

All Our Families

Understanding Development Across the Lifecourse



Greetings, participants!

Happy Mothers Day! Welcome to spring! No doubt you are beginning to see the 'end of the tunnel' for the school year and are looking toward what summer will bring.

We have been busy at AOF with preparing the data you and your youth provided in the most recent survey. It takes us a number of months to organize, code, and clean the data before we can begin to analyze it. The first step we take is to describe the findings and prepare them for a general report. If you are interested in this report, you will be able to view it on our website in the near future under our [Reports and Presentations tab](#). We always have research questions that influence what was included in the survey, and now we begin to address these. Some of the content areas relate to contemporary topics of screen time, and health conditions including chronic pain and mental health. We are asking new questions about women's health, including perimenopause. You told us in last spring's feedback survey that the competing demands of parenting youth, managing career, maintaining relationships, and supporting aging parents is stressful- we call this 'time crunch' and it really matters. These life events are coinciding with perimenopause and hormonal changes. Good news! Even in these busy and challenging times, most of you are satisfied in your personal and professional lives. What we learn about 'staying well' will be used to inform strategies to help women address changes at this stage of life.



We have travelled a long way together since you joined the study when you were pregnant, and we have learned a great deal about navigating different life stages from post-partum, return to work and parenting children through the early and middle years. This longitudinal information has enabled AOF to identify valuable strategies that promote resilience and flourishing. One of our core areas of focus is flourishing and we are integrating the AOF findings with the broader literature. This is a big project! Our Post Doctoral Fellow, Dr. Zahra Clayborne and her team are reviewing 35,250 articles to identify common factors associated with flourishing. We will look forward to sharing this material as it becomes available.

We offer our congratulations to Dr. Serena Orr on receipt of the American Headache Society 2024 Early Stage Investigator Career Research Award. Dr. Orr was recognized for her All Our Families work on childhood mental health and the development of migraine.

In this edition of the All Our Families newsletter, we have some study updates, as well as a few infographics on recent publications. We have included a few more 'fun facts' from the last survey, the 12-14 year follow-up. We have some new faces on our team and have also said goodbye to a valued member of our staff. You will see the outcomes of other research in the newsletter where we summarize developmental outcome of late preterm birth and maternal mental health through the pandemic.

On behalf of the AOF team, I offer our sincerest thanks for your ongoing support. It is more than true that we can't do this without you, and we are grateful.

I wish you a fun-filled and relaxing summer!

Warmly,

Suzanne

Study Updates

While we are taking a pause from surveys, investigators have been actively using your data from the last surveys and considering the themes for the next wave of data collection. We will start planning for this in the next year.

For the youths, the areas of interest will continue to be related to their developmental stage, and what is important to them. This will include questions around school life, friends, getting jobs, social media and how they are flourishing.

