The effect of psychological preparation for surgery on post-operative negative affect: A systematic review

Anne Manyande, University of West London; Rachael Powell, University of Manchester; Neil Scott, University of Aberdeen; Claus Vogele, University of Luxembourg; Julie Bruce, University of Warwick; Lucie Byrne-Davis, Manchester Medical School; Mary Dahdah, Aston University; Christian Osmer, Royal Sussex County Hospital; Marie Johnston, University of Aberdeen

Objectives: A 1993 systematic review found that psychological preparation for surgery reduced post-operative negative affect. Since this review, hospital procedures have changed and further studies have been published. The paper aims to update the 1993 review.

Design: Systematic review and meta-analysis examining the impact of pre-operative psychological preparation on post-operative negative affect in adults undergoing elective surgery under general anaesthesia using Cochrane review methodology.

Methods: Searches were conducted in CENTRAL, MEDLINE, EMBASE, PsycINFO, CINAHL, Dissertation Abstracts and Web of Science. Reference lists were searched and authors contacted to identify further research. Inclusion criteria were: randomised controlled trials; adults undergoing elective surgery under general anaesthesia; interventions of procedural information, sensory information, behavioural instruction, cognitive intervention, relaxation, hypnosis, emotion-focused interventions; negative affect outcome within one month post-surgery.

Results: Searches identified 5116 papers. Fifty studies were included, with outcome measures including STAI, HADS, MAACL, MAACL. Data were combined using a standardised effect size (Hedges' g) where sufficient data were available; other data were narratively synthesised. Data for meta-analysis were available in 31 trials. Psychological preparation was associated with lower negative affect compared with controls (Hedges' g: -0.35, 95% CI: -0.54 to -0.16). Results tended to be similar across intervention strategies.

Conclusions: Psychological preparation before surgery was found to reduce negative emotion after surgery but caution is needed in interpreting the results because of high heterogeneity in types of surgery and interventions. Further analyses will investigate effects on other outcomes and explore the heterogeneity to determine which methods are effective for different populations.