Reviewer’s report

Title: Psychosocial impact of prognostic genetic testing in uveal melanoma patients: A controlled prospective clinical observational study

Version: 0 Date: 29 Aug 2019

Reviewer: Elizabeth Bancroft

Reviewer's report:

This is a well designed study, looking at the psychosocial impact of uveal melanoma patients seeking prognostic tumour testing compared with a self-selected group of patients who have opted not to seek prognostic tumour testing. It is a prospective cohort, measuring changes in psychosocial outcomes over a 12 month period. The statistical design and reporting of the results are well presented, the abstract, background and discussion would benefit from some revisions as outlined below.

This study has been reported in part before, and for this reason as written the manuscript leaves many questions for a reader who has not had prior knowledge of these papers and data.

Abstract
The abstract is problematic, the objectives outlined do not match those listed within the manuscript itself. For example the abstract states an outcome being utilization of psycho-oncological services; this needs harmonisation within the manuscript.

The design and methods in the abstract do not give an indication of the time period of the study and the groups are not well defined; the results do not give an indication of the direction of the reported statistically significant differences. For example, it is stated that certain factors can predict the patient's choice for prognostic testing, but it is not clear whether the factors listed predict for increased or decreased uptake.

Background
The description of prognostication would benefit from being addressed sooner than lines 48-49 as this is a key component of this study. You need to make this really easy for a non-expert audience to understand.

My main concern with the manuscript as written is that you have used comparisons in the background and discussion to the wider genetic counselling literature looking at the psychosocial impact of germline genetic testing for hereditary cancer predisposition gene mutations such as BRCA1/2. The type of testing under evaluation in this study is very different as it is somatic tumour prognostic testing for a cancer that a person is living with. I would recommend removing the comparisons made in lines 48 to 57, as well as corresponding sections in the discussion, and finding more appropriate literature for comparison with your cohort. There are examples of somatic genetic testing for risk of recurrence / prognostic factors in other tumour types (eg breast cancer) that would make a much better comparison set than trying to compare the impact of germline and somatic testing, which have hugely different implications for the family and individual, including risk of other primary cancers.

It would be helpful to define the somatic prognostic testing better in the introduction as advised above.
Objectives
You state that your hypotheses have been published elsewhere, but if relevant to your research questions presented here they should be included here.

Study population
You state that participants were "assigned" to the intervention group, but elsewhere state this is a patient-driven choice. The wording needs to be clarified.

Psycho-oncological interventions are referred to but not defined within the manuscript

Results section
Where you are stating there are statistically significant differences, it would be helpful to indicate the direction of the difference in the text.

Your figures on separate pages lack legends - although these do appear within the text. All abbreviations should be defined.

Your supplementary files would benefit from the scale ranges being included so that the reader understands the context of the scores - or this could be included in the methods section when listing the scales.

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.

No

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

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

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

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