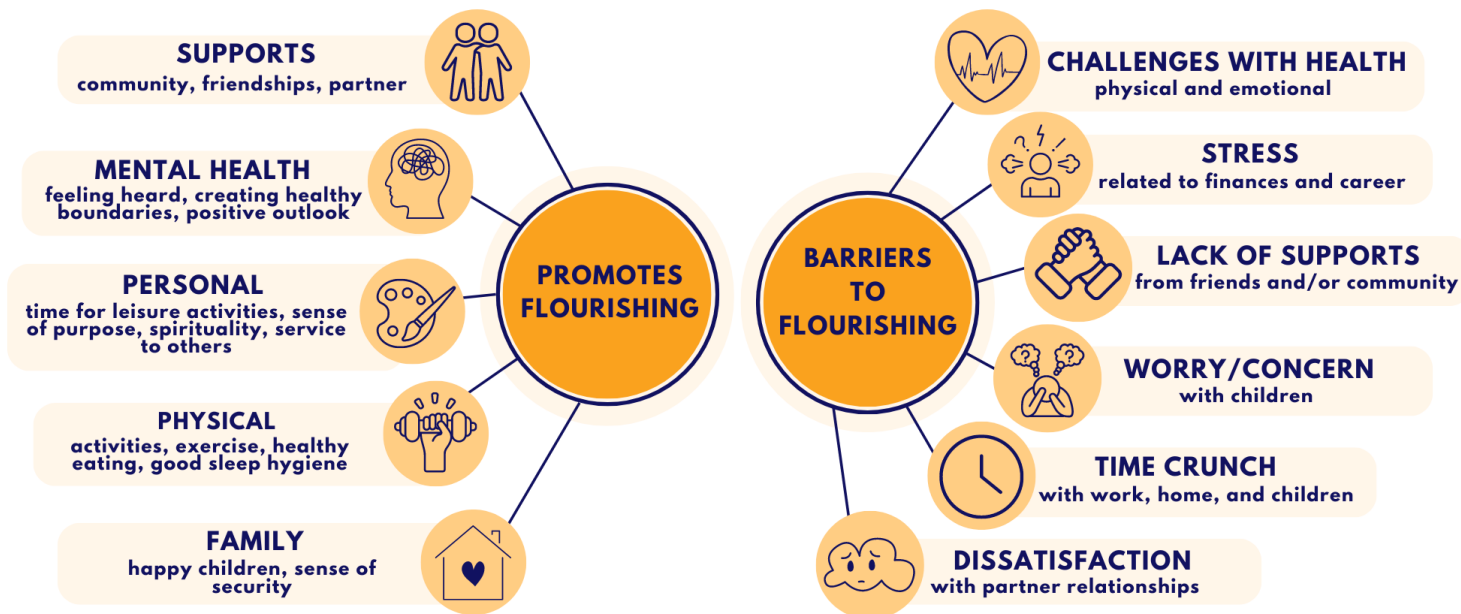


For our mothers, we recognize that most of you have moved on from the phase of parents of young children to women approaching early middle age, and the focus will be on constructs that relate to this stage, such as juggling responsibilities, 'sandwich generation' duties, perimenopause, and of course – flourishing.

The Flourishing Project

In the last survey wave, we asked our mothers about flourishing. "Flourishing" is defined as a state of physical, mental, and social well-being. Flourishing is highly contextual and personal, meaning we all have different ideas of what it means to flourish. Flourishing is not dependent on a single experience or event, for example, you may have adequate material goods and resources and not flourish; or you may have daily chronic pain and flourish.

Several of our trainees are using your data within the framework of flourishing. While their work is ongoing, they have offered a few bites of information to share.



It was also recognized that flourishing is not an 'all or none' state; flourishing shifts over time into different areas of life. For examples, at times it will be career that creates dissatisfaction while their family life is full and gratifying, whereas other times health issues create stress and concern while work is very fulfilling.

Research to Real Life

Dr. Nikki Stephenson looked at the development over time in children who were born before full term. While there is considerable research and support for children born preterm (before 37 weeks gestation), Dr. Stephenson was also interested in early term babies (born 37-38 weeks). Using the data from the surveys completed when the children were at ages 1, 2, 3 and 5 years, she found that babies born early term may also be at risk of developmental delays, and there can be gaps in supports for these children. The full article can be found [here](#).

HOW DO CHILDREN DEVELOP OVER TIME WHEN THEY ARE BORN PRETERM?

Stephenson et al. (2023)

[doi: 10.1371/journal.pone.0294522](https://doi.org/10.1371/journal.pone.0294522)

WHAT WE ALREADY KNOW

- **Preterm babies:** born before 37 weeks
 - **Early term babies:** born between 37 - <39 weeks
 - **Full term babies:** born between ≥39 - <41 weeks
- Babies born **preterm** have an **increased risk** of delayed development during childhood. There are **many** programs available to help these babies throughout childhood.
 - Evidence suggests that babies born **early term** may also be at risk of developmental delay during childhood. Despite this, there are **few** interventions for these babies.
 - There has been a **shift** in the **average gestational age** as more babies are being born at **39 weeks**, meaning more children are **potentially at-risk** of developmental delays.

