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Body oriented psychotherapy. The state of the art in empirical research and evidence-based practice: A clinical perspective

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The heterogeneous field of body oriented psychotherapy (BOP) provides a range of unique contributions for the treatment of mental disorders. Practice based clinical evidence and a few empirical studies point towards good efficacy of these non-verbal intervention strategies. This is particularly relevant for those disorders with body image aberration and other body-related psychopathology, but also for mental disorders with limited treatment response to traditional talking therapies, e.g. somatoform disorders/medically unexplained syndromes, PTSD, anorexia nervosa or chronic schizophrenia. However, the evidence base is not yet sufficiently developed in order to get BOP recognised as suitable mainstream treatment by national health services and their commissioning bodies. Strong academic links are urgently required in order to support practitioners in their efforts to evaluate the clinical work in systematic research. The field would greatly benefit from the development of international higher education training in integrated clinical body psychotherapy, enabling practitioners to obtain a master's degree. From a scientific perspective, projects on the interface between neuroscience and psychotherapy research should be conducted in order to understand more fully the therapeutic processes in BOP, particularly with regard to emotional processing, movement behaviour and body/self perception. Qualitative research is needed to further investigate the specific interactive therapeutic relationship, the dynamics of touch in psychotherapy and the additional self-helping potential of creative/arts therapy components. Provided that these requirements will be fulfilled, BOP could be established as one of the main psychotherapeutic modalities in clinical care, alongside other mainstream schools such as psychodynamic, cognitive-behavioural and systemic.

Keywords: body psychotherapy; body oriented psychological therapy; movement therapy; evidence base; research

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There is more wisdom in your body than in your deepest philosophy (Friedrich Nietzsche, in "Thus Spoke Zarathustra," 1885)

Introduction

The heterogeneous field of body oriented psychotherapy (BOP) currently presents as rather disorganised from outside. There is a wide range of body therapies and BOPs on offer (Figure 1). It can appear impossible for a patient unfamiliar with the field to make an informed choice in order to identify suitable treatment in this terminological jungle. In contrast, most practitioners refer to BOP as 'holistic and creative body-mind work.' BOP is regarded as an established form of psychotherapy and as more effective than talking therapy for patients with disturbed body experiences. Whilst body psychotherapists expressed ambivalent views about empirical research in the past, in recent years a shift towards an emphasis on evidence-based practice emerged. In parallel, a growing interest in the evaluation of body oriented psychological treatment for patients with mental health problems can be noted within clinical research.

This paper aims to summarise the current state of the art in the field of integrated body oriented psychotherapy from an academic perspective. The author is a BOP practitioner with more than 25 years experience in the field. The review refers briefly to its underlying shared theoretical foundation, it describes commonalities between various BOP schools in respect of their intervention strategies (as outlined in more detail in e.g. Corrigan, Payne, & Wilkinson, 2006; Marlock & Weiss, 2006; Röhricht, 2000, 2009; Staunton, 2002; Totton, 2003, 2005) and the emerging empirical evidence base as far as efficacy and effectiveness of different body oriented intervention strategies for the treatment of mental disorders is concerned. Qualitative aspects of the

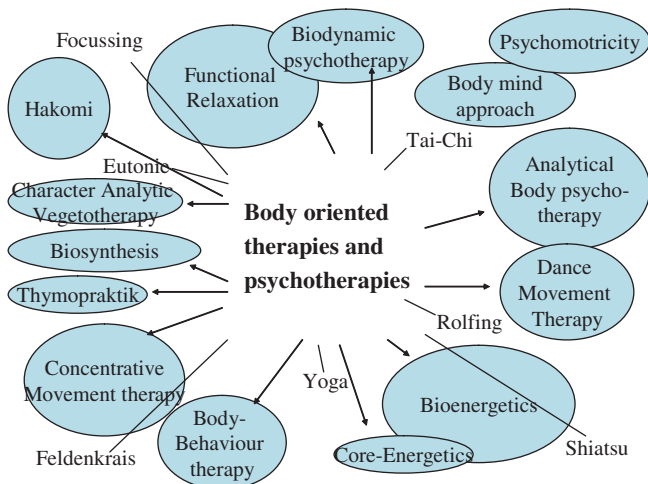


Figure 1. Different body oriented psychotherapy and body therapy schools.

therapeutic interventions in BOP, aiming to better understand the processes contributing to change over time, have been researched as well (e.g. Bräuniger, 2006; La Torre, 2008; Röhrich, Papadopoulos, Suzuki, & Priebe, 2009; Schreiber-Willnow & Seidler, 2002, 2005; Seidler & Schreiber-Willnow, 2005) but are not reported in this review.

Definition of BOP

The vast literature related to the field of BOP lacks any coherent systematic definition. Wikipedia refers to umbrella terms such as ‘body psychotherapy (BPT), ‘body oriented psychotherapy,’ ‘somatic psychology’ and ‘body oriented psychological therapy,’ and other sources sometimes summarise those schools, rather misleading, as ‘body therapy.’ In a recent review of the evidence base in body psychotherapy, Loew et al. (2006) distinguished clearly between BPT/BOP and body therapy (BT). The authors emphasised that BPT/BOP always refers to a therapeutic framework, aiming at enhanced self-awareness, behaviour modification or insight-oriented psychological problem solving. General principles, relevant for all psychotherapies, apply to BOP. Psychotherapy relies on trustful therapeutic relationships and is directed towards the improvement of a range of identifiable mental and behavioural disorders regarded as requiring specific treatment (based on theories of normal/abnormal behaviour), it mostly uses verbal but also non-verbal psychological techniques, it is a standardised procedure, defined and taught within a framework of academic institutions, responsible for quality assurance and supervision.

