Author’s response to reviews

Title: The Structure of Psychological Life Satisfaction: Insights from farmers and a general community sample in Australia

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Author's response to reviews: see over
Dear Editor,

We would like to re-submit the second revision of our manuscript for consideration for publication as a research article in BMC Public Health. Our paper is entitled ‘The Structure of Psychological Life Satisfaction: Insights from farmers and a general community sample in Australia’. We note that no further compulsory revisions have been requested and respond to the final comments of our reviewers as detailed below:

**Referee 1 (Robert Cummins)**

No further comments.

**Referee 2 (Gareth Davey)**

No further revisions requested.

*General comment:* The authors have nicely revised and reorganised the manuscript... However... the study quantified the structure of psychological life satisfaction within two samples without examining further public health processes.

*Response:* While we do not explicitly model public health processes, we do cite a range of research showing that life satisfaction is relevant for public health. Our paper contributes a fresh perspective on life satisfaction, on which public health research can build. We believe this is an important contribution because the public health field has shown a recent growing interest in the relationship between life satisfaction and both mental and physical wellbeing.

**Referee 3 (Brent Donellan)**

*General comment:* I would add means and standard deviations to Table B1 and B2 so others can conduct formal tests.

*Response:* We have provided this information by adding the standard deviations to the means in Table 1.
Discretionary Revisions:

Comment 1. Now that reviewers can see the eigenvalues from the EFAs, it is a little hard to understand the justification for a 2-factor solution for farmers. The second eigenvalue had a value of 1.04 for the farmers whereas the second eigenvalue in the general community sample had a value of 1.00. The 1.04 is only barely above the K1 rule (or the Kaiser criterion of extracting all eigenvalues-greater-than one). Most methodologists suggest that exclusively using the eigenvalues-greater-than one rule is problematic (see e.g., Fabrigar & Wegener, 2012). Thus, I think the authors need a better justification for the 2-factor model.

Response: We do not simply rely on the Kaiser Criterion, but are guided by our hypothesis about the presence of supra-domains (pp. 6-7). As we outline on p. 4, the aim of the paper is to establish a useful multi-factor model for understanding the drivers and correlates of overall life satisfaction, and we do this by finding good model fit statistics using structural equation modelling. We do not seek to establish that the one-factor model is simply redundant because, as stated on page 4, it is a useful predictor of mental and physical health. Rather, our aim is to contribute to a growing body of research trying to understand and improve life satisfaction. We have added an extra line to our conclusion to clarify and emphasise this point.

Comment 2. I also think the differences between the farmer and the general community sample for the EFAs are somewhat hard to explain. Why does health and safety load on Connectedness in one sample but not the other? I think the authors need to say more about this difference at a conceptual level. In general, I think there could be push-back over whether the evidence for a 2-factor versus 1-factor model in each sample is truly compelling.

Response: We address the usefulness and conceptual meaningfulness of this result explicitly in the discussion (p. 16). However, this reviewer comment suggests that we may need to be more thorough in explaining why the result captures unique aspects of the lives of Australian farmers versus those of most other Australians. We have therefore amended the second paragraph on p. 16 with more detail and a supporting reference.

Comment 3. I still think the language is a bit too causal in places but again reasonable people can disagree on this matter.

Response: We respect this reviewers concern for this important issue, and after reviewing our prose throughout the paper we have made one more minor wording change (last para., p. 17). Otherwise, however, we believe that our language acknowledges the cross-sectional nature of
our research while identifying important directions for future research into causal modelling (e.g. p.18).

In making these revisions we have complied with the *BMC Public Health* instructions to authors. To aid review, changes to the text have been highlighted in yellow.

Please contact Dr Léan O’Brien as below if you have any queries.

Yours sincerely,

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