WHAT WE WANTED TO LEARN

We investigated the relationship between babies born after 34 weeks and before 41 weeks and their risk of developmental delay. We wanted to determine how this range of gestational ages affects child development.



We investigated the following five areas of child development in children aged 0-5 years:



METHODS

- Participants were part of the All Our Families study cohort who gave birth between 34 and 41 weeks of pregnancy in Calgary, AB, Canada (n = 2644).
- Mothers completed a series of questionnaires when their child was 1, 2, 3, and 5 years old to provide information about their child's development.

WHAT WE LEARNED

39%
of children experienced a delay in **one area** of development at **some point** over the first five years of age.

- By **5 years** of age, **11% of children** were found to be **at-risk** of a delay in **one or more** areas of development.
- Children who may benefit from **additional support** are those who experienced delays either...
 - In **more than two areas** of development
 - Over a number of **years**
- Babies who experienced delays were **most likely** to experience these in:
 - Fine motor control
 - Gross motor control
 - Problem-solving



Every **additional week** of pregnancy **decreased the risk** of developmental delay.




WHY IS THIS IMPORTANT?

- Most intervention programs have gestational age cut-offs despite the range of babies at-risk of developmental delays.
- There should be increased follow-up and interventions for babies born before 39 weeks of pregnancy (full term) due to their risk of developmental delay.
- Resources and interventions may be most effective when they are available to children based on their developmental needs instead of their gestational age at birth.



Research to Real Life

Dr. Nicole Racine looked at how mother's mental health changed throughout the COVID-19 pandemic. Using the data provided in the 8-year surveys as well as the COVID-19 surveys, she found that women with pre-existing depression and anxiety were at higher risk for worsening symptoms during the pandemic. This was due in part to the complexities of managing work, home, disruptions in schooling, and challenges around daycare. She also found that good coping strategies and support from partners buffered the impact from these stressors. The full article can be found [here](#).

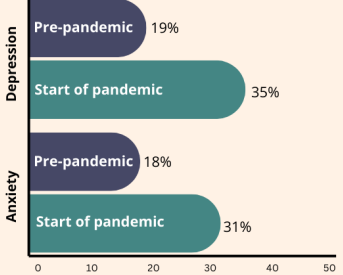




Changes in Maternal Mental Health During the COVID-19 Pandemic

Racine et al. (2023)
<https://doi.org/10.1007/s00737-023-01339-8>

BACKGROUND

- Family stress during the COVID-19 pandemic influenced mental distress for mothers.
- At the start of the pandemic, symptoms of **depression** and **anxiety** nearly doubled among women:




Symptom	Pre-pandemic	Start of pandemic
Depression	19%	35%
Anxiety	18%	31%

- Little is known about the long-term influence of global health events (e.g. the COVID-19 pandemic) on mothers' mental health and family well-being.

WHAT WE WANTED TO LEARN

- To understand how mothers' pre-existing depression and anxiety symptoms changed during the COVID-19 pandemic.
- To evaluate whether increased depression and anxiety symptoms remained elevated throughout the pandemic.
- To identify factors that influenced mothers' mental health symptoms over time.




METHODS

- Participants were part of the All Our Families study (AOF); ($n = 2152$) who had a middle-school aged child.
- Mothers' depression and anxiety symptoms were available from pre-pandemic questionnaires (2017-2019) and three surveys during the pandemic:
 - May-July 2020
 - March-April 2021
 - November-December 2021
- Factors thought to be associated with anxiety and depression included:
 - Maternal race & ethnicity
 - Maternal education & marital status
 - Partner relationship quality
 - Household income & pandemic-related financial impact
 - Difficulty balancing caregiving & household roles
 - Perceived stress & resilient coping


WHAT WE LEARNED

- In women, **depression and anxiety** scores were high at the beginning of the pandemic and **remained high** until December 2021.
- For women with **depressive** symptoms **before** the pandemic, their symptoms got **worse** over time.
- Women who experienced the **most anxiety early in the pandemic** were those with pre-existing anxiety, higher education, high stress, and/or job or income loss.