The European (EABP; www.eabp.org) and the American (USABP; www.usabp.org) Association of Body Psychotherapy address the question: ‘What is body psychotherapy’ on their respective websites. They state that it is ‘... a distinct branch of psychotherapy with a long history... involves a different and explicit theory of mind-body functioning (complex interaction)... The body does not merely mean the “soma” and that this is separate from the mind, the “psyche.” Many other approaches in psychotherapy touch on this area. Body-Psychotherapy considers this fundamental.’ Comparing this definition to those on two other websites in the wider body-mind field, one can see how little these concepts differ from each other. For example, the European Forum of Psychomotricity defines the interventions as follows: ‘Based on a holistic view of the human being, on the unity of body and mind, psychomotricity integrates the cognitive, emotional, symbolical and physical interactions in the individual’s capacity to be and to act in a psychosocial context’ (EFP; www.psychomot.org). Similarly, the Association of Dance Movement Psychotherapy (DMP) in the UK states: ‘Dance Movement Therapy is the psychotherapeutic use of movement and dance through which a person can engage creatively in a process to further their emotional, cognitive, physical and social integration’ (ADMT-UK; www.admt.org.uk). Whilst acknowledging the ongoing controversial debate and considerable efforts in the field of body-mind therapies/psychotherapies to

agree on a unifying language, in this paper BOP is used as umbrella term despite a more common use of the term 'body psychotherapy' in scientific literature. This is aiming to widen the perspective in order to include all available evidence from clinical trials in the wider field of body-mind work.

How does body psychotherapy present on the outside? Some basic facts

An Internet search using common search engines with 'body psychotherapy' and 'body oriented psychotherapy' as keywords identifies a vast and diverse literature: more than 450,000 hits are displayed on Google, the first 757 featured pages all relevant to the search topic. A wide range of practical and clinical matters are covered. Examples include body work and massage in sports rehabilitation, severe chronic medical conditions and very specific and complex mental disorders such as stammering and psychosis. Therapists delivering (predominantly neo-Reichian) BOP are organised within overarching organisations: the US Association of Body Psychotherapy (USABP) has more than 500 members and publishes a peer reviewed journal, and the European Association of Body Psychotherapy (EABP) has more than 700 members in 18 countries; there is also the Australian Association of Somatic Psychotherapy and the South American Association of Body Psychotherapy.

Other BOP schools are also represented within umbrella organisations nationally. Due to their widespread availability and relevance for clinical practice, dance and dance movement psycho/therapy as well as (mainly in German speaking countries) concentrative movement therapy (Schmidt, 2006) and functional relaxation (Fuchs, 1997; Herholz et al., 2009) are particularly important.

Professionals regularly present and discuss their work (the 7th International Congress of BOP took place in 2005 and the 11th European conference in Paris in 2008). In Britain, the body in psychotherapy has been a major theme in the UK Council for Psychotherapy conferences, the Association for Dance Movement Psychotherapy organises annual meetings and the Chiron Centre for Body Psychotherapy is engaged in a dialogue with Relational Psychoanalysis and hosted a joint conference in 2007 in Cambridge. In the USA, four universities offer a masters degree (MA) in 'Somatic Psychology' and in Europe the EABP accredited 'European School of Functional Psychology' offers a master degree course in Naples/Italy and Paris/France. In the UK, master degree courses in Dance Movement Therapy are available at five universities; other European countries (e.g. Italy and Spain) also offer a DMP master course.

Within the mainstream psychiatry/psychotherapy literature the picture is nevertheless rather different. When the same search terms are used in scientific databases, Medline (1950 to date) reveals 20 documents, PsycINFO (1806 to date) 189 documents and EMBASE (1974 to date) 17 documents. Furthermore, BOP is not established as a distinct professional identity. There is no state accreditation, and only some schools/branches in the wider field of BOP offer training that is recognised by official registration bodies (e.g. in the

United Kingdom: Association for Dance Movement Psychotherapy/ADMP, the London School of Biodynamic Psychotherapy and the Cambridge Body Psychotherapy Centre). With the exception of the German 'Lindauer Psychotherapie-Tage' and a few other national psychotherapy symposia, BOP is rarely represented in mainstream psychiatry/psychotherapy congresses.

An attempt to systematically describe the field of BOP

Even though these statements point towards a holistic perspective within the therapeutic intervention strategy, explicitly working with body-oriented, non-verbal techniques, the definition does not sufficiently discriminate between BOP and other psychotherapeutic schools. One way of defining the field of BOP and the differences in comparison with other mainstream psychotherapies is to analyse more systematically the contributions made by BOP in the context of specific mental health problems. Furthermore, it is necessary to identify the common ground in theory and practice amongst BOP schools. Given the current lack of evidence base (see paragraph 'outcome research' underneath), it appears these schools have done little so far to address the public image of non-scientific and eclectic approaches. This is partly explained by the jargon used to describe main objectives and methods. The reader is confronted by an impenetrable vast number of terms introduced to create distinctions between schools despite a huge overlap in their respective intervention strategies.

