# PEER REVIEW HISTORY

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# **ARTICLE DETAILS**

TITLE (PROVISIONAL)	Healthcare seeking patterns of families of infants with circumcision- related morbidities from two population-based cohort studies in Ghana
AUTHORS	Gyan, Thomas; McAuley, Kimberley; O' Leary, Maureen; Strobel, Natalie; Edmond, Karen

# **VERSION 1 – REVIEW**

REVIEWER	Dr Olorunfemi Akinbode Ogundele
	Department of Community Medicine
	University of Medical Sciences, Ondo city Ondo State, Nigeria
REVIEW RETURNED	29-Jun-2017

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REVIEWER	Dr Mbuyiselo Douglas
	Human Sciences Research Council
	South Africa
REVIEW RETURNED	09-Jul-2017

## GENERAL COMMENTS

### Review

Thank you for the opportunity to review the manuscript "Healthcare seeking patterns of families of infants with circumcision-related morbidities from two population-based cohort studies in Ghana." The paper describes quantitative findings from two population-based cohort studies that assessed health care seeking patterns of families of infants with circumcision related morbidities and families of infants with acute illnesses in rural Ghana.

#### Abstract

The abstract is clear from the objectives to the conclusion. But in the main study the conclusion is missing. In the objectives the authors mentioned.... circumcision related morbidities and acute illness (illness is in singular but morbidities is in plural) in rural Ghana. Right through the study acute illness is always in plural where it supposed to be in plural.

## Study Design

The study design has been mentioned to be from two cohort studies but the methods used in data collection are quite confusing. For example the authors stated that the fieldworkers used standardised paper based data collection tools (including a standardised list of closed ended questions – quantitative questionnaire) for all interviews. But in page 6, line 25, the authors mentioned field workers and key informants. The methods used by the field workers in this study are not the same as the methods normally used by key informants. Key informants interviews are always qualitative indepth interviews with people who know what is happening in the community.

## Study definitions and categories

In page 7, line 55, an acute illness was defined as illness or injury other than circumcision related complications such as malaria, sepsis, acute respiratory..... In that list there are many examples of acute illnesses not only one acute illness is mentioned there. Also sepsis can be related to the circumcision wound.

In qualitative studies categories are sub-themes, I have not seen the themes and sub-theme in this study, I am of the opinion that the word categories should be deleted.

### Data analysis

Data analysis shows that this study is using quantitative approach. For example, it is stated that multivariable logistic regression models were constructed apriori to assess the association between care seeking patterns ...

## Results and Discussion

Results and discussion are relevant with related tables

#### Conclusions

Conclusion is missing in this study, as already stated it only appears in the abstract.

Other comments - The authors must check the grammar and syntax throughout the study. For example, there is no need to abbreviate months (see page 6, line 23). Also in page 12, line 3 and 7, in the middle of the sentence figures should be written as 10 km and 1 km
just like the 21,4% in the same paragraph.

### **VERSION 1 – AUTHOR RESPONSE**

Reviewer: 1

Dr Olorunfemi Akinbode Ogundele Department of Community Medicine

University of Medical Sciences, Ondo city Ondo State, Nigeria Please state any competing interests

or state 'None declared': None

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Please leave your comments for the authors below

- 1. Assessing Health seeking pattern in two population based cohort is quite an interesting study, however there are lots of concern to attend to before the study can be published. The way the study setting and design is presented is not very clear.
- For clarity we have now revised lines 1 to 6 on page 5 of the "Study design and setting" section under the methods to read: "Data from two separate cohort studies in the same part of the Brong Ahafo Region of central Ghana were analysed separately and compared descriptively. The larger of the two cohorts includes data from a population based trial of newborn vitamin A supplementation (Neovita trial) conducted between 16th August 2010 to 7th November 2011 and involving 22,955 mother infant pairs; full details have been published previously2. The smaller cohort was conducted between 21st May 2012 and December 31st 2012 and focused on circumcision".
- 2. Are the authors presenting two different studies or comparing? If comparative the presentation of the methodology does not concisely show that.
- As mentioned above in point 1 and on page 5 lines 2 to 8, the study was designed to compare health care seeking behaviour within, and descriptively between, the two cohorts (The Neovita trial and the circumcision study). Due to the low number of families who sought care in the circumcision study we analysed and presented data from within this cohort using simple proportions and descriptive analysis only. This has been described on page 9, lines 2 to 3 (statistical analysis section). Statistical analyses were used to assess care seeking patterns within the larger Neovita cohort of 22,955 infants. This information was discussed in the statistical analysis section (page 9, lines 3 to 4). The inability to compare the two cohorts statistically has been described on page 15, lines 17 to 19.
- 3. A major of this study is in the data collection, line 40..... Author reported time constrains as a factor for not asking where patient soughed care. This is a major flaw for comparison. Assessment of health seeking is incomplete without finding where patient sought care. This was omitted in the Neovita study looking at care seeking for acute illness. This makes comparison with the circumcision study inconsistent.
- We acknowledge the lack of data on where families sought care for acute illnesses in the Neovita trial and this is now discussed in the limitation section (page 16, paragraph 1, lines 1 to 5): "The Neovita study lacked data on the type of provider care was sought from. However, the population-based nature of the data on whether care was sought for acute illnesses, serves as a proxy for care seeking patterns. Understanding the type of care provider sought for acute illnesses would be

important to investigate in the future".

