Reviewer's report

Title: A prospective study of weight development and behavior problems in toddlers: the Norwegian Mother and Child Cohort Study

Version: 1 Date: 4 February 2010

Reviewer: Michael Sawyer

Reviewer's report:

This manuscript describes the results of a study which investigated the relationship between children’s BMI, and emotional and behavioural problems, between the ages of 18 and 36 months. BMI was obtained from height and weight measurements at routine health checks. Emotional and behavioural problems were assessed using several items from the Child Behaviour Checklist. The manuscript is clearly written and the findings clearly presented. I should add that I do not have technical skills in the area of structural equation modelling. As such, this manuscript needs to be reviewed by someone who has the appropriate statistical skills.

Despite the fact that participation rate in the sample was relatively low at initial assessment, the study still benefits from the availability of a longitudinal data set describing a large cohort of children. This is a very valuable aspect of the study.

There are some issues which could be made clearer in the manuscript and I have listed these below.

1 I was a little concerned about the method by which height and weight were obtained. To what extent was this information collected in a standard fashion? Of concern is the possibility that there may be variation or poor inter-rater reliability across the various health check stations where this was collected. I was also concerned about the possibility that mothers may have made errors when copying information from charts into questionnaires. Some comment about these issues would be useful.

2 The assessment of emotional and behavioural problems is quite limited. For example, emotional reactivity (subsequently collapsed into anxious/depressed) consisted of a single item. Similarly, somatic complaints at 18 months consisted of a single item, “doesn’t eat well”. It seems hardly surprising that this had an association with children’s height and weight. The somatic complaints items assessed at 36 months all could be associated with eating problems. The limitations of the assessment in this area, is a significant weakness for the study.

3 I was unclear about the meaning of the sentence at the bottom of the first paragraph on page 11, “one can speculate that the scarcity of publications on children before the age of 3 may be due to publication bias”. What is meant by this and what is the evidence to support the comment?
In summary, this is a well presented manuscript which utilises a large prospective cohort of children. The major weakness is the limited quality of the assessment of emotional and behavioural problems.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

'I declare that I have no competing interests'