Reviewer’s report

Title: The effects of fatty fish intake on adolescents' nutritional status and associations with attention performance: Results from the FINS-TEENS randomized controlled trial

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Reviewer: Philippa Jackson

Reviewer’s report:

This manuscript describes a chronic intervention study assessing the effects of dietary supplementation with fatty fish/omega-3 capsules on nutritional status and its association with attention performance. The study appears to have conducted using rigorous methods; it is a shame that despite all the researchers’ efforts, dietary compliance in the fish group was poor.

The manuscript is clearly laid out and all procedures are described in adequate detail. Some minor comments:

1. A table displaying all the nutritional status data for d3, iron and iodine status would be useful to readers; otherwise there is no indication of the direction of the difference between groups stated in Ln 339. This table might also be useful for other researchers in the field.

2. Despite the evidence drawn from McNamara et al. 2010, it would still be good to see a justification for the 12 week intervention when it could also be argued that a longer intervention may be more effective.

3. Given the association between fatty fish intake and TN at baseline, more sensitive measure of processing speed e.g. response times in milliseconds may be useful in future studies, along with the recommendations for other tasks.

4. The average intake of fatty fish meals was 1 per week in the sample, in a group that are already consuming fatty fish, why was compliance in the fish intervention group so poor? What recommendations can be made for future studies? Or indeed policy to increase fatty fish consumption?

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