Röhrich (2000) developed a systematic description of the various schools in the field of BOP, thereby aiming to differentiate on the basis of two defined axis: (1) insight oriented and/or aiming at behaviour modification (body psychotherapies) versus functionally oriented, aiming at relaxation or homeostasis (body therapies) and (2) main mode of action (perceptive/self-awareness, affective-cathartic, interactive and/or movement oriented). Reviewing the primary literature on these BOP schools, particularly with regard to their theoretical concepts and therapeutic practice, it remains doubtful as to whether the terminological diversification and the corresponding differentiation into numerous different schools are really justified.

Theoretical foundation of BOP

The various BOP schools share basic theoretical concepts. Almost all of them refer to developmental psychology in some way (with emphasis on the importance of body experiences for early ego-foundation). They also refer to the basic concept of embodiment (embodied mind theory), affect-regulation and the phenomenology of body experience (relating to the body as: base line reference for any psychological processes, precondition for psychopathology, subject and object of perception, organ of spontaneity/expression and reference point for feelings) and more recently to findings from (affective) neuroscience. See overview on theory and practice in various textbooks: Corrigan et al., 2006;

Hartley, 2009; Herholz et al., 2009; Marlock & Weiss, 2006; Payne, 2006; Röhrich, 2000, 2009; Schmidt, 2006; Staunton, 2002; Totton, 2003.

From a research perspective, hypotheses regarding the specific contribution BOP may offer can be identified (over and above what is currently provided by other modalities). This approach is focusing on specific non-verbal and body oriented interventions for particular problems and symptoms (operating at the centre of emotional processing and motor/expressive behaviour). There is a unique interactive therapeutic relationship with a multidimensional approach aiming to explicitly increase strengths, capabilities and creativity. Disorder-specific hypotheses include: (1) the immediateness of body experience is important for reality testing and may hence offer therapeutic benefits in working with psychosis; (2) body-related perceptions and cognitions form the basis for ego/self-experience and ego-development (Ego-Consolidation) and can therefore be utilised therapeutically for the treatment of patients with personality disorders; (3) the direct impact on emotional processing and related psychomotor behaviour/movements suggests that BOP can offer unique interventions in the treatment of affective disorders; and (4) improving body perception could be a key intervention for the treatment of perceptual aberration (e.g. distorted body size perception in anorexia nervosa and/or schizophrenia).

The practice

The model

‘It is demonstrated ... that the fundamental premise in body psychotherapy is that core beliefs are embodied, and that until we begin to experience the pain held in them directly through our bodies they will continue to run our lives, even if we mentally understand them’ (Staunton, 2002, p. 4). According to its three main roots (reformist movements in creative dance, pedagogy and psychoanalysis), we can differentiate three main modes of action – apart from relational body-work – as follows:

- Concentrative Movement Therapy, Functional Relaxation: explorative and perceptual functional body-mind work, utilising self-awareness techniques, aiming to mobilise and make space for autonomous inner processes.
- Neo-Reichian psychotherapies: uncovering, energetic and expressive body-mind work, utilising tension dynamics/grounding and cathartic processes, aiming to ease/loosen up rigid postures and related pattern of attitudes, in order to mobilise and make space for repressed affective contents/emotional processes.
- Dance Therapies and Dance Movement psychotherapies: creative, explorative body-work utilising movement improvisation, authentic movement and ‘body dialogues,’ aiming to strengthen self-potentials and in order to mobilise and make space for processes related to underlying conflicts.

These three main modalities overlap greatly in practice (in integrated BOP) and an overarching model can be described as follows: centring around the immediateness of (bodily, emotional and perceptive) experiences and through processes of focusing the self-experiences, attention and awareness towards the bodily reality, clients reach a position of basic inter-relational embodiment. This results via mobilisation of emotional and non/pre-verbal aspects of underlying conflicts in some kind of critical (and partially cathartic) destabilisation. At this point, altering bodily processes are initiated and an integrative, self-determined reorganisation of reactive and solution focused behaviours emerge. Totton (2003) furthermore adds an important observation: 'Many . . . body psychotherapists work with some kind of somatic memory . . . and . . . by releasing the restrictions and re-owning the memory . . . a person can dissolve a corresponding pattern of psychological constraint' (p. 19).

What is BOP used for?

In clinical practice in mainstream healthcare settings, body oriented psychological therapy is used for a wide range of mental health problems despite its unsatisfactory evidence base. Disorders include: Somatoform disorders, Anxiety and Depressive disorders, PTSD, Schizophreniform illnesses, Personality disorders, and Eating disorders. The settings vary including hospital wards, day hospitals, community and social services settings, rehabilitation units and schools. Therapy may be in groups (mainly dance, dance movement and concentrative movement therapy in somatoform and psychotic disorders), or individual therapy. BOP is considered suitable for all age groups from young children to the elderly.

How does BOP work?

