Case-Based Research in Family Therapy

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Traditionally, case-based research has not been considered as scientific by many in the field due to the lack of controlled conditions and objectivity. However, case-study material may be more effective than once believed in educating family therapists. Future implications of the role of case studies in family therapy research are considered, including the manner in which case studies might be designed to be more rigorous so that they can serve as the basis for drawing causal inferences in clinical cases, and at the same time, provide family therapists with useful information to improve their skills. A discussion section highlights the future direction of case-based research in the family therapy literature and how it may be used as an effective learning tool.

Key words: case-based research, family therapy research, case-study material

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In the very early days of family therapy, no distinction was made between therapy and research. When the pioneers of family therapy observed the interactional patterns associated with family dysfunction, they considered this to be essential and sufficient research (Broderick & Schrader, 1991; Sprenkle & Piercy, 2005). However, as time has gone on, research in psychotherapy has become more empirically based, involving elaborate controlled outcome studies. Such studies have been recognised as some of the most respected research in the field of social science (Sprenkle, 2002). Empirically based, or 'evidence-based', research has now become the gold standard in the mental health field throughout the world (Edwards, Dattilio, & Bromley, 2004; Dattilio, 2006) and is likely to continue as the demand for evidence-based practice increases.

Empirically based studies have dominated the family therapy landscape as efforts are made to create treatment interventions that are both effective and maintain scientific support. Certainly, basic effectiveness is important to establish, given the wide variety of therapeutical approaches available. This requirement is a long way from the intuitive appeal that once was at the heart of family therapy as portrayed by highly charismatic leaders, such as Salvador Minuchin, Jay Haley, Virginia Satir, and a host of others.

Despite the demonstrated effectiveness and appeal of certain treatments among clinicians and researchers, the very nature of the research process by which they are empirically validated creates a number of dilemmas for the practicing family therapist. In order to be truly challenged, they need to be operationalised and properly controlled, which can often be a very arduous task, especially when it involves entire families and/or complex family dynamics.

There has long been a discrepancy between academic research and clinical applications that has been cited repeatedly in the professional literature (Chambless & Holland, 1998; Silverman, 2001). Barlow (1981) even published a special section on this topic in the *Journal of Consulting and Clinical Psychology* in which he stated: 'Many clinicians are not even influenced by research findings' (p. 147). The section included a paper by Strupp (1981) entitled 'Clinical Research, Practice, and the Crisis of Confidence', which echoed the sentiments expressed elsewhere. Several of the contributors (Hayes, 1981; Kazdin, 1981) championed the case study as playing an equal role to empirical research in addressing many of the problems found among clinical cases.

In response, Barlow (1981) argued that the gap between practitioner and researcher could be bridged to the benefit of both by encouraging clinicians to conduct more case-based research. The idea was that some of the more recent treatment models would be

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tested in individual cases, and evaluated by intense observation of each case. Special attention could be given to treatment failures, as well as to innovative steps that might be taken to overcome obstacles to treatment. Similar case studies have appeared in the literature that focuses on issue of treatment failure (Wells & Dattilio, 1992; Dattilio, 2003). Such an arrangement would create 'a meaningful role for clinicians in the research process, and provide data that have been missing to date from traditional clinical research' (p. 153).

The problems were revisited one year later, when the same journal published a special section on 'Single Case Research in Psychotherapy'. The editor, E. E. Jones (1993; p. 371), observed that 'much of the psychotherapy research enterprise has remained peripheral to clinical practice and to the major theoretical and intellectual currents in the field'. Jones argued that a greater respect for, and appreciation of, the role of intensive studies involving single-case designs would greatly serve to remedy the problem. The same issue has been addressed in more recent articles by Edwards, Dattilio and Bromley (2004), and Dattilio (2006). The question of balancing academic and clinical consideration is clearly still relevant in the field of family therapy.

