

## Is the Bobath approach relevant to neurophysiotherapy in 2010?

### A summary of the argument for the Bobath approach being relevant

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The Bobath Concept provides a framework for observing, analysing and interpreting task performance.

It utilizes 'core' physiotherapy skills in order to diagnose and treat movement dysfunction in neurological patients.

These skills include;

- Observation
- Therapeutic handling (for assessment and treatment)
- Interpersonal/communication skills

and are based on a background of increasing theoretical understanding about movement, impairments resulting from neurological lesions, motor control, motor learning, functional anatomy, biomechanics, neurophysiology and clinical research ie a current KNOWLEDGE BASE.

The integration of knowledge and highly developed (but core) practical skills can facilitate CLINICAL EXPERTISE in identifying specific movement problems, selecting appropriate treatment interventions (of which there are many) and also selecting appropriate methods of determining the outcome of treatment ie CLINICAL REASONING in the management of an INDIVIDUAL patient.

Mrs Bobath herself said treatment should be directed to helping the patient do what it is they can nearly do for themselves ie recognising their POTENTIAL. Each patient is central to identifying what that activity is, directing the goal of and being a very active participant in their treatment.

Current Bobath incorporates much of the knowledge and evidence from the fields of motor learning and neuroscience (Singer 2010) as do other approaches to treatment. There are therefore many similarities in treatment using the Bobath Concept and other approaches but there are some key differences – in the Bobath Concept emphasis is placed on helping the individual develop improved balance and stability and efficient selective movement to carry out functional and meaningful activities (Brock 2010).

In treatment an emphasis is placed on:

- Improving relative alignment of joints and soft tissues to promote appropriate muscle length for optimal activity, because muscles work best when optimally aligned and at their appropriate length,
- Consideration of the interaction of a body part with the base of support
- Strengthening as weakness is the most disabling feature for individuals with UMN lesions; repetition of activity promotes learning
- Putting the movements into a functional context - otherwise what is the point of the therapy

'Facilitation' handling *is* important within the Bobath Concept but so is modifying the environment and using voice /verbal instructions or not.

Incorporating therapy into the 24 hour management of a patient has always been an important part of treatment using the principles of the Bobath Concept; therefore practice tasks and home activity

programmes are as important to the Bobath therapist as to any other therapist wishing to promote motor learning and are essential in assisting the individual to develop their own management strategies.

So let's get the recent spate of criticism '*there is no evidence for Bobath and so as professionals practicing evidence based physiotherapy we should abandon it!*'

Therapists practicing Bobath are committed to the paradigm of evidence based practice (EBP) described by Strauss et al (2005) as '*the integration of the best research evidence with our clinical expertise and our patient's unique values and circumstances.*'

There is an inevitable tension for 'named concepts' within an EBP paradigm as they are suggestive of following an individual's (guru) viewpoint as the basis for what is done. This concept developed out of a highly gifted therapist's clinical observations allied to a desire to explain theoretically the clinical outcomes observed by an alternative therapeutic approach, BUT it cannot survive on that basis! Advances in neuroscientific knowledge have driven the ongoing development, while recent publications have sought to place the current practice of this concept in the context of the existing knowledge base.

The RCT is typically viewed as the 'gold standard' means of evaluation of effectiveness. This demands standardization of the applied intervention and therefore those interventions that can be most easily standardised have developed SOMETHING of an evidence base eg treadmill training – for increasing gait speed; CIMT – for counteracting learned non-use in patients with some retention of active wrist/finger extension; FES – stimulation of muscle activity and movement in focal areas.

Therefore for certain patient populations with certain clinical presentations and to achieve certain clinical outcomes there exists a selection of interventions with varying strength of evidence. Interestingly in the recent Kollen et al (2009) paper Bobath appeared to be effective in addressing balance deficits – interesting and maybe not surprising given the focus on postural control as a basis for improved movement potential and function.

However despite a growing body of research in rehabilitation **absolutes** in treatment guidelines remain elusive. Therapists have to use their own knowledge, previous experience and relationship with the individual to select appropriate interventions.

So is Bobath therapy effective? Four systematic reviews (Paci 2003, Van Peppen et al 2004, Luke et al 2004, Kollen et al 2009) have attempted to address this issue and, due to a number of methodological issues, the results of best evidence synthesis of all available evidence has been inconclusive. The conclusion of each review has been that it is not possible to identify any one approach as being of more benefit than another.

The most recent review highlights that research evidence to support clinical interventions in stroke rehabilitation is limited (Kollen et al 2009). However whilst research may not have shown specific named approaches to be effective this does not equate to evidence of ineffectiveness; the authors draw attention to methodological shortcomings in the studies that they reviewed and call for further high-quality trials.

Bobath therapy continues to be relevant to neurorehabilitation because it is one of the tools in the therapists rehabilitation toolbox that in the light of agreed definitions of EBP therapists, as autonomous practitioners, have the right to choose in the treatment of patients, if appropriate. Mature professions recognise that some clinical decisions will be based on clinical judgement, individual patient factors, the evidence base and the appropriateness for the individual at that point in time (Singer 2010).

## References

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