



Strategies to improve recruitment to randomised controlled trials

Shaun Treweek

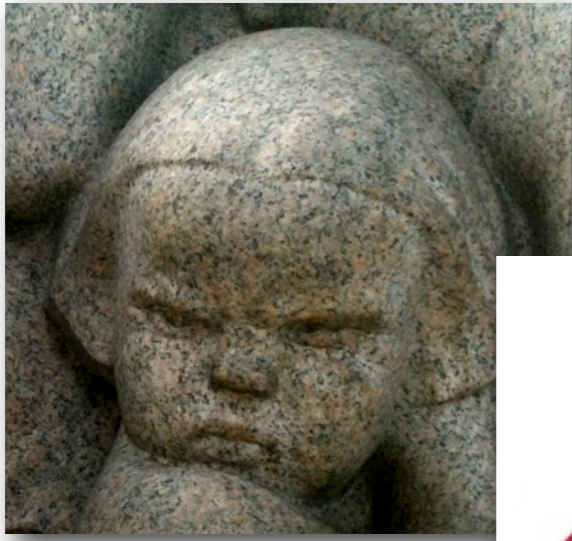
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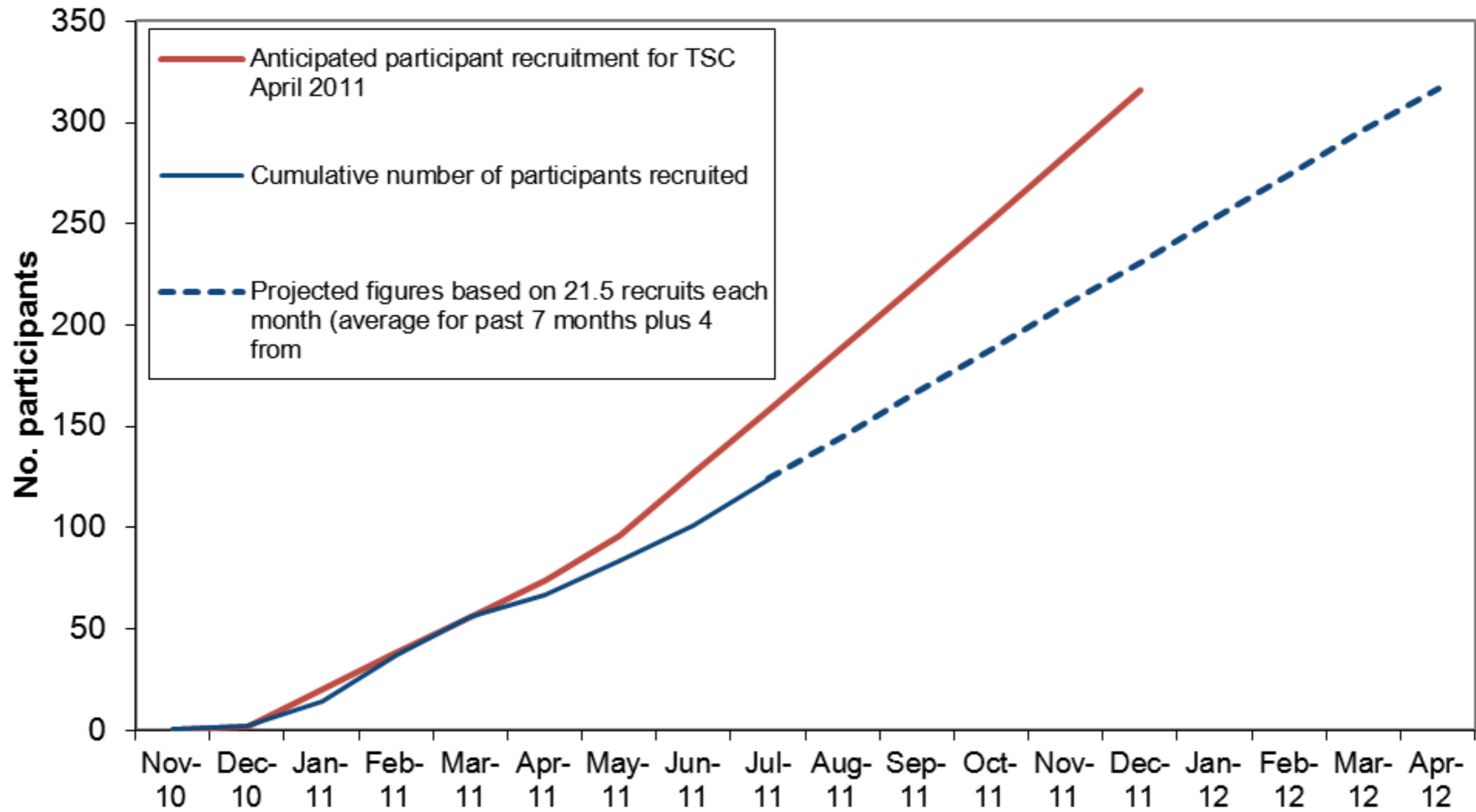


