Is occupational therapy practice for older adults with lower limb amputations evidence-based? A systematic review
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CRD summary
The authors of this review concluded that evidence on occupational therapy for older adults with lower limb amputations was limited and scarce and occupational therapists needed to take urgent action to address the gaps in the evidence base. Despite some restrictions in the search for this review, the authors’ conclusions reliably reflect the limited evidence presented.

Authors' objectives
To assess the effectiveness of occupational therapy interventions for adults aged 65 years and over with lower limb amputations.

Searching
The authors searched PubMed, CINAHL, OTseeker and OTDBASE between January 1985 and January 2011 for peer-reviewed articles published in English. Search terms were presented.

Study selection
Studies of any design were eligible for the review provided they included participants aged 65 years and older at least 40% of whom had unilateral or bilateral lower limb amputation. Studies needed to investigate an intervention related to occupational therapy practice.

Studies in this review used survey methods. They assessed factors in the use of prosthetics and the supply and use of wheelchair stump boards. Few patient characteristics were reported.

Two reviewers selected studies for the review and resolved disagreements by consensus.

Assessment of study quality
Each study was assessed for quality based on guidance suggested in the Department of Health National Service Framework for long-term conditions. This included clarity of the research question and research design, methodological strengths and weaknesses, soundness of the statistical analysis, the integrity of the study's conclusions and potential for generalisation of its results. Each characteristic could score a maximum of 2 points. Total possible scores ranged from 0 to 10. Levels of evidence were assigned to the studies.

Two reviewers assessed quality independently.

Data extraction
Two reviewers extracted data from the studies.

Methods of synthesis
The authors presented a narrative summary of the included studies.

Results of the review
Two studies (121 participants including patients, therapists and service managers) were included in the review. Both studies were surveys (level 5 evidence) and both had methodological limitations.

The first study (scored 7 out of 10 for quality) found that 81% of the 65 participants wore their prosthesis every day. The frequency of occupational therapy sessions was statistically significantly related to prosthetic use. In multiple regression, dissatisfaction with the prosthesis, not possessing a wheelchair and cognitive integrity explained 46% of the variance.

The second study (scored 4 out of 10 for quality) found that all 30 occupational therapists surveyed used stump boards.
with patients who had below knee amputations and 50% of therapists used them with through knee amputations. Comfort and protection of stump were considered to be important factors in their provision. Older adults (sample of 12) perceived that using a stump board had increased their comfort in a wheelchair, offered protection to the stump and encouraged them to accept their amputation.

**Authors’ conclusions**
Evidence on occupational therapy for older adults with lower limb amputations was limited and scarce. Occupational therapists need to take urgent action to address the gaps in the evidence base.

**CRD commentary**
This review was underpinned by broad inclusion criteria for participants, interventions and study designs. The authors searched a small range of databases. The search was restricted to studies published in English so some relevant studies may have been missed. Study selection, data extraction and quality assessment were all conducted in duplicate to help minimise bias and error in these processes. Quality was presented as a sum score and so did not take into account the relative impact of different sources of bias. There were no tables of data to examine study characteristics. A narrative synthesis was appropriate given the limited evidence presented.

Despite some restrictions in the search for this review, the authors’ conclusions reliably reflect the limited evidence presented.

**Implications of the review for practice and research**

**Practice**: The authors did not state any implications for practice.

**Research**: The authors highlighted the scarcity of research evaluating occupational therapy for older adults with lower limb amputations. They stressed that the key area of future research was the effectiveness of interventions in improving quality of life following a lower limb amputation.

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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.