To date, there is a lack of systematic research investigating the mode of action of BOP for the treatment of mental health problems or specific disorders. Clinical observation from case studies and preliminary findings from a few empirical trials suggest that (other than in the main psychotherapeutic schools) BOP unfolds its therapeutic effects on different levels. In CBT efficacy is delivered via cognitive reconstruction of a range of systematic beliefs/constructs. Psychodynamic psychotherapy is effective via insight oriented processes. In BOP, therapeutic processes span across these domains and uniquely modulate emotional processing, affect regulation, movement behaviour and bodily self-awareness in order to impact on psychological problems/processes.

BOP and empirical research (evaluating efficacy and effectiveness)

According to the specific focus of research questions in designing therapy studies, a distinction between efficacy and effectiveness is made. Differentiating between efficacy and effectiveness, the methodology of prospectively designed

randomised controlled trials (RCTs) is perceived as the ‘gold standard’ in evidence-based medicine. This is because of the exclusion of bias and good internal validity of the tests, suggesting that the interventions are responsible for treatment effects and not other modulating factors (efficacy). It is well accepted that the more selective the sample and the more rigorous the manual, the more difficult it is to generalise findings and translate them into day-to-day practice (effectiveness, process measures).

Slade and Priebe (2001) therefore asked: ‘Are randomised controlled trials the only gold that glitters?’ They suggested a way forward as follows: ‘Mental health research needs to span both the natural and social sciences. Evidence based on RCT’s has an important place, but to adapt concepts from only one body of knowledge is to neglect the contribution that other well-established methodologies can make.’

Setting the scene

Psychotherapy research in general is a relatively young discipline and there is an ongoing scientific debate about the most applicable, appropriate research methodologies regarding the evaluation of its efficacy and effectiveness (e.g. Loewenthal & Winter, 2006). Until about 50 years ago there were hardly any controlled or comparative outcome trials conducted for psychotherapy. Eysenck published a first overview of the existing literature in 1952 and concluded that psychotherapy was not effective. Psychotherapists across the world contested these findings but it took another 25 years until Smith et al. (1980) provided their first meta-analysis of results from 485 controlled trials in psychotherapy. To the great relief of the psychotherapeutic community, their findings suggested that psychotherapy is generally effective. At the same time, other authors could not find any sufficient evidence in favour of one particular psychotherapeutic modality, suggesting the equivalence of all psychotherapies (Luborsky, Singer, & Luborsky, 1975). The dodo verdict was born: ‘At last the Dodo said, Everybody has won, and all must have prizes’ (from Lewis Carroll’s *Alice in Wonderland*). Lipsey and Wilson (1993) came to a similar conclusion: ‘Based on hundreds of randomised control trials over the past 40 years, the clear indication is that psychotherapy is generally effective in alleviating the distress and dysfunction associated with a wide range of aversive psychological conditions.’ The main mode of action identified as the therapeutic mechanism that brings about changes in the process of treatment was identified as the therapeutic relationship (sometimes also referred to as alliance). Zinbarg (2000) wrote ‘... the well-known “Dodo bird effect” from meta-analyses of psychotherapy outcome studies suggests that common factors such as the establishment of a sound therapeutic alliance are sufficient for producing at least some degree of improvement’ (p. 397). Wampold et al. (1997) published the first meta-analysis that provided exceptionally strong evidence for treatment specificity. Consecutively, other meta-analyses showed results in favour of cognitive behaviour therapies (Chambless & Ollendick, 2001), very few in favour of family or

psychodynamic psychotherapies. Current lists of Empirically Supported Therapies (ESTs) are therefore dominated by CBT treatments and these are currently regarded as the treatment of choice for various mental health conditions. However, it is important to acknowledge that absence of evidence does not necessarily mean evidence of absence (of any evidence in other branches of psychotherapy). Difficulties evaluating other, non-CBT therapies include the paucity of research initiatives and the thesis that certain treatments, especially psychodynamic and experiential ones (such as BOP), cannot be tested with clinical trials due to the very nature of their intervention strategies. Summarising the current evidence base against this background it appears that the 'dodo bird effect' still matters, but that there is also evidence for disorder-specific efficacy of specific intervention strategies.

Findings from other research areas relevant for the evaluation of BOP

Body image phenomenology

It will be important to develop strategies for the evaluation of BOP in research, focussing on the complex realities of body experiences. Phenomenological research identified some disorder specific characteristics with regard to body image aberration and other body related psychopathological symptoms, the findings will be described in the following paragraph. Whilst it is important to acknowledge that BOP operates on the basis of a holistic approach, these symptoms can be addressed in the context of a disorder specific manualised intervention strategy and they can therefore be defined as specific outcome criteria for the evaluation of BOP in empirical research.

For patients suffering from anxiety disorders, studies identified a negative association between body perception and anxiety levels (Compton, 1969; Röhrich & Priebe, 1996). A phobic 'anxiety-depersonalisation syndrome' (Noyes, Hoenk, Kupermann, & Slymen, 1977; Tucker, Harrow, & Quinlan, 1973) has been described, suggesting a degree of somato-psychic dissociation phenomena. Body image satisfaction was found to be low in anxiety patients (Löwe & Clement, 1998; Marsella, Shizuru, Brennan, & Kameoka, 1981). Clinicians refer to a particular syndrome, which may be best described as a 'Bermuda-Triangle': Anxiety-tension headache-anger. Hence, therapeutic strategies for the treatment of anxiety disorders may include elements of grounding, body-awareness training, boundary articulation and working with the dynamics of fight-flight impulses.

