Author’s response to reviews

Title: Mothers’ satisfaction with care during facility-based childbirth: a cross-sectional survey in southern Mozambique

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Author’s response to reviews:

Reviewer #1
Question: The text starts with a statement on maternal and perinatal mortality, attributed to insufficient implementation of evidence-based practice. Subsequently, it focuses on quality of care, including client satisfaction, although it is not made clear whether improved satisfaction might contribute to reduced maternal and perinatal mortality. I would suggest changing the start of this paragraph and also throughout the paper to reflect the fact that quality of care by itself is an important goal when viewed from the perspective of the SDG and UHC (goal 3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all).

Answer: Thank you for the comment. We acknowledge that we may not have been sufficiently clear about the importance of addressing quality of care in reducing maternal and newborn mortality. We have revised the start of the paragraph as suggested, and now make reference to the health-related SDGs and UHC. We have also added a sentence to the next paragraph to highlight patient satisfaction.
as a useful indicator of quality of care.

Changes: Pages 3-4, Lines 70-83 (track changes version)

Textual change: Improving quality of care is fundamental to achieving Universal Health Coverage by 2030 [1]. The Universal Health Coverage goal emphasizes that health care systems should not only be designed to reduce the unacceptable burden of maternal deaths, stillbirths, and neonatal deaths that prevail in low- and middle-income countries [2], but also to offer care which meets the needs of the women, and is equitable and affordable. Patient satisfaction is a key part of quality of care [3] and, accordingly, the multidimensional aspects of quality of care provision are increasingly highlighted, as indicated in the World Health Organization’s (WHO) quality of care framework [7], which builds on the landmark article written by Donabedian [8]. These aspects include the need to address several of the underlying reasons for high mortality and insufficient care, which account for the prevailing unsatisfactory outcomes despite increases in uptake of care [7].

Question: The description of the study setting would be more comprehensive if an idea was given of the sociodemographic and geographic situation. From the subsequent text, I gather that the area is rather densely populated with reasonable health system coverage and transport options (at least within Mozambique), but this information is important to be able to assess whether the study population is a reasonable approximation of all women of childbearing age in the area.

Answer: We acknowledge that providing additional sociodemographic and geographic information will give a more comprehensive view of the study setting. The study area covered selected rural areas, within six districts, identified as part of a trial (the Community Level Interventions for Pre-eclampsia (CLIP) trial (NCT01911494)). Each of the rural areas was defined by a geographic region, which contained a minimum population size of 25,000 inhabitants, defined as the minimum total population that would result in at least one maternal death per year as per the data from the 2007 national census of Mozambique. Each area was purposively selected to reflect a variety of socioeconomic and demographic characteristics. Therefore, we consider that our study population should be a reasonable approximation of all women who gave birth in the whole area. We have added a sentence to explain the selection criteria of the areas and a further sentence to direct the reader to the CLIP study references, where more detailed socio-demographic and geographic information can be obtained.

Changes: Page 5, Lines 114-119 and Lines 125-126

Textual change: The study setting covered 12 selected rural areas, including 57,000 households within six districts of Maputo and Gaza provinces in southern Mozambique [25], with an institutional births coverage of 88.3% and 70.7%, respectively [27]. The population is largely rural and poor, and most derive a living from subsistence farming. Each area was purposively selected to reflect a variety of socioeconomic and demographic characteristics, such as level of urbanization, population density, and presence of a health facility.

More detailed information regarding the socioeconomic and demographic characteristics of the study setting have been described elsewhere [25].

Question: It would be useful to provide a short overall impression of the technical (rather meager) quality of care based on a few indicators, such as the very low rate of assisted vaginal births (0.5% only!) and the high stillbirth rate in the study population (23 per 1000 births, if I calculate well). In this study population which per definition had a facility-based birth those are worrisome figures, which need attention too for improvement of client satisfaction, as the key objective of facility based childbirth is a healthy mother and healthy baby. Combined with the information that many women estimated the time their childbirth took as more than 24 hours, I would question whether respect, dignity, communication and emotional support are really the most important factors to improve for enhancing client satisfaction in all clients, or rather predominantly in women with normal childbirth.
Obviously, the small absolute numbers of stillbirths and of assisted births (vacuum, caesarean section) limits the power to detect any reduced satisfaction related to these factors in this study population. Answer: Thank you for this important comment. We agree that some indicators of health facility performance in our study raise the issue of the quality of care provided. However, our aim was to address the mothers’ experiences and satisfaction with care during childbirth, and, as defined in the literature, while being an indicator of quality of care, satisfaction is not always an accurate reflection of the technical performance, but rather a respondents’ perception, which is influenced by their level of expectations.

We found that the very low rate of assisted vaginal birth has also been described in many LMICs, where rates below 1% are reported [Bailey 2017]. High stillbirth rates, similar to those we found, are also common in LMIC, where rates of 25 per 1000 births are reported [Saleem 2018], which are ten-fold higher than in high-income countries. While these worrisome figures need to be addressed, we do think that measures of satisfaction could be used to identify specific changes in the process of care that can improve the quality of care in different settings.

We have revised the text accordingly, on one side by highlighting the low rate of vacuum extraction and C/S and the high stillbirth rate in the results section, and on the other side by commenting on these results in the discussion section.

Changes: Page 10 Lines 239-240 and Page 16 Lines 333-341
Textual change: Spontaneous vaginal deliveries were the majority (95.8 %); 0.5% had an assisted vaginal delivery and 3.7% a caesarean section (C-section) - although…

Despite the finding of high satisfaction levels, some indicators found in our study are of concern in relation to the quality of care provided: the low rate (0.5%) of assisted vaginal delivery (AVD), the 3.7% C-section rate, and the high stillbirth rate (23 per 1000 births). Similar rates of less than 1% of institutional births delivered by AVD have been reported in several LMIC [59], for example, stillbirth rates as high as 25 per 1000 births [60]. The reasons most frequently described as contributing to the non-performance of AVD are a lack of trained human resources, lack of equipment, and national and institutional policies that fail to support AVD. The 3.7% C-section rate suggests unmet need [61], and this may be consistent with previous reports of underuse of C-section in rural areas of Mozambique [62].

