

Reviewer's report

Title: Effect of Rye Bread Breakfasts on Subjective Hunger and Satiety: a randomized crossover trial

Version: 1 **Date:** 29 April 2009

Reviewer: Jonathan Hodgson

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This study has been conducted to investigate the effects of rye breakfasts with varying levels of dietary fibre on appetite over 8 h. The results show that rye compared to wheat reduces self-reported ratings of appetite. A high bran rye bread appeared to have the greatest impact. However, it is concluded that there were no differences between any the rye breads (with differing levels of dietary fibre). It is unlikely that the study was powered to detect smaller differences which may be present. To attempt to determine whether there were significant differences between the rye breads, I suggest using a more appropriate and powerful statistical procedure to analyse the data. With multiple treatments in the same individuals and repeated measurements over time, using the mean and comparing using paired t-test is not the most appropriate procedure. Differences in self-reported appetite ratings for each of the time periods after breakfast can be compared using random effects models. In these models participant can be treated as the random effect and treatment (type of breakfast), period and treatment order can be treated as fixed effects. Models can also include a time by treatment interaction term to assess if the slopes of the curves differ. For example, it appears that the greatest impact of rye fibre is early and that this diminishes over time. This reanalysis may alter some of the discussion and conclusions.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests