

Interventions for persons with apraxia: What is the evidence?

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Introduction

Adults with apraxia resulting from stroke and acquired brain injury face significant challenges reengaging in occupation. Apraxic changes may be caused by damage to sensory- perceptual, conceptual and/or movement execution neurological systems. Understanding how to approach the treatment of those with this challenge has only recently been studied from both an occupation and an impairment-based perspective.

Objectives

The study question was, "What interventions for persons with apraxia demonstrate effective short and long term effects at the impairment and/or occupational performance level?"

Methods

A detailed literature search of 8 electronic data bases and 2 dissertation/thesis databases utilizing the key search terms apraxia/limb apraxia, rehabilitation, stroke, and acquired brain injury was undertaken for the adult population. All literature was reviewed utilizing an adapted version of the Law et al. (1998) Critical Review of Quantitative Studies guidelines and the PEDro scale. Each article was rated by 2 readers.

Results

A total of 18 relevant articles were reviewed. In order to organize the reviewed results, studies geared to rehabilitation of sensory-perceptual, conceptual or movement systems involved in praxis were subdivided based on the Waterloo-Sunnybrook Model Apraxia (Roy, 1985). The other category of interventions included those taking an occupational intervention approach.

There are several gaps in the intervention literature for adults with apraxia. These include a lack of research considering both the short and long-term effects and generalization. Rarely are there more than two studies that utilize the same techniques. Intensity of practice and theoretical rationale for treatment approaches are often missing.

Conclusion

The strongest evidence for successful intervention in the literature to date is that which takes an occupation-based approach. There is however some evidence for impairment based approaches which generalize to changes in function.

Contribution to Occupational Therapy.

This study provides a description of the types of approaches to treatment of clients with apraxia that have been examined in the literature. Evidence for an occupation-based approach will be presented and discussed. For those wishing to do research in this area, gaps are identified and reflections on potential new ways to examine this area will be identified.