

*Reimagining the Transition to Parenthood for 2-Gen Impact*  
September 27th, 2023

**Questions:**

- How do you separate genetic predisposition to anxiety / ADHD etc inherited from the mother/birthing parent as opposed to stress in pregnancy in these studies?
  - **Answer:** Animal data is used
  - Polygenic risk score now considered, genes of risk between mothers and children; depression and anxiety in context of this genetic info still accounts for risk in children.
  
- This is so interesting, thank you! Are there studies looking at effects of lowering stress in pregnant populations? If maternal stress is lowered (via therapy, medication other interventions), do we see any relative improvements in child physical/mental/emotional development?
  - **Answer:** U of Colorado study will be released soon outlining this
  
- Do you know what the demographics of the sample population of women in some of these studies are? Are there any women of color, where do they live (urban, rural) socio-economic status, etc?
  - **Answer:**
    - In our studies, the women are a wide range of SES
    - Large population that identifies as Latinx, Black & East Asian
    - There are studies to address the lack of diversity.
  
- Given the breadth of evidence indicating how impactful the prenatal experience is--to what extent does your work extend to advocacy for a broad expansion of services to women during the prenatal period? In addition, given the evidence, it seems like a profound opportunity for funders to support structural change efforts (i.e. outside of healthcare but related to health) to support mothers during the prenatal period (i.e. can we streamline supports against SDOH-related stressors more universally?)
  - **Answer:** Dr. Monk is not directly involved in advocacy. Cynthia Osborne on the board of 0-3 is more involved in this.
  
- Are chemical imbalances created in the womb?
  - **Answer:** Potentially, yes.

- Can you speak to the intergenerational effects of trauma on temperament?
  - **Answer:** Here are papers on intergen of trauma, looking at temperament as outcome is new area. A postdoc working with me Vanessa Babinuea is just studying this now.
  - Babineau, V., McCormack, C. A., Feng, T., Lee, S., Berry, O., Knight, B. T., Newport, J. D., Stowe, Z. N., & Monk, C. (2022). [Pregnant women with bipolar disorder who have a history of childhood maltreatment: Intergenerational effects of trauma on fetal neurodevelopment and birth outcomes](https://doi.org/10.1111/bdi.13207). *Bipolar Disorders*, 10.1111/bdi.13207. Advance online publication. <https://doi.org/10.1111/bdi.13207>
- Is research looking at how some of these expressions of maternal stress/anxiety in children may be adaptive? Perhaps not for expectations in our school systems, but adaptive in the larger environments the children are born into, perhaps higher risk environments.
  - **Answer:** This has not been looked at enough

## Prescient Human Fetuses Thrive

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### Abstract

Fetal detection of adversity is a conserved trait that allows many species to adapt their early developmental trajectories to ensure survival. According to the *fetal-programming model*, exposure to stressful or hostile conditions in utero is associated with compromised development and a lifelong risk of adverse health outcomes. In a longitudinal study, we examined the consequences of prenatal and postnatal exposure to adversity for infant development. We found increased motor and mental development during the 1st year of life among infants whose mothers experienced congruent levels of depressive symptoms during and after pregnancy, even when the levels of symptoms were relatively high and the prenatal and postnatal environments were unfavorable. Congruence between prenatal and postnatal environments prepares the fetus for postnatal life and confers an adaptive advantage for critical survival functions during early development.

- Within the SES factors that are considered, were single birthing parents included? or are most of these coupled parents?

- **Answer:** We do have some single parents but have never had the statistical power based on enough of them to look at them separately as a group.
- For “perceived level of support” as a protective factor, is it specified whether that’s social/family support or did it also relate to how supported they may have felt from OBGYN/L&D/PEDS environments?
  - **Answer:** Support was errand type support and how connected they feel to others; we should ask about how supported they felt by ob/midwife/doula team.
- Any social work employment opportunities? Lol
  - **Answer:** YES!! Pls stay in touch.
- Is there sufficient experimental data to support that these relationships between stress in-utero and later reactivity/anxiety are causal?
  - **Answer:** Yes. Thousands of papers out there and now papers that control for shared genes of risk.
- With an eye towards intervention, I wonder if you have any ideas/opinions on what modalities of therapy and when may best work to reduce perinatal person’s stress and enhance emotion regulation and social support?
  - **Answer:** Many interventions work, issue is access to care.
- Has there been any research indicating the impact of first-time pregnancies stress on the fetus vs second time pregnancies?
  - **Answer:** This is an important good question, not been looked at. Curious to hear what you would hypothesize?