Reducing bias in trials from reactions to measurement: the MERIT study including developmental work and expert workshop

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Plain English summary

The MERIT study

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Plain English summary

When people are asked to complete measures such as questionnaires in research studies this can produce changes in the behaviour or emotions of those people. For example, people who are asked to complete questionnaires about drinking alcohol have been found to drink slightly less, on average, than people who are not asked to complete questionnaires. Current established methods of research usually ignore these reactions to measurement.

The present research aimed to produce recommendations for how best to deal with reactions to measurement. The scope of these recommendations was limited to 'trials' used to test whether or not a treatment improves health.

To do this, we identified relevant research studies that have investigated various different aspects of whether or not measurement affects the people being measured. We then consulted 40 experts about what the current recommendations should consider and what was not within the scope of the current recommendations.

We then gathered 23 experts together for 2 days to produce a set of recommendations.

We found 43 research studies that have looked at whether or not being asked to complete questionnaires or being interviewed affects the behaviour of those people invited. In general, there were some effects of completing questionnaires, but the effects were not very consistent across research studies. There were few studies that have looked at the effects of using measures of behaviour other than questionnaires (e.g. blood pressure cuffs). We could find no existing recommendations for how best to deal with reactions to measurement in research studies that examine whether or not treatments improve health.

We have produced 14 recommendations for researchers to better take account of the issue of measuring affecting the people being measured. We hope that this will help future research produce more accurate answers. We also identified that there is a need for more studies of the effects of measures other than questionnaires.

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This report

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To improve availability and uptake of methodological innovation, MRC and NIHR jointly supported a series of workshops to develop guidance in specified areas of methodological controversy or uncertainty (Methodology State-of-the-Art Workshop Programme). Workshops were commissioned by open calls for applications led by UK-based researchers. Workshop outputs are incorporated into this report, and MRC and NIHR endorse the methodological recommendations as state-of-the-art guidance at time of publication.

The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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