Author's response to reviews

Title: The need to promote behaviour change at the cultural level: one factor explaining the limited impact of the MEMA kwa Vijana adolescent sexual health intervention in rural Tanzania. A process evaluation.

Authors:

Daniel E Wight (d.wight@sphsu.mrc.ac.uk)
Mary L Plummer (mustafamary@hotmail.com)
David A Ross (david.ross@lshtm.ac.uk)

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Author's response to reviews: see over
Dear Mr Dizon,

Thank you for your response to this paper and the three helpful reviews. We now re-submit the paper having addressed the various comments as detailed below. We very much hope that this has improved the paper and that you will consider it again for publication.

Thank you.

Yours sincerely,

Danny Wight.

RESPONSE TO REVIEWERS’ COMMENTS

Reviewer 1 makes many interesting suggestions as to how the paper might be further developed. We agree with her observations and think that extending the paper as suggested could be useful. However, we have responded to these suggestions in a limited way, primarily because of your journal’s advice to be as concise as possible. Furthermore, the other two reviewers do not recommend such extensive revisions and, on the contrary, are very positive about the existing text, and we are concerned that pursuing these rather tangential themes would distract from the main argument of the paper. Several of Reviewer 1’s recommendations are to provide more comprehensive reviews of particular areas of literature. Since the paper already has over 70 references we think this might be inappropriate for an empirically-based paper.

Reviewer 1

1. It has been argued since the early 1990’s that a focus on individual behaviour change is inadequate to change the social/economic/cultural power dynamics that shape people’s lives. Very many papers have been written that critique individual/cognitive models of behaviour change. ...
   On the other hand, perhaps a more pertinent question that derives from this paper, is why, in spite of our very well documented understanding of the weaknesses of a social/cognitive approach – we continue to use this approach as the mainstay of HIV prevention?
   In any case, I think the paper would benefit from expanding the literature review to include some of the main critiques of behaviour change models (in relation to HIV) that have already been published. In particular, such a review should focus on any critiques of the way in which culture has been addressed and conceptualised.
   We already referred to two critiques of social-psychological behavior change models from the early 1990s and have now added a further paper (p.18), explicitly acknowledging that these arguments go back several decades (Hunt and Martin, 1988).

2. Interestingly, what the qualitative process evaluation data does not seem to cover (as presented in this paper) is an ethnography of the project itself –
highlighting how decisions about the intervention design and implementation were ultimately made, funded and (no doubt) compromised over time. ...

Some more detail on the ‘culture’ and organisation of the intervention itself (in the background section) would be useful.

We agree that this is a very interesting issue, but think that even a brief ethnography of the project is beyond the scope of this paper. We refer to the books by Plummer and Wight (2011) and Plummer (forthcoming) which contain far more detail about the project. However, we have now added a sentence (p.5) stating that the project was driven by the concerns of British epidemiologists which implies the cultural context in which it was developed. We have also added a paragraph in the Discussion (p.19, ‘In highlighting….’) acknowledging this point.

3. This silence (with respect the power-brokers and cultural-mediators behind the project itself) reflects a wider silence in the paper regarding its conceptualisation of ‘culture’. I agree with the arguments made about the importance of culture in intervention implementation, but a key ‘cultural’ aspect that also needs to be brought into the spotlight is the culture of the donors, funders and intervention-advisors.

As above (2), we readily agree that these are important issues to consider if the limitations of such an intervention are to be understood in the broadest sense. We have added a paragraph in the Discussion (p.19, ‘In highlighting….’) acknowledging this point. However, we note that an ethnography of the project itself would require a distinct study and would probably be best conducted by someone other than members of the research team. We have added a highly relevant article supporting the reviewer’s point (Tawfik and Watkins 2007).

4. It may also be useful to consider how/where the wider context of intervention design and delivery (and its related culture) fits into the ecological model of health behaviour.

It would certainly be possible to apply the ecological model to intervention design and/or delivery. However, the various influences involved in intervention design would only partially match those involved in delivery (e.g. the academic culture that values individualised theories of behavior change for the former, and the ‘per diem’ motivation prevalent amongst service providers in Tanzania for the latter). Neither set of influences would match those affecting young people’s sexual behavior in Tanzania. We therefore think it would over-complicate the paper to try and include this.

5. The discussion section on economics & social status (p.18/20) is a little confusing as it mentions Douglas without defining what her theoretical position is. This needs clarification.

Thanks for pointing out this potential confusion which arose because the earlier reference to Douglas’s definition of culture, on the previous page, just had the numbered reference without naming Douglas in the text. This has now been amended and the reference given a second time.