Potential Drawbacks of Case Study Research

While the case study method has long been recognised in the social sciences (Mitchell, 1983; Eckstein, 1975), it has continued to come under scrutiny by many researchers in the field. Many of the criticisms of case study research are outlined by Hamel, Dufour and Fortrin (1993). One of the major criticisms of the case study is that it lacks: (1) representativeness, especially when the case is used as a point of observation for the social phenomenon or issue constituting the object of the study; and (2) rigor in the collection, construction, and analysis of the empirical materials that gave rise to the study. These inadequacies are linked to the bias introduced by the subjectivity of both researcher and informant, who provide an understanding of the case under investigation (p. 23). Certainly, loss of objectivity is a serious flaw. It is for this reason that case studies are regarded by many in the field as empirical only if they employ a group comparison using multivariate statistics. This raises an important question as to whether or not case-based methods deal with empirical facts at all. This is particularly interesting since the meaning of the word 'empirical' is 'based on experience' (Davison, 2006).

As a counter-argument, case-based methods in family therapy may embrace empirical facts in a different way. One that is more direct than it is in applications of quantitative multivariate methods in which individual experience is often compromised by the use of scales and operational definitions. In one respect, case-based research might even avoid the negative effects of experimental manipulation found in traditional research (Bilsbury & Richmond, 2002). Clinical case studies can also be considered evidence based because they are founded on empirical observations, and often confront observers with much more immediacy than do multivariate studies in which the context and details of everyday clinical phenomena are easily obscured or lost.

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There is also a misunderstanding about empirically validated research that unless a family therapy intervention has been tested in a randomised controlled trial (RCT), it has no empirical basis at all. Thus, there is an assumption that only an RCT can provide evidence of treatment effectiveness. Although there is little doubt that the RCT does offer strong evidence that is difficult to refute, this should not imply that there are not other types of evidence available or that they are of less value. In fact, most training programs in family therapy throughout the world use case conferences as one of the primary modes of teaching and supervision. Most trainees in family therapy would likely prefer the direct exposure of clinical case conference or in vivo observation of live cases over the review of empirical literature.

As with any research method, an RCT is also vulnerable to error through mistakes, carelessness, or dubious practices during its design, administration, or interpretation. Related to this is the implication that a treatment that has outperformed placebos in a RCT is, by definition, 'empirically validated', with the

further implication that it is the only treatment that can legitimately be used (Dattilio, 2006).

Case-based studies in family therapy have an important role in the development of a knowledge base (Dattilio, 2004; 2005a; 2005b). Barlow (1981) and Jones (1993) assert that such an understanding can encourage greater flexibility in the scientific community, contribute to reducing the oversimplifications and distortions noted earlier, and bridge the gap between scientist and practitioner. This is particularly true since case-based methodologies intersect directly with clinical skills and knowledge of family therapists and provide a concrete and vivid demonstration of principles that might otherwise remain abstract in the minds of clinicians and trainees.

An Alternative Use of Case-Based Methods and Empirical Research

Edwards, Dattilio and Bromley (2004) conducted a search on PsychInfo of psychiatric and psychological publications worldwide during the years 1978 to 2003, and identified a total of 6091 case studies published during this 25-year period in both individual and family therapy. A Medline search for the same period yielded 15,433 studies. This equates to fewer than 1000 case studies per year, which pales in comparison with the tens of thousands of review articles, meta-analyses, and studies using multivariate statistics. This raises an interesting question: 'Despite the statistical imbalance of articles, can family therapists derive more practical knowledge from case studies than from empirical outcome studies?'

Case studies have an immediate appeal to family therapists, especially when they present the intervention in the form of an experience, or a narrative format that allows them to see how a treatment actually unfolds. Case narratives and vignettes engage readers in the material so that they feel more connected with the content. They also tend to be much less monotonous and dry than RCTs. As a result, trainees and clinicians may quickly integrate the information into their own explicit and implicit frameworks of clinical knowledge. By contrast, research using complex experimental and statistical methodology typically yields results in the form of descriptive and inferential statistics, which may be difficult to assimilate into existing structures of clinically applicable knowledge.

