Manchester Royal Eye Hospital

A PROSPECTIVE RANDOMISED CONTROLLED TRIAL INVESTIGATING THE EFFECT OF AUDIO-VISUAL SUPPLEMENTATION ON OBTAINING CONSENT FOR RETINAL DETACHMENT SURGERY

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INTRODUCTION

Informed consent is an integral part of contemporary medicine and comprises providing sufficient information about medical treatment to enable patients to make an autonomous decision. This can be especially difficult to achieve in emergency settings(1-2), as in the context of rhegmatogenous retinal detachment. Failure to obtain adequate consent can constitute clinical negligence(3-4).

This randomised controlled trial aimed to assess whether audio-visual aids in the consent process improved patient knowledge of procedural benefits, risks, and post-operative complications - and therefore the adequacy of consent - in patients undergoing retinal detachment surgery (RDS).

SUMMARY OF QUESTIONNAIRE

Figure 3: Summary of the 17-item multiple-choice questionnaire with answers excluded (questions coloured in red with asterisks showed significant differences in patient knowledge between experimental and control groups)

1. What medical condition of the eye do/did you have?
2. What is the retina?
3. What is the jelly-like fluid in our eyes called? **
4. What type of anaesthetic is most commonly used in retinal detachment surgery?
5. How is the retinal tear sealed during surgery?
6. How long does it take for the eye to heal with the gas bubble in your eye?
7. What activities must you avoid while the gas bubble is still in your eye?
8. What should you have at all times while the gas bubble is still in your eye?
9. What is an alternative approach to retinal detachment surgery that does not involve removal of the jelly-like fluid in our eyes? **
10. Which of the following statements about scleral buckling are correct? **
11. What are the aims of retinal detachment surgery?
12. What is the main risk of leaving retinal detachment untreated?
13. Which of the following complications of retinal detachment surgery do you recognise? **
14. What is sympathetic ophthalmia? **
15. How is sympathetic ophthalmia treated?
16. Which of the following complications of scleral buckling do you recognise? **
17. What percentage of patients achieve success with the procedure?

DISCUSSION

Utilising audio-visual aids in the consent process may contribute to more adequate consent through improved knowledge and memory about RDS, with critical elements more likely addressed, which is consistent with the current literature available(5-11). This improved knowledge is maintained up to 4 weeks after RDS. As healthcare becomes more patient-centred, clinicians should consider incorporating audio-visual material into routine practice as a means of improving the consent process.

PATIENT DEMOGRAPHICS

Table 1: Participant demographics in experimental and control groups

	Experimental	Control
n	25	25
M:F ratio	14:11	16:9
Age (mean ± SD)	57.0 (± 16.3)	56.8 (± 13.7)
No. of vitrectomies	21	24
No. of cryobuckles	4	1

QUESTION EXAMPLES

Figure 1: Example of a single-select multiple-choice question from the questionnaire, with the correct answer highlighted in red

What type of anaesthetic is most commonly used in retinal detachment surgery?

(a) Local
(b) Epidural
(c) Spinal
(d) General
(e) Not used

Figure 2: Example of a multiple-select multiple-choice question from the questionnaire, with the correct answer highlighted in red

What are the aims of retinal detachment surgery? Select one or more options that apply.

☐ Re-attach the retina
☐ Remove the retina
☐ Prevent infection in the affected eye
☐ Prevent bleeding in the affected eye
☐ Restore vision

METHODOLOGY

Fifty RDS patients over a 3-month period from a university eye hospital in the United Kingdom were randomly allocated to experimental (n = 25) and control (n = 25) groups (see *Table 1*) using a random number generator. Clinicians were not aware of which group patients were allocated.

Both groups were counselled about RDS by an ophthalmologist. The experimental group was exposed to an additional educational video. Comprehension was measured using a 17-item multiple-choice questionnaire given post-counselling and 2 to 4 weeks post-operatively. The questionnaire was reviewed by a clinical psychologist specialising in health information communication before its use.

Single-select multiple-choice questions (see *Figure 1*) were marked as either correct or incorrect. Multiple-select multiple-choice questions (see *Figure 2*) were marked as correct only when all correct options were selected by the participant.

RESULTS

Table 2: Mean total questionnaire scores (± standard deviation) in experimental and control groups in pre- and post-operative assessments

	Experimental	Control	
Pre-operative	10.12 (± 2.82)	7.44 (± 1.47)	t = 4.21 (p = 0.0001)
Post-operative	10.72 (± 1.67)	8.60 (± 2.36)	t = 3.66 (p = 0.0006)

The experimental group performed significantly better than the control group in both pre- (t = 4.21; p = 0.0001) and post-operative (t = 3.66; p = 0.0006) assessments.

This was most apparent when patients were questioned about:
- Anatomy ($\chi2$ = 5.3; p = 0.0209)
- Alternative treatments ($\chi2$ = 18; p = 0.0001)
- Post-operative complications ($\chi2$ = 15.1; p = 0.0001) (see *Figure 3*).

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