The use of multimedia consent programs for surgical procedures: a systematic review

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CRD summary
The authors concluded that multimedia consent programmes could improve patient comprehension and lead to high patient satisfaction, but there was no conclusive evidence of a significant reduction in preoperative anxiety. The authors' conclusions reflect the evidence presented, but given the limitations in the evidence, their reliability is unclear.

Authors' objectives
To evaluate the effectiveness on patient outcomes of multimedia consent programmes for surgical procedures.

Searching
PubMed, EMBASE, and MEDLINE were searched for articles published in English up to February 2011. Search terms were reported. References of retrieved articles and relevant reviews were searched, and the Internet was searched, using Google Scholar.

Study selection
Eligible for inclusion were randomised controlled trials (RCTs) and non-randomised controlled trials evaluating multimedia consent programmes aimed at improving the informed consent process (as defined in the review) for surgical or interventional procedures. Trials had to report numeric scores for at least one of the following: comprehension, preoperative and postoperative anxiety, patient satisfaction, postoperative pain and nausea, hospital admission length, and the length of the consent process. Trials with insufficient extractable data were excluded.

The consent platforms were interactive in over half of the included studies, the remaining platforms were non-interactive, Microsoft PowerPoint, DVD, video or Adobe Photoshop. Patients underwent a wide range of procedures (details reported). The outcomes were assessed using a range of instruments before or after surgery or both. The mean age of participants, where reported, ranged from 47.6 years to 57 years. The proportion of participants with an education above high school level was less than half in those studies that reported it.

Two reviewers independently selected studies for inclusion. Discrepancies were discussed and mediated by a third reviewer.

Assessment of study quality
The authors did not report that they assessed study quality.

Data extraction
One reviewer extracted the data for relevant outcomes, and they were verified by a second reviewer.

Methods of synthesis
The data were combined in a narrative synthesis.

Results of the review
Thirty-three studies (number of participants unknown) were included in the review. Nineteen were RCTs, four were non-randomised controlled trials, seven were prospective studies, one was a case series, one was a case report, and one was a retrospective survey.

Statistically significant improvements were reported with the consent programmes for patient comprehension in at least one aspect of the information conveyed (16 out of 22 studies) and anxiety (three RCTs out of 12 studies). Two RCTs reported conflicting results for the mean completion time with one reporting a shorter time for the multimedia programme group, and the other reporting a shorter time for the standard consent group. The mean completion times ranged from five minutes to 29 minutes for the multimedia groups (13 studies). The authors reported that the results of satisfaction surveys in the studies were very high.
Authors' conclusions
The findings suggested that the multimedia consent programmes could improve patient comprehension. Patient satisfaction with their feasibility, ease of use, and availability of information was high. There was no conclusive evidence of a significant reduction in preoperative anxiety.

CRD commentary
The review question was clear with defined inclusion criteria. The authors stated in the abstract that comparative trials were eligible for inclusion, but non-comparative studies were included. Several relevant sources were searched, but the restriction to published studies in English means that some data may have been missed. Appropriate methods to reduce reviewer error and bias were used for the selection of studies and extraction of data.

Study quality was not assessed making it difficult to determine the reliability of the results; a number of the included study designs are prone to multiple types of bias. A narrative synthesis was appropriate given the diversity of the studies. The authors highlighted a number of limitations to their review including a lack of validated or standardised tools to measure the outcomes, poor definition of satisfaction between studies, a lack of preoperative and postoperative anxiety measures, and a lack of a standardised method of obtaining informed consent. Few participant characteristics and numbers, and outcome data were reported for individual studies.

The authors' conclusions reflect the evidence presented, but given the limitations stated, their reliability is unclear.

Implications of the review for practice and research
Practice: The authors stated that teaching undergraduates and postgraduates the process of informed consent could create standardisation.

Research: The authors stated that further work was required to establish a validated and standardised method of obtaining informed consent and assessing patient comprehension, before the use of multimedia in surgical consent could be fully assessed.

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