



# PRISM Study Newsletter

## Thanks! You gave us data, here are some results!

The PRISM research team would like to send a huge thank you for your participation in the study! We appreciate your taking the time to help us in our research. Without you, none of this work would be possible! You are helping us learn more about child development and health. In this newsletter, there are some exciting findings that you and your children have contributed to and updates regarding study-related activities. We hope you enjoy this update and look forward to seeing you at future visits!

**Thank  
You!**

- During pregnancy, we took hair samples from mothers to measure cortisol, a stress hormone. We found that different levels of cortisol in pregnancy were related to infants' emotions.

*Fun fact:* Each 3cm segment of hair can show cortisol levels for a trimester of pregnancy. Using hair to measure cortisol is a new and unique way to study child development.

- When children were 3.5 years old, they completed computer games with barnyard animals to test memory and

impulse control. Our data suggest that different maternal life experiences may influence children's working memory versus impulse control.

- Placenta samples were collected from some mothers at delivery to measure DNA cells that are important for energy production. We found that the levels of these DNA cells are impacted by maternal experiences and environmental exposures (e.g., air pollution). These findings can help us understand how maternal experiences influence their children in pregnancy, which can lead to new interventions.
- We asked participants to answer questions about foods they eat, how often they eat them, and the amount of food they consume. We found that anti-oxidant intakes in pregnancy can influence and even reduce the impact of prenatal stress on child behavior. Additionally, we found that certain anti-oxidants may have greater influence on child neurodevelopment than others.



## Announcing our newest study, ECHO!

We are excited to announce the launch of our newest research study, ECHO (Environmental influences on Child Health Outcomes)! ECHO is a national research study that aims to understand how environmental factors affect child

behavior and cognitive development. We also want to look at how children's bodies respond to environmental factors that may impact their growth and health. Please keep an eye out in the coming weeks for more information about

ECHO and how you can get involved in the study. If you think you may be interested in participating and your child is starting to lose baby teeth, please keep them in a safe place. Our team is interested in studying the teeth.



## About Our Lab

### *Has your contact information changed?*

Please let us know! If you have recently moved or switched phone numbers, give us a call at:

**(617) 919-4626**

**(617) 919-4625**

or send us an email at:

**Prism.Study@childrens.harvard.edu**

We will update your contact information so we can keep you updated on any study-related activities.

Thank you!

At Boston Children's Hospital Bio-behavioral Research Lab, researchers work together to study how environmental exposures, maternal lifetime experiences, and early childhood experiences affect children's developmental outcomes and health.

We are particularly interested in understanding the role that mothers' lifetime experiences have on children's developmental and cognitive outcomes, and the biological pathways that may shape children's development, behaviors, and cognition.

We hope that our findings will allow us to inform programs and interventions that will help families who have experienced different kinds of exposures over their lifetimes.

**We look forward to seeing you at future visits!**

## Introducing Our Research Team

**Michelle Bosquet Enlow, Ph.D.**  
*Principle Investigator*



Dr. Bosquet Enlow is a developmental and clinical psychologist with specialized training in infant mental health (birth to age 5), the assessment and treatment of traumatic stress

in children and adults, the development of child stress regulation, and the etiology and maintenance of anxiety. She received a B.A. in Psychology from Yale University and a Ph.D. from the Developmental Psychopathology and Clinical Science program at the University of Minnesota.

**Cassandra Svelnys**  
*Research Assistant*



Cassandra graduated from UConn with a B.A. in Psychology. In the future, her goal is to be a clinical psychologist.

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**Andreina Tuccella**  
*Research Assistant*



Andreina graduated from UMass Boston with majors in Health Science and Psychology. Her career goal is to be a nurse practitioner.

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**Michaela Gusman**  
*Research Assistant*



Mickie graduated from Skidmore College with a B.A. in Psychology. Mickie aspires to live in a warmer climate!

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**Michelle Huezo**  
*Research Assistant*



Michelle graduated with a B.A. from UC Berkeley and a M.P.H. from BU. She hopes to become a social epidemiologist.

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