Reviewer’s report

Title: Mother-Infant Bonding is not Associated with Feeding Type: A Community Study Sample

Version: 0 Date: 25 Apr 2018

Reviewer: Karen Cowgill

Reviewer's report:

This article raises an interesting question and highlights a gap in the literature that is important to address - namely, whether breastfeeding promotes mother-infant bonding, as it is commonly believed to. However, the study design and the data presented here are inadequate to answer this question with the degree of confidence the authors assert.

Major concerns:

The biggest concern is the self-selection of the study participants, who completed an online survey. Could the authors address this, i.e., how might the self-selection that drove potential respondents to the site or that caused them to participate or not affect the findings (how do mothers of young infants who access and complete a lengthy online survey differ from those who don't)? There are few details about the clinical and social networks through which participants accessed the survey site; just under half of those who entered the survey completed it, suggesting there may be (non-)response bias.

The hypothesis is not clearly specified. It appears that using measures with multiple components enabled the authors to conduct multiple comparisons and pick the component with the highest correlation (Table 3), rather than specifying the associations to test a priori.

If power is the ability to detect an association when it exists, and the post hoc power calculations (Table 4) show such low power for most associations tested (<< 80%), then no conclusions about the associations can be drawn. Failure to detect an association does not prove that the association is absent. The authors acknowledge this (p. 16), but assert their confidence in the results nonetheless. Many of the statistically significant results are for very small effect sizes.

Other concerns:

There are several details missing from the methods. What is the larger longitudinal study participants were part of, and where is it described? The translation of the tools is mentioned in the acknowledgments, but not in the methods - how were translations verified? What did the recruitment ads say? Did all respondents live in Israel?

In the Results, more elaboration on the cutoffs and interpretation of the scales used would be helpful. The interpretation of the Bayes Factor does not seem quite accurate; the authors state
that "the likelihood of the results given the null hypothesis was 4.5 times greater than for the alternative hypothesis", but isn't this rather the likelihood of the null hypothesis given the data?

The authors first (p. 6) contend that infant age acts like a confounder, i.e., that it is related both to the primary exposure (breastfeeding) and the primary outcome (bonding). However, later (p. 11) they describe it as a nuisance variable, which seems less plausible.

Switching between terms is confusing; please use consistent terminology, i.e., "breastfeeding", not "nursing"; "infant", not "baby"; and "human milk", not "breastmilk" (per ILCA-preferred lactation-related language guidelines)

Why was birth order entered as a covariate? What was the hypothesized effect?

The presentation of large tables with raw output makes it difficult to pick out relevant information.

Table 2 - why not show bivariate stats, i.e., make columns by breastfeeding status and then show the dependent variables by breastfeeding status? Show total possible scores for PBQ, EPDS, and PSQI.

Include numbers as well as %s in all tables; did all participants answer all questions?

Table 5 - replace levels 1-3 with never, past, current breastfeeding to facilitate reading.

Figure - it looks like 3 individuals with high PBQ scores are drawing the lines up in the current breastfeeding category. Can the authors comment on these, and say whether any outliers were identified/dropped based on their Mahalanobis distance?

Several references in the Bibliography are incorrectly formatted or incomplete.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No
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I recommend additional statistical review

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