In short, most clinicians may find such research to be of little use due to its lack of applicability to clinical matters. Unfortunately, it is common to treat the intrinsic appeal of case studies as an indication that although individual cases may be valuable in education and training, they are of limited scientific significance. One example of this is the ways in which observations from case studies in family therapy that do not conform to hypotheses supported by multivariate studies are routinely dismissed as 'anecdotal' by the scientific community. The fact is that case studies not only can be used at the exploratory stage of the research process, they can also be employed for hypothesis testing and theory development in some of the more difficult areas of study in family therapy. RCTs fail to address some of the micro issues so commonly found during the course of family therapy. Such issues form the basis of clinical dilemmas in treatment. Case study data also reports the actual process of therapy, which is so important when consumers are attempting to understand what actually led to facilitating change in the therapeutic process.

Case-based research fits well with family therapy because it is a complementary system that is as intrinsic a part of science as is the logic of multivariate methodology. The merit of using case studies in training is in their potential scientific value, which follows from the fact that, in practice, they yield valid knowledge of a different order quality from that found in RCT's. Case-based methodology has clearly played a central role in the social science field with regard to the development of its knowledge base, and it is not an exaggeration to say that it is the 'bedrock of scientific investigation' (35; p. ix). To dismiss case-based research as 'a somewhat useful secondary tool for the serious work of scientific hypothesis testing' (Campbell, 1994, p. 697) is a grave mistake.

Hilliard (1993) identifies two features that anchor the logic of building knowledge from case-based research. The first is that the focus is on intrasubject rather than intersubject variations. From the reporter's firsthand perspective this has an advantage, but at the same time it has a disadvantage. Therapy is an interpersonal process between the therapist and the client (family), which makes the reporter of the case an integral part of the field observation. As a result, some objectivity is, by definition, lost.

Case-based research is also largely longitudinal in nature, and allows for the examination of the detailed unfolding of events across time (Jones, 1993; Mahrer, 1988). Psychotherapy outcomes, as investigated in RCTs, occur as a result of a series of smaller changes in individual cases, and intensive case analysis allows us 'to discover how the therapist's interventions and patient's responses (i.e., the therapeutic process) contribute to or explain these smaller changes' (30, p. 374). These

processes cannot be examined by means of cross-sectional group-comparison studies.

The second aspect identified by Hilliard (1993) is that generalisations are not based on aggregation across cases (as occurs when statistics such as means or correlation coefficients are calculated from a sample), but on replication on a case-by-case basis (Miller, 1998). After documenting a process in one case, the next step is to look for similar cases in which the same process can be demonstrated. At the same time, other cases are sought that differ in important respects, and within which the process may not take place in the same way. Whereas in group-comparison designs it is easy to miss the significance of intersubject variability because of the focus on aggregation, in case-based research, theory evolves to account for the entire range of phenomena observed in all cases, and an active search is made for cases that do not fit existing frameworks (Jones, Ghannam, Nigg, & Dyer, 1993). This is just one of the procedures employed in case-based research to combat factors that might lead to the drawing of erroneous conclusions. Stiles (2003) points out that although 'isolated descriptive statements drawn from a case study can't be confidently generalized' when a large number of observations from the case correspond to what is already present in the theory, the evidence gained is as persuasive as that obtained in studies using statistical hypothesis testing.

Writing a case report in family therapy is ultimately an exercise in describing a case scenario and the obstacles and challenges posed by the particular case, as well as in exploring successful or, in some cases, unsuccessful, treatment. Family therapy case reports are designed for family therapists, which undoubtedly affects the manner in which writers select or organise their case material. Certainly, a balance must be obtained between content and rhetoric. All available information, as well as the hypotheses and the inferences we make about the family being studied, are discussed. The content structure takes into account the type of information the immediate audience expects to find in such a case report. During the content phase of the study, we attempt to work out how best to present these ideas so as to achieve various purposes or effects. For example, the writer may intend to provide a better understanding of the family described, as well as what needs to be addressed and how to address it (Dattilio & Bahadur, 2005; Dattilio, 2005a). The report may contain figures of speech, hints and asides, humor, and references to common knowledge. Other stylistic considerations may include the level of the vocabulary and its degree of formality, the sentence structure, and the types of example.

