



Newsletter

Spring 2020

## WHAT'S NEW WITH APrON?

### Happy Mother's Day!



We would like to wish all of our APrON mothers a Happy Mother's Day! We hope that you enjoy celebrating and spending time with your family.

### APrON 10th Anniversary Conference

The **Celebrating 10 Years: APrON Achievements and Evolution Conference** that was supposed to occur on March 23, 2020 was postponed due to COVID-19 spread in our community. We look forward to setting a new date, as that will mean that the worst of COVID-19 is behind us. We anticipate setting a date in fall of 2020.

If you have any questions, please send us an e-mail at [apron@ucalgary.ca](mailto:apron@ucalgary.ca)

### COVID-19 Pandemic: Impact on Mental Health



The effort to address COVID-19 is both extremely important for us all and poses a range of challenges to individuals and families as they respond to the demands of the situation.

The situation is stressful for everyone and it is normal to be anxious and worried. If you are having any difficulty with your mood or stress level, or feel you need some help with your mental health because of traumatic experiences, please call your family doctor, nurse practitioner, or:

**In the Calgary area: the Distress Line at 403-266-1605, or Access Mental Health at 403-943-1500**

In the Edmonton area: the Distress Line at 780-482-4357, or the Edmonton Mental Health Clinic at 780-427-4444

## Health Link 811

Your employment benefits may also include employee assistance programs that we urge you to check out if needed. If you think you are having a mental health crisis, of course call 911 for urgent assistance. Every day, more and more mental health resources are available online to help the many Canadians that are struggling to cope with the stress of changes associated with COVID-19 in our community.

## Don't hesitate to reach out to find out more!

The University of Calgary has opened a community support site to provide free webinars/podcasts and helpful tips for coping with isolation, opportunities for online learning, and more!

# WHAT IS COVID-19?

## AND HOW DOES IT RELATE TO CHILD DEVELOPMENT?

Doctors first discovered coronavirus disease 2019 (COVID-19) at the end of 2019. It is an illness related to the lungs. It's caused by a virus that can spread quickly from person to person and can be picked up from surfaces. In some people, it can be severe, leading to pneumonia or even death. Since COVID-19 is new, there is no cure or vaccine for it at this time.

Illustration of coronavirus, magnified

Source: CDC

Because the virus spreads so quickly, many places have banned large groups of people. Schools, houses of worship, and workplaces are closed.

Children can't go to school or daycare. Families may lose pay because adults can't go to work. These changes can be very stressful. That's why it's important to learn how stress can affect us. We can also learn what we can do about it.

## PROTECTING AGAINST INFECTION AND TOXIC STRESS

Losing a job would be stressful normally. So would having to homeschool at the drop of a hat. But these things are even more stressful when there's a dangerous virus in the world. It's important for all of us to stay away from others *physically*. This will help keep the virus from spreading in our communities. But it's also very important to stay connected to people we care about. This is true for children *and* adults.

Video chatting with a friend or loved one is a good example. Or saying 'hello' to a neighbor who's more than six feet away. These connections can make the stress feel easier to bear.

Taking a minute to close your eyes and breathe in and out can also help. That's because slow breathing tells your body's stress system to ease up a bit. This can help you respond better at even the most difficult times.

When we as adults feel better, it can help us connect better with the children we care for. This connection can help protect all of us, adults *and* kids, from the effects of stress. It also supports kids' healthy growth.

## SUPPORTING FAMILIES THROUGH THE CRISIS, AND BEYOND

A worldwide virus is a stressful time for everyone. But the stress gets worse for those who were already dealing with things like poverty, racism, or violence. There are still resources that can help in these challenging times: crisis hotlines, food banks, and relief funds. There is no shame in seeking help if you need it.

We all want to build up the long-term wellbeing of children and families in our communities. That's why we as a society need to support responsive caregiving everywhere. This includes caregiving in homes, schools, and childcare centers. Together, this will allow us to weather whatever storms we come up against, now or in the future.

Food & Housing Security  
Quality, Affordable Healthcare  
Responsive, Dependable Childcare

Center on the Developing Child HARVARD UNIVERSITY  
For more information: <https://developingchild.harvard.edu/covid19>

Since the last update, the Eight is Great questionnaire has continued arriving in participants' mailboxes. The Eight is Great questionnaire is part of our collaboration with the All Our Families cohort called the Alberta Births Common Data (ABCD) project, which has been looking into topics such as socioeconomic status, child behaviour, child health and development, early childhood experiences, parenting, maternal health and wellbeing, and much more among APrON participants. The ABCD project began linking APrON and All Our Babies studies together starting at age 5. Together, this represents more than 5000 Alberta families! If you haven't received an email to complete this questionnaire yet, look for this around the time your child turns eight.

[Read more](#)



### Join APrON's Participant Advisory Committee

The APrON team is always looking for participants to join our advisory committee meetings and we want you to be a part of it! Share your ideas on how we can keep participants, like you, engaged and interested in our research. We want to hear from you. If you would like to learn more about this exciting opportunity, please contact us by email at [apron@ucalgary.ca](mailto:apron@ucalgary.ca).

## RESULTS

### Study Title: Neighbourhood socioeconomic status modifies the association between anxiety and depression during pregnancy and preterm birth



Understanding the risk factors for preterm birth, such as exposure to psychosocial stressors and low socioeconomic status, may help identify women at increased risk, and assist in the allocation of resources for them. Preterm birth, defined as delivery prior to 37 weeks of gestation, has been linked to psychosocial distress during pregnancy, specifically anxiety and depression. However, the association between comorbid anxiety and depression during pregnancy and preterm birth is not completely understood specifically in a community-based sample. Thus, we assessed the association of the presence of anxiety symptoms alone, depression symptoms alone and both anxiety and depression symptoms with preterm birth in a community-based cohort sample. We further examined whether the presence of anxiety, depression and both anxiety and depression interact with neighbourhood socioeconomic status to increase the risk of preterm birth. Our study found that the presence of both anxiety and depression during pregnancy increases the likelihood of preterm birth, and the effect of this combination is stronger for women living in low socio-economic status neighbourhoods compared to women living in high socio-economic status neighbourhoods. To elaborate, for women with both anxiety and depression, the absolute predicted probability of delivering preterm infants was 16% if these women lived in the most deprived neighbourhood, and it was 1% if they lived in the least deprived neighbourhood. Overall, the findings suggest the importance of neighbourhoods on maternal health (in general) and more specifically preterm birth. Our finding may help to inform development of intervention strategies (such as timely screening and management of anxiety and depression) that focus on the most deprived neighbourhood.

**Reference:** Adhikari, K., Patten, S. B., Williