Reviewer's report

Title: Relationship between self-efficacy, self-care behaviour and glycaemic control among patients with type 2 diabetes mellitus in the Malaysian primary care setting

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Reviewer: Koldo Cambra

Reviewer's report:
In this manuscript the authors present the results of an interesting cross sectional study, conducted in primary health settings, in which they describe and analyse the relationship between self-efficacy, self-care behaviour, medication adherence, and glycaemic control, among patients with type 2 diabetes.

The writing and language is good and clear.

GENERAL RECOMENDATION
I strongly recommend shortening the manuscript. It would be an important improvement. In the present version, the manuscript includes entire paragraphs with details that could be just referenced (such as the characteristics of validation of the questionnaires in 'study tools) and it also includes rather basic methodological explanations that can actually be avoided (such the explanation of what a correlation is in page 300 onwards)

SPECIFIC RECOMMENDATIONS
ABSTRACT:
Line 73. I would say 'found' instead of 'demonstrated', since authors are just describing a relationship

Lines 76-78 need to be properly reformulated. Coefficients from linear regression models are not Odds Ratios. Is this a conceptual error or a mistake? The coefficients of the variables in linear regression model are estimations of the average change in the response variable (HbA1c)
per 1-unit-change in the independent or explanatory variables (scores of self efficacy, of self care activities…)

BACKGROUND

Line 100. Given prevalences are of registered diabetes? If so indicate it

In the first paragraph something about the control of cardiovascular risk factors should be included. It has been probed that macrovascular complications in patients with diabetes are very related to cardiovascular risk factors such as cholesterol levels, high blood pressure etc. In fact these factors are stronger risk factors for people with diabetes than for the general population

METHODS
I recommend summarizing the 'study population', 'sampling method' and, specially, study tools.

Line 277 I do not think it is clear which HbA1c data have been used: last measures available within the 3 months prior to the extraction of clinical data?
The authors must give information about HbA1c missing data

Line 280 Sample size calculations. Based in assumptions, this is an important issue in designing the project. However, I see little interest in giving this information in the manuscript, once the results of the study are available. Now, the authors can assess the precision of the estimates (proportions, means) obtained in the study. Anyway, the paragraph is not well written: what does a precision of 0.05 mean? Is it a precision of +/- 5% in the estimation of the proportions?

Line 300. Medication adherence, with a range of possible results between 0 and 8 points, it can hardly be a normal variable. In case it is not normal, the Spearman correlation index should be used, instead Pearson correlation index
Line 310-313. It is not given the criteria used by authors to keep the variables in the multivariate models.
RESULTS

There are too many tables and graphs.
Table 2 is redundant. The average values of DMSES, SDSCS and MMAS-8 are given in tables 3-5. The mean HbA1c is already given in the text

A proposal for table 6 would be that of the attachment

Figures 2-5 are just plots, that researchers always must check but I do not think they provide valuable information to be in the manuscript. Perhaps, if the authors have a different idea, they could be given as supplementary figures

DISCUSSION

This section is not the place for results, such as those provided in lines 462, 464 (R2 and probabilities). Result must only be given if is needed to assess or comment their magnitude.

In strengths and limitations the authors have to assess the possible effect in the results/bias due to selecting the patients having attended twice the clinic in the previous year. Would result from patients attending the clinic worse/better?

CONCLUSION

This section must be more synthetic and provide only the conclusions of the study

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 am able to assess the statistics

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