Author’s response to reviews

Title: Subjective Experiences of Neurocognitive Functioning in Young People with Major Depression

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Author’s response to reviews:

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Dear Mr Byrne,

Re: Revised manuscript submission BPSY-D-18-01080R1: ‘Subjective Experiences of Neurocognitive Functioning in Young People with Major Depression: A Qualitative Study’: Morey-Nase et al.

We thank the two reviewers for their time in providing comments on our manuscript. We have addressed each comment as outlined below.

Response to Reviewers
Reviewer 1

1. The authors should expand on their rationale for examining the subjective experience of neurocognitive deficits in their specific population. They have provided a brief, broad rationale for using a qualitative approach and gave a short example of how this approach might be useful in the mental health context in general, but how does using this approach increase our understanding of neurocognitive consequences of MDD in young adults? The authors seem to be saying the associations between the perception of deficits and real world outcomes like quality of life, psychosocial functioning, and mental health engagement might be different from that of adults, and so the benefit of the qualitative approach is to help us understand that better. However, this should be stated more directly…e.g., "this is especially useful for understanding these relationships in young adults because…"

Response: We have provided further rationale as to why examining subjective experiences in this population is important. Please see page 4 of the manuscript where we have added additional text.

2. It is understandable that the authors chose to have minimal exclusion criteria given that this was an exploratory study, but can they comment at all about major potential confounders for cognitive impairment? The study aims to describe cognitive impairment due to MDD, but did these participants have histories of head injuries or seizure disorders, etc.? Otherwise, the type of cognitive impairment they are describing might be due to a non-psychiatric etiology.

Response: While the Youth Mood Clinic treats young people with a primary diagnosis of moderate-to-severe major depressive disorder, they may also experience co-morbid mental disorders, including anxiety disorders, personality disorders, autism spectrum disorder, and substance use disorders. We argue that psychiatric comorbidity is the norm rather than exception in clinical practice. We do not have information on neurological conditions such as head injuries or seizure disorders. We agree that subjective experiences of neurocognitive impairment may not be purely related to MDD and that comorbidity is a potentially confounding factor and have included this as a limitation of the study on page 20.

3. Examples of the interview questions and prompts would be informative. How specific and directive were the questions? Were they broad and open-ended questions that use
phrases like "changes in your thinking" or were there any specific examples offered like "difficulty remembering things or doing new things."

Response: Interview questions and prompts for this study are presented in supplementary material. Reference to this material is now included on page 6. Questions were generally open-ended in nature (e.g., “Can you please tell me a bit about how you find your thinking skills?”). There were, however, some closed-ended questions and prompts to explore specific domains of interest (e.g., “Would you like help with your thinking skills?).

4. Descriptions of the themes was very interesting and informative, especially the multiple quotes!

Response: Thank you, we agree.

5. The Discussion is well written and does provide a nice focus on how these themes can inform clinical practice and spark future research. However, the limitation of having a small number of participants who may have comorbidities that contribute to neurocognitive deficits (objective or perceived) is significant…however the authors have been transparent about this limitation and the intention is to provide a jumping off point for future work. I might change the title to be similarly transparent - it should be clear that the article describes the subjective experience of neurocognitive complaints (not demonstrated deficits) among young people with MDD, and somehow point out the important aspect of the study which is that the focus is on the perception of how these perceived deficits impact psychosocial or real world outcomes, since this is the novel aspect of the study.

Response: While the sample size is sufficient for a study like this (as noted by Reviewer 2), we acknowledge that some participants that may/may not have had some comorbidity, which may impact the generalisability of the findings. This is a limitation of the study that we have acknowledged in the limitations on page 20. We agree that the title is potentially misleading and may be interpreted as the experience of objectively defined neurocognitive deficits. We have changed this to “Subjective Experiences of Neurocognitive Functioning in Young People with Major Depression” for greater clarity. We have replaced the term deficits with functioning, difficulties or complaints where appropriate throughout the manuscript. We have also more clearly highlighted that one important objective of the study was to explore the potential
perceived impact of cognitive complaints on psychosocial or real-world outcomes in the study aims (page 5).

Reviewer 2

1. **GENERAL COMMENTS:** This is a straightforward qualitative study of young people's experiences of depression and associated neurocognitive impairment. As a qualitative study, the data presented as novel, and they accord with earlier quantitative data. The paper is well written with a coherent and clear Results section. The study has limitations, some of which might have been addressed in the design, but they are clearly described and do not detract from the overall quality of the paper. The sample size (n=11) is if anything on the large size for a study of this kind, and was sufficient (we take the authors' word for this) to lead to data saturation. One issue that always bothers me with this kind of study is not knowing the extent to which the experiences described co-exist within participants or generalize across participants. The authors might like to consider whether they could usefully add to the paper to include data of this kind. (But as I have indicated, this information is usually missing, so its absence is unlikely to create a barrier to publication.)

Response: We thank the reviewer for their encouraging and thoughtful comments. We argue that the purpose of qualitative research is to explore a topic in depth in a specific group of people with the goal of uncovering themes that can be used to generate new hypotheses to be explored/tested by future quantitative or qualitative research. Thus, the purpose is not generalization to other people with MDD and we cannot know whether they do generalize. We have acknowledged this issue in the limitations on page 20.

2. **ADDITIONAL REQUESTS/SUGGESTIONS:**

Very minor suggestions:
- Define all abbreviations at first mention.
- The end of para 2 (It remains unclear …) suggests that this is what this paper will address. As it isn't really, consider inserting "Notwithstanding," as the first word of para 3.
- If the intention is to include the interview as supplementary online material, need to say this in the text.
Response: All abbreviations have been stated in full in text the first time they are used. We have included the suggestions of using ‘Notwithstanding’ in paragraph 1 (page 4) and stating that interview questions can be accessed in supplementary online material (page 6).

We look forward to hearing from you in the near future regarding a decision. Thank you once again for considering our manuscript for publication in the BMC Psychiatry.

Yours sincerely,

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