Delphi Study to Determine the Theoretical Assumptions of the Bobath Concept as Determined by the British Bobath Tutors Association

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INTRODUCTION

The Bobath concept offers therapists, working in the field of neurological rehabilitation, a framework for their clinical interventions. The work of Dr and Mrs Bobath was considered revolutionary in the 1950’s. With scientific progress over the last half-century in areas such as neurophysiology, muscle and motor learning the Bobath concept has continued to develop. The aim of this study was to use the Delphi technique, to enable experts in the field, to identify the current theoretical assumptions of the Bobath concept.

METHODOLOGY

A four round Delphi study design was used where initial statements were identified from the literature. Level of agreement was determined using a 5-point Likert scale. The respondents were provided with feedback on group opinions and given an opportunity to re-rate each statement. The level of group consensus was set at 80% and the response rate set at 80%.

Content analysis was used to identify major themes and descriptive statistics were used to identify level of consensus and rank the statements. The data underwent a sensitivity analysis.

RESULTS

The response rate was 85% in the first round, and 93% in each subsequent questionnaire round. Consensus improved following feedback. There were 95 original statements, with 14 new and 113 reworded statements generated by the group; of these 101(45%) statements were identified as representative of the theoretical assumptions of the Bobath concept.

<table>
<thead>
<tr>
<th>Consensus</th>
<th>Agree</th>
<th>172 (72%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disagree</td>
<td>27 (12%)</td>
</tr>
<tr>
<td>Total Consensus</td>
<td>Agree</td>
<td>56 (25%)</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>14 (6%)</td>
</tr>
<tr>
<td>Neutral Opinion</td>
<td>3 (1%)</td>
<td></td>
</tr>
<tr>
<td>Lack of Consensus</td>
<td>20 (9%)</td>
<td></td>
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</tbody>
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THEORETICAL ASSUMPTIONS OF THE BOBATH CONCEPT - SUMMARY

- The Concept involves the whole patient, their sensory, perceptual and adaptive behaviour as well as their motor problems.
- Altered muscle tone, changes in muscle length and alignment, muscle weakness and in-coordination may all limit functional recovery in patients following stroke.
- Plasticity underlies all skilled learning and is a part of CNS function.
- If the CNS is damaged it has to compensate, it is the therapists’ job to guide the persons recovery so that they can achieve their maximal functional potential within the constraints of the damaged CNS.
- Therapy is an interactive process between individual, therapist and the environment.
- In therapy there is a need to address the problem of an individual’s specific ability to create tone against gravity for the necessary postural stability on which selective movement is based.
- Therapy aims to promote efficiency of movement to the individual’s maximum potential rather than normal movement.
- Ultimately the therapist is aiming to re-educate the patients own internal referencing system to provide accurate input giving the patient the best opportunity to be efficient, specific and have movement choices.
- The therapist must address both the specific movement components of the task and the functional activity in order to achieve goals.
- Selective and specific strength training may be part of treatment within the Bobath concept.
- Therapists may use a treadmill and this could include facilitation to enable the most efficient pattern.
- Splinting and orthoses may be indicated to gain alignment or a good weight-bearing base for improved proximal and trunkal activity.
- Restraining of the less affected body parts manually during a therapy session may be used to try and assist activation of the affected parts.
- As part of the rehabilitation process the therapist must consider the 24 hour management of the patient and his / her way of life.

CONCLUSIONS

The Delphi technique was an effective research tool for exploring expert opinions on the Bobath concept. The Bobath experts agreed that therapists need to be aware of the principles of motor learning such as active participation, opportunities for practice and meaningful goals. They emphasise that therapy is an interactive process between individual, therapist and the environment and aims to promote efficiency of movement to the individual’s maximum potential rather than normal movement. Treatment was identified as having ‘change of functional outcome’ at its centre. This study only employed Bobath Tutors working within the UK. A study using a representative sample from the international group would enable the results to be generalised worldwide. It is important to establish a process to identify and disseminate the ongoing developments in the Bobath concept, in order to support and evaluate the advances in clinical practice.

REFERENCES: