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Jodi L. Pawluski

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**Memory and motherhood: Is it better than what we think?**

**Jodi L. Pawluski**

**Univ Rennes, Inserm, EHESP, Irset (Institut de Recherche en Santé, Environnement et Travail), UMR\_S 1085, F-35000, Rennes, France.**

When talking about motherhood and the brain often the first thing that comes to mind is the idea that motherhood is accompanied by a deficit in memory performance. This is something that is referred as *Baby Brain*, *Mommy Brain*, *Mom Brain* or *Momnesia*. Over the past 3 or 4 decades an increased awareness of this phenomenon has become evident in pop culture and social media with numerous anecdotes about how being pregnant and having a child makes a birthing parents' brain go to 'mush' for months, if not years. But is this true?

The rather sparse research on this topic has yet to confirm the extent and duration of these memory deficits with motherhood. Recent research by Orchard and colleagues, accepted in JWM (1), revisits the question of memory changes with motherhood and investigates memory at one-year postpartum.

Before I get into the study findings I want to clearly state that if the majority of mothers report memory deficits during pregnancy and the postpartum period there is something to this (2). It's important to determine where and when these memory changes occur and the factors linked to them – factors that can include sleep deprivation, lack of support, changes in mood, to name a few. If the majority of fathers complained of memory deficits I'm sure we'd have the answers as to why already.

The study by Orchard and colleagues investigated subjective and objective memory in a cohort of mothers one year postpartum and non-mothers; against a backdrop of wellbeing measures such as sleep, anxiety and depression, something that isn't always investigated in this motherhood and memory research. The findings show that mothers and non-mothers do not differ on objective memory tasks. However, mothers rate their memory as poorer and are better at predicting their memory performance than non-mothers. In addition, in mothers, but not non-mothers, poorer scores of wellbeing were related to poorer subjective memory.

What Orchard et al found adds to growing body of literature showing that mothers and non-mothers rarely differ in objective memory tests, or do so at a fairly subtle level during pregnancy and the early postpartum period (3, 4), although their feelings about their memory performance differs significantly. Why is this so? A couple of thoughts come to mind -setting and culture. First of all, moms are brought into the laboratory, to a quiet setting with minimal distractions, and asked to complete a series of questionnaires. They are not juggling their day-to-day demands and a child or children. This begs the question of whether we should be testing memory in moms in their home environment; a place that is more ecologically relevant. To my knowledge only one study has done this. Cuttler et al showed that pregnant and non pregnant females performed well on memory tasks in the laboratory, but when participants were asked to remember to do something from home (ie. send in some forms a week after the laboratory visit) the pregnant people did significantly worse on this task (5) .

In addition to the setting of testing (lab versus home), which implies a difference in distractibility or cognitive load, the idea of a sociocultural and historical context at play here is starting to come to light, as pointed out in Orchard et al. For decades, if not centuries, females have been perceived as the weaker sex, as being less capable intellectually and being created for the goal of making babies. Mary Ann Evans, known by her pen name George Eliot, a leading writer of the Victorian era wrote the following in *Adam Bede*, “That’s the way with these women – they’ve got no head-pieces to nourish, and so their food all runs either to fat or to brats”(6). It’s interesting how we still have memes today about our brains going to our brats – “I used to have functioning brain cells but I traded them in for children”, a popular meme on the internet (source unknown).

Of course, Eliot’s sentiment was written in a novel and may have been added for flare but there is a long history of women just not being smart enough and having the capacity for love above all else. With this historical context and the increased talk of *Mom Brain* or *Baby Brain* may be there is an element of “if you believe it you will see it”. Instead of focusing on the improvements in memory with motherhood such as visual memory (7), memory for baby specific things (8) or the amazing ability to identify your newborn by touch (9), the narrative of motherhood and memory stays the same because that’s what we know, that’s what history has told us.

One thing we can't deny is the idea that mothers are not smart (or smart enough) has trickled down into our societies and our unconscious. This needs to change. We need to reassess, revisit and rebrand *Mom Brain* to include the incredible accomplishments that our brain (and body) achieves when we produce a human.

### References

1. Orchard ER, Egan GF, Jamadar SD. Evidence of subjective, but not objective, cognitive deficit in new mothers at one-year postpartum. *Journal of Women's Health*. xxx;xxxx.
2. Poser CM, Kassirer MR, Peyser JM. Benign encephalopathy of pregnancy. *Acta Neurologica Scandinavica*. 1986;73:39-43.
3. Davies SJ, Lum JA, Skouteris H, Byrne LK, Hayden MJ. Cognitive impairment during pregnancy: a meta-analysis. *Med J Aust*. 2018;208(1):35-40.
4. Henry JD, Rendell PG. A review of the impact of pregnancy on memory function. *J Clin Exp Neuropsychol*. 2007;29(8):793-803.
5. Cuttler C, Graf P, Pawluski JL, Galea LA. Everyday life memory deficits in pregnant women. *Can J Exp Psychol*. 2011;65(1):27-37.
6. Eliot G. *Adam Bede*: New York: Harper.; 1800.
7. Ning K, Zhao L, Franklin M, Matloff W, Batta I, Arzouni N, et al. Parity is associated with cognitive function and brain age in both females and males. *Sci Rep*. 2020;10(1):6100.
8. Callaghan B, McCormack C, Tottenham N, Monk C. Evidence for cognitive plasticity during pregnancy via enhanced learning and memory. *Memory*. 2022:1-18.
9. Kaitz M, Lapidot P, Bronner R, Eidelman AI. Parturient women can recognize their infant by touch. *Developmental Psychology*. 1992;28:35-9.