All of these variables contribute to the effect of a report on its recipients. Even statements pointing to professionally based concepts, findings, and procedures are considered rhetorical features of a report, since they are, in effect, forms of persuasion rooted in currently accepted ideas in a particular area of practice, such as psychotherapy, education, industry, the media, or the military. Thus, several reports of the same case, crafted by family therapists of varying modalities, are likely to employ different communication strategies and/or to carry very different messages. This aspect is discussed in several texts that consider comparative approaches involving a single case (Dattilio & Bevilacqua, 2000), or numerous cases with an interchange of comments (Dattilio, 1998).

Technological Advances in Case-Based Research Strategies

In some respects, case reports and case comparisons are formulated according to implicit assumptions and procedures. Although these studies are likely to correspond to those of a scientifically acceptable case-study method, they may vary tremendously, depending on how the report is written. The development of case-study standards would ensure that more reports would be of scientific value in the generation and testing of theory. One aspect that needs to be addressed is the actual structure of reports. A typical scientific report in social science contains a series of sections, including an introduction, background information, methods used, results, discussion, conclusions, and references. Each section has its own discourse or procedural rules that determine the type of material that it contains.

The following components are usually encompassed within the report: (1) observations, measurements, and recordings of a client's presenting behaviour; (2) inferences (about a patient's psychological, biological, and social characteristics) drawn from these observations and rooted in clinical experience, assumptions, and theories; (3) treatment proposals and expectations based on the same; (4) observations about the treatment(s) actually applied; (5) observations, measurements, and recordings of changes in the family members' behavior under treatment; (6) inferences drawn from these observations (including evaluations of the suitability and effectiveness of the treatment actually applied); and (7) an overall evaluation of the case report in response to peer reviews. For a case report to contribute to the scientific rigor of case-based research, the structure should be consistent. Currently, parameters are likely to differ among family therapy traditions because of

differences in the language used and the content norms, thus adding to the challenge of developing universal standards, as well as to the skepticism of critics (Dattilio, 2006).

In addition, employing external and blind raters to conduct studies of reliability would help reduce therapist bias and increase the credibility of case studies. By using judges' ratings of recordings of sessions 5, 13, and 24 during a brief psychotherapy study, Jones, Ghannam, and Dyer (1993) were able to operationalise the psychoanalytic construct of defensiveness. Sessions were segmented according to the topic under discussion, and it was found that when discussing one particularly emotionally distressing event, the patient showed a distinctive pattern that included more limited verbal elaboration, accompanied by nonverbal markers of emotional, nonverbal attempts to ward off threat, such as hiding his face and avoiding the therapist's gaze, as well as a lower heart rate (probably associated with the inhibition of emotional expression).

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Conclusions

The question remains whether family therapists may learn and benefit more from case-based research than other empirically based research. Undoubtedly, the knowledge obtained from case-based research is different from that which underlies methodologies using multivariate statistics. However, the two approaches can work together and should be used in a complementary fashion so that each can fill the void that the other leaves.

As stated earlier, the principles and practices of soundly implemented case-based methodology can serve to support the use of more case-based literature in family therapy. The concept that case-based research can be equally 'empirical' and 'rational' as group-comparison research is essential if case-based reporting is to gain acceptance in the family therapy field. It should also be clear that the empirical validation of a treatment can take place in a case-based evaluation, so that treatments cannot be dismissed as having no empirical basis if they have not yet been tested in an RCT. The adoption of case-study standards and the building of case databases would, of course, make this explicit. In the future, treatments that may be empirically validated will be complex to administer and will call for highly skilled therapists, as intensive studies of cases using creative methods can demonstrate the impact of subtle components of that therapist skill on a family's responses. If the case-based approach were given appropriate recognition and RCTs were routinely complemented by a portfolio of detailed standardised case studies, such subtleties would come to the fore. This broad resource would offer improved evidence of the complexities involved in implementing a given treatment. It would also reflect the range of responses to family therapy treatment and identify the key ingredients of both successful and problematic interventions.

It is important to maintain integrity by adhering to principles such as those discussed here, especially when faced with cases as complex as those typically encountered in the field of family therapy. It is hoped that students and practitioners may benefit more from case-based presentations, as well as from reviewing empirical outcome studies since both have something very valuable to offer.

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