Reviewer's report

Title: Maternal well-being and its association to risk of developmental problems in children at school entry

Version: 1 Date: 18 June 2009

Reviewer: Barbara Maughan

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This paper addresses an important issue: identifying factors that may impact on young children’s risk of developmental problems, and affect their readiness for school. The report is based on a sample studied prospectively from pregnancy to age 5, with a range of relevant measures included at each stage of the assessments. The authors conclude that maternal well-being is a key concern in this area.

The study has a number of important strengths; there are also, however, some areas where fuller details are required, and where possible limitations of the findings/their interpretation need clearer discussion/acknowledgement.

Major compulsory revisions

1. Definitions: the authors refer throughout the paper to ‘developmental problems’, but never give a detailed definition of what is included here: Speech and language problems? Motor development? Cognitive development? A clearer account of what the PEDS assesses is crucial to interpretation of the findings. It also seems unlikely that a 10-item instrument could satisfactorily identify ‘mental health’ problems in young children; these might be better referred to as emotional/behavioral difficulties. Finally, the high rate of ‘abuse’ reported by mothers (over 30% in a highly-educated, generally low risk sample) appears to include ‘financial’ abuse. What does this mean?

2. Results and interpretation: The authors analyse a series of potential predictors of developmental difficulties, and develop a multivariate model including factors that show independent associations with child outcomes. Although some prior measures appear to have been included in earlier stages of these analyses, with the exception of child sex and maternal history of abuse, the predictors that remain in the final multivariate model all appear to have been collected at the age 5 assessments. As a result, although the study as a whole is longitudinal, the majority of ‘predictors’ identified were actually assessed at the same time as the child outcomes. This raises two main difficulties: (i) possible reporter effects (mothers in poor physical health, or with low parenting morale, may be especially sensitive to difficulties in their child); and (ii) causal ordering. In what are effect largely cross-sectional analyses, it is impossible to tell which way any causal arrow may run. In all likelihood, there will be reciprocal influences of children’s difficulties on mothers’ parenting morale, and at least potentially on mothers’
health, as well as effects that run from mother to child. These limitations - and their implications for any policy messages that might be derived from the study - must be acknowledged more clearly in the discussion. Although the authors may well be correct in their assertion that ‘...greater reductions in risk would be anticipated by also addressing maternal well being alongside child factors’ (p 16), the current findings seem to me to provide much less clear support for this conclusion than the authors currently acknowledge.

Discretionary revisions

Given that a number of comparable measures were collected at age 3, it should presumably be feasible to conduct additional analyses that are more clearly ‘predictive’, and that would at least establish the temporal ordering of any effects more clearly (though even these, of course, cannot directly establish causality).

**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.