

PRE-OPERATIVE EDUCATION FOR HIP OR KNEE REPLACEMENT

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ABSTRACT

Background

Hip or knee replacement is a major surgical procedure which can be physically and psychologically stressful for patients. It is hypothesised that education before surgery reduces anxiety and enhances postoperative outcomes.

Objective

To determine whether preoperative education improves postoperative outcomes (anxiety, pain, mobility, length of stay and the incidence of deep vein thrombosis) in patients undergoing hip or knee replacement surgery.

Criteria for considering studies for this review

We searched the Cochrane Central Register of Controlled Trials (The Cochrane Library issue 2, 2003), MEDLINE (1966 to April 2003), EMBASE (1980 to June 2002), CINAHL, PsycINFO and PEDro until May 2003. We handsearched the Australian Journal of Physiotherapy (1954 to 2001) and reviewed the reference lists.

Selection criteria

Randomised trials of preoperative education (verbal, written or audiovisual) delivered by a health professional within six weeks of surgery to patients undergoing hip or knee replacement.

Data collection and analysis

Two reviewers independently assessed study quality and extracted data. Continuous outcomes were combined using weighted mean difference (WMD) and 95% confidence intervals (CI).

Main results

Nine studies involving 782 participants met the inclusion criteria. Four studies involving 365 participants assessed length of hospital stay (days) but detected no significant difference between preoperative education and usual care (WMD -0.97; 95% CI -2.67 to 0.73). However, one study of 133 participants with more complex needs, indicated that individually tailored programmes of education and support were beneficial in reducing length of stay. The four studies reporting length of stay did not find any significant effect of preoperative education on days to standing and days to climb stairs. Three trials found preoperative education was beneficial in reducing preoperative anxiety (WMD -5.64; -7.45 to -3.82) on a scale of 0 to 100. No significant effect on postoperative anxiety was detected either on the day following surgery, or at discharge. None of the five studies reporting postoperative pain detected any difference between the groups.

Authors' conclusions

There is little evidence to support the use of pre-operative education over and above standard care to improve postoperative outcomes in patients undergoing hip or knee replacement surgery, especially with respect to pain, functioning and length of hospital

stay. There is evidence that preoperative education has a modest beneficial effect on preoperative anxiety. There may also be beneficial effects when preoperative education is tailored according to anxiety, or targeted at those most in need of support (e.g. those who are particularly disabled, or have limited social support structures).
