Reviewer's report

Title: Prospective associations of appetitive traits at 3 and 12 months of age with body mass index and weight gain in the first 2 years of life.

Version: 2
Date: 7 June 2015
Reviewer: Charlotte Wright

Reviewer's report:

Thank you for asking me review this paper
It examines the extent to which appetitive characteristics at 3 and 12 months predict later BMI and weight gain. Generally they found proximal association with measures at 3m, but appetitive measures at 12m were not predictive of any later ages.

Basically I thought this was a nice study and a well written paper, but I have few suggestions for improvement.

1. My main comment is that the 210 subject included is a very small subset of the original 1247 recruited. This is because they have only included families with complete data at all ages, but for many of the analyses they only need families with questionnaire data at either 3m or at 12m – which I suspect would greatly increase their numbers and thus their power to detect true effects. I suggest that they at least re-run the analyses with the larger data set to test the robustness of the findings.

Lesser points

2. On page 5 line 110 the authors cite just one fairly old reference describing the relationship between weight gain in infancy and later BMI which they describe as 'increasingly known' but actually more recent studies have suggested a more complex picture, with the suggestion that much of the variance in weight gain in infancy is explained by lean rather than fat mass. One paper that has examined this is Wright 2011 (see ref below) which also describes a similar lack of association between other measures of appetite and later adiposity.

3. The discussion seemed rather shallow, mainly repeating the findings without proper synthesis. In particular the authors don’t really seem to understand that if the strongest association is with change immediately after the 3m appetite measures were collected, this doesn’t really support the idea of ongoing overeating, so much as the measures capturing a short period of both increased weight gain and appetite. The fact that the same measures collected at 12m predict no change makes the persistence and adult relevance of these traits unlikely.

Ref: Wright CM, Cox KM, Sherriff A, Franco-Villoria M, Pearce MS, Adamson AJ
To what extent do infancy weight gain and eating avidity predict later adiposity?
Level of interest: An article of importance 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 have no competing interests