

Peer Review File

Article information: <https://dx.doi.org/10.21037/aob-21-88>

Comment 1: The authors had narrated a fair bit of useful information on the blood collection and transfusion demand at Queen Elizabeth Central Hospital, Malawi during and took references to what happened in the African countries. However, the manuscript was rather long and should be shortened to make the presentation easy to follow. For example, in the INTRODUCTION as we have the pandemic for almost two years, the first two paragraphs can be shortened. At the same time, the following paragraphs on experience encountered in different countries could be re-organized.

Reply1: We took note of this and attempted to cut information on the previous references 11 and 12 and also moved some information to methodology (lines 190 to 205). On organization of data, we attempted to re-edit the introduction as indicated from lines 144 to 157 through track changes. The literature coverage aimed at starting with the world wide picture , then Africa , then SADC. Apparently, at the time of drafting this manuscript, we did not get adequate published studies to incorporate in the introduction .

Comment 2:It looked unusual that why there was no statistically significant in the total blood collection.

Reply 2: This is well noted. Looks like this was just for our information

Comment 3: Figure 1, 2 and 3 could be enhanced using dual Y axis

Reply 3: This has been done . Please refer to line 275,page 14 ; line 307 page 16; line 333 page 18

Comment 4: I am expecting more detailed information on any issues in O&G and Sickle cell anaemia patients in addition to using number of admission and blood units transfused.

Reply 4: Your expectation was our wish too. However , we encountered record

keeping challenges. There was no data that linked blood use to disease condition especially the retrospective data (the 2019 data). In the prospective study, blood use was recorded only for PPH patient (because this was main objective of the approved study protocol), leaving out other conditions. This is so because the data system only records blood use at department level/ Ward level.

Comment 5: Were there impact on other chronic transfused patients such as thalassaemia? **Reply 5:** Yes, most of chronic conditions (e.g cancer patients) are admitted to Medical department. There was very strong significance in reduction (Table 2, line 370, page 20). We do not have diagnosing equipment for thalassaemia so its difficult to assess on it. However, they are admitted to medical department as well. Were there information in the cancellation of elective surgery? If yes, how many? **Reply 5:** there were indeed cancellations but we did not record the number during the study period as they were not among variables of interest.

Comment 6: Any mitigating strategies to increase blood supply? Some forms of table to illustrate might be good enough.

Reply 6: We have included the Table 3, from line 436 to 437, page 22 to 23.

Comment 7:

(1) The article mentions the use of mixed design in the methods, which is good. Can the authors specify the type of Mix design, e.g. sequential explanatory design? Sequential exploratory? Concurrent triangulation? Concurrent nested? This determines the proportion and priority of qualitative and quantitative information in the overall Mixed study.

(2) How did the authors "purposefully select" the interviewees? Is there a purposive sampling method? What is the principle of sample size consideration? Please explain in detail in the article.

Reply 7.1, 7.2: The whole methodology section has been restructured as indicated in the methodology section. Lines 149 to 238

(3) At the qualitative level, were the core elements of qualitative research design followed and considered, including reflection of truth value (e.g., taking into account personal bias in the findings) and consistency (e.g., multiple interviewers collaborating, interviewees commenting on the interview script to validate)? I would like to see a description of these important aspects in the article.

Reply 7.3: As above. The whole methodology section has been restructured as indicated in the methodology section. Lines 149 to 238

(4) What was the specific form of interviewing used - one to one? focus group?

Reply 7.4: one to one

(5) What is the number and background of the interviewers? Was there any professional training for the interviewers, such as using open-ended, non-leading questions etc.? I would like the authors to describe this in the article to ensure credibility in terms of qualitative data.

Reply 7.5: As above. The whole methodology section has been restructured as indicated in the methodology section. Lines 149 to 238

(6) In the Data analysis, there is a lack of description of the method of analysis of qualitative data, only the software is informed.

Reply 7.6: Refer to data analysis section. Lines 216 to 238

Comment 8:

There is almost no result from the qualitative Interview, but only one place where it is briefly used to support the findings of the quantitative study: "This is supported by the respondent below. is never enough for every patient, so, everyday we are prioritizing, like which patient to give blood to.(Laboratory personnel QECH)." I think it would be better for the authors to enrich the qualitative results into several sub-sections to classify, summarize, and objectively present the information from the qualitative interview.

Reply 8: The whole methodology section has been restructured as indicated in the methodology section. Lines 149 to 238