

# **How to Improve Research Participants' Understanding**

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# Disclaimer

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# Central question

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What can empirical research tell us about how to improve research participants understanding?

# Improving understanding

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- Comprehensive review identifies 42 trials of ways to improve understanding
- Four main approaches:
  - Video or computer-based disclosure
  - Shorter, more readable forms
  - More time spent on discussion
  - Using short tests to confirm understanding and guide discussion

# Video or Computer-Based Presentation

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- Only 3 out of 12 trials showed an improvement in understanding due to video or computerized presentation ( $P < .05$ )
- Although videos and computers may improve understanding sometimes, they usually have not worked

# Recommendations: Multimedia

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- Multimedia can be expensive, and high expense does not guarantee success
- Investigators who invest in multimedia should consider research on its effectiveness

# Shorter, More Readable Consent Forms

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- Lower reading levels
- Better formatting
- Graphics
- Shorter length

# Shorter, More Readable Consent Forms

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- 6 out of 15 trials showed an improvement in understanding ( $P < .05$ )
- But 5 of the 6 trials that showed improvement were simulated consent processes
- Improved consent forms may be no better than multimedia

# Recommendations: Consent Forms

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- Better consent forms are not a magic bullet
- The one realistic trial that showed effectiveness used a form with less boilerplate
- Removing unnecessary material may be effective

# Extended Discussion

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- 3 out of 5 trials showed an improvement in understanding ( $P < .001$ )
- The other 2 trials showed trends toward improvement ( $P = .054$ ,  $P = .08$ )

# Recommendations: Extended Discussion

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- Limited, but encouraging, evidence
- One effective implementation was a 30 minute phone conversation with a trained research nurse
- Stronger case can be made for extended discussion than for other interventions

# Using a Test to Confirm Understanding

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- 5 out of 5 studies showed an improvement in understanding ( $P < .05$ )
- But these studies may have mistaken rote memorization for understanding

# Recommendations: Test to Confirm Understanding

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- Research that avoids flawed methodology needed
- This approach often proposed but not yet convincingly evaluated