Reviewer’s report

Title: Prediction of 7-Year Psychopathology from Mother-Infant Joint Attention Behaviours: a case-control study.

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Reviewer: Rosa Calvo

Reviewer’s report:

There has been little work on the early social interaction skills contribution to mental disorders development, exception made for the autistic spectrum disorders. Some authors (Sheinkopf et al, 2004) reported a link between infant joint attention and behavioral outcomes at 36 months in a population at risk. But little is known about predictions based on JA in general population.

This manuscript addresses the contribution of various components of Joint Attention skill (JA) measured at 12 months of life to psychopathology development when children were 91 months old.

However, the present study was not designed for this purpose and some of its limitations lie on this fact.

Minor revisions:

Assessment of JA:

- The main aim of the study is to investigate whether later diagnosis of psychiatric disorder can be predicted from the analysis of mother-infant JA. As the authors acknowledge this assessment was not ideal: nor the task, Thorpe Interaction Measure (interaction mother-child as they look at a book together) neither the conditions of recording (camera in the upper corner of the room that not always permitted a full vision of the child’s face/gaze).

- A naturalistic play context with enough duration has proved a valid way to assess JA, when compared to coding in a structured assessment situation (ESCS, i.e.). But mean time of assessment was short and no other measures of interaction (free play, i.e.) are provided.

- The coding system was not exactly based on operational definitions of Initiation JA and Response JA that have been employed in previous studies. To facilitate the future comparison with other groups of children is advisable to choose the same coding.

Table 3 (p.18)

It seems that the difference in EPDS score at 32-40 weeks gestation and 8 months postnatal could be significative. Please, add significance values (t and p) to the scores.
Table 4 (p.18) and text (p.5)
Total number of cases was 53.
Part of the sample is grouped into the composite categorie “Disruptive Behaviour Disorders”. Clearer information on comorbidities could be provided: How many children into the ADHD category shared also “any emotional disorder”.

Major compulsory revisions

Language and cognition should have been taken into account before drawing conclusions from the study. To discover if JA behaviours may have been related to later social competence as peripheral associations with language and cognitive development, the authors should take into account children’s language and cognitive abilities: either in intermediate measures around 36 months of age or at the outcome at 91 months. This different measurement time points could have enlighten the amount of contribution of pure JA measures.

But a search into the documents available at the study website, in the “Children in Focus” booklet, made me realize that children have been cognitively assessed at 18 months of age (The Griffiths Mental Development Scales) and at 4 years of age (Wechsler Pre-school and Primary Scale of Intelligence – Revised, WPPSI) Also speech and language assessment took part at 25 months and 61 months.

Even if JA measures seem to predict positive social outcomes beyond the variance associated with language and cognition, I strongly recommend to perform further analysis after controlling for the language and cognition. If the authors decide not to perform this analysis they should explain the rationale for it.

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

**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