Reviewer's report

Title: Reduced Duration Mismatch Negativity in Adolescents with Psychotic Symptoms: further evidence for Mismatch Negativity as a possible biomarker for vulnerability to psychosis

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Reviewer: Margaret Niznikiewicz

Reviewer's report:

This is a much improved manuscript. I have two remaining comments:

1. I disagree with the explanation that the current statistical model is correct - it really is not OK to include the same variable twice in one statistical model and this is what the authors have done. I suggest a simple solution to this issue: 1. re-run the stats using only region and group as factors: looking at the grand averages - and the stats results - it does not look like there is a laterality effect anyway and the results from the region and group model will be powerful enough. 2. If the authors really feel strongly that they would love to have laterality effect analyzed, please do so by using a separate ANOVA model: thus, there will be two ANOVAs used per component: ANOVA with group and region and ANOVA with group and laterality -- the number of electrodes for each factor will remain the same. The authors can choose which approach they prefer. As I said previously, I do believe that the observed MMN amplitude reductions are real.

2. There is still confusion about how to report measuring of the MMN amplitude: Currently the authors say:

"Mismatch negativity was defined as a difference waveform obtained by subtracting the standard tone ERP waveforms from the deviant tone ERP waveforms over an epoch length of 80-130ms. Latency was defined as the most negative data point within the x-y msec latency." This truly does not make any sense. When I wrote the sentence about latency defined as the most negative data point within the x-y latency, I meant this as an example of an approach and not as a statement to quote verbatim.

Therefore, to avoid further problems, this is what I propose to write instead (this time, please do quote verbatim):

Mismatch negativity was measured from a difference waveform obtained by subtracting the standard tone ERP waveforms from the deviant tone ERP waveforms. MMN amplitude and latency were measured as the most negative data point within the 80-130 ms latency window, post-stimulus onset.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare I have no competing interests