

## Editorial: Bobath Concept: Bobath@50: mid-life crisis — What of the future?

Recently, Raine and colleagues have published work attempting to define the Bobath Concept and describe its theoretical assumptions (Raine, 2006; Raine, 2007b). However, there remain two major questions and this editorial will explore these questions. The first is in relation to the statement made by members who participated in the Delphi study that they ‘hold key beliefs which are core to the group’. Neurophysiotherapy is hopefully no longer based on a set of beliefs, although this ‘attitude’ is not necessarily unique to Bobath and could possibly be said of any group. Although the statement reflects views held by some non-Bobath therapists, regarding beliefs underpinning the Bobath Concept there may be concerns about the lack of an up-to-date theoretical framework and evidence for its effectiveness. The statement does reflect views held by some non-Bobath therapists regarding beliefs underpinning the Bobath Concept and a concern about the lack of an up-to-date theoretical framework and evidence for its effectiveness. The second issue is the consensus statement that a client-centred, holistic, scientifically based therapy is ‘core within the

theoretical underpinning of the Bobath Concept (BC)’ as defined by Raine (2007b). How does this make the Bobath Concept different from any other type of therapy and why should it be pursued? In late 2007, the Bobath Centre in London celebrated its 50th anniversary. Given this milestone, and also that the Bobath Concept is under discussion in the literature (Lennon et al., 2001; Mayston, 2006; Raine, 2006; Damiano, 2007; Raine, 2007a; Raine, 2007b), it is perhaps a good time to review the Bobath Concept and now consider its standing within the context of current knowledge in neurophysiotherapy.

Many professionals working in neurological rehabilitation may not be aware that the Bobaths were instrumental in changing the outlook for people with disabilities caused by cerebral palsy and stroke. Indeed, during the Parliamentary debate of 6<sup>th</sup> April 1965, their work was recognized and referred to as essential to the development of services for such people (Parliamentary Debates, 1965). Berta and Karel Bobath pioneered their approach in the UK and Europe over 60 years ago, and subsequently the Bobath Concept has become an international approach taught

by hundreds of instructors, some trained initially by the Bobaths, but many subsequently by their trainees. The Bobath Concept is currently taught and practised in some shape or form, by thousands of clinicians in many countries throughout the world, too numerous to mention. This seems very positive for the acceptance of the Bobath approach, until one examines the practice of Bobath in different countries and at different times. Such examination, gained through personal experience of teaching Bobath in many countries, from discussion with other tutors at international and European meetings and from various publications (e.g. Lennon et al., 2001; Howle, 2002), reveals that there have been numerous modifications and changes to the Bobath Concept in various countries and healthcare settings. These changes have been motivated by a desire to align the Concept with changes in scientific understanding of motor control and central nervous system diseases. However, the net result may lead to confusion amongst therapists, neurologists and researchers as to what the Bobath Concept actually is. Currently it seems this depends on when you did your course, which instructor you did your course with, and in which country it was done, as to what 'flavour' of Bobath you practise and teach. This is a major problem for the Bobath approach and one that is not easily resolved. It represents a particular challenge for a non-Bobath trained physiotherapist who wishes to understand the Bobath Concept and explore its theory and practice, and find the underpinning evidence base. It is also a challenge for those who continue to practise the approach and preserve its integrity. The Bobath Concept receives many criticisms worldwide, many of which are warranted and some perhaps not. In a climate where some are calling to put a stop to the use of the Bobath approach, it would seem impor-

tant to consider at least some of these criticisms.

The difficulty in achieving consensus is clearly evident in Raine's study. In Raine's response to my letter (Mayston, 2006), it is stated that the aim of her study, using participants named as 'Bobath experts' was to define the Bobath Concept as it is practised today and to identify its theoretical underpinning (Raine, 2007b). However, the findings are dependent on the views of the British Bobath Tutors Association (BBTA) group, which it is suggested may also be representative of the wider world view, given that the BBTA members are also members of the International Bobath Instructors Training Association (IBITA). However, even within BBTA this study revealed that there was some difficulty in achieving consensus of what Bobath is and how it is practised. While the Bobaths stated it was a changing concept, and certainly this was true in their lifetime to some extent, my personal view is that others cannot change it without their agreement, which is not possible to receive as they are no longer alive. As a result, their original ideas could be acknowledged and those that are considered relevant on the basis of current knowledge and evidence still practised, at the same time accepting that other ideas/theories and approaches are useful and complementary to Bobath practice, i.e. adopt a Bobath-based approach.

