

Patients who saw an information video 1 week before colonoscopy had reduced anxiety and better knowledge immediately before the procedure

Luck A, Pearson S, Maddern G, et al. *Effects of video information on precolonoscopy anxiety and knowledge: a randomised trial. Lancet* 1999 Dec 11;354:2032-5.

QUESTION: Does viewing an information video about 1 week before a scheduled colonoscopy reduce patient anxiety and increase knowledge about the procedure?

Design

Randomised (allocation not concealed), blinded (outcome assessor), controlled trial.

Setting

A day surgery unit at a hospital in South Australia, Australia.

Patients

150 patients (51% men) who were scheduled for colonoscopy between January and August 1998. Exclusion criteria were age < 16 years, inadequate understanding of English, and mental impairment. Follow up was complete.

Intervention

About 1 week before colonoscopy, 72 patients were allocated to the video group and viewed a 10 minute videotape in a separate room. A well known actor narrated the video using non-medical language and discussed the procedure with a colonoscopist and with a patient who had previously had a colonoscopy. 78 patients were allocated to usual care. All patients received a standardised information sheet about colonoscopy at enrolment.

Main outcome measures

Patient situational anxiety, assessed using the self report Spielberger state anxiety inventory (STAI) (scores range from 20-80, with higher scores indicating greater anxiety), was measured at enrolment (1 week before colonoscopy) and immediately before colonoscopy. Knowledge of the purpose, procedural details, and potential complications of colonoscopy was assessed using a written questionnaire (maximum score 12 points) immediately before colonoscopy.

Main results

Women had greater anxiety at enrolment than men (mean difference in STAI scores 9.4, 95% CI 7.8 to 12.2, $p < 0.001$). Patients who had not previously had a colonoscopy had higher anxiety scores at enrolment than those with prior experience of the procedure (mean difference in STAI scores 10.6, CI 7.5 to 13.8, $p < 0.001$). Linear regression analysis showed that patients who saw the video had less anxiety immediately before colonoscopy than did patients who did not see the video, and the difference was greater for patients who had greater anxiety at enrolment. Patients who saw the video also had more correct responses to the knowledge questionnaire (total mean score 9.88 *v* 8.31, $p < 0.001$).

Conclusion

A 10 minute information video viewed 1 week before colonoscopy reduced patient situational anxiety and increased knowledge immediately before the procedure.

COMMENTARY

Few studies have examined whether viewing an informational video before a medical procedure reduces patient anxiety levels. However, Nielsen and Sheppard's review of 33 studies on the use of information programmes delivered via television found that almost all of the studies achieved their objective of improved knowledge, and confirmed that audiovisual methods were as effective as other presentation methods and were more effective than written information alone.¹ Other researchers have noted that initiating teaching strategies before a procedure rather than at the time of the procedure has a direct effect on positive patient outcomes,² but no specific time interval has been identified as optimal.

The study by Luck *et al* used the most rigorous design for evaluating an intervention, used assessors to score the questionnaires who were unaware of participants' group assignments, and examined the relation between anxiety at enrolment and the patients' sex, age, years of education, and previous experience of colonoscopy. The knowledge questionnaire was designed specifically for this study, and there was no mention of its reliability or validity.

The results of this study are relevant to nurses who work in endoscopy clinics and other ambulatory or diagnostic areas where similar invasive procedures are performed. They are also relevant to nurses in pre-admission and preoperative settings who are involved in patient education in preparation for a surgical procedure. Educational researchers have confirmed that multiple, complex, and concrete experiences are essential for meaningful teaching and learning.³ Patients have specific cognitive processes, cultures, and communication skills, which affect their ability to learn.⁴ Although the use of a video in this study addressed the information needs of patients and reduced their anxiety, the next steps may be to determine which types of patients respond best to this teaching strategy, the effect of combining video with other educational strategies, and how to best individualise education to meet specific patient needs and learning styles.

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