HSRU is funded by the Chief Scientist Office of the Scottish Government Health Directorates. The author accepts full responsibility for this talk.

Recruitment can be quite frustrating..



A common graph..



Recruitment interventions

Strategies to improve recruitment to randomised controlled trials (Review)

Treweek S, Mitchell E, Pitkethly M, Cook J, Kjeldstrøm M, Johansen M, Taskila TK, Sullivan E, Wilson S, Jackson C, Jones R, Lockhart P



**THE COCHRANE
COLLABORATION®**

Where did we look?

- The Cochrane Methodology Review Group Specialised Register (CMR)
- MEDLINE
- EMBASE
- ERIC
- Science Citation Index Expanded
- Social Sciences Citation Index
- National Research Register
- C2-SPECTR
- PubMed to retrieve Related Articles to the 27 studies included in our previous version of the review.

What did we do?

- Each abstract checked by at least two reviewers for relevance
- Full text obtained for anything that did look relevant
- Text checked by at least two reviewers
- If a study was included its data were extracted using a data extraction form by two reviewers
- Data were put into RevMan 5 and checked and analysed by two reviewers (one of whom was a statistician)

Trial recruitment interventions

16334 abstracts



301 full text articles



297 obtained



45 included

Main reason for exclusion: not an intervention study

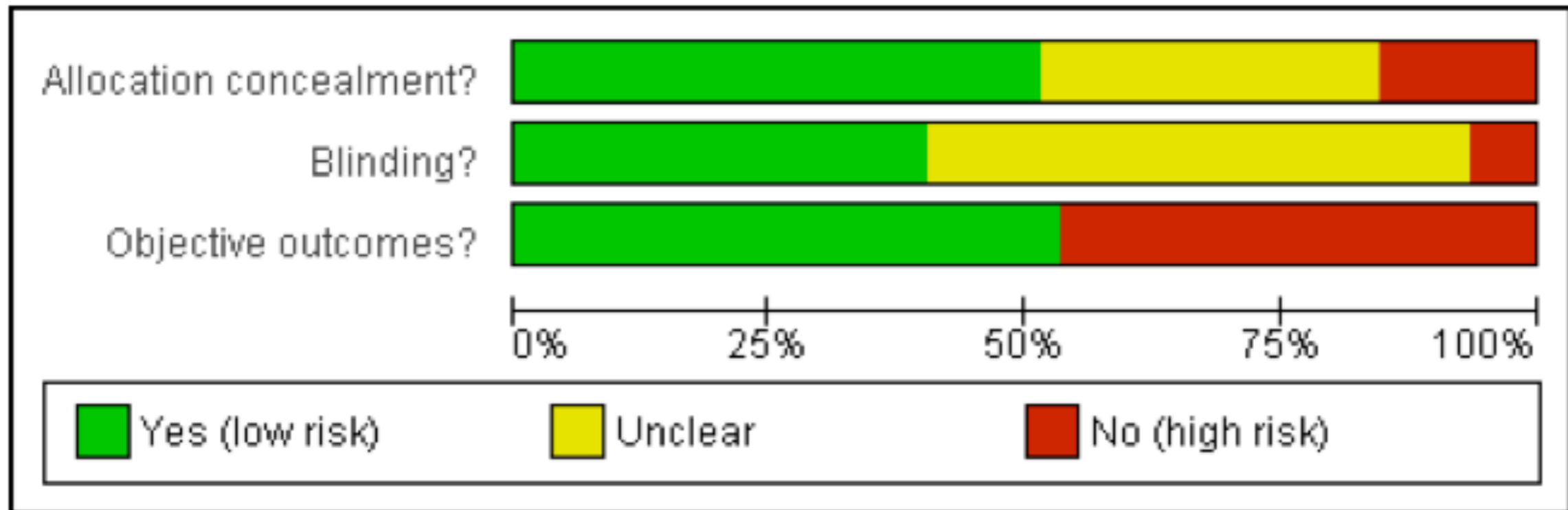
Four incomplete references

Main reason for exclusion: not an intervention study

Categories of interventions

- Design changes
- Modification to the consent form or process
- Modification to the approach made to potential participants
- Financial incentives for participants
- Modification to the training given to recruiters
- Greater contact between trial coordinator and trial site

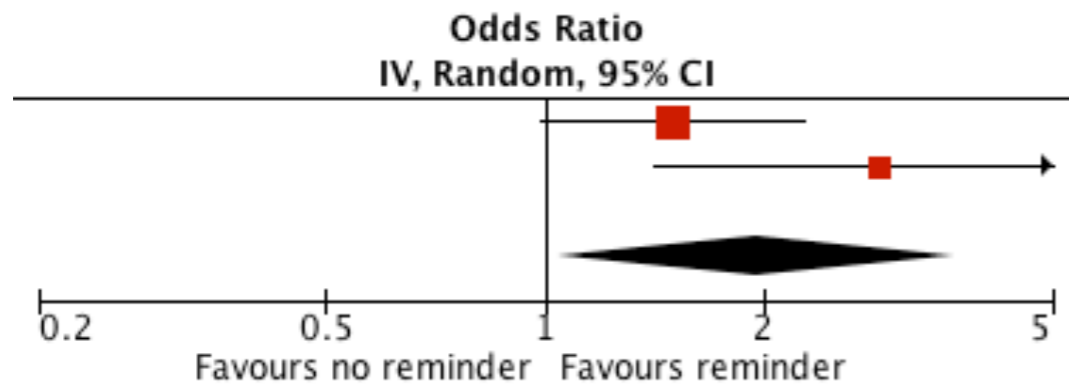
Risk of bias



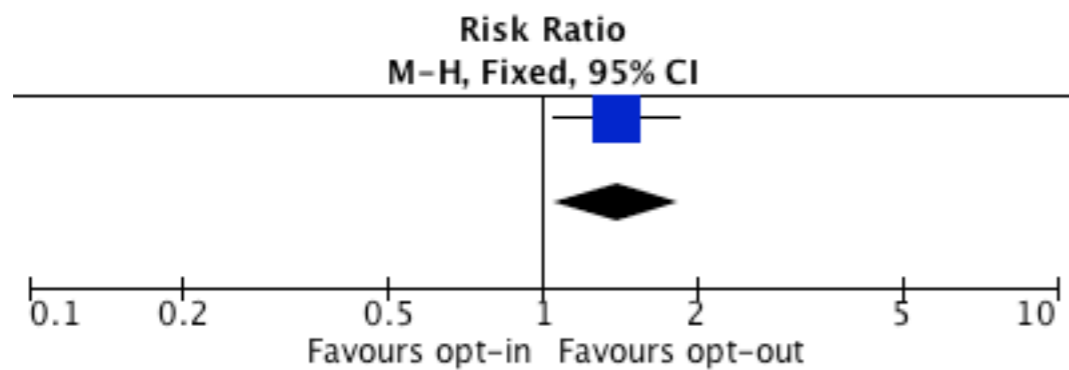
Cut to the chase..