Women who were better at **coping** with uncertainty and had **strong relationships** with their partners had **fewer** mental health symptoms when the pandemic started.






Women who were experiencing **high stress** likely took steps to **cope** to **reduce the impact** of the pandemic on their mental health.



WHAT THIS MEANS

- Individuals with **pre-existing** challenges with depression and anxiety symptoms are **especially vulnerable** to mental difficulties during stressful times.
- Having good **coping strategies** to manage uncertainty and a strong **relationship** with a partner may **protect against** depression and anxiety symptoms in times of increased stress, like the pandemic.

www.allourfamiliesstudy.com  



Fun Facts From the 12-14 Year Surveys!

AOF MOMS

3 HOURS
THE AVERAGE TIME SPENT
ON THEIR DEVICES IN A
TYPICAL WEEK



IN THE SECOND COVID-19 SURVEY, MOMS
REPORTED THE SAME AMOUNT OF DEVICE
USAGE!

54%

SAID THEY
VOLUNTEERED



AOF YOUTH

39%
SAID THEY SOMETIMES WISHED THEIR
PARENT OR CAREGIVER WOULD
SPEND LESS TIME ON THEIR PHONES
AND DEVICES

10.5 YEARS OLD
WAS THE AVERAGE
AGE YOUTH GOT
THEIR FIRST
SMARTPHONE



89%

SAID THAT THERE
ARE ADULTS IN THE
NEIGHBOURHOOD
THAT CHILDREN CAN
LOOK UP TO



85%

SAID THEY ENGAGED
IN 1-15 HOURS PER
WEEK OF LEISURE
ACTIVITIES FOR THEIR
OWN PLEASURE



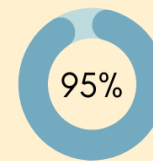
55%

FELT CONNECTED
TO ONE OR MORE
ADULTS IN THEIR
SCHOOL



95%

RATED THEIR
HEALTH AS GOOD,
VERY GOOD, OR
EXCELLENT



Staff News

Welcome new team members! The All Our Families team would like to welcome two new members.

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Berna Ilchi—Student Researcher

Berna joined the All Our Families team at the end of 2023 and is currently working towards her Doctor of Medicine at the University of Calgary. Her project with AOF involves a systematic review and meta-analysis looking at effective interventions for breastfeeding difficulties related to breast engorgement and blocked ducts. When not studying, Berna enjoys reading, listening to audiobooks and podcasts, and trying new restaurants around Calgary.



Julia Wilson—Research Assistant

Julia Wilson joined the All Our Families team in 2023 as a Research Assistant. She completed her BMSc and MSc in Interdisciplinary Medical Sciences at the University of Western Ontario where she specialized in maternal and fetal health. Her graduate research focused on identifying disparities in maternal and child health outcomes. In Julia's spare time, she enjoys running outdoors, reading, and spending time with friends and family.

We are also excited for the return of two familiar faces!



Rowan Chetner—Summer Student

Welcome back, Rowan! Following up from her work last summer (examining the relationship between mothers' personality and their children's externalizing), she will investigate the differences in the relationships between boys' and girls' internalizing behaviour (e.g., depression, anxiety, and social withdrawal) and their mothers' personality traits. The end goal is a presentation at a summer conference and hopefully a publication.



Nadia DiMarzo—Student Researcher

Many of you know Nadia already. Nadia DiMarzo joined the All Our Families team in 2019 and was a research assistant at the study for five years. She is currently working towards her Doctor of Medicine at the University of Calgary. Her project at AOF aims to describe insights gained from the 12-14 year youth and maternal questionnaires.



A Goodbye—Kristan Kushlyk

The All Our Families team said goodbye to our Data Analyst Kristan Kushlyk this spring. We will miss her energy, data skills and dedication to the team, as well as her mentorship skills for the trainees. Kristan, we wish you all the best!

Let's Connect!

If you have any questions about this newsletter or want to connect about something else, we would love to hear from you!

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Email: allourfamilies@ucalgary.ca | **Website:** <https://ucalgary.ca/allourfamilies>