Reviewer’s report

Title: Impact of a structured multicomponent educational intervention program on metabolic control of patients with type 2 diabetes

Version: 0 Date: 13 Dec 2016

Reviewer: Vivien Coates

Reviewer’s report:

The Abstract is well structured and makes the focus of the paper clear.

This is an important topic and I can follow the main points to be made but also wish to raise a number of issues, mostly relating to the design of the study.

Introduction: the case for people with type 2 diabetes to develop their self-management abilities is made. There is a short paragraph indicating that the level of glycaemic control in Portugal is sub-optimal but no other information about the context of diabetes care is included. This may be due to the word restriction but for those of us who are not familiar with the health care system it means we have little understanding of might be on offer to those in the control group.

Page 3, line 51- it is stated that there is little evidence about the effectiveness of educational interventions but this is not correct- there is a substantial literature on this topic on a world wide scale- although perhaps not specifically in relation to Portugal.

Page 4 Line 3- The principles of Therapeutic Education need to be explained.

The intervention was designed in a previous study but we do not have a reference to find this. The information in Figure 1 is not sufficient to enable other researchers / educators to understand the contents of the programme. For example there is a session called 'Precious feet' but there is no mention of diet. Others could not replicate the work.

Page 5 Methodology: 'Patients were invited to participate ...' more detail is required about the recruitment process. Ideally, add a flow diagram to illustrate the recruitment process.

Line 12 - it is stated that patients were randomly allocated - if so the process of randomisation needs to be explained. However in later stages of the paper it is stated that this was not a randomised trial (see Page 10).

How was the sample size calculated? Was there a power calculation, if so what primary outcome was it based on?

Were the researchers gathering the outcome data blinded to group allocation? If not potential bias should be considered.
Was the trial registered? If so registration details are required.

There is no mention of Consort guidelines for reporting a clinical trial - were they followed or consulted?

HbA1c is reported as a % but now also need to report in mmol/mol units.

It looks as though there might have been a significant difference in the HbA1c levels of the two groups at baseline - was this the case and if so what are the implications of this difference?

It is not clear why a longitudinal analysis approach was used when it is essentially a pre - post design.

I believe that the issues above and the impact they may have on the results need to be addressed before the outcomes and their implications can be considered.

I can follow the written English but this paper would need further careful editing.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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

Unable to assess

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

Unable to assess

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I recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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