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3. Scientific Method and the Embodied Approaches in Psychotherapy

The various embodied approaches – both in physical therapy and in psychological therapies and psychotherapy – have (until recently) put insufficient effort into developing a good scientific basis, though this does not necessarily mean that they are 'unscientific'. Psychotherapies can be informed by science, and can also inform science, but they are not *per se* a 'science' (Young, 2012a), so one needs to be very cautious in applying a 'scientific method' or a 'medical model' to such embodied approaches.

Fortunately, in the last decade or so, the 'body' of science with particular relevance to the embodied approaches has greatly increased, in particular through the development of the field of neuroscience, which has confirmed much of what, in the view of many practitioners, was 'known' already through direct experience (Carroll, 2012).

An appropriate scientific method of gathering evidence for and against these embodied approaches is debatable. Manualised Treatments and Randomised Controlled Trials (RCTs) are increasingly being discounted for most of the psychological therapies, despite the considerable amount of such evidence for approaches like Cognitive Behavioural Therapy, which has been constructed in a way that corresponds to these methods (Richards, 2007). There are also very well trusted scientific studies or reviews, such as those within the Cochrane Society. However, most of these are really oriented much more towards psychotherapeutic treatments that have been utilised for a medical disease or disorder.[i] Some suggest that a wider and more general scientific evidence base, may be appropriate for embodied psychotherapies.

The European Association for Psychotherapy (EAP) – an umbrella body for psychotherapy in Europe – has a process for examining the scientific validity of all the various psychotherapeutic methods or modalities.[ii] EABP has gone through this process for the whole of Body Psychotherapy[iii], and all the European Wide Organisations that represent different modalities within Body Psychotherapy have also individually gone through this quite intensive process of establishing their scientific validity.

It can also be argued that there are four main areas of research that are particularly relevant to the field of embodied psychotherapy. These areas are not mutually exclusive, and all serve slightly different purposes that might help to structure, integrate and define potential research projects that would go to make the evidence-base more solid. These areas of research are:

1. Studies about specific bodily-oriented psychotherapeutic processes and techniques involved in Body Psychotherapy (e.g. 'grounding' or 'mindfulness' or 'touch' or 'character armour', etc.);
2. Research into special and specific aspects of Body Psychotherapy: (e.g. the therapeutic relationship, or relational body psychotherapy (Young, 2012b, Totton, 2015); the embodied psychotherapist (Shaw, 2003); somatic resonance (McConnell, 2011); embodied transference & counter-transference (Soth, 2004); etc.);
3. Specific research studies into the various Body Psychotherapy modalities (e.g. outcome studies; case studies, field studies, comparative studies, etc.);

4. Research in relevant and related fields that have a connection to the theory and practice of Body Psychotherapy (e.g. attachment theory, developmental psychology, movement sciences, neuroscience, endocrinology, psychophysiology, etc.).[iv] - as well as studies in non-verbal communication, phenomenology of body experiences, body image research, body memory systems, ethnological research and anthropology, etc.

There have only been four or five really good articles that have considered all of these points, and there have also been an increasing number of individual and independent studies, and – while many of these are interesting and valid in themselves – together they only provide a fairly patchy 'evidence-base'. In addition, there are also – at least – half-a-dozen excellent research studies that have demonstrated both the *efficacy* ('Does it work?') and the *effectiveness* ('Does it benefit people?') of such embodied approaches, to say nothing of their *efficiency* ('How much benefit is derived from how much input?') - and these three measures are all significantly different from each other.[v]

The phenomenological approach – of course – considers the role of the lived body as the essential way of knowing and being, within the main themes that illustrate the nuances of embodied enquiry: research as an embodied practice and psychotherapy as an embodied process of identity (Todres, 2007). Here, a particular mention is needed for Robert Shaw's book and research work (2003, 2004) on *'The Embodied Psychotherapist'*, which importantly reminds us that we, as therapists, also need to attend carefully to our own embodiment, and that this internal dynamic can affect the process of the embodiment of the client: 'You can only take the client as far as you yourself have gone'. However, this principle is not unique to Body Psychotherapy, as it is also accepted in much of Mindfulness practice, and in many other therapeutic disciplines.

