Author’s response to reviews

Title: Type D personality is a predictor of prolonged acute brain dysfunction (delirium/coma) after cardiovascular surgery

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Author’s response to reviews:

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Dear Dr. Lynn Williams

We wish to express our strong appreciation to the Reviewers for their insightful comments on our manuscript. Their comments have helped us significantly improve the manuscript. Here, we submit the revised version of the manuscript entitled “Type D personality is a predictor of
reduced delirium/coma-free days after cardiac surgery” to be considered for possible publication in BMC Psychology. to be considered for publication in BMC Psychology.

I hope that these changes are satisfactory and that the manuscript will now be accepted for publication in BMC Psychology.

Again, we would like to express our appreciation for your possible consideration regarding our submission.

Sincerely yours,

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REVIEWERS' COMMENTS and RESPONSES:

To Reviewer #1, Thank you for your thoughtful insights about our manuscript. Our responses to your suggestions are listed below.

1. Page 2, lines 3-4: "The risk of increased depressive symptoms in these patients are based on personality type" - this sentence is unclear, but needs to be clarified as it seems particularly important in establishing the rationale for the study.

Response: Thank you for your insightful comment. We added a sentence to clarify the relation between personality and psychiatric condition.

2. A clear statement of the hypotheses should be provided.

Response: Thank you for your comment. We added the hypotheses at the end of method part.
3. Although a sample size calculation is provided, the final sample size upon which the analyses are based is not included.

Response: Thank you for your comment. We clarified the statistics about sample size calculation.

4. Were the researchers who conducted the delirium and coma assessments blind to the Type D personality status of the participants?

Response: Thank you for your comment. DS14 and the HADS was provided by paper and we scored after past the experiment period, blinding the researchers to results that could affect the outcome. We have added such a sentence to the method part.

5. Page 7, line 2: "expected", should read 'observed'.

Response: We rephrased the term. Thank you for pointing this out.

6. The authors should include (either as an alternative or as an adjunct to the reported analysis) an analysis based upon the continuous conceptualization of Type D personality (see, for example, the approach taken by Stevenson & Williams, 2014, Psychology & Health).

Response: We referenced the paper and added the sub-analysis and also add the sentence in regression modeling part.

7. The rationale for the analysis which investigated the interaction between Type D personality and depression is unclear (perhaps this is because the sentence I refer to in comment 1 is unclear).

Response: Thank you for your critical comment. We added references and sentences in the interaction part.

8. Only the first 12 cited references are included in the reference list, which made it difficult for me to determine whether appropriate literature is cited.

Response: We apologize for the confusion. We have fixed the references.
9. I identified a number of typographical, syntactic and grammatical errors when reading the manuscript which need to be addressed.

Response: We rechecked this manuscript with a native English editor.

To Reviewer #2 We appreciate your kind response, and our response to each comment is below.

Sharon Horwood (Reviewer 2): Q1 - there is a strong argument for avoiding dichotomisation of personality due to the decrease in variance. In determining the effect of personality on health outcomes, an arbitrary cut off point almost always ensures that there will be patients who are excluded from treatment or intervention by a single scale point. The authors could consider using a continuous model of Type D to determine the degree to which this typology may affect health outcomes (e.g. see Horwood & Anglim, 2017)

Response: Thank you for your advice. We corrected the references for the paper and added those sentences to the Regression modeling part.

To Reviewer #3 We thank you for your kind response.

Johan Denollet (Reviewer 3): The methodological approach of this paper is appropriate to the research question being asked. Because this manuscript is part of a pilot study of Results-free peer review, the authors have removed their results and discussion from the initial version of their manuscript.

Response: We appreciate your comment.