
The experience of amputation and prosthesis use for adults: a metasynthesis

Murray CD, Forshaw MJ

CRD summary

The authors concluded that findings from this review provide a base from which to make suggestions on provision of health rehabilitation services for adults who experience amputation and prosthesis use. The authors propose a number of recommendations for practice based on the evidence presented, and their tentative conclusion seems justified.

Authors' objectives

To explore the experience of amputation and prosthesis use in adults.

Searching

MEDLINE, CINAHL and Web of Science were searched up to May 2012 for studies published in English in peer-reviewed journals. Search terms were reported. Reference lists were checked for additional papers of interest.

Study selection

Eligible for inclusion were qualitative studies that explored adult experiences of amputation and/or prosthesis use, with specific focus on psychosocial outcomes. Studies were excluded if they focused only on the following: the experience of stump or phantom limb; decisions to have elective amputation; or experiences of services. Studies with mixed populations (amputees and non-amputees) without separate data were also excluded.

The included studies (published between 2001 and 2012) were conducted in Europe (including three in the UK), Australia, Canada, Brazil, Taiwan and the United States. Sample characteristics (such as age, gender, upper or lower body limb loss, causes of and elapsed time since amputation) and study setting varied across the studies. Length of time regarding prosthesis use, and whether all participants were active prosthesis users, was unclear. Most studies used one-to-one interviews as the method of data collection; some of these also made use of posts made to internet discussion groups. The theoretical approaches were reported in the paper.

The authors did not state how many reviewers were involved in the selection of studies.

Assessment of study quality

Study quality was assessed using the Critical Appraisal Skills Programme (CASP) checklist (10 items) together with a rating system by Duggleby *et al* (which awarded up to 3 points for each of the last 8 criteria of the CASP checklist). Each study was given a score out of 24.

All items of the CASP checklist (clear research aim and relevance; appropriateness of qualitative research methodology) were scored independently by at least two reviewers, and disagreements were resolved by discussion.

Data extraction

Data were extracted from the individual studies by compiling all themes and components of themes relevant to the review question, drawing upon supporting sentences, phrases and quotations.

The authors did not state how many reviewers carried out data extraction.

Methods of synthesis

A thematic analysis was carried out, whereby themes and components of themes were drawn together as discrete concepts using a method of constant comparison within and between studies.

Results of the review

Thirteen studies (15 papers) were included in the review. Sample size ranged from five to 42. All included studies met the first two criteria from the CASP checklist (noted above). Overall, quality scores ranged from 15 to 23 out of a possible 24.

Five concepts were identified in relation to the experience of amputation and prosthesis use in adults:

Becoming an amputee and facing prosthesis use (10 papers)

Early experience of losing a limb included sadness, shock, anger and feelings of lost independence. Some participants expressed disappointment at seeing their prosthesis for the first time, resulting in emotional ambivalence and a lack of preparedness for new capabilities. There were feelings of insecurity about the transition from hospital to home. Despite some negative experiences, other participants felt keen to regain self-confidence and find ways to cope.

Adjustment to and coping with amputation and prosthesis use (six papers)

Some participants likened amputation to bereavement. The use of social comparison (considering someone with greater problems to derive comfort for themselves) was a frequent method of coping. Conversations with others who had lost a limb were a source of optimism for some participants.

The role of valued relationships in recovery (nine papers)

The supportive role of family and friends, and the psychological importance of being accepted, were key drivers in improving self-worth and normalcy.

Amputation and prosthesis use in social interaction (six papers)

Prosthesis use allowed participation in regular social activities. By concealing limb loss, participants also noted the integral role that prostheses and clothing choices played in shaping positive reactions of others. At the same time, concealment was seen by some as deceptive activity.

Prosthetically enabled identities (nine papers)

Prosthetic limb use was felt to be important in regaining a valued identity, and this was something that developed over time.

Authors' conclusions

Findings from this review provided a basis for suggestions on the provision of health rehabilitation services for adults who experience amputation and prosthesis use. The authors proposed a number of recommendations for practice (see below).

CRD commentary

The review question was clear. Inclusion criteria were adequately specified, although broadly for participants. Appropriate data sources were searched, but language and publication restrictions may have meant that relevant studies were missed. The review process was not clearly reported at the study selection and data extraction stages, which means that the possibility of reviewer error and bias could not be ruled out. Appropriate quality assessment criteria were applied, and scores suggest that the included studies reached a reasonable standard. Although the authors made use of selected participant quotations in their interpretation of findings, further reference to individual study results (or a summary thereof) would have provided a helpful audit trail to verify these interpretations. This audit trail would have also made it clearer how generalisable results drawn from a varied group of studies were likely to be..

The authors' conclusion and recommendations for practice are reflected in the evidence presented. With some caveats regarding the reporting process and generalisability, the conclusion is suitably tentative and seems justified.

Implications of the review for practice and research

Practice: The authors stated that health rehabilitation services should make greater use of psychological interventions, education and communication between patient and professionals at the pre- and post-operative stages; include patients' social support networks; use psychotherapy to support and develop positive coping strategies; and facilitate peer support from those who have already made positive adjustments to amputation and prosthesis use.

Research: The authors did not state any implications for research.

Funding

Not reported.

Bibliographic details

Murray CD, Forshaw MJ. The experience of amputation and prosthesis use for adults: a metasynthesis. *Disability and Rehabilitation* 2013; 35(14): 1133-1142

PubMedID

23033871

DOI

10.3109/09638288.2012.723790

Indexing Status

Subject indexing assigned by NLM

MeSH

Adaptation, Psychological; Adult; Amputation /psychology /rehabilitation; Amputees /psychology /rehabilitation; Artificial Limbs; Humans; Qualitative Research; Self Concept; Social Support

AccessionNumber

12013038635

Date bibliographic record published

29/10/2013

Date abstract record published

03/01/2014

Record Status

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.