- 4. What is define as circumcision related morbidity? No operational definition is it bleeding, Infection? artrogenic? Authors should please define this morbidities.
- We have now added this information in the definitions section (page 8, lines 8 to 12) to read; "Circumcision related morbidities were defined as complications occurring during or after the circumcision procedure as reported by the primary caregiver including; excess skin removal or incision, excess bleeding, inadequate skin removal, infection, abnormal stream of urine, glans amputation, ulcer".
- 5. How was interrater reliability assessed?
- Interrater reliability was not assessed statistically however collection of data by the fieldworkers was evaluated by the study coordinator (GT) and field supervisors during scheduled and unscheduled supervisory visits. Each fieldworker was supervised during 2 home visits per month. During the supervised home visit, GT and field supervisors observed the fieldworker interviewing the mother, then examined the infant(s) and recorded findings independently. Recorded data were compared between the fieldworker and GT/field supervisor and used to provide feedback after the home visits and at weekly fieldworker meetings. We have now added the following information to page 7, paragraph 3 to read;

"We did not perform statistical evaluation of agreements between the fieldworkers and the study coordinator (GT). However, each fieldworker was supervised during 2 visits per month as part of the study scheduled and unscheduled supervisory visits. During these visits, GT and field supervisors observed the fieldworker interviewing mothers, and examined infants and recorded findings independently. Recorded data were compared between the fieldworker and GT/field supervisor and used to provide feedback after the home visits and at weekly fieldworker meetings".

- 6. Authors should have a look at the references?
- · We have corrected the references.

Reviewer: 2

Dr Mbuyiselo Douglas

Human Sciences Research Council, South Africa Please state any competing interests or state 'None declared': No competing interests

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Please leave your comments for the authors below

Kindly see the attached comments. The study has a good merit and the topic is of great concern in Africa.

# Review

Thank you for the opportunity to review the manuscript "Healthcare seeking patterns of families of infants with circumcision-related morbidities from two population-based cohort studies in Ghana." The paper describes quantitative findings from two population-based cohort studies that assessed health care seeking patterns of families of infants with circumcision related morbidities and families of infants with acute illnesses in rural Ghana.

Abstract

1. The abstract is clear from the objectives to the conclusion. But in the main study the conclusion is missing.

We have added a heading "Conclusions" in the main text. The conclusions are:

- "Our study has implications for policy and program development. Infant male circumcision is commonly practiced in many parts of sub-Saharan Africa including our study area. We report substantial differences in healthcare seeking patterns in families in the two cohorts in the Brong Ahafo Region of central rural Ghana. A much lower proportion of families of infants with circumcision related morbidity sought healthcare for acute morbidity compared to families of infants with acute illness. The findings from this study indicates that government and non-governmental organisations need to prioritise circumcision and improve awareness of this highly prevalent but potentially dangerous practice. Circumcision carries a triple burden of high prevalence, high morbidity load and poor care seeking. Community awareness of the burden, consequences and solutions needs to increase. This requires the involvement of community leaders and other stakeholders and include behaviour change communication strategies."
- 2. In the objectives the authors mentioned..... circumcision related morbidities and acute illness (illness is in singular but morbidities is in plural) in rural Ghana. Right through the study acute illness is always in plural where it supposed to be in plural.
- We agree with your suggestion and have changed illness to illnesses in the text.

#### Study Design

- 3. The study design has been mentioned to be from two cohort studies but the methods used in data collection are quite confusing. For example the authors stated that the fieldworkers used standardised paper based data collection tools (including a standardised list of closed ended questions quantitative questionnaire) for all interviews. But in page 6, line 25, the authors mentioned field workers and key informants. The methods used by the field workers in this study are not the same as the methods normally used by key informants. Key informants interviews are always qualitative indepth interviews with people who know what is happening in the community.
- Our study was a quantitative study, we did not collect any qualitative data. The key informants mentioned in the paragraph did not collect data but served as a source of obtaining information about births in the study area. For clarity, we have revised the sentence on page 6, lines 14 to 15 to read; "For the Neovita study, from August 2010 to November 2011, all births in the study area were reported to the trial team via a network of fieldworkers".

## Study definitions and categories

- 4. In page 7, line 55, an acute illness was defined as illness or injury other than circumcision related complications such as malaria, sepsis, acute respiratory..... In that list there are many examples of acute illnesses not only one acute illness is mentioned there.
- We have revised the definition of acute illnesses to read; "Acute illnesses were defined as illnesses or injuries other than circumcision related complications such as malaria, sepsis, acute respiratory tract infection or diarrhoea". Please see page 8 of study definitions.
- 5. Also sepsis can be related to the circumcision wound.
- Sepsis can be circumcision wound related, however, for the Neovita trial the focus was any acute illnesses irrespective of the attributable reason (e.g. circumcision, mosquito-borne etc) and these were coded under supervision of a consultant paediatrician. Sepsis was reported in approximately 4%

of the Neovita study population who experienced an acute illness during the trial period (281/6265). Circumcision was not a focus of the Neovita trial therefore details specific to circumcision were not recorded including age at circumcision and any morbidities associated with circumcision, thus it was not possible to separate out circumcision specific sepsis cases, if any.

- 6. In qualitative studies categories are sub-themes, I have not seen the themes and sub-theme in this study, I am of the opinion that the word categories should be deleted.
- We agree with your suggestion and have done this. Please see page 8, line 3.

### Conclusions

- 7. Conclusion is missing in this study, as already stated it only appears in the abstract.
- We have included this information in the main text as stated in our response to point 1 above.

#### Other comments -

- 8. The authors must check the grammar and syntax throughout the study. For example, there is no need to abbreviate months (see page 6, line 23).
- We have made this change in page 6, line 23.
- 9. Also in page 12, line 3 and 7, in the middle of the sentence figures should be written as 10 km and 1 km just like the 21,4% in the same paragraph.
- We have made this change.