I wish to recall several important statements made by Berta and Karel Bobath during their working life. The first is from Karel Bobath, who in his speech of response on receipt of the Harding Award in 1975, said that 'there are other methods and ways of treatment and that these should be explored' (Bobath, 1975). Berta Bobath in at least two publications (Bobath, 1970; Bobath, 1978) explained that other techniques described by other workers (Kabat and

Knott, 1954; Voss, 1967) may also need to be used at certain stages of treatment. The other important statement can be found in the Introduction to the third edition of the book 'Adult Hemiplegia: Evaluation and Treatment' (Bobath, 1990). 'We all learn and change our ways of treatment according to our growing knowledge and experience ...for better or for worse. Such changes are good and necessary and will continue. But the Concept from which they have evolved should remain intact...' From these statements, two important conclusions can be made:

1. The Bobath Concept must remain intact.
2. Other treatments are useful and can be used to complement Bobath therapy, or may even be preferable to Bobath.

I therefore challenge the idea of the 'New Bobath Concept' (personal communication) and the 'Contemporary Bobath Concept' (Tyson and Selley, 2007). The original Bobath Concept is clear: the basic approach could be described as follows:

- It has been evolved for patients with lesions of the upper motor neurone, typically cerebral palsy and stroke.
- Abnormal/atypical patterns of coordination need to be suppressed and unwanted movements controlled, but *never* at the expense of any individual's participation in everyday life.
- *More* normal/optimal muscle activity for use in daily activities needs to be obtained, using techniques of facilitation as needed. Only the child/client's more normal selective activity can result in reducing the effect of abnormal/atypical tone. Bobath (1990) stated that 'the emphasis in treat-

ment is now on the active participation of the patient with the therapist to learn to control his spastic hypertonia himself'. The current emphasis on active participation was an integral part of the Bobath Concept even back then.

- 'It involves the whole patient, his sensory, perceptual and adaptive behaviours as well as his motor problems', thus a multidisciplinary/transdisciplinary approach is required (Introduction of Bobath, 1990).
- Treatment is management and all treatment needs to be directed towards working in activities of daily life. Clients are encouraged to practise activities at home and with their carers; Bobath Centre (UK) clients all receive a written home programme, which they have received training to carry out; equipment and other adjuncts are suggested as needed.
- These ideas can only be applied if a thorough analysis of the child/client's skill (i.e. task analysis of activity/participation) is carried out, thus the need for an individual problem-solving approach. This individual problem-solving approach can also potentially assist the therapist to determine what other types of other intervention could be helpful and necessary, e.g. treadmill training, muscle strengthening.

Having reflected on the changes in what is currently taught on Bobath courses, the recent literature on motor control, neuroplasticity and rehabilitation, and my own clinical practice, it seems to me that the following steps are necessary:

1. Define the Bobath Concept as that described by Bobath and accept this as the Concept.

2. Determine what is still relevant and discard what is not.
3. Provide evidence and a sound theoretical basis for what is considered relevant based on current literature and evidence. The underlying theory is hopefully different but the basic ideas remain the same: i.e. the musculoskeletal system is optimized in order for the child/client to participate in daily tasks and to practise them as needed.
4. Accept that Bobath can be useful to neurorehabilitation, but alone does not provide a complete package, i.e. that there are other approaches and adjuncts that are complementary or even preferable to the Bobath approach for some clients.

I have no doubt that the Delphi technique is a useful tool for obtaining group views and opinions, but the problem remains that the Bobath Concept has been widely prac-

tised, developed and changed, and accordingly it remains a challenge to achieve consensus between all those who practise it. As a result, it means different things to different people and tends to confuse the wider rehabilitation community. Hence I reiterate my suggestion to either adopt a Bobath-based approach or to reconsider the relevance of the Bobath Concept to current therapy practice. Figure 1 shows the core Bobath elements central to the child/client-centred treatment approach, but with the scope to add in other treatments and adjuncts as needed.

