PEER REVIEW HISTORY

BMJ Paediatrics Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Brought in dead cases to a tertiary referral pediatric Emergency Department in India: a prospective qualitative study
AUTHORS	Kumar, Praveen; Nallasamy, Karthi; Jayashree, Muralidharan; Kumar, Praveen

VERSION 1 – REVIEW

REVIEWER	Reviewer name: Trevor Duke Institution and Country: University of Melbourne, Australia Competing interests: I know the first author well
REVIEW RETURNED	18-Nov-2019

GENERAL COMMENTS	This is an excellent study, that describes an important topic, of children who die in the community, or during the referral process to a major hospital. The study describes a cohort of 100 children who were brought into a hospital in this condition. The useful findings include how young the cohort is, reflecting high neonatal mortality rates, and the need for improvements in the organisation of services to address high-risk newborns. A strength of the study is that it describes personal interviews conducted sensitively with parents, and the socioeconomic conditions of the families of the deceased children. Technically in research terms, these cannot be regarded as 'risk factors' as method of study was simply observational, but they are of course well known social determinants of child mortality. The authors rightly point to the need for improvements in the referral process, as most children came by ambulance, most deteriorated in transit, and the average transport time was 2 hours, however they do not comment on the capacities of the referring hospitals or health centres to manage the referral process in a safer way, the facilities that exist in these 40 referring health facilities, the capacity and skills of staff. The 'improvement in the referral process' appropriately called for by the authors is contingent upon improving primary care capacity, as these primary care and district level facilities see very sick children, but are invariably ill equipped and understaffed and staff under-trained to deal with them safely. The strength of the study is the linking of medical, social, and health service data together. The manuscript is very well written, and the authors are to be commended for dealing with this important topic in a holistic and sensitive way.

REVIEWER	Reviewer name: Arif Tyebally Institution and Country: KK Women's And Children's Hospital, Singapore Competing interests: None
REVIEW RETURNED	25-Nov-2019

GENERAL COMMENTS	1) Important study with useful insights to help reduce mortality in LMICs. I am looking forward to the final publication and hope this will guide similar projects in other LMICs.

	2) For data credibility, was member checking done to ask feedback from participants on the data? 3) Qualitative methodology can be more robust. There was no mention of data saturation, iterative data collection and analysis. It appears that the themes were pre-determined rather than obtained from the data. There is no description of the coding process. From the way the data was collected and analysed, the qualitative methodology may not be the most suitable. 4) How and when were participants approached for interviews? 5) How were the interviews guided? Was there a standard list of questions used? Was there standardisation between the interviewers? Were the interviews recorded and transcribed verbatim?

VERSION 1 – AUTHOR RESPONSE

Reviewer 1:

We greatly appreciate the positive comments by Prof. Duke for our work. We agree that a better description about the capacities of referring health facilities on the 'referral process' would be a valuable information. Unfortunately, we could not get into the details of the process of referral in our cases as the visits to the health facilities were at a later date and an organized record of referral information was lacking in most cases. As we have mentioned in the paper, 70% of the hospitals were equipped with ambulance services however, we did not collect additional information on staff capacities and their training in this study.

Reviewer 2:

We are thankful to Dr Tyebally for his constructive comments. It has helped us incorporate necessary changes and revise our paper better.

Comment: For data credibility, was member checking done to ask feedback from participants on the data?

Response: We agree that member checking would have improved the accuracy and internal validity. Unfortunately, member check was not done in our study, as we felt that a member check at the conclusion of the interview may be difficult due to sensitivity of the content and it demanded additional time.

Comment: Qualitative methodology can be more robust. There was no mention of data saturation, iterative data collection and analysis. It appears that the themes were pre-determined rather than obtained from the data. There is no description of the coding process. From the way the data was collected and analysed, the qualitative methodology may not be the most suitable.

Response: We thank Dr Tyebally for these very important comments. We completely agree that the qualitative methodology was not well explained in the manuscript.

During enrollment, we observed that a significant proportion of BID cases were neonates.

Data saturation was planned to be achieved based on sizeable representation of post neonatal children and non-emergence of new referring hospitals. We allowed for iterative adjustments between interview and field visits to ensure that the data collected from referring hospitals reflect the emergent pattern from interviews. We have added these statements in the revised manuscript.

We concur that the three major themes explored in the study [(i) pre-hospital determinants (ii) health system based factors and (iii) referral factors] were pre-determined, however, some of the factors, particularly those related to transport and deterioration have emerged from the data. Majority of the data were arranged in prefigured deductive codes derived from the semistructured data collection instrument. This was supplemented by inductive codes emerged from new topics. We have revised the manuscript to include this information. We have also acknowledged in the limitation section that our data had a focus on 'a priori' themes.

Comment: How and when were participants approached for interviews?

Response: Parents/guardian were approached for consent and interview shortly after declaration of the outcome of CPR in the Emergency Department. We have clarified this information in the revised manuscript.

Comment: How were the interviews guided? Was there a standard list of questions used? Was there standardisation between the interviewers? Were the interviews recorded and transcribed verbatim?

Response: Yes, we used a semistructured questionnaire to guide the conduct of the interview. It is included as a supplementary file with the revised manuscript. Two authors were primarily involved in the conduct of the interviews, however we did not measure the agreement between them. Interviews were conducted in native language of the respondent and the information was recorded and translated to English. We did not record the audio.

VERSION 2 – REVIEW

REVIEWER	Reviewer name: Arif Tyebally Institution and Country: KK Women's and Children's Hospital, Singapore Competing interests: None
REVIEW RETURNED	03-Jan-2020

GENERAL COMMENTS	This paper highlights useful information that will benefit people from LMICs. If member checking was not done it should be mentioned in the script for the reasons you gave. This will help readers decide what techniques were used and which could not be used to enhance the credibility of the data. Also, data saturation should be based on no new information on social, cultural, environmental and health care related factors that arise from data collection rather than from non emergence of new referring hospitals.

VERSION 2 – AUTHOR RESPONSE

We thank Dr Tyebally for the valuable inputs.

Comments:

1. If member checking was not done it should be mentioned in the script for the reasons you gave. This will help readers decide what techniques were used and which could not be used to enhance the credibility of the data.

Response: We have added a statement mentioning the reasons.

2. Data saturation should be based on no new information on social, cultural, environmental and health care related factors that arise from data collection rather than from non emergence of new referring hospitals.

We have modified the data saturation statement as per the suggestions.