Reviewer’s report

Title: Why do participants drop-out: findings from a prospective pediatric cohort for fever surveillance established at Vellore, Southern India

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Reviewer: Jan Passchier

Reviewer's report:

General: This study investigates the reasons for dropping out from a prospective pediatric cohort for fever surveillance, i.e. the Vellore Typhoid surveillance study (VTS).

In general the topic of the current study is very relevant. The way it is investigated, however, needs more specification than is given so far, as is the area of research from which this study is a part. Also, the English is liable to improvement; paragraphs should be rewritten to make the article more concise. In my opinion the authors might have benefit of an English editor with experience of the style of international journals.

In more detail and chapterwise:

Abstract

The way the data are analysed is lacking. Under Results it is not clear how many subjects were participating in the FGD study. The conclusion is too general (in my opinion) and do not refer to the specific outcome of the present study.

Keywords

I wonder if these shouldn't be limited to: 'Cohort, longitudinal, drop-out, pediatrics' instead of the double and redundant keywords here.
Background

In the statement of the problem, drop-out ratios of other studies in a comparable field should be reported too. Comparison of attrition between Western and Eastern countries is interesting to make, as well as High Income Countries vs Low-Medium Income Countries. Factors of poor response and attrition are described, but the direction of the associations should be mentioned too. Sometimes references seem to be lacking (like in the sentence on internalization and understanding). The possible role of individual differences (personality, response tendencies) are not described too.

The aim of the study is broader than what is investigated. The aim 'Eliciting knowledge and attitude' is hardly studied or realized. (This might be a matter of rephrasing and making a distinction between direct and future aim). At the other hand, establishing the percentage of drop-outs is not an aim here. Notwithstanding this, it is presented in the Result section, suggesting that it is also a focus of this study. If it is, it should be mentioned as a separate research question too. Otherwise, it should be presented as a part of the background. In both cases the percentage drop-outs have to be compared with those of their studies, to see if this is relatively high, moderate or small. This can be in the Discussion (when it is an aim of the study) or in the background part (when it concerns information which is already available).

Methods

From the analysis, it becomes clear that there is a quantitative part and a qualitative part in the study.

Problems I met are:

Inclusion and exclusion criteria for VTS are not described.

Figure 1, describing the flow of the VTS study, is not present in my version of the manuscript.

The description of the methods of surveillance (telephone interview, questionnaire, home visit) is not presented. Though not being an expert in this field, I wonder how reliable parental report of fever is. It is also important to know if the diagnostics and treatment of the positive cases are for free or should be paid by the parents.

Details of the number of FGDs, the specific questions, the number of participants in each and the way these qualitative data are analysed should be added. F.i. how were the transcripts analysed to obtain themes, by how many raters, how were discrepancies resolved etc. (There is quite a lot of literature devoted to the analysis of qualitative data by now).
In the statistical comparison of groups with large sample sizes like here, the use of Cohen's d is to be recommended as neglectable differences can easily lead to a significant outcome too.

I was a bit confused reading that both children and parents could drop-out (see p10). If so, what is the difference between these drop-out rates?

Group dynamics were noted by the facilitator. What has been done with these data?

No mentioning of ethical clearance (or its unnecessity) was made.

Results

The description of the population in Table 1 and in the text, should be more balanced; highlights in the text, details in the table. Definitions of SES subgroups is important to know for comparison with other studies. The p-values are not very informative with such high sample sizes.

It is not clear how many children were already dropping-out in the first measurement (so without any participation at all and in which way(s) they (and/or their parents) differed from the other children.

Table 4 shows the reasons for drop-out, but it is not clear how these were obtained: are these found in the FGD's? Is there the possibility for the subjects to give more than one reason?

The concept of weighted drop-out was unknown to me. I found an article by Schmidt and Woll in BMC Medical Research and Methodology (2017) 17:164 on this topic. If relevant, it is good to refer to that, unless it is a well-known concept in epidemiological research.

The description of how the FGDs were carried out should be transferred to the Method section (where I missed it). It is confusing to see that sometimes in the qualitative part numbers are reported and sometimes not. Also the distinction between the two groups (participant with and without withdrawal) is not clear. In one case it is mentioned in a table, in the other case in the next, which renders its reading difficult.
Discussion

The building-up can be improved considerably. I prefer to have summary of the main outcome first, after which a comparison is made with the previous literature (in this case on reasons for drop-out/withdrawal). This comparison is lacking here.

Other parts that deserve to be discussed here are: 'limitations of the study', 'suggestions for future research'.

References

Overall the references seem relevant

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?
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