Reviewer’s report

Title: Determinants of healthcare seeking for childhood illnesses among caregivers of under-five children in urban slums in Malawi: a population-based cross-sectional study

Version: 0 Date: 04 May 2019

Reviewer: Helena Hildenwall

Reviewer's report:

This is a paper aiming to identify potential barriers for accurate care seeking for sick children residing in urban slums. While the topic is of high interest to identify challenges specific to vulnerable children in poor urban areas, I think there are a number of issues in the current manuscript that needs to be clarified. Specifically, I am not sure the definitions used are appropriate to get accurate results on issues for adequate care seeking. First of all, it does not make sense to argue that ALL children with whatever symptoms of illness should see a health care provider within 24 hours. It is well valid for suspected malaria and has, as the authors rightly write, been encouraged for any fever due to the potential rapid development of serious malaria. Your results also indicate that the studied communities have absorbed this message. However, what kind of symptoms was otherwise asked for? It would not make sense to expect guardians to hurry for care with children presenting with a runny nose, a single episode of diarrhea or a simple cough and if these children show up to often at health facilities they may even pose a threat to others with actual health care needs if taking to much attention from them. Thus, your manuscript requires more information on the kind of symptoms children presented with and also for how long. Information on outcome would also assist the understanding of whether care-seeking was needed - was the proportion of poor outcome higher in the group that did not seek care? If not, what does your findings really tell?

Another issues is the time definition. How could you get accurate estimates of care-seeking within 24 hours? More info on how you assessed start of symptoms and time of care-seeking would be needed. I am further concerned you provide no info on potential barriers related to the actual availability of health care except from distance: perceived quality of care, opening hours, transport availability, etc. I think the above are main challenges to the interpretation and importance of this paper and question whether it can be published without a thorough clarification and possible (recommendable) reanalysis.

Some additional comments:

Overall
It seems the study has been done within the framework of another, longitudinal, study. It would be very useful to know more about this study to understand the context. Pls add reference(s).

Please add information on the study areas - why were they chosen, how do they differ from other settings in Lilongwe. It seems odd to me that you can provide a distance in kms to health center since I would assume the included areas are big and different parts of them are differently far away from health centers?

It is unclear who you identified as the study subject - was it the guardian or the child or a unit of both of them?
It seems you have not considered that all interviewees will not have a sick child in your samples size calculation?

You mention that the tool has been "validated". Please provide an explanation and a reference to how this has been done.

For the tool, please clarify how data was collected - did respondents fill the form or were they asked questions? How long time did interviews take?

Data collection was only conducted over three months so changes in disease patterns and potential care seeking challenges (floods during rainy seasons etc) have not been considered. Pls add to limitations.

In abstract you say data was analyzed using "descriptive and logistic regression" - please change writing since currently sounds you have done something called "descriptive regression"

In results you mention on line 274 that in total 85% reported illness, however that does not correspond to the reported proportions in the individual groups that are all less than 85%. How is that possible?

Line 347 - reference to personal communication. Pls add with whom.

Not sure about journal guidelines but it seems you may have too many references?

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

No

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

Unable to assess

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

No

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