Received: 21 February 2017 | Accepted: 6 March 2017

DOI 10.1111/jep.12751

WILEY Journal of Evaluation in Clinical Practice
International Journal of Public Health Policy and Health Services Research

LETTER TO THE EDITOR

Author response to "Letter to Editor by Roger Mepsted"

Dear Editor,

The authors would like to thank Mr Mepsted for his interest in our study and for encouraging debate on this important subject.

The purpose of this study was not to examine the effectiveness of the Bobath concept vis a vis other approaches but to gain a greater understanding of the critical aspects of tacit knowledge that inform and extend cognitive reasoning strategies of expert neurorehabilitation therapists. Clinical reasoning, a critical aspect of clinical practice, determines if an intervention is relevant and reasonable for an individual. Ours is the first study to document the clinical reasoning of Bobath instructors.[1] We did not seek to demonstrate, or claim, that only Bobath instructors utilize expert cognitive reasoning strategies. Rather, the Bobath instructors were used as a sampling frame to obtain a sample of expert neurorehabilitation therapists.

Numerous scholars have called for a reconceptualization of professional practice knowledge, practical wisdom, recognizing that clinical reasoning extends beyond the underlying cognitive processes.[2] Our study illuminates the role of practical wisdom, phronesis, the domain-specific sensory-motor acuity developed through professional practice, identifying the integration of a visuo-spatial kinesthetic perception as a unique dimension of a Bobath instructor's reasoning process, extending beyond already identified cognitive reasoning strategies, and thus makes a unique contribution to the clinical reasoning literature.

Even though our study is not concerned with effectiveness, we feel obliged to respond to some of Mr Mepsted's comments about the effectiveness of the Bobath approach. The evidence to which he refers is not as conclusive as he states. The evidence does not "overwhelmingly conclude Bobath is less effective than the alternatives," rather the conclusion by most rehabilitation scholars is that there is insufficient evidence either for or against Bobath/NDT interventions.[3]

As part of our ongoing program of research, we conducted a scoping review of the literature on the Bobath evidence base from 2007 to 2012 in adult neuro-rehabilitation. We clearly identified significant methodological flaws of the existing studies that are cited as evidence that does not support the Bobath approach including comparison groups; study fidelity; duration of care; and, measurement.[4]

With respect to intervention comparison, only 1 of 12 intervention studies we examined actually had the Bobath approach as the study intervention. The rest of the studies used the Bobath approach as the "control" intervention assuming it to be "standard care," with little attempt to operationalize and specify the care provided. All of these studies lacked sufficient operationalization of the Bobath approach and description of therapists providing the interventions such that the studies were not reproducible raising issues of study fidelity, one of the major limitations in stroke rehabilitation research.[4,5]

We have argued elsewhere[6] that the Bobath approach is not a treatment technique, per se, but a problem-solving approach to clinical decision making providing an overall conceptual framework enabling the development of an individualized intervention plan addressing complex movement challenges. The Bobath approach has been compared to other approaches such as motor relearning, multisensorial rehabilitation, and task specific training. We would argue that these studies are problematic in that it is not clear the extent to which these approaches differ sufficiently from the Bobath approach to warrant comparative study.[4] Further, the uncritical adoption of the RCT to study the effectiveness of complex, multifactorial and individualized neurorehabilitation approaches is inappropriate and fails to provide clinically relevant evidence.[6]

Other intervention studies have compared the Bobath approach to constraint-induced movement therapy (CIMT), partial body-weight support (PBWST), robotic therapy, neuromuscular electrical stimulation (NMES), passive movement (PM), and rhythmic auditory stimulation (RAS). All of these interventions are treatment techniques (not conceptual frameworks), which are only applicable to select client groups or would only be considered an adjunct therapy, not a comprehensive treatment approach.[4]

A critical perspective of the evidence should question whether the actual interventions delivered were relevant and appropriate for the study participants.[7] All Bobath clinicians, and many neuro-rehabilitation therapists, concur that the delivery of a predetermined package of interventions to a group of patients determined by their medical diagnosis irrespective of the individual clinical presentation is the antithesis of actual clinical practice.[4]

Lastly, we would like to draw attention to recent peer-review publications[8-12] and texts[13,14] that clearly document the ongoing evolvement of the Bobath concept by identifying the underlying theoretical assumptions and key aspects of clinical practice of the contemporary Bobath concept. An in-depth review of this literature will inform the interested reader that the current effectiveness literature that claims to examine the Bobath approach does not reflect current Bobath clinical practice. Careful consideration is required in determining the optimal study methods enabling appropriate investigation of the Bobath concept.[15] Thus, according to the literature the Bobath concept has moved on, however, rehabilitation science is stuck, spinning its wheels attempting to produce clinically relevant evidence using a study methodology that fails to appreciate the individualized nature of client care.

In summary, one has to ask if the Bobath approach has yet to be effectively investigated? Our work to date aims to enhance the existing literature by defining the Bobath approach to help address some of the methodological issues raised above. We find it ironic that the Bobath approach is critiqued for lack of evidence on the basis of problematic studies to date, and, that when we attempt to address these shortcomings with respect to studying the Bobath concept by defining and articulating what it is and consists of, we are also subject to criticism based on that same problematic body of evidence.

Sincerely,

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How to cite this article: Vaughan-Graham J, Cott C. Author response to "Letter to Editor by Roger Mepsted". *J Eval Clin Pract*. 2017. https://doi.org/10.1111/jep.12751