What works?

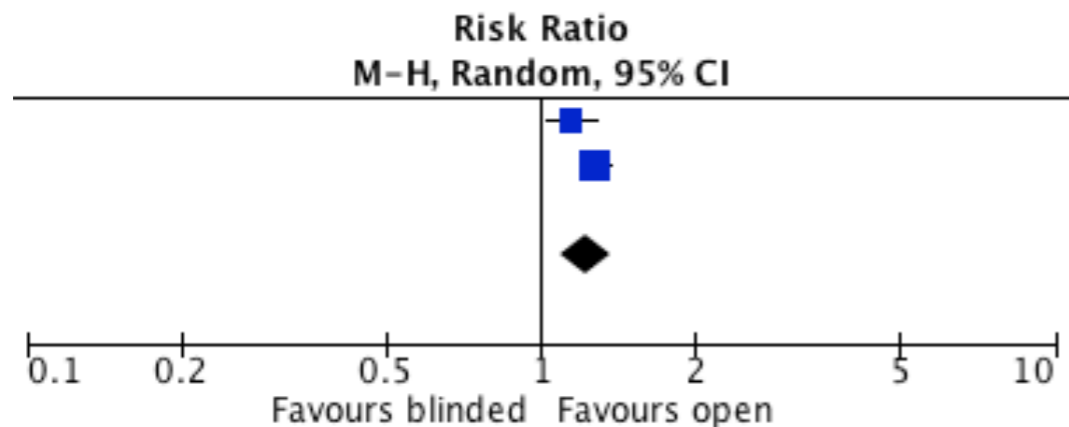
Interventions: what looks effective



Telephone reminders

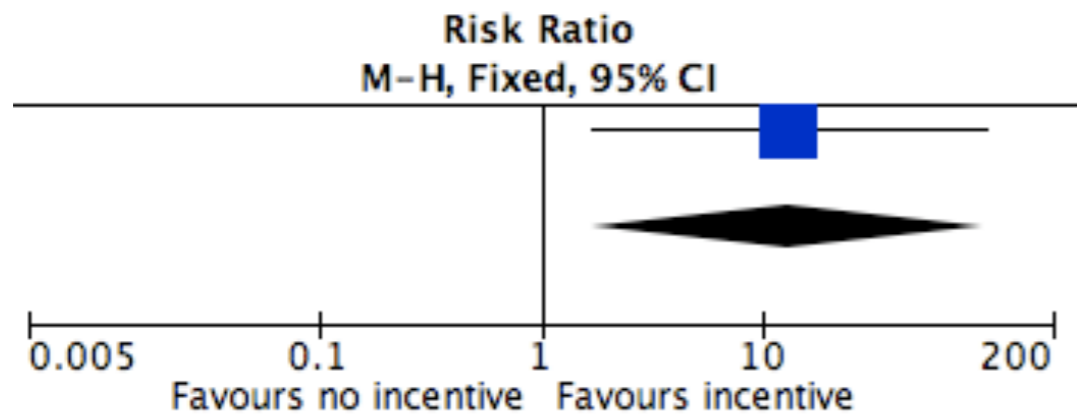


Opt-out

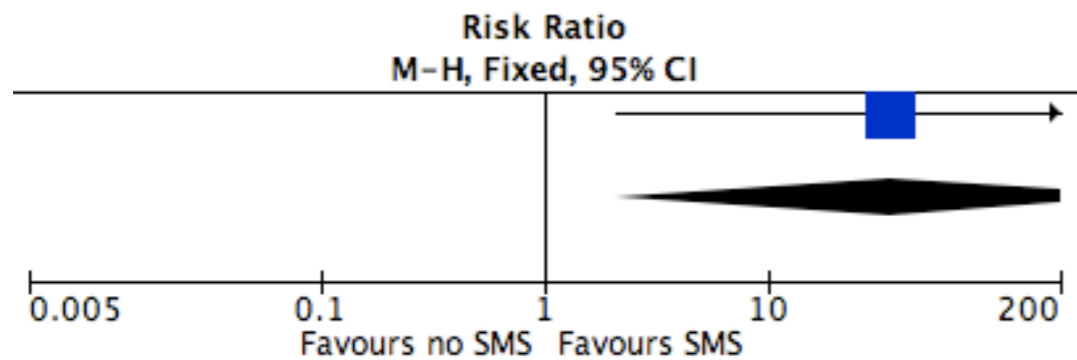


Open design

Interventions: what looks promising



Financial incentives



SMS messages to participants

GRADE Summary of Findings table

Telephone reminder versus no telephone reminder					
Patient or population: Individuals eligible for a trial Settings: Any Intervention: Telephone reminder Comparison: No telephone reminder					
Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of participants (studies)	Quality of the evidence (GRADE)
	Assumed risk	Corresponding risk			
	No telephone reminder	Telephone reminder			
Number recruited	Low ¹		OR 1.95 (1.04 to 3.66)	778 (2 studies)	⊕⊕⊕○ moderate ²
	30 per 100	46 per 100 (31 to 61)			
	Moderate ¹				
	50 per 100	66 per 100 (51 to 79)			
Number recruited	High ¹				
	70 per 100	82 per 100 (71 to 90)			

The effect of many interventions remains unclear

- Financial incentives
- Changes to consent
- Changes to information provision
- Newspaper and radio advertising
- More/better training of recruiters



Something from the BMJ Open
version (in press)

Recruitment intervention <small>Reference ID</small>	Increases	Decreases	Little impact	Inconclusive
Trial design				
Open design ^{16, 32}	●			
Placebo* ⁵⁹		⊙		
Patient preference design ¹⁸			⊙	
Zelen design† ²⁵		⊙		
Internet-based data capture† ⁴²		⊙		
Obtaining consent				
Process – opt-out approach ⁵⁵	⊙			
Process – consent to experimental treatment* ^{48, 50}			●	
