therapy (Elliott, 2008). A related current development is the emergence of qualitative meta-synthesis of CPR research, as exemplified by Timulak’s (2007) systematic analysis of significant event studies. These methods will enable us to construct generalisable knowledge from disparate studies, even case studies.

What is the future likely to bring? In my view, mainly more and better of the same. However, beyond that, I see continued erosion of the divide between qualitative and quantitative CPR: Qualitative themes can be converted into quantitative content analysis categories or rating scales. In addition, quantitative data can be used as pointers toward interesting qualitative phenomena and looked at using a range of qualitative approaches, including both phenomenological-descriptive and social constructionist. CPR researchers will need to learn to be comfortable commuting between qualitative and quantitative methods, even in the same study. Understanding how our clients use their therapy to change themselves requires us to use all available tools!

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**Recommended further reading**

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References


Table 1  
*Change Interview Outline (2008 Version, Abbreviated)*

1. **General experience of therapy.** What has therapy been like for you (so far)?
2. **Changes.** What changes, if any, have you noticed in yourself since therapy started?
3. **Change ratings.** Expectedness, *likelihood without therapy*, and *importance* of each change (5 point rating scales).
4. **Attributions.** In general, what do you *attribute* these various changes to?
5. **Resources:** What *personal strengths* or aspects of your current *life situation* have helped you make use of therapy to deal with your problems?
6. **Limitations:** What things about *you* or your *life situation* have made it harder for you to use therapy to deal with your problems?
7. **Helpful aspects.** What have been the most *helpful* things about your therapy so far?
8. **Problematic aspects.** What kinds of things about the therapy have been *hindering*, unhelpful, negative or disappointing for you? Was there anything that was *difficult* or *missing* from your treatment?
9. **Research aspects.** What has been like for you to be involved in this research?

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Table 2
Revised Task Analytic Model of Empathic Exploration for Undifferentiated Experiences

A. Marker: Exploration object/issue (e.g., "It" marker), which is:
   (1) Undifferentiated (e.g., abstract, unclear).
   (2) Disowned or distanced (e.g., "it," "thing").
   (3) Indicated by client to have personal significance (e.g., relevance to presenting problem, identity).

B. Client Performance Process:
   (1) Task initiation. C & T identify a particular C experience as a mental "object."
   (2) Exploration work includes at least some of the following sets of meanings (in varying degrees of completeness):
      (a) Descriptive nature of experience (emotions, bodily sensations, qualities)
      (b) Relations to other experiences (sources/origins, situational context, effects/functions)
      (c) Higher-order meanings (significance, identity)
      (d) (Toward end of exploration:) Client action-related meanings (wishes, needs, action tendencies)
   (3) Closure work: C, T review importance and main points of object definition.

C. Therapist Operations: Explore multiple aspects of exploration object/issue (not necessarily in sequence)
   • attune to C internal frame of reference.
   • communicate understanding of C experience.
   • direct C attention to range of aspects of experience (e.g., emotions, bodily experiences, sources, action tendencies).
   • heighten C experience with repetition and imagery.
   • help C describe emotional experience (e.g., with metaphors, empathic conjectures).

D. End State (resolution): C provides some indication that the experience has shifted.
   (1) C feels experience is better defined or specified.
   (2) C develops increased reflective distance, disembedding from issue/object.
   (3) May include the following as well:
      • issue/object may be perceived as less threatening or disconcerting for C; C has sense of potential mastery, empowerment.
      • experience may be owned or internalized by client.
      • C may indicate readiness to move on, make changes.
      • C may report feeling better, clearer.

Abbreviated from Elliott et al., 2001