Reviewer's report

Title: High-performing physicians are more likely to participate in a research study: Findings from a Quality Improvement Study

Version: 0 Date: 11 Jan 2019

Reviewer: Svjetlana Dosenovic

Reviewer's report:

In the manuscript "Higher Performers are more likely to Participate: Unmasking a Systematic Research Bias" the authors invested effort to assess the evidence for baseline quality of care provided by participants in the IDOCC study compared to non-participating family physicians. The manuscript sends an important message: participating physicians performed better at baseline compared to non-participating physicians when quality of their care was assessed according to 14 performance indicators. Though an interesting and relevant topic, the reviewer has a few suggestions for the authors to consider. References are incorrect at several places, including wrong numbering and some cited are not included in the reference list.

Title: It should be clear from the title that the participants are family physicians.

Abstract:

-The background is too long (repetition from the main text), the aim should be clearly stated, and the results should emphasize the most important numerical results, not only descriptive. It should be clear from the abstract that this study used data from a conducted RCT.

-Page 3, line 4. There is a typo in the abstract, it should be "of" instead of "or".

Background

- Page 4, lines 15-17 should be moved to the part of background about IDOCC study and incorporated with the text without repetition.

- Page 4, reference 6 is a reference to your RCT protocol, not the original source that supports previous statement. Please correct this.

- Page 5, line 29: Please explain acronym at first mention.

- Page 5, line 36 Please provide a reference for chosen quality of care outcomes.

- Study goal should be clearly formulated at the end of the background.
Methods

- Consider shortening the methods section. Instead of describing IDOCC study in detail, only the most relevant information should be named with a study reference.

- Page 6, line 52: IDOCC acronym has already been explained, please remove the full name.

- Page 6, ref 10 seems incorrect as there is no mention of Dillman approach. Please check and correct accordingly.

- Page 6, line 67: Please explain why you decided to include only practices operating for at least two years.

- Page 9, line 124. Please explain why you decided to include patients who were not formally registered to a family physician and attribute them to a certain physician based on the income criterion. How this may influence your results?

- Page 9, line 126, references do not seem correct. Please check this.

- Quality of care categories: Throughout the manuscript you write about chronic disease management, yet you only chose diabetes from other chronic diseases that were a part of the IDOCC study. Please discuss this.

- Page 10, line 145. States prescription medications were only evaluated in patients 65 years old and older and those receiving social assistance. What about other patients?

- Page 10, line 157. Consider deleting the sentence "The patient and physician factors included are described in Table 2." since it is contained at the beginning of the results.

Results

- Please round numbers above 10 to whole numbers.

- Page 11, line 163. The Table 2 states for rural practices vs "10.1%", please check and correct this.

- Table 2, please explain all acronyms used (e.g., IDOCC, FHT, RIO, RUB), also median is presented without a measure of dispersion.

- Table 3, there is a typo "Practice are Index" instead of Care.

- Page 11: Please add the most relevant numerical results after adjusting for physician factors.
Discussion

- Reference 17 does not appear in a numerical sequence of appearance.
- Reference 18 seems like an incorrect reference.
- References 31-32 do not exist in the listed references.

- Please explain how were quality of care measures chosen and what about other existing measures?

- Please delete the sentence "Three physicians who participated in IDOCC could not be included as they were new to practice and so were paid differently." from study limitations.

- Although your study covered diverse population, you should mention the generalizability of your results outside Ontario, considering other healthcare systems are differently organized.

Authors contributions: Currently there are some authors that do not fulfill all ICMJE criteria for authorship.

References: besides already mentioned things, you should consider using a reference software manager as there are other minor mistakes in the references, e.g. ref 5: "doi: doi: ". 
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I recommend additional statistical review

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Please indicate the quality of language in the manuscript:
Acceptable

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