What of the future? There are some who would consider the Bobath approach to be outdated and best resigned to the history books. Indeed, the current confusion about the Bobath Concept brings continued practice of the approach into question; thus, the Bobath Concept could be described as being 'in-crisis'. My personal opinion is that the Bobath Concept should remain intact, but that it should now (and in the future) be

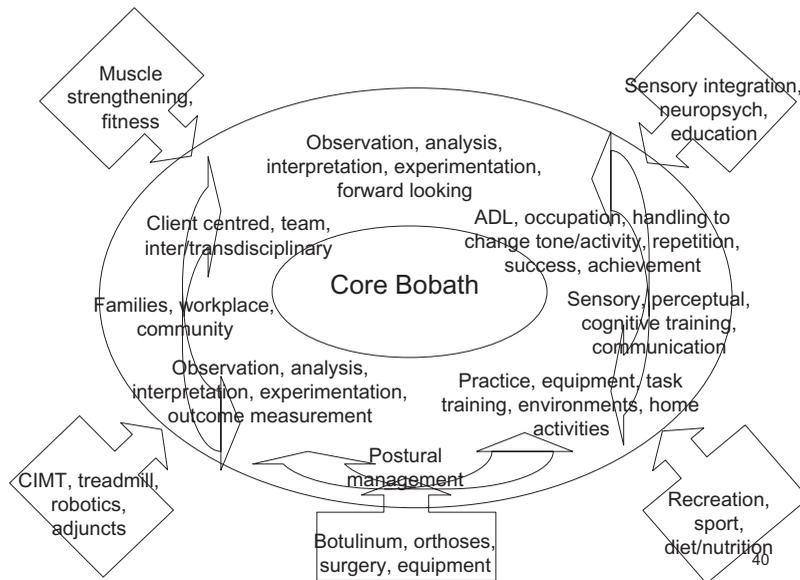


FIGURE 1: Adapted from Mayston (2008).

explained in different ways by current theory, and at the same time to accept that there are other ways of providing therapy for the neurologically impaired person, and that Bobath on its own cannot provide the complete package for the neurorehabilitation client.

Although the basic elements of the Bobath Concept remain, they have been reinterpreted on the basis of advances in neuroscience. For example, 'tone', which the Bobaths emphasized as an essential component of functional activity, is now known to comprise both neural and non-neural components, not only neural aspects as proposed by the Bobaths. This has implications for the explanation of handling techniques applied during treatment/management, such that the word 'inhibition' is no longer a relevant explanation for the ways Bobath therapists stretch and activate muscles (Mayston, 2002). It is also important to consider that alterations of tone are not often the primary impairment of the neurologically impaired person, and that other impairments such as muscle weakness and loss of dexterity can present greater challenges for the child/client and the people guiding their management. Agonist and antagonist muscles act together when needed for stability, but their co-contraction during task performance is not as significant as Bobath originally thought. These differences in explanation do not change the basic Concept — it remains intact. On the other hand, there is an urge to include muscle strengthening within the Bobath approach because there is now evidence to support its application, but this is contrary to the Bobaths' view. Instead, resisted muscle strengthening could be added as an adjunct to complement child/client management as one of the extra interventions that may be needed at some stages of intervention as advocated by the Bobaths (Bobath, 1970; Bobath, 1978). From this perspective, the

Bobath Concept remains intact with the core Bobath ideas at the centre, recognizing that at certain times and for certain individuals, other interventions may be useful and necessary and preferable.

Tyson and Selley (2007) in their study, identified that the therapists surveyed in the UK seemed to follow a traditional Bobath model in practice, despite their self-perception of being eclectic. This is not surprising given that the Bobath course seems to have been the main postgraduate course undertaken by neurological physiotherapists to improve their clinical practical skills. However, times are changing and some countries no longer support the provision of Bobath courses for stroke rehabilitation and discourage Bobath as a therapy approach, preferring evidence/scientific-based neurorehabilitation (Van Peppen, 2008). Therapists need access to a variety of courses that will enable them to expand their skills into the application of other modalities such as treadmill training, muscle strengthening and task-specific training in order to adopt a truly eclectic approach, or perhaps it could be better termed a client-centred approach. Fortunately, alternative courses are becoming more available and in time changes will result from these. However, it is also important to bear in mind that aspects of the Bobath approach could be useful, and a lack of evidence does not mean that empirical strategies that seem to work should be discarded. Rather, the challenge is to provide the evidence for their efficacy.

It is time for an international review of the Bobath Concept, and there is an urgent need for international consensus to be found if the Bobath concept is to remain relevant to neurorehabilitation. How such a review can be achieved remains unclear. For the moment, therapists who teach and practise the Bobath Concept can *at best* offer a *Bobath-based*

approach. However, there is an urgent need for an integrated approach to neurorehabilitation that is not based on approaches, but rather is client based with a sound theoretical, and where possible, evidence base. This does not negate the practice and teaching of Bobath-based therapy, but requires a shift in focus to recognize Bobath as a contributor to client-based neurorehabilitation, not the leading actor who wishes to be centre stage at all times.

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