However, what makes neither the medical model or the natural scientific model appropriate for embodied and other relational psychotherapies is that it does not account for the presence – physical, emotional, psychic, environmental, societal, etc. – of the other person: the therapist. There is not the observed and the observer: there are two bodies in the room and these interact on many different and – in many cases – immeasurable ways, means and levels (Totton, 2015, pp. 40, 44, 48, 209).

Michael C. Heller (1993; 2012, p. 587) – one of the early researchers in Body Psychotherapy, based at the University of Geneva – videotaped patients and coded their postural dynamics and social status using Marcus Frey's 'Time Series Notation System' in response to ordinary therapeutic interventions (also videotaped and coded). He concluded that there were potentially forty-three million different codings in a normal hourly 'session': however this would still leave us with the problem of how to analyse and interpret these codings.

Heller writes (2012, p. 668-9) " … [there are] four forms of knowledge: Speculative, clinical, empirical, and scientific … today, all research blends these four forms of knowledge": more specifically: "*Clinical knowledge is based on the case analyses of individual persons and the way each subject reacts in a relatively standardized setting and set of methods, which allows colleagues to compare their observations".* And – particularly with psychotherapy – clinical knowledge is extremely significant, however these observations (by themselves) do not constitute empirical evidence; and (rigorous) empirical studies – also not 'scientific' by themselves – can complement clinical findings to form a solid evidence-base. This is beyond the competence of most individual (body) psychotherapy 'schools'.

Another basic distinction used in research into methodologies across many different fields is that between quantitative and qualitative methods. It used to be the case that, in imitation of the 'hard' or 'natural' sciences, only quantitative or empirical research was taken seriously: this *"… tries to find predictable causal chains by collecting standardized data (measures, questionnaires, etc.) on a large number of individuals having some [of the same] specific traits (anxiety, depression, cancer, race, sex, etc.)"* (Ibid).

However it is now widely agreed that in other fields (e.g. social sciences), that qualitative research, which explores the individual's subjective experience is as valid and valuable as quantitative research. The classic example from psychotherapy is the case history: a detailed account of a therapeutic relationship over a period of time, which can be analysed in many ways. EABP proposes that properly conducted – and properly used – case histories have such scientific validity and has formulated guidelines for these.[vi]

Thus, we are arguably beginning to see a separation between psychotherapeutic clinicians and psychological research scientists. There are many studies that have absolutely no proper clinical application; and many clinical applications that have not been researched in any way whatsoever: researchers also often know very little about clinical practice, and many psychotherapy clinicians have not been trained in research. However, there are a few cases where *"… clinical and research processes share common values and methods. By taking advantage of these overlaps, we can increase our capacity as clinician-researchers to engage in our own specific inquiry"* (Prengel, 2012).

This leads us a relatively new development: Clinical Practitioner Research Networks (CPRNs), which involve collaboration between clinicians and researchers in medicine as well as psychology. CPRNs are developing both in the USA[vii] and in the UK[viii], as well as in other countries. The Scientific Committee of the European Association of Body Psychotherapy (EABP) – is in the process of setting up a CPRN, so as to involve its members (mostly practising clinicians in various methods of embodied psychotherapies) in appropriate forms of research.

One of the more frequently used methodologies by such individual clinicians within a particular discipline is "outcome research" or "outcome studies", which investigate the results of any particular interventions on the health and well-being of the patients (or clients) involved. Outcome research can also be used on a wider level in research and assessment of a wide range of health services and healthcare outcomes, which utilise a more general assessment of healthcare technology, decision-making, and policy analysis through a systematic evaluation of the quality of care, availability of access, and – of course – effectiveness.

