Reviewer's report

Title: Immediate processing of erotic stimuli in paedophilia and controls: a case control study

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Reviewer: Martin Walter

Reviewer's report:

The manuscript describes a main finding of an age*gender*group interaction explained by increased neuronal activation on rOFC towards female children in a pedophilic outpatient group, when compared to controls.

The study design has some notable strengths, including an outpatient sample, which can opposed to many other studies, control for the effect of hospitalization (or imprisonment). The sample seems to be very homogenous and the analytical approach is well described. The presentation of the results is good to follow and the finding seems plausible, with a very commendable focus on significant findings.

The discussion is equally focussed but still very interesting to read and I was very much pleased by the thorough and straight discussion of their findings within the existing literature.

I have a few comments though which might be considered before acceptance:

Major:

1. the stimulation duration of such paradigms indeed is very important to consider, however, the authors should acknowledge, that at least some studies (which actually have been cited here) applied also short stimuli of only a few seconds. Also I would recommend the authors to elaborate this aspect a little bit in detail, e.g. mention the work by Ferretti et al Neuroimage 2005; Moulier et al Neuroimage 2006 and for a discussion of absence or resence of specific erotic activations as an effect of stimulus duration see also Walter et al Neuroimage 2008.

2. The authors have a very interesting and significant finding in the rOFC, however, given that it is not explained by other main effects, the importance for a specific dysfunction might be questioned.

To corroborate their finding, the authors should add to the discussion, that indeed, in another study in pedophilia (Walter et al 2007, Biological Psychiatry), these authors also found deviant activations in the right ventrolateral cortex (with a slightly more lateral peak activation), however, given that nude stimuli of adult females were shown, in this study the pedophile patient group showed reduced (!) activations.

I also have a few minor comments:
p3: You write that a biological model would lead to an optimized therapeutic approach - I am afraid that this is i) not necessarily the case, especially in the light of "intractable" preference (and this is what you investigated, while the treatment rather addresses the behavioral control and ii) a bit too optimistic at the current stage of research.

p6: don't forget to add the version of NBS-presentation - seemingly this was meant to be inserted before submission

p6: what is the increment for the temporal jitter and why ?

p7: please specify how exactly the cluster threshold was calculated. The small size of 10 voxels using a 0.005 voxel-threshold seems strange to my experience with similar datasets. Please also comment on this aspect. Recently the neuroimaging community has seen some publications with equally small voxel extent thresholds, which later on where found out to be due to inappropriate performance of the correction method, mostly because instead of the smoothness of the residuals, the original smoothing kernel was used for calculation.

References:


Level of interest: An article of outstanding merit and interest 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 that I have no competing interests