Author’s response to reviews

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

Authors:
Ilana Hairston (hanahai@telhai.ac.il)
Jonathan Handelzalts (jonathanh@013.net)
Tamar Lehman-Inbar (tamar.lehman@gmail.com)
Michal Kovo (michalkovo@gmail.com)

Version: 3 Date: 15 Aug 2018

Author’s response to reviews:

To the editor,

Before we proceed with our response to reviewer #4’s comments, we would like to voice our feelings that we find it highly irregular that after two rounds of reviews the editorial office decided to send the manuscript to a new, fourth, reviewer. We think that recruiting a new reviewer, at this late stage, was unjustified given that the second round of revision, with the original reviewers, required minor revisions only. Clearly, any fresh pair of eyes reading the manuscript for the first time will have new comments and insights regarding its content. Nevertheless, we complied with this fresh round of review, and sincerely hope that our current extensive efforts will now meet the threshold for publication.

To reviewer #4:

We would like to thank Dr. Demirci for her detailed reading and comments on our manuscript. Our specific responses are below, and changes to the manuscript are emphasized in red:

• It seems the premise/hypothesis this paper endeavors to answer is not supported by methods (relationship between mother-infant bonding and breastfeeding). It follows then that the conclusion of the paper is faulty—that breastfeeding is not associated with mother-infant bonding. Authors appeared to have only measured potential mother-infant relationship disorders/dysfunction by utilizing the PBQ, not quality of the maternal-infant bond
(positive/prosocial relationship). I think prior reviewers tried to point this out. I'm not sure this can be remedied, except if the authors completely change focus of paper to report on what they actually measured. This is an important distinction, as it completely reverses authors conclusion. By showing no relationship, the appropriate conclusion is that breastfeeding is not associated with maternal-infant relationship disorders/bonding dysfunction.

Response: Indeed, the PBQ was originally designed as a clinical tool for the assessment of bonding disorders. The advantage of using the PBQ is that it is the most commonly used bonding questionnaire, in a large variety of samples and languages.

However, we agree that absence of bonding disorder does not necessarily imply improved bonding. To that end, we added an analysis using only the positive items in the PBQ (e.g., “I feel close to my baby”; “I love my baby very much”; “I feel confident when changing my baby”). Here too no independent or age-dependent associations could be found. This analysis has been added to the results section (pg. 14), to the discussion (pg. 18), and a graph depicting the results was added to the supplemental materials.

We have also added to the limitations the following: “…mother-infant bonding is a complex set of emotions and cognitions, and the instrument used in this study to assess bonding was designed for detecting bonding disorders. More research needs to be done using other instruments.”

That said, we also addressed the possibility that breastfeeding would be protective against the association between dysphoria and/or fatigue with bonding. A well-documented association. This was not the case, a positive correlation was found between EPDS and PSQI fatigue among mother who breastfed, and no association was found among those who did not.

Finally, we expound on the possibility that other aspects of mother-infant relationship may be linked to breastfeeding, such as sensitivity. Clearly, this issue need further investigating.

• Other concerns include the confusion around "controlling" for age of infant in analyses. Tables do not stand alone to facilitate understanding how infant age was factored in—all should have a footnote describing.

Response: We have added “First-order correlations (also known as partial correlations) controlling for infant age are depicted” To the legend of Table 3.
Also, classifications of partial and exclusive breastfeeding are not described. Can a 9 month old be exclusively breastfed for example (usually they are getting solid foods by that point—or did you just mean no formula)? I'm not sure if "past breastfeeding" excludes those who are currently breastfeeding or how categories are delineated (is the exclusive/partial just for current breastfeeding?).

Response: We have added the following clarification to the methods (pg. 7): “There were three response options: exclusive = breastmilk only; partial = breastmilk and other foodstuffs, e.g., formula or solids; not breastfeeding.” Thus, partial could be either formula or solids in addition to breastmilk. As can be seen in supplemental figure 1, the proportion of “partial” increased with age, reflecting this very point.

Table 3: it took awhile to understand that your top x axis corresponded to respective number down y axis (why the point in front of the number (e.g., .1 instead of 1)? Why no correlations with #13-16?).

Response: We removed the points before the numbers at the top of the table. As noted in the legend, correlation among the components of the PSQI were omitted for simplicity and brevity.

There remain numerous typographical and grammatical errors throughout which require a careful read-through and proofing.

Response: We have proofed and reviewed the manuscript, and have indeed found several typos and badly phrased sentences. These have been corrected.

Several statements in intro don't give full story/seem to be misleading: that breastfeeding only facilitates bonding through skin-to-skin contact (what about pulsatile oxytocin at time of let-down), also that mother's milk was deemed nutritionally superior throughout 19th and 20th centuries (in fact up to 1950's/1960's the "tailored" formulas—e.g., Liebig's, prescribed by physicians thought to be equal or better than mother's own milk).
Response: We actually don’t argue that breastfeeding facilitates bonding ONLY through skin-to-skin contact, in fact we define bonding as a complex and evolving emotional state. We were trying to understand the source of a popular held belief that breastfeeding is important for bonding and cite many sources to demonstrate how commonplace this belief is.

Even in a fairly recent commentary by Furman and Kennell (Breastmilk and skin-to-skin kangaroo care for premature infants. Avoiding bonding failure. Acta Paediatrica, 89, 1280-1283, 2000), the authors first assert that “Kangaroo mothers report a sense of efficacy, increased self-esteem, relaxation and joy, and state that they feel confident in taking home and caring for the baby. As might be anticipated with these favorable effects, parents describe stronger attachment or bonding to their infant” without citation, and conclude by saying “Will this improve the mother’s bonding to her extremely low birth weight baby and also the long-term outcome for the baby and the mother-infant relationship? There is no reason not to try.”

Thus, in our introduction we were trying to argue that there are strong held beliefs in society regarding this link, but strong evidence in support of it is lacking.

With respect to oxytocin, we address this issue in the discussion (pg. 17, now highlighted). Briefly, Feldman and colleagues, have shown that oxytocin release occurs in many types of interactions in addition to breastfeeding, so breastfeeding per se may not have an observable effect.

• Methods of recruitment require clarification under "procedure" section. Authors write that women were recruited "soon after birth OR via internet ads…" is this an either/or? How were they recruited using the snowball method?

Response: Recruitment was all of the above. We have amended the phrasing to clarify: “Women were recruited either soon after birth at the maternity word at Edith Wolfson Medical Center, or via internet ads published on parenting forums, relevant Facebook groups, and the snowball method”.

Snowball method is as implied = study subjects recruited other subjects from among their acquaintances.
Regarding description of PBQ in methods, what do the "cut off points" signify-what are they cut-offs for?

Response: The PBQ yields four subscales – a general factor, rejection and pathological anger, anxiety about the infant, and incipient abuse. For ethical reasons the 'incipient abuse' items were not included. According to Brockington, Fraser and Wilson (2006), cutoff points for the full scale is >25, for the general factor subscale >11, for rejection and anger subscale >16, and for anxiety about care >12 signify clinically significant bonding disorders as validated against in-person interviews to identify various forms of abnormal mother-infant relationship.