Author's response to reviews

Title: Harmful practices in the management of childhood diarrhea in low- and middle-income countries: a systematic review

Authors:

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Version: 2 Date: 28 July 2014

Author's response to reviews: see over
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Dear Editor,

Thank you for the email on 21 July 2014 providing editor comments on our manuscript and invitation to submit a revised version. We have prepared an updated version of the manuscript reflecting the suggestions of the reviewer.

Please find a point-by-point response to the reviewer comments below detailing the changes we have made to the manuscript.

Sincerely,

Emily Carter

**MS:** 1683265056136430

**Research article:** Harmful practices in the management of childhood diarrhea in low- and middle-income countries: a systematic review

1. Abstract
   A. Available evidence suggests that harmful practices in diarrhea treatment are common in certain populations - add a few words to indicate who are these ‘certain’ populations

   Line 34 has been changed to “common in some countries with a high burden of diarrhea-related mortality”

   B. Key words should be simple, few and easily searchable. Some of the phrases in the following list are a bit complicated: Diarrhea management, feeding practices, fluid curtailment, breastfeeding curtailment, food restriction, inappropriate drug use, systematic review

   Keywords have been changed to “diarrhea, harmful practices, child survival, systematic review”

2. Background
   A. It would be worth noting that these practices persist despite health/development promoting ORS/ORT since the 1980s at least through such efforts as Unicef’s Growth Monitoring, Oral Rehydration, Breastfeeding and Immunization (GOBI) initiative and the USAID/CDC Controlling Childhood Communicable Diseases/African Child Survival Initiative (CCCD/ASCI). Although ORT corners persist in some rural health facilities to this day, ORT was always considered the neglected stepchild of child survival compared to immunization.

   The background has been revised with additional text:

   Lines 51-56 “For decades, health initiatives have targeted the expansion of ORS and ORT, including the UNICEF Growth Monitoring, Oral Rehydration, Breastfeeding and Immunization (GOBI) initiative, USAID/CDC Africa Child Survival Initiative - Combatting Childhood Communicable Diseases (ACSI-CCCD) and the WHO Integrated Management of Childhood Illness (IMCI) initiative. Despite these efforts, a shift in global attention away from diarrhea management seems likely to have contributed to slowing – and even reversals – in progress toward full coverage for ORT [3, 4].”
3. Methods
A. Please explain why "Secondary analyses of Demographic and Health Survey (DHS) or Multiple Indicator Cluster Survey (MICS) data were also excluded" if in fact these were published articles from a particular country. Such are often the main way of getting a relatively national sample, and the authors did indicate that many of the articles were narrowly focused on specific geographical and population areas.

The text has been revised with the below text to highlight that no individual country DHS/MICS secondary analyses were identified through the search. Two multicountry secondary trend analyses using DHS/MICS data were identified and included in the discussion section, but did not fit the criteria for inclusion in the results section.

Lines 109-111 “Although there have been summaries of relevant Demographic and Health Survey (DHS) and Multiple Indicator Cluster Survey (MICS) findings [5, 6], we were unable to identify any country-specific secondary analyses on this topic.”

B. "After reviewing titles and abstracts, 294 articles were identified for full article review" ... because? This may seem obvious to the author, but needs to be stated clearly for the reader. Search terms are clearly stated, but inclusion criteria are a bit vague. Libe 80 starts with "Publications were excluded ..." and this should be clearly separated as its own paragraph. But again this is exclusion, not inclusion criteria - two sides of coin, but helps to state inclusion first and then exclusion if not well expressed under inclusion. Finally was inclusion/exclusion validated by a second person.

The inclusion criteria have been clarified on Lines 87-92. The exclusion criteria have been broken into a separate paragraph beginning on Line 94. The below text has been added to specify that the inclusion/exclusion process was conducted by the first author:

Line 100 “Title and abstract review and full article review were conducted by the first author (EC).”

C. One assumes "23 articles were not found" means that the authors could not get hold of a print or pdf version of the actual manuscript - if so, please state this.

Change has been made as suggested with the text: Line 102 “a full text copy of 23 manuscripts could not be located.”

D. Again in terms of validation, was the data extraction process into excel performed by one or more people?

Clarified with the text: Line 117 “Data extraction was completed by the first author (EC)”

4. Results
A. Descriptions of findings on the four variables is quite detailed and helpful - a key lesson is the fact that different researchers define these and then measure these in quite different ways. It might be helpful in the background to state the key components of the WHO policy/guidance as a comparison of what the different studies report. What is happening is true for many WHO policies - they are open to wide interpretation on the ground and thus it is hard to determine if they are practiced 'correctly' - a major issue for discussion.
The WHO guidelines on management of diarrhea have been expanded in the background section with the below text:

Lines 43-49 “The World Health Organization (WHO) recommends first line management of diarrhea in children under five with continued feeding, increased fluids, and supplemental zinc for 10-14 days to prevent dehydration. In addition, the WHO guidelines state that children exhibiting non-severe dehydration should “receive oral rehydration therapy (ORT) with ORS solution in a health facility.” Antimicrobials are recommended only for the treatment of bloody diarrhea or suspected cholera with severe dehydration [2]. The full guidelines, which have evolved over time, are available at http://www.who.int/entity/maternal_child_adolescent/documents/9241593180/en/index.html.”

5. Discussion
A. In the abstract the author states that “we were unable to identify clearly defined patterns across regions, countries, or time periods.” and this is true in a broad sense. On the other hand a reading of the very well presented findings for each of the 4 key behaviors show that these could be drawn into some sort of social/behavioral model that includes broadly speaking cognitive, affective, social and resource factors that influence performance of the harmful behaviors. One weakness of the studies gathered may be the lack of any conceptual or theoretical framework used to design their studies. The author of this review is in a good position to point this weakness out and draw from the findings to suggest a framework for further research on the topic.

The below text was added to the discussion section, addressing the lack of conceptual or theoretical frameworks used in the design of studies and suggesting the development and use of a framework:

Line 477 “Across studies, the measurement of harmful practices was inconsistent and not guided by a conceptual or theoretical framework”

Line 499 “Going forward, studies in this area would benefit from the development and use of a broader conceptual framework to ensure that the research is theory-driven and regularly synthesized.”

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Editorial requests:

(1) Authors' contributions: Please format the Authors' contributions section before the Acknowledgements and Reference list.

For the Authors' contributions we suggest the following kind of format (please use initials to refer to each author's contribution): AB carried out the molecular genetic studies, participated in the sequence alignment and drafted the manuscript. JY carried out the immunoassays. MT participated in the sequence alignment. ES participated in the design of the study and performed the statistical analysis. FG conceived of the study, and participated in its design and coordination. All authors read and approved the final manuscript.

Author contribution are positioned prior to the Acknowledgements section and formatted as suggested.

(2) Tables: Please place your tables in the main manuscript file after the figure legends and references.
You should remove the copy from the additional files.

The tables have been placed as specified.

(3) **PRISMA guidelines**: In accordance with BioMed Central editorial policies (http://www.biomedcentral.com/about/editorialpolicies#StandardsofReporting), could you please ensure your manuscript reporting adheres to PRISMA guidelines (http://www.prisma-statement.org/) for reporting systematic reviews. This is so your methodology can be fully evaluated and utilised. Can you please include a completed PRISMA checklist as an additional file when submitting your revised manuscript. We would also ask that you include a completed copy of the PRISMA flowchart for your study as a figure in your manuscript.

The PRISMA checklist has been added as Additional file 2. Figure 1. Flow of studies considered in the systematic review has been updated using the PRISMA flowchart template.