Author’s response to reviews

Title: Outcomes of and barriers to cataract surgery in Sao Paulo State, Brazil - a public health intervention study

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Author’s response to reviews:

Thank you very much for the evaluation of our article.

We are presenting here the questions of the Reviewers and our answers to the specific questions. Our answers are also embedded in the PDF sent to the journal. Unfortunately there are questions we can not answer due to we did not have it. But we tried to answer as much was possible.

Reviewer 1: This study evaluated outcomes of cataract surgery and possible barriers to attend referral hospitals of patients who were screened at an Ophthalmic Mobile Unit. The result of this study demonstrated that the barriers to cataract surgery is higher age, greater distance to the hospital, municipalities with fewer inhabitants and less ophthalmic services. In terms of outcomes of cataract surgery, the treatment was effective and complied with the recommendations of the WHO.

The result of this study provides data that can be used to develop public healthcare initiatives.

I have some suggestions to try to improve it.
1. [Abstract, Page 5, LL45-47]

The conclusion of the abstract is "The barriers to cataract surgery was higher age, greater distance to the hospital, municipalities with fewer inhabitants and less ophthalmic services." However, in the results section, patients who did not attend had statistically better local coverage by ophthalmic surgeons, statistically greater availability of ophthalmologic equipment at municipal primary healthcare facilities and statistically better municipal hospital services and infrastructure to perform phacoemulsification. The conclusion of the abstract and the results are somewhat inconsistent with each other.

The term of less ophthalmic services is unclear.

We agree with the Reviewer. It is necessary to complete the phrase with other determinants:

The barriers to cataract surgery was higher age, greater distance to the hospital, municipalities with fewer inhabitants and less structured ophthalmic services. In the other hand, better local coverage by ophthalmic surgeons, greater availability of ophthalmologic equipment at primary healthcare facilities and better hospital services and infrastructure to perform phacoemulsification were factors statistical linked to lower attendance to the tertiary hospital.

The term of less ophthalmic services is unclear – corrected: less structured ophthalmic services

2. [Methods, Page 8, Lines 47-53]

In eyes with not being able to obtain optical biometry, AL was measured with an ultrasonic biometer and IOL power was calculated with IOLMaster in this study. The AL measured with IOLMaster is converted by the equation to be equal to that obtained by immersion ultrasound in the average case. However, the AL reading with contact ultrasound may be confounded by indentation of the cornea and is not interchangeable with the AL achieved with IOLMaster. Thus, if the value of AL measured by the applanation was used in IOL power calculation with IOLMaster, it could be one of the causes of refractive errors.

We agree with the Reviewer. Unfortunately we will not have the chance to change this now. But we ask to the Reviewer if is possible to accept our data since there are situations we were not
able to obtain optical biometry and we agree the error that occurs is small and not significant for an epidemiological study as we had. Probably in a study where the refractive target was important this could be considered as a bias. In addition, many patients may have been calculated to have monovision, with myopia of approximately 1.50 in the fellow eye. Perhaps this may explain the spherical mean.

3. [Discussion, Page 13, LL47-50]

"Although females were the predominately reported to the referral hospital, there was no statistical difference between genders (p>0.05)." This sentence is unclear. Authors seem to say that gender did not affect the visit to the referral hospital. Please rephrase to better express your intended meaning.

OK. We agree with the Reviewer and we rephrased:

Although females were the predominately reported to the referral hospital, gender did not affect (p>0.05) the possibility to attend to the appointment.

4. A P value is a number between 0 and 1, and a P value of 0.000 is impossible. Thus, when investigators get a P value of 0.000, it is recommended to express it as P value < 0.001. When a P value of 1.000, it is recommended to express it as P value > 0.999 or to round it down to 0.9999.

OK. Thank you very much. We made the correction.

Reviewer 2: Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format.

Please overwrite this text when adding your comments to the authors.
The authors have described outcomes of and barriers to cataract surgery in Sao Paolo State, and concluded that higher age, greater distance to the hospital, municipalities with fewer inhabitants and less ophthalmic services were the barriers to cataract surgery. The data presentation and statistics are appropriate for the article, and there is a minor revision needed for the paper.

1. Page 11, line 40 and Page 12, line 30-32: the final postoperative visit. Please include the mean time and standard deviation.

Unfortunately we do not have this information.

2. There are three common types of age-related cataract: nuclear, cortical, and posterior subcapsular. It is believed that their causes, environmental and genetic, differ both qualitatively and quantitatively. When searching for the quality of surgery and the final VA, these different types of cataract may provide valuable information.

We agree with the Reviewer. But we did not take notes about these points. So, we will not be able to report these data now. Sorry about this.

3. Multivariate analysis may be used to determine the independent predictors, which mostly influenced the barriers to cataract surgery.

OK. We agree with the Reviewer. But it was not possible to go for Multivariate analysis in this context.