6. The section on economics & social status (p.18/20) is also a little confusing as it moves straight into discussing the ecological model of health behaviour. The sudden discussion of the
The ecological model appears to be somewhat out of context here as this model has not been mentioned previously. We do not think this criticism is justified since in the Background to the paper we state that we will interpret the findings in the light of the ecological model. We have therefore left the text as it was – but also see the paragraph below.

I wonder therefore whether the ecological model should perhaps be mentioned in an initial background section when the authors describe the social/cognitive model of behaviour change? Indeed, having an initial section (in the background or literature review) on models of behaviour change (and their respective critiques regarding culture) as they relate to HIV prevention might be a useful addition to the paper in general.

In the background section we summarise two theories of behavioural change (Theory of Reasoned Action and Social Cognitive Theory) in order to explain the principles on which the intervention was based. We would argue that it would be inappropriate to summarise the ecological model at this point since it was not considered when developing the intervention. In introducing the two theories we refer to Michie et al. 2005 which provides a synthesis of theories of behavior change. There are many other overviews already published so it seemed unnecessary for us to attempt another review here, especially given that this could considerably expand the length of the paper. However, at the start of the Discussion we now note some of the main theories that share the key constructs used by the Theory of Reasoned Action and Social Cognitive Theory, in order to note the wider relevance of this discussion (p.17).

7. The detailed recommendations on ‘intervention at a cultural level’ (p. 21) seem a bit out of place given that they come after the entire previous section has argued for a greater emphasis on listening to local voices and building on locally relevant cultural practices.

We certainly recognize this tension, which is why the recommendations are preceded by a paragraph specifically addressing it (p.22, ‘However, …’). In it we argue that cultural beliefs are sufficiently heterogeneous to be able to build on those that counter predominant beliefs which are seen to perpetuate unhealthy behaviours.

8. I thought the section on ‘structural recommendations’ was a bit weak (especially once it moved to a discussion of ‘non-cultural structural issues’). It may be useful here for the authors to review (for example, in the above mentioned background section on behaviour change models) some of the varying meanings and definitions that have been ascribed to ‘structural interventions’ in a health or HIV context and then to provide their own definition of what a structural intervention might mean for a young person’s sexual health project. ...

When we first introduce the term ‘structural’ factors we give a working definition, that they: ‘constitute an underlying pattern of the social system largely beyond individuals’ control’ (p.19). We consider, therefore, that it should be clear to readers that when we subsequently refer to ‘structural interventions’ we are referring to attempts to modify such structures. We are aware that there has been debate about whether the term ‘structural interventions’ should be restricted to macro-level determinants, or whether it can incorporate the meso- or even micro-levels of community organisations (e.g. Evans et al. 2010), but we think this is tangential to the main...
point of our paper. However, we have tried to be clearer about what we consider to be structural factors by expanding the paragraph outlining the main structural factors other than culture (p.20), providing more detail on which barriers or facilitators relate to different structures, and by citing Gupta et al. (2008).

_The basis for the recommendations (p.22-23) is currently unclear_.

In introducing these recommendations we set out some broad principles for combining interventions (in the preceding paragraphs) and summarise which kind of interventions have the strongest evidence of effectiveness. The specific recommendations are each based on barriers and facilitators of behavior change that we have described previously in the results section. We feel that it would be unnecessarily repetitive and wordy to summarise those findings again at this point to justify the recommendations.

9. **Finally – in the conclusion - the ways in which ‘culture’ intertwines with ‘structure’ is simply stated rather than explained on the basis of the project evidence and the literature. Maybe the discussion section (p.15-19) should include an explicit discussion of culture and structure?...**

We consider it would be repetitious to explain in the conclusion why we understand culture to operate at a structural level when this has been discussed in some detail five pages earlier. We already devote two paragraphs to a theoretical discussion of the concept of ‘culture’ (pp. 19), referring to four papers or chapters. Also, when we first introduce the term ‘structural’ on p.19, we give a working definition (also see 8 above).

_In fact, maybe that section could be re-named ‘structural factors’????_  
We think that the previous sub-titles better define the different stages of our argument, moving from individual cognitions to the social context, comprised of culture and other structural factors. However, we have now added ‘Other structural factors’ to the last sub-heading within ‘Theoretical implications’ in order to make this clearer.

**Reviewer 2**

**Minor essential revisions**

1. Please update the figures on HIV worldwide in the first sentence of the paper. This has been done, although the most recent figures we can find are for 2010.

2. Page 18, second paragraph, first sentence: provide reference for "Douglas". This has been done.

3. Page 21, last paragraph: include also condom use. This has been done, with an additional qualifying sentence.

**Discretionary revisions**

1. Page 8-9, paragraph entitled “Sex as an important economic resource for women”. I would challenge the view of the authors that sex is used by young
women to acquire gifts and money to meet their personal needs. The authors
give the impression that this is typical for Tanzania and other parts of Africa
(page 8, last paragraph: "embedded in THIS culture..."). However, also in Europe
and North America women receive gifts from their lovers or boy friends and this
is/was mostly considered normal in courtship. My question is: in how far are gifts
to young women in Tanzania part of the courting "game" and in how are they
"hard" transactions?

This was a clear finding from our ethnographic work and has been written up in detail elsewhere,
as referenced (Wamoyi et al. 2010). There are now several empirical studies showing that this is
also the case elsewhere in sub-Saharan Africa, e.g. in urban Tanzania, Uganda and South Africa.
This literature is reviewed in Wamoyi et al. 2010. Although gifts are also exchanged in Europe
and North America, young women are not ridiculed for not receiving gifts and their sexual
respectability usually depends on them being perceived to not be motivated by material gain,
whereas the converse is more common in the rural area of Tanzania where the MEMA kwa
Vijana trial took place.

2. Page 14, paragraph entitled "Restrictive norms". Restrictive norms which
include lack of openness about sexuality are presented in this paragraph as
facilitators of successful HIV prevention. To me this seems to be in contradiction
with the recommendation of more openness in sexual matters on page 21.
Although restrictive norms can be protective, they can also have the negative consequences
described in the paper. We believe that the potential benefits of more open discussion of sexual
relationships outweigh the benefits of restrictive norms. However, the tension that has been
highlighted by this comment is an important point which we now acknowledge with an
additional sentence on p.23.

Reviewer 3

Discretionary revisions

1. In the abstract it is stated that the result are that there are four interrelated
socio-structural factors which act as barriers- these are then listed. However,
these are not stated so clearly in the main results section of the paper...
These could perhaps be made more consistent.

We believe that it is not possible to classify the barriers into simple, mutually exclusive structural
categories, since the structural factors are often highly interrelated. The section ‘Socio-cultural
barriers to HIV prevention’ has subheadings which show how the structural barriers have been
grouped into three different socio-structural factors - economics, social status and culture - and at
the start of this section we explain that issues related to gender cut across the other three factors.
These four factors correspond to the four listed in the abstract.

2. The structure of the paper is set out presenting firstly the barriers and then the
facilitators for behavior change. It might be helpful for the reader if this structure
is stated in the opening section of the paper, probably in para 4 of background.
This has been done. Thank-you.
5. The article does not discuss data reporting and data deposition as the data has already been processed and written up elsewhere- references are made to these articles. Presumably these issues are discussed in these articles- I did not check.
This is correct.

7. The title is appropriate but does not necessarily convey the richness of the debate contained in the paper. Possibly a title with more focus on the theoretical debates might indicate this. But then that would be my personal interest!
It has been difficult to find a title with which all the authors are happy and which is not even longer. After further reflection, we think the current title probably remains the best succinct summary of the issues discussed in the paper.

8. The abstract conveys the content but is lacking in a statement about the main research question or purpose of the paper which I think would be useful and could possibly be added in.
We are grateful that this omission has been noted and have now added a sentence in the Background to state the purpose of the paper.

9. The writing is clear and the article well structured. In the section on Discussion, theoretical implications the first part was particularly dense and might be clarified/restructured a little in order to assist the reader, particularly the end of paragraph one, and throughout both paragraph the use of the term constructs which are not used very clearly.
Thanks for this comment. We have now defined the term ‘construct’ when first used, on p.5. When returning to the theoretical constructs we now provide a recap and note that they are also used in several other social psychological theories (p.17). We have expanded the text a little to make it less condensed.

Throughout the use of the word ‘structural’ is rather loose. There is no discussion of the way it is being used in current writings on HIV – a few lines with some discussion of the work of other writers on this might help e.g. Gupta, Coates, Rhodes might ensure a more robust use of the term.
As noted above (Reviewer 1: 8) when we first introduce the term ‘structural factors’ we give a working definition (p.19) and assume that ‘structural interventions’ are understood to mean attempts to modify such structures. We are not persuaded that a review of how other authors have used the term ‘structural’ would help clarify our argument. In fact, we would be concerned that adding this might distract or, worse, confuse readers, given the overlapping but non-identical ways in which the term has been used by previous authors. Gupta et al. (2008) discuss various uses of ‘structural’ but do not seem to have there own definition, other than implying it is synonymous with ‘the root causes’ and ‘underlying drivers’, while Rhodes et al. (2005) use it to mean macro-level factors. Both sets of authors acknowledge that structural factors include culture. However, to clarify how we are using the term, we have expanded the paragraph outlining the main structural factors other than culture (p.20), providing more detail on which barriers or facilitators relate to different structures and citing Gupta et al. (2008).