

Reviewer's report

Title: Food Consumption Frequency and Perceived Stress and Depressive Symptoms among Students in Three European Countries

Version: 1 **Date:** 2 February 2009

Reviewer: Craig Hadley

Reviewer's report:

Food Consumption Frequency and Perceived Stress and Depressive Symptoms among
Students in Three European Countries

This is a study of ~1250 students from three European countries that examines the association between patterns of food consumption and mental health. The key finding of this survey-based and cross sectional study is that for women, perceived stress was associated with greater consumption of sweets and fast foods, and reduced consumption of fruits/vegetables and meat/fish. Depression was associated, in women, reduced consumption of FVG and meat/fish. No associations were observed for males. The authors suggest that these patterns are consistent with a model that links distress and depression to the consumption of sweet foods because these foods reduce stress. As such they should cite the important work of Dallmann (nicely reviewed in: Dallmann et al. Chronic stress and obesity: A new view of "comfort food". PNAS. Vol 100 no. pp11696-11701).

There are a number of strengths to the study, including the large sample size, the high response rates, the cross-country sample, and the innovative focus on the link between diet and mental health.

Major Compulsory Revisions:

I was more concerned with the following issues which could either be corrected or more fully addressed in the limitations and discussion section.

The authors say but do not show that the FFQ has been validated – can they provide more evidence that this is a valid tool?

Why use factor analysis? The authors say this groups foods of a similar type, this does not seem to be the case since Table 2 shows that soft drinks load high on the meat and fish subscale and milk and cereal load high on factor 4. Moreover, factors 3 & 4 have unacceptable internal consistency (and factor 1 is just below the standard cutoff of .70).

The authors find that sweets consumption is not associated with depression and suggest that consumption of sweets may protect individuals from depression. They show that sweets are associated with stress but not depression – why not push this further and carry out an analysis with depression that includes both

sweets and stress and the interaction. If the hypothesis is correct, then those who consume low sweets but have high stress will be more likely to be depressed compared to those who consume high sweets and have high stress.

Minor revisions:

Abstract: Methods: Change 'liner' to "linear"

Table 3 is unreadable

Level of interest: An article whose findings are important to those with closely related research interests

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