Process – consent to standard treatment* ^{48, 50}			●	
Process – refuser chooses treatment option* ⁵⁰			⊙	
Process – physician modified chance of experimental* ⁴⁸			⊙	
Process – participant modified chance of experimental* ⁴⁸			⊙	
Form – researcher read aloud ⁵⁶			⊙	
Form – altered readability level† ¹⁹			⊙	
Approach to participants				
Delivery – video presentation*† ^{28, 35}			●	
Delivery – video presentation plus written information ⁶⁰	⊙			
Delivery – audiovisual overview of trials ^{21-22, 33}			●	
Delivery – interactive computer presentation* ^{36, 44}				●
Delivery – verbal education session ⁴⁵	⊙			
Supplementing info – booklet on clinical trials* ^{23, 34}			●	
Supplementing info – study-relevant questionnaire ^{31, 37}			●	
Supplementing info – newspaper article ⁵¹			⊙	
Framing – treatment as faster* ⁵²	⊙			
Framing – treatment as new* ³⁸		⊙		

Conclusions

- Some interventions are effective at increasing recruitment
- The effect of far more is unclear
- It's hard to know what to do with studies of hypothetical trials
- Trialists should aim to embed methodological studies of their recruitment strategies into their trials (*Peter Bower will talk about this later today*)

A coalition of the willing..

- Jonathan Cook: University of Aberdeen
- Taina Taskila, Sue Wilson: University of Birmingham
- Ritu Jones, Elizabeth Mitchell, Marie Pitkethly, Frank Sullivan: University of Dundee (Ritu Jones is now doing something else)
- Monica Kjeldstrøm: Ex-Nordic Cochrane Centre, now doing something else
- Marit Johansen: Norwegian Knowledge Centre for the Health Services
- Cathy Jackson: University of St Andrews