Patients suffering from depressive disorders often present with a range of somatisation symptoms (chest pressure, pain, difficulties swallowing, etc). They also frequently present with motor retardation, lack of drive/energy and poor motivation. Depressive disorder patients have negative body cathexis, somatic depersonalisation symptoms and boundary loss correlates with degree of anxiety symptoms (Röhrich, Beyer, & Priebe, 2002).

Anorexia nervosa is characterised by severe body image aberration, including overestimation of body sizes, negative body cathexis, hostile attitudes towards one's own body (sometimes leading to dissociative processes) and

control or manipulation of bodily functions (e.g. excessive exercising, vomiting). The movement analysis of these patients shows reduced and/or bound free flow of movement, lack of weight emphasis and use of small space (overview in Lausberg, 2009).

Patients suffering from chronic somatoform disorders have major difficulties expressing their feelings/emotions (alexithymia), and they use body language (symptoms) instead of talking about problems. With regard to sensory body stimuli, they often experience somatic amplification with stimulus entrapment. These patients are known to be observing and checking their bodily functions (control mechanism) and often present with reduced motor expression (avoidant behaviour), increased muscular tone and tension.

Schizophrenia patients present with a range of qualitatively abnormal bodily sensation (cenesthesias) and somatic hallucinations (Jenkins & Röhricht, 2007; Röhricht & Priebe, 2002). They experience a centralised body schema with underestimation of the periphery and shrinking/enlargement (size-change) sensations (Röhricht & Priebe, 1997). They describe somatic depersonalisation and boundary loss (Fisher, 1986). Stereotypical movements with repetitive self-contact, self-stimulation with clapping hands and tapping body parts against objects (Du Bois, 1990; Joraschky, 1983) characterise behavioural aspects of patients with schizophrenia. The overall picture can be best described as one of disintegration, disembodiment and splitting (Röhricht, 2000; Scharfetter, 1995).

Affective neuroscience

Acknowledging the basic principles of plasticity and synergism, neuroscience refers to an explicit biological model for psychotherapeutic interventions. Cozolino (2002) summarises as follows: 'From the perspective of neuroscience, psychotherapy can be understood as a specific kind of enriched environment designed to enhance the growth of neurons and the integration of neural networks' (p. 27). In this paradigm, growth and integration are best achieved in an effort to further the integration of conceptual knowledge with emotional and bodily experience. Cozolino (2002) emphasises the importance of therapeutic processes that facilitate gaining new information and experiences across the domains of cognition, emotion, sensation and behaviour. This notion from neuroscience is very much in keeping with holistic aspects of intervention strategies in body oriented psychotherapy. More specifically, neuropsychology describes how movement and emotional experiences are biologically and experientially associated ('a moving experience'). The modification of facial expression (mimic muscles) and gestures modifies subjective mood (Ekman & Friesen, 1974) and this can be utilised for the treatment of affective symptoms.

The recent fascinating finding of mirror neurons suggests a biological mechanism for learning through imitation, understanding and empathy, therapeutically utilised in BOP in the form of mirroring exercises (e.g. in autism and schizophrenia). Gallese (2005) described mirror neurons as '... a common functional mechanism... of both (our own) body awareness and social understanding: embodied simulation.' Finally, it is important to

note that movement planning and behaviour are closely associated with body schema/body perception and body image (concepts, beliefs) as summarised by Buytendijk (1971) and Lausberg (2009). This suggests that we need to specifically target body experiences in order to change behaviour.

Outcome research

The facts presented here are based on a comprehensive literature search and monographies on BOP and Body Image (e.g. Fisher, 1986; Geuter, 2002; Marlock & Weiss, 2006; Röhrich, 2000; and textbooks listed in Section 4.1), as well as data base searches in MEDLINE (1966–2008), PsycINFO (1806–2008) and EMBASE (1974–2008) and personal communication. The search focused on empirical studies, which evaluated the effect of BOP in the treatment of mental disorders (adults of working age only). Only those studies with defined BOP intervention strategies according to the above definition (see Section 2) were considered. The decision to restrict the literature search to these publicly available sources and not to include the so-called ‘grey literature’ is based on an effort to adhere to principles applied elsewhere in mainstream scientific literature in order to achieve comparably high standards. Therefore, this review may not capture all outcome studies relevant for the field.

One particular example is the USABP journal, which was included in this review because of its importance for the field, even though the papers are difficult to access outside the USA and mainly available as abstracts to the public. May (2005) published an article on the outcome of body psychotherapy. He emphasised: ‘Because some of these studies would not meet empirical criteria in peer-reviewed journals, I called this literature ‘objective.’ Much of this literature was available only in back issues of journals with limited distribution, personal communications, and theses/dissertations’ (May, 2005, p. 98). May conducted a systematic and comprehensive literature search and explicitly excluded Dance/Movement therapies (‘on the grounds of duplication of effort’).

