The role of family-centered therapy when used with physical or occupational therapy in children with congenital or acquired disorders

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CRD summary
The authors suggested that therapy was more successful if it included family training, parental feedback on functional compensations used by the child, adapting the environment or task, and identifying goals. There were small samples, with a lack of control in some studies, and the magnitude of the improvement was not reported, so the clinical significance of these improvements remains unclear.

Authors' objectives
To evaluate the effects of family-centred therapy on family satisfaction and functional outcomes, in children with congenital or acquired disorders, when provided with physical or occupational therapy.

Searching
PubMed, CINAHL, Academic Search Complete, Academic Search Premier, SPORTDiscus, and Psychology and Behavioral Sciences Collection were searched, for studies published in English. The earliest content was from 1965; the date on which the searches were conducted was not reported. Search terms were reported.

Study selection
Studies of any design that evaluated the effects of family-centred therapy, for children who had either congenital or acquired disorders and were aged between 18 months and 12 years, were eligible. Studies had to provide a definition of family-centred therapy; use family-centred therapy in occupational or physical therapy; and report either the functional status of the child or parental satisfaction.

The included studies used a range of different parental satisfaction and functional assessment scores. All studies used multiple assessment tools. Most interventions required the parents and the therapists to work together, to observe the child and determine the areas that needed to be addressed. The median age of the children was 6.9 years and 61% of them were male. Across all studies, 55% of children had a history of traumatic brain injury (moderate to severe), 40% had cerebral palsy, and 5% had unspecified hemiplegia.

Two reviewers independently selected studies for inclusion.

Assessment of study quality
The quality of the studies was assessed using a modification of the GRADE scale; a reference was provided. This had 13 criteria covering limitations in study design, inconsistencies, imprecision, indirectness, and reporting bias, giving a score out of 13. Scores of 11 to 13 were high quality (further research unlikely to change the effect size); 6 to 10 were moderate quality (further or better research might change the effect size); and 0 to 5 were low quality (further research likely to change the effect size). The evidence was assessed for strength (strong, or weak or conditional) and clinical importance (critical, important, or not).

Two reviewers independently assessed study quality; any disagreements were resolved through discussion.

Data extraction
Changes in a range of parental satisfaction and functional assessment scores, along with their probabilities, were extracted. The authors did not state how many reviewers were involved in data extraction.

Methods of synthesis
The studies were combined in a narrative synthesis.

Results of the review
Five studies (two randomised controlled trials, one case series, and two cohort studies) were included in the review (158
participants, range three to 87). The quality scores ranged from 7 to 13 (one study was high quality, and four were moderate). All studies were rated critical or important for clinical outcomes. Two studies provided strong evidence and three provided conditional or weak evidence. Where reported, follow-up ranged from eight weeks to one year.

All studies showed improvement in outcome assessment scores from before to after intervention, for participants using some form of family-centred therapy. This improvement was noted in both functional and satisfaction scores.

Two randomised controlled trials showed statistically significant improvements in functional scores, with family-centred therapy, compared with control.

Authors' conclusions
The evidence suggested that therapy was more successful with family training, parental feedback on functional compensations used by the child, adapting the environment or task, and identifying goals.

CRD commentary
The review addressed a clear question and was supported by appropriate inclusion criteria. Several relevant databases were searched; the restriction to studies in English means that some relevant studies may have been missed. The search dates were not reported; the paper was published in 2012, and the most recent included study was from 2009; it is unclear if the searches were up to date.

Appropriate methods to reduce reviewer error and bias were used for quality assessment and study selection, but it was unclear whether similar methods were used for data extraction. Suitable criteria were used to assess the quality and strength of the studies. A narrative synthesis was appropriate, given the differences between the studies in their interventions and outcome measures.

The authors’ conclusion reflects the evidence presented, as statistically significant improvements were reported for all studies, but the samples were small, not all the studies were controlled, and the magnitude of the improvement was not reported. The clinical significance of the findings remains unclear.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that further studies should have large samples and assess the long-term effects over more than one year. They should include a comparison control group, as well as an alternative intervention.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.