Author's response to reviews

Title: Medical communication and technology: A video-based process study of the use of decision aids in primary care

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Author's response to reviews: see over
The Editor  
BMC Medical Informatics and decision making  

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Dear Editor:

**Re: Medical communication and technology: A video-based process study of the use of decision aids in primary care consultations**

Please find attached a resubmitted version of the above paper.

Regarding the editor’s instructions, we have now added the original trial ISRCTN number at the end of the abstract. We have also responded to both referees’ comments (see overleaf) and we look forward to hearing from you in due course.

Yours sincerely,

Dr Eileen Kaner  
Senior Lecturer in Public Health  

Oh behalf of the research team.
Both reviewers outlined minor essential revisions

**Reviewer 1: Alicia O’Cathain**

**Minor Essential Revisions**

1. Could you expand the results section of the abstract a bit? There were differences between the three interventions other than time taken and they should be summarised here.

*We have now expanded the results section of the abstract.*

2. The abstract is the part of the paper most people read. Is this really the conclusion you want people to draw? My conclusions were that these fancy decision aids do not seem to be promoting shared decision-making and in fact prolong the consultation.

*We have now firmed up the conclusion at the end of the abstract.*

3. The last paragraph of the methodology section was too jargon filled for me. I am not familiar with analysing videos and you could try to make it a little clearer for people like me.

*In order to report the methodology so that others can reproduce the work there is a need for some technical detail. Moreover, reviewer 2 specifically stated that the methodology was meticulously executed and clearly described. However, we have tried to simplify the description in this paragraph and we hope you feel that the correct balance has been struck.*

4. Figure 1 did not upload correctly and I have not been able to look at it.

*This appears to have been a technical glitch which should now be corrected.*

5. You use NS to denote ‘not significant’. Please put in the p-value, particularly in the context of small numbers and low power.

*We have made this change – P=0.09 inserted.*

6. There were lots of significant differences in the consultation content but I found it hard to engage with them. Is there a way of presenting them to make them more readable? Perhaps put the statistical test info into the table.

*Given that our analysis was primarily descriptive and statistical tests used to enable comparison only we reported only significant differences in the text to keep the narrative as simple as possible. We have now added the statistics relating to these significant differences to the table footnotes and removed them from the results section text.*

7. The first sentence in data limitations irked me: ‘mix-method nature of the process study’. You can do mixed methods studies with large numbers in the quant component and small numbers in the qual component and not have the need to apologise for the
size of any part of the study. Could you explain in more detail what the issue was here.

We have now adjusted the text to address this.

8. You say your findings do not generalise to the trial. Are you being a little too careful here? I would be quite happy to predict a null trial from these work. If the trial was positive then I'd consider myself to have discrepant findings and want to explore this further.

*Given that this process study contained just 29 subjects and the parent trial 109 subjects we think it is valid to be cautious about how much the process study outcomes could be generalise to the trial findings. Moreover, as a result of the video-based work and interviews the explicit tool arm was subsequently dropped in the trial and so it reported just 2-way comparisons. Thus direct comparison was further limited by this structural change in the process study and parent trial. Hence we think it appropriate to highlight this generalisability issue. But we have amended the text to indicate that, with this caveat, our findings help explain the null findings of the trial.*

Reviewer 2: Elizabeth Murray

**Minor Essential Revisions**

Penultimate paragraph of introduction: hypothesis (ii) – should be “affect” not “effect”.

*This has been corrected.*

Last paragraph of introduction, line 4. Replace “ethology;” with “ethnology:” (insert “n” and use colon, not semi-colon).

*The first author has a PhD in Ethology (naturalistic observational study of animal behaviour) and so we have left this as it was. We have replaced the semi-colon with a colon as recommended.*

Discussion section, Data limitations, line 1 – should be “mixed-methods” not “mix-method”.

*This section is now changed due to comments by reviewer 1.*

Same section, paragraph 3, penultimate line – should be “actively” (not activity).

*This has been corrected.*

Figure 1 – I think this figure has not come out on my copy – the figure I have is meaningless, so I suspect there has been a problem in the conversion.

*See response to reviewer 1.*
Discretionary Revisions

Methods
My main concern about the methods is the very non-naturalistic setting. Study participants had been referred to a GP they did not know, as part of a research study. The authors comment that they are not certain whether the results generalise to the whole of the study population. My concern is whether they have any relevance to normal clinical practice.

Decision aids are complex entities and before they are used in the NHS they need to be fully developed and evaluated. The recommended stages of research on complex interventions suggest that efficacy studies (with high internal validity and often less external validity) should precede more naturalistic pragmatic studies. Thus we felt that it was appropriate to investigate the use of a complex decision aid in a limited sub-study before wider scale work with more patients occurs. Moreover if shared treatment decision can be facilitated by decision aids per se – they should occur in this tightly controlled trial with well trained GPs. Ideally the results of this work will indicate that the decision aids, as currently configured, are not producing the types of shared decisions that their originators envisaged. Thus we would hope that further development might now take place to address this issue before wider scale studies take place. For this reason we do believe that work has clear relevance to clinical practice. However, we have added an additional paragraph to discuss the relevance of our work to the real world of primary care and we also suggest that future evaluation should occur in pragmatic trial contexts.

Results.
The results could be presented more clearly, and I make two suggestions for how to do this. These are discretionary revisions.

1. Consultation timing.
As far as I could see from Table 1, the excess length of the explicit tool consultations is entirely due to the standard gamble. Once the minutes from the standard gamble phase are removed, the median length of the consultation falls to approximately 27 minutes (interquartile range 24.2 – 33.3) which is a bit less than the time taken in the implicit tool arm. I think this is worth spelling out, although, as per my summary comment, I am not sure of the meaning of this result.

The fact that the standard gamble component of the explicit tool took so long – and dominated the central section of these consultations - is a key part of the results and so we believe this should be left in the table. This preference elicitation exercise is a specific component of the explicit tool and specifically what distinguishes it from the implicit version. The additional time taken in the standard gamble reflected a number of patients’ difficulty with this exercise and this, plus linked interview data, led to the ultimate cessation of the third arm of the trial.

2. Results in Table 3.
The text describing the results in Table 3 would be much easier to read if the Kruskal Wallis results and p-values were in the table.
The relevant statistics are now placed in the footnotes to this table (see response to reviewer 1)

Discussion.

The authors rightly highlight that these consultations are abnormally long, and hence these decision aids are unlikely to ever be acceptable or feasible in routine British general practice. I am less certain of the authors’ second statement that “the technological complexity of the decision aid did not seem to affect the balance of technical to socio-emotional language used by GPs”. Although this statement is supported by their data, a more interesting question might be the extent to which the introduction of any decision aid alters this balance. This question cannot be answered by their data, but could be posed in the discussion.

*Given that our statement was supported by the data, we feel it is appropriate to maintain the text relating to the balance of technical to socio-emotional language. We have added the additional point about the value of future work investigating the impact of decision aids per se on the balance of technical to socio-emotional language compared to routine consultation work.*

The discussion contains a good critique of the study’s methodological strengths and weaknesses. I think the authors should expand the section on transferability to voice considerable doubts as to the degree to which these results would transfer to more normal clinical situations.

*We have added a paragraph to the end of the discussion to address this comment.*

Conclusions.

I enjoyed the authors’ conclusions – but am not certain that they are rooted in the data. If they are, the authors should use the discussion section to explain the link between the results and the conclusions. This might also help clarify the “real world meaning” of the results.

*We have tried to amend the end of the conclusion to address this comment.*