This was the first published attempt to review outcome studies of body psychotherapy and it is therefore briefly discussed here in relation to the findings of this paper. Out of the six retrospective studies May (2005) included in his review, two surveyed the effects of ‘Radix,’ an eclectic form of therapy combining Reichian and Gestalt therapies as well as hypnotherapy. Those two studies and one study on ‘Energy Stream therapy’ were not included in this paper due to their questionable BOP characteristics, a lack of information regarding clinical characteristics of the samples and because they do not feature according to the search criteria. Equally, apart from two studies (May, Wexler, Salkin, & Schoop, 1963; Price, 2005), the nine ‘efficacy studies’ listed by May (2005) were not considered in this paper for the following reasons: two studies focused on non-clinical samples (university students and subjects with career conflicts), one study was not published, three studies are not accessible and/or of questionable BOP nature (e.g. ‘Somatic exercises and Gestalt two-chair exercise,’ ‘Rubinfeld Synergy’) and one study (Peterson & Cameron, 1978) on

the combined movement therapy and progressive relaxation in anxiety was not referenced in his publication. Effectiveness studies quoted by May on 'psychomotor therapy,' 'holotropic breathwork,' 'primal therapy' and 'systems releasing action therapy' or those focusing on normal populations or where the publication is only available on university microfilms were also not considered for the purpose of this current review for the above named reasons. In summary, comparing the literature included in this review with the outcome studies described by May (2005), many more studies have been identified this time and there is now a much better evidence base for the efficacy of BOP.

Numerous cohort studies with various methods were conducted between 1960–1990 in healthy samples and in samples defined as suffering from 'neurosis and drug abuse.' The findings indicate that these methods are effective, leading to an increase in body satisfaction, self-perception and self-esteem. There was also a reduction in muscular tension following the interventions (e.g. Fisher, 1986; Röhricht, 2000).

Subsequently, studies were carried out in order to specifically evaluate body-mind approaches in the treatment of mental disorders. There is some evidence pointing towards the efficacy of dance and dance movement therapy (and a few others, mainly neo-Reichian body oriented therapies) in depression and anxiety with improvements in mood, psychological well-being and subjective quality of life scores after therapy. Stewart et al. (2004) carried out a study (randomised single-case experimental design) on movement therapy in a sample of depressed inpatients and they found that the therapy had a positive effect on mood. However, major methodological shortcomings have to be acknowledged, such as non-RCT design and mostly retrospective analysis based on subjective ratings from surveys (Brooks & Stark, 1989; Dosamantes, 1990; Dosamantes-Alperson & Merrill, 1980; Gudat, 1997; Heimbeck & Suettinger, 2007; Koch, Morlinghaus, & Fuchs, 2007; Kuettel, 1982; Mczkowiak, Hölter, & Otten, 2007; Ritter & Low, 1996; Ventling, 2002; Ventling & Gerhard, 2000; Weber, Haltenhof, Combecher, & Blankenburg, 1994).

Arguably, the most important study concerning the effectiveness of BOP in routine care (outpatient-setting) was conducted from 2002 to 2005 and published recently (Koemeda-Lutz, Kaschke, Revenstorf, Schermann, Weiss, & Soeder, 2006). In this multicentre, naturalistic evaluation study of BOP (eight different schools including: Hakomi Experiential Psychology, Unitive Body Psychotherapy, Biodynamic Psychology, Bioenergetic Analysis, Client-Centred Verbal and Body Psychotherapy, Integrative Body Psychotherapy, Body-Oriented Psychotherapy, and Biosynthesis), the researchers aimed to investigate the effectiveness of routine therapy in outpatient settings. Patients seeking BOP ($n = 342$ participated) were compared to other outpatients (not in RCT fashion). The assessments were carried out at baseline, after 6 months and at the end of therapy (over a maximum of 2 years). The instrument used to estimate treatment responses was the symptom checklist SCL-90-R. This instrument measures subjectively felt impairment by means of a 90-item self-report inventory of physical and mental symptoms occurring the preceding week. Overall, the results suggest good efficacy of BOP for a variety of

symptoms or problem areas. However, the study design does not allow for more substantive statements/conclusions.

Combining elements of body psychotherapy with other therapeutic components, Fernandez et al. (1995) identified a beneficial impact of the bodily interventions on the pace of recovery in treatment of anorexia nervosa patients. Konzag et al. (2006) investigated more systematically how inpatients with eating disorders responded to body oriented psychotherapy (integrative group therapy programme over 12 weeks). They included 43 patients in their cohort-study (15 with Anorexia nervosa and 28 with Bulimia nervosa). The BOP module combined body oriented perception therapy and so called 'communicate movement therapy' and was given in addition to CBT and psychodynamic therapy elements. The main outcome was again measured using the SCL-90-R symptom scores. As a result, the pre-post comparison showed a reduction of subjectively perceived problems in most domains, particularly significant for social insecurity and depression scores. The authors also investigated how patients rated BOP in comparison with the other non-BOP modules, which they attended at the same time, and the participants rated BOP as the most effective module. Body perception scores improved in the subgroup of bulimia patients only.