Two 'multi-centre' research projects are of particular interest: one evaluating the efficacy of Body Psychotherapy (Koemeda-Lutz *et al.*, 2006), and an effectiveness study of client-centred Body Psychotherapy (Muller-Hofer *et al.*, 2003) (both were in originally in German, now translated). There are also several studies (all of which are Randomised Controlled Trials - RCTs) that explore the use of various forms of embodied psychotherapy approaches for a particular client group: e.g. Nickel *et al.*, 2006 (Bioenergetic exercises for somatoform disorders); Röhricht *et al.*, 2011 (Body-oriented psychotherapy for schizophrenics); Lahmann

et al., 2010 (Functional relaxation for irritable bowel syndrome); and Röhricht *et al.*, 2013 (Body-oriented psychotherapy for chronic depression).

It is also worth mentioning some other research-based articles: routes to embodiment (Korner, Topolinski & Strack, 2015); mechanisms of embodiment (Dijkstra & Post, 2015); overcoming dis-embodiment (Martin *et al.*, 2016); embodiment and the developmental system (Marshall, 2014); on embodied activity (Fuchs & Koch, 2014); and the mechanics of embodiment (Pezzulo *et al.*, 2011); and there are now several doctoral theses and research papers that cover further aspects of embodied approaches (e.g. Kaschke, 2010; Matulaité, 2013).

Several more research listings can be found on the European Association for Body Psychotherapy website (under "Research": The Evidence-base for Body Psychotherapy). This particular EABP website page mentions a number of articles reviewing all aspects of Body Psychotherapy research: (e.g. May, 2005; Röhricht, 2009); and other papers describing research into the different (other) embodied psychotherapies – particularly (for example) Dance-Movement Therapy (or Dance- Movement Psychotherapy) (Koch & Bräuninger, 2005). In addition, a recent chapter by Barnaby Barratt (2015) in, *The Handbook of Body Psychotherapy & Somatic Psychology* (Marlock *et al*., 2015) summarises the 'state of the art' of research in the embodied (body-oriented) psychotherapies, as did a chapter in the earlier (German) edition, by Loew & Tritt, 2006).

Salvatore *et al.*, (2015) also look at the wider field of embodiment in psychotherapy and concludes that most communicative processes in psychotherapy are a field-dynamic phenomenon, with temporal differences, occurring in a particular context (i.e. such communications thus relate to a specific moment in time and to a specific moment in the client's process and the environment of that moment). This perspective builds on an earlier concept (Salvatore & Tascher, 2012), which emphasises that the whole field of psychotherapy (and research into psychotherapy) needs to recognise that psychotherapy is quintessentially dynamic and developmental and there is thus a significant time function (which is often ignored).

2,028 words

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Endnotes:

[i] A search of the Cochrane Society's website (www.cochrane.org) using "psychotherapy" as an indicator produces 116 results (out of about 4,500+ studies) in the 'Evidence' category: e.g. "Psychotherapies for hypochondriasis"; "Psychotherapy and a benzodiazepine combined for treating panic disorder"; "Medication, psychotherapy, or a combination of both, in treating body dysmorphic disorder"; etc.

[ii] European Association for Psychotherapy (EAP) – 15 Questions on Scientific Validity: EAP_15_Questions.pdf

[iii] EABP Scientific Validity of Body Psychotherapy (1999): Process (http://www.eabp.org/about-scientific-validity.php) and Answers (http://www.eabp.org/backup/scient/scienframe.html)

[iv] EABP Research – Science and Research applied to Body Psychotherapy: http://www.eabp.org/research.php

[v] By definitions, *effectiveness* is the extent to which an intervention produces a beneficial (and lasting) outcome under ordinary day-to-day circumstances, whereas *efficacy* is the extent to which an intervention produces a beneficial result under ideal and replicable homogenous conditions; and *efficiency* relates to health economics: i.e. 'How much benefit, at what cost?'

[vi] EABP Case Study Guidelines: http://www.eabp.org/research-case-study-guidelines.php

[vii] In USA, these are generally referred to as "Practice-Based Research Networks": (see also McMillen *et al.*, 2009)

[viii] UKCP Practitioner Network: involving the Tavistock Clinic and Portman NHS Trust: http://tavistockandportman.uk/research-and-innovation/research-centres/ftsrc/practitioner-research-networks