Question: I suggest making it clear here that this study refers largely to women with a normal childbirth with quite good physical access to health care, for whom indeed respect, dignity, communication and emotional support may be the most important factors to enhance their satisfaction with the care received. Additional studies may then need to focus on complementing this information with assessments among women with complicated births and adverse outcomes, as well as among those with less good physical access to health care Answer: Thank you for raising this issue. We have addressed this point and rephrased the text accordingly.

Changes: Page 15, Lines 298-299
Textual changes: Our findings, drawn largely from mothers who experienced uncomplicated childbirth, indicate that most of them were satisfied with care during childbirth…

Question: 'Considering the current debate on the safety of deliveries and the push for them to be conducted in fully equipped hospitals rather than in primary facilities [55], we believe that this finding is of great importance.' I am not sure there is really an overall 'push' towards birth care in hospitals rather than in primary facilities, as there are many publications, also in The Lancet, which advocate for good midwifery care as close to the woman's familiar setting as possible. Your findings support that. Please reflect this in the text, and please note that improving the technical quality of birth care is also
possible in primary health facilities (for example, by improving use of vacuum extraction by midwives). WHO has clear guidelines on which interventions each level of health care ought to be able to deliver.

Answer: Our intention was to contribute to the debate on the appropriate strategy to achieve high-quality health system, particularly for childbirth care. What we meant was to highlight was that our finding concerning companionship and increased satisfaction with care during childbirth in primary care facilities should be taken into consideration regarding the recommendation of The Lancet Global Health Commission (Kruk et al. 2018), to redesign service delivery in order to shift childbirth care to hospitals. We are advocating that decisions on the configuration of childbirth care should consider the provision of safe routine services, as well as basic EmOC and referral capacity, taking into account women’s preferences and needs.

We have rephrased our comment on this point accordingly.

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We have rephrased our comment on this point accordingly.

Changes: Page 16 Lines 342-346
Textual changes: Our findings have implications for policies on childbirth care in health care organisations. It is crucial to ensure that every woman delivers in a safe environment and that health facilities are enabled to provide evidence-based routine childbirth care and basic emergency obstetric care as well as referral capability for complicated cases.

Comment: Please adjust abstract and conclusions accordingly.
Answer: We have rephrased the abstract and conclusions accordingly.
Changes: Page 3, Lines 63-65 and Page 18, Lines 396-398

Textual change: Childbirth at the primary facilities contributes to the level of satisfaction. The provision of childbirth care should consider women’s preferences and needs, including having a companion of choice. We highlight the challenge in balancing safety of care versus satisfaction with care and in developing policies on the optimum configuration of childbirth care. Interventions to improve the interaction with providers and the provision of respectful care are recommended.
Satisfaction with childbirth was driven by the proposed factors of communication, respect and dignity, and emotional support, as well as health systems factors. Decisions on the configuration of childbirth care should ensure that every woman receives timely and evidence-based care and that providers consider women’s preferences and needs…

Comment: please unify the location of the figures and tables, as presently some are in the text and other at the end of the document
Answer: We understand the convenience of having a consistent location of the figures and tables, however, we had to follow the journal’s rules for the preparation of manuscripts: they request that all the figures should be submitted separately and only tables with a size of less than an A4 page should be inserted. The bigger tables should be submitted at the end of the manuscript, after the references.

Comment: Please also unify the use of one decimal in the percentages presented, and ensure these are consistent throughout the text
Answer: We have adjusted the use of one decimal accordingly.

Reviewer #2
Question: You mention Rural as one of the Hospitals Categories. Although this has been an official classification in the country, this is no longer used, and for the benefit of the readers, I would recommend considering the rural in the group of District hospitals. In fact, Rural Hospital was used to name the District Hospital serving more than one District and wasn't related to the location (Rural or Urban).
Answer: Thank you for this important comment. Although we are aware that the official classification has changed, the only rural hospital we had in our study setting was the one in Xinavane. The local authorities in Maputo province were still using the rural hospital designation during our data collection period, and they are still using it to date, according to the health directorate of the Maputo province (information confirmed by the current “medico-chefe provincial”, Dr Matsolo (hmatsolo@hotmail.com). For this reason, we feel it is important to retain the rural hospital designation, although we do consider that the district and rural hospital are set within the same level of care (secondary level of the Mozambican national health service).

Question: I’m concerned with your statement/conclusion ..."A strategy to promote childbirth care in equipped hospitals rather than in primary facilities should consider women's preferences and needs, including being able to have a companion of choice during childbirth..." Can you please clarify the message, as I am understanding that you are backing the recommendation to promote more deliveries at Hospital level instead of Primary level (Health Centers)? Is this the message you intend to delivery or I,m getting it wrong. In any case, can you elaborate a bit more in your discussion about the option of pushing the deliveries to the higher level of care bearing in mind the current distribution of health facilities in such setting and also the issue of equity. According to the national policy in Mozambique, the Health Centers (Rural Type II) are the place where the majority of deliveries should happen. Thus, maybe the move should in upgrading these facilities and keep normal deliveries at primary health care facilities instead of trying to promote deliveries in hospitals.
Answer: Thank you for this important comment. We have addressed this point before, which was also commented by the first reviewer. Please refer to our answer to his comment (discussion section, 2nd comment)