Reviewer’s report

Title: "It is good to take her early to the doctor" - mothers' understanding of childhood pneumonia symptoms and health care seeking in Kilimanjaro Region, Tanzania

Version: 0 Date: 15 Nov 2016

Reviewer: Philip Seidenberg

Reviewers report:

Thanks for the opportunity to review this article focused on community and HCWs understandings of childhood pneumonia and health seeking behaviors. While this is an important topic, I am a little unsure how the current study adds any additional information or themes to the body of literature from the developing world and Africa regarding the topic. Similar studies have been both performed and published before showing adequate community and mothers' understanding of signs/symptoms for pneumonia, barriers to access and care. Perhaps one way to make the current study seem more relevant is, in the Discussion, to compare your current study to prior ones in both seeking any specific differences (including Moshi-specific ones), continued misperceptions or adequate perceptions, and continued barriers (financial, distance to care, gender roles, etc) to care which are occurring over time.

I also feel that the current study needs to be 'tightened' in terms of its writing, and some discreet omissions from the manuscript need to be addressed prior to publication. All of these will be listed below, but some of the simple ones include: time period for the current study and when the interviews were performed, information on Informed Consent, information on ethical approval for conducting the study, overall numbers of mothers interviewed for the study.

Specific comments/edits:

1) Title- likely need to include 'health seeking behaviors' to title, much of the study is focused on this in addition to understanding of childhood pneumonia

2) Abstract- consider removing the term 'emic' from the abstract and paper, not sure the common reader will understand this term

3) Abstract- you mention mothers' awareness of other childhood illnesses, specifically malaria and UTIs. If the initial study was focusing on other illnesses in addition to pneumonia (just not the focus of the current manuscript), then continue to include. If not, then any reference to other illnesses is likely irrelevant and thus can remove from the paper.

4) Introduction- While siting a UNICEF report about appropriate care seeking behavior and antibiotics, you may want to reference studies looking at timely care seeking and appropriate antibiotics for under-5 childhood pneumonia. Not all kids need antibiotics and not all caregivers are seeking care in a timely fashion. In addition, you may want to reference the growing body of
literature which looks at appropriate community case management of childhood pneumonia, not all kids need to seek treatment or receive care as in-patients in health facilities. I think this would show a better understanding towards the subject.

5) Intro- line 32, replace 'failure to seeking' with 'failure in seeking'

6) Intro- line 32, may want to remove guardians, I think you mean 'caretakers; in same sentence, replace 'crucial to improve....and reduce mortality' with 'crucial for improving...and reducing mortality'

7) Intro- sentence from line 42-46, run-on sentence, please correct.

8) Intro- last two lines are the specific aims for the study, you may want to overtly state this so the reader is more clearly aware.

Materials and Methods Section

1) Study area and population- need to include a few more details in order for the reader to understand the region as well as for your references in the Discussion section to make sense. One is the cost of seeking care for under-5 children and the region's/country's policy for this. Additionally, any Demographic Health Survey recent data for under-5 mortality? Incidence of respiratory illness? If so, would be great to include. Additionally, information about the region (economic activity particularly), rural vs. urban, etc would be great to give the reader a better understanding of Moshi.

2) Data collection- time period of the study not mentioned anywhere, can consider adding it here or in the first sentence of the Results section (or both).

3) Reference to mothers- did you all actively exclude other caregivers? I'm a little unsure from the manuscript. OK to just focus on mom's but if you actively excluded other potential caregivers need to state in Methods section and potentially give a reason why

4) Sentence on line 7-8 doesn't make any sense (80 villages out of 34 villages?), please correct. Additionally, if there was any method for random sampling, or consideration to the sample size (numbers of mothers interviewed, numbers of HCWs interviewed, types of HCWs represented), this needs to be presented.

5) IDIs- again, if you randomly sampled specific types of HCWs in order to ensure fair representation, please give the method(s) for so doing.

6) Data Management- need to mention who conducted the interviews, their level of expertise/training/familiarity with local languages and cultures.

7) Informed Consent and Ethical approval- needs to be include in this section towards the end, if not study can't be published.
Results Section

1) Time period for conducting interviews and study activities needs to be including at the beginning of the section

2) Total numbers of mothers, HCWs need to be clearly stated at the beginning of the results, unclear from the current draft how many mothers were actually included in the FGDs.

3) Baseline demographic info on mothers and HCWs- absent from the results, did you all perform? Readers love to know this information, gives a better idea about the subjects involved

4) General comment for Results and Discussion- it seems that some items that you all focus on in the Discussion really aren't mentioned in the Results section. Please have a look at your Discussion, and if you're going to go into details about these items please mention them in Results. Costs for transportation to facilities as a barrier to health seeking behavior, gender barriers to care, risk factors and perceived causes of childhood pneumonia, security issues are the quick ones which come to mind. Should be a fairly easy fix but then you'll need to really tighten the Results section so that it's not overwhelming.

5) HCW interviews- I think you need to add a separate section for this in the Results, even if it's small, to group some of these responses independently.

Discussion

1) First sentence- needs reference for declining childhood mortality, avoidable deaths.

2) As mentioned above, make sure you align your take-home discussion points with those presented in Results, right now seem a bit out-of-line.

3) Comparison to other pneumonia community understanding and health seeking behavior studies- this really needs to be added in order for the reader to understand the relevance, and added knowledge, for the current study. Without it, I'm not sure the current study can be published. This should be easy to perform but will force you (the authors) to present how the current study adds to the field- whether recurrent themes continue to show up across time, country, region, cultural differences lead towards barriers to care. In addition, if these do continue to recur, how your current study helps formulate a future plan(s) for addressing in efforts to reduce disease burdens and barriers to care.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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