Similar findings were described in a controlled trial on movement therapy for bulimia nervosa patients (Alexandridis, Schüle, Ehrig, & Fichter, 2007). Consistent with results of other studies, the body image disorder in anorexia nervosa did not respond to BOP (e.g. Sack, Henniger, & Lamprecht, 2002), whereas the movement behaviour was found to improve in some studies with regard to reduced free flow of movement, lack of weight emphasis and use of small space. There was also a more differentiated movement pattern (Burn, 1987; Lausberg 1998; Lausberg, von Wietersheim, & Feiereis, 1996). Preliminary evidence following a pilot RCT study in a small sample of patients who experienced childhood sexual abuse confirmed results from an earlier study (Mattsson, Wikman, Dahlgren, Mattsson, & Armelius, 1998) and suggested that body-oriented therapy is efficacious as an adjunct to psychotherapy in sexual abuse recovery (Price, 2006).

Applying the above mentioned notion of a gold standard for the evaluation of psychotherapy, the best evidence currently available in the field of BOP is concentrated on two groups of mental illness: somatoform/psychosomatic disorders and schizophrenia.

The majority of studies on different psychosomatic disorders (including irritable bowel syndrome, asthma/COPD and tension headache) have been looking at the efficacy of a specific form of body psychotherapy named 'Functional Relaxation/FR' (Fuchs, 1997; Herholz et al., 2009), using various designs. The study findings indicate a positive impact on somatic symptoms (Loew et al., 2006). Some studies are of particular interest: Loew et al. (1996, 2001) investigated the effects of FR on airway resistance and forced expiratory volume (both well validated physical parameters) in patients with acute asthma. They used a cross-over design in order to compare FR with sympathomimetic medication (Terbutaline) and a placebo relaxation technique (isotonic exercises of one hand, called body awareness training for patients).

Patients treated with FR showed significant reduction in specific airway resistance, significantly greater than those treated with the placebo condition. As expected, only medication resulted in even greater bronchodilatation. Similar findings were described recently in another RCT, which aimed to investigate the efficacy of FR as complementary therapy in Asthma (Lahmann et al., 2009). In another (randomised controlled) study, comparing FR with unspecific isotonic relaxation in chronic tension headache, the research team demonstrated a favourable effect on both the intensity and the duration of pain (Loew et al., 2000). FR has also been tested as complementary therapy in Irritable Bowel Syndrome (RCT); the results of the trial suggested a positive effect of FR on subjective functional impairment scores, if provided in addition to treatment as usual (Lahmann et al., in press). These results demonstrate how body oriented psychological therapy does not only impact on psychopathological symptoms but can also directly modify bodily functions, particularly those associated with the autonomic nervous system and muscular tension in skeletal and smooth muscular systems.

Another recent RCT applied robust methodology in order to investigate the specific effects of another form of BOP named 'Bioenergetic exercises from Bioenergetic Analysis' in a group of Turkish inpatients with chronic somatoform disorder. They compared BOP with a control condition of gymnastic exercises (Nickel et al., 2006). The SCL-90-R measures and records of the intensity of anger and expression of anger showed significantly greater improvements in the group receiving the experimental BOP condition. Symptomatically, patients in the BOP group had significantly lower scores for depression/anxiety and social insecurity scores after treatment, and the largest effect was observed regarding specific somatisation symptoms. Following treatment, patients also had reduced anger levels and reduced tendency to direct anger inwards. Their spontaneous outward emotional expression had increased simultaneously. The manualised BOP was carried out as 60-minute group sessions twice weekly over a period of 6 weeks, and included a range of bioenergetic exercises: expression/vocal exercises (e.g. aggression), exercises setting boundaries, and grounding, respiratory and movement exercises.

Sandel et al. (2005) conducted a RCT with a waiting list control group crossover design, aiming to treat psychological conditions of women with breast cancer. In the active treatment group, patients presented post treatment with substantially improved (breast cancer-specific) quality-of-life measures. Furthermore, there are three non-RCT studies reporting encouraging effects of Dance Movement Therapy (DMT, now termed Dance Movement Psychotherapy/DMP) for breast cancer patients with regard to significant improvements in subjective quality of life, well-being, partially increased self-esteem and reduction of anxiety/depression (Dibbell-Hope, 2000; Mannheim & Weis, 2005; Serlin, Classen, Frances, & Angell, 2000). In a pilot study, Ho (2005) demonstrated how DMT improved the self-esteem of cancer patients. Monsen and Monsen (2000) investigated the effects of psychodynamic body therapy in a controlled trial. They found that the experimental group improved with regard to subjective pain levels, somatisation, anxiety/depressive

symptoms and social withdrawal. These results were stable at follow-up a year after treatment. In a pilot study another group of researchers evaluated the impact of a 'body-mind approach' (group work, which was derived from DMP and Authentic Movement) for patients with medically unexplained symptoms. Payne (in press) described the results of the study, outlining improvements following therapy and at follow-up regarding general well-being, individually identified problems/symptoms and overall functioning.

Concerning patients with schizophrenia, three RCTs demonstrated good efficacy of BOP for the treatment of social and emotional withdrawal, psychomotor retardation and self/body perception: psychopathological symptoms usually referred to as negative symptoms. May et al. (1963) and Goertzel et al. (1965) compared a body oriented intervention ('Body-ego-technique') with another form of non-verbal therapy (music therapy) and described an improvement of psychopathology and body image in both groups. There was a significant increase in emotional contact and a reduction of restlessness in the experimental BOP group. A study of movement and drama therapy versus supportive counselling in chronic schizophrenia patients (RCT) revealed similar results: significant improvement of social and motor behaviour in the BOP group and improvements in general psychopathology in both groups (Nitsun, Stapleton, & Bender, 1974). Röhricht and Priebe (2006) explicitly aimed to investigate the impact of integrative manualised body oriented psychotherapy on negative symptoms in chronic schizophrenia in comparison to supportive counselling. The study results demonstrated substantial reduction in negative symptoms (assessed with an established rating scale; PANSS) only in the BOP group after treatment and at 6-month follow-up.

The current evidence base can therefore be summarised as follows: BOP seems to have generally good effects on subjectively experienced depressive and anxiety symptoms, somatisation and social insecurity. Patients undergoing BOP appear to benefit in terms of improved general well-being, reduced motor tension and enhanced activity levels. There is evidence from one RCT that bioenergetic analysis may be specifically effective for somatoform disorder patients, and there is substantial evidence for the efficacy of functional relaxation on psychosomatic disorders (asthma, tension headache, irritable bowel syndrome). Patients suffering from severe physical conditions (e.g. cancer) seem to be responding well to Dance Movement Psychotherapy with regard to enhanced self-esteem, changes in body perception and improved coping mechanism. At least three RCTs have demonstrated that schizophrenia patients with predominant negative symptoms respond to manualised body oriented psychological intervention strategies, improving their psychomotor behaviour, social and emotional interaction.

Future perspectives, summary and conclusions

The heterogeneous field of body oriented psychological therapies provides a range of unique contributions for the treatment of mental disorders. Practice based clinical evidence and a few empirical studies point towards good

efficacy of so called non-verbal intervention strategies (although this is somehow misleading as all these therapies naturally work with both verbal and non-verbal interventions), particularly relevant for those disorders with body image aberration and other body-related psychopathology. Furthermore, BOP appears to offer promising additional psychotherapeutic tools in areas, where traditional talking psychotherapies seem to fail so far, e.g. somatoform disorders/medically unexplained syndromes, PTSD, anorexia nervosa or chronic schizophrenia. The best example for the importance of research efforts in the field is the recent publication of NICE guidelines for schizophrenia in the UK (<http://www.nice.org.uk/guidance/index.jsp?action=download&o=42139>). Through a robust meta-analytic process, all available evidence base has been reviewed and body oriented psychotherapy is now recommended amongst other non-verbal/arts therapies as treatment of choice for chronic schizophrenia patients with predominant negative symptoms.

Strong academic links are urgently required in order to support practitioners in their efforts to evaluate the clinical work in systematic research. The field would greatly benefit from the development of an international higher education training in integrated clinical body psychotherapy, enabling practitioners to obtain a master's degree (master of arts or science), comparable to the US master's degree in somatic psychology. Ideally, this higher training should be brought together by a group of collaborating leading clinicians and researchers with representatives from across the spectrum of BOP schools and be endorsed by the European or US Associations for Body Psychotherapy. The master degree courses in BOP currently developed at the University of Hertfordshire/UK are beginning to formulate links with mental health services in order to provide candidates with clinically relevant work based experience and could furthermore offer taught clinical doctoral programmes. Hereby, the clinically relevant critical mass of knowledge and skill base from various schools could be identified for the formulation of a cohesive theoretical basis and core intervention strategies comparable to work done within the fields of cognitive-behavioural, psychodynamic and systemic psychotherapy.

From a scientific perspective, research projects on the interface between neuroscience and psychotherapy research could be conducted in order to understand more fully the therapeutic processes at work within BOP, particularly with regard to emotional processing, movement behaviour and body/self perception. Qualitative research is also needed to investigate further the specific interactive therapeutic relationship known as 'somatic transference' that exists between therapist and client/patient. More research is also needed with respect to the dynamics of touch in psychotherapy in general and in body psychotherapy in particular (Smith, Clance, & Imes, 1998; Zur, 2007). Finally, further research would be beneficial on the fostering of self-helping potentials above and beyond the effect of the creative/arts and other non-verbal therapy components that overlap with body oriented psychotherapy. It will be necessary, in these endeavours, not only to gather knowledge regarding the active ingredients of BOP, but also to better understand which therapeutic intervention works best for particular individuals or for specific conditions, whether any form of combined therapy (different therapies or therapy and

medication) is indicated or contra-indicated, and which therapist's characteristics are most effective under which circumstances. Provided that these requirements will be fulfilled, BOP could be established as one of the main psychotherapeutic modalities in clinical care alongside other mainstream schools such as psychodynamic, cognitive-behavioural and systemic. However, since research is not cheap and most body psychotherapy training establishments are still privately funded, the spectre of 'who pays' and how the research projects are directed and then analysed remains a very complex issue. One way forward could come from collaboration between the professional associations (e.g. ADMP, USABP, EABP) and the university (Masters, PhD) programmes: one providing the source material, through the practitioners' case loads, and the other providing the time and energy from research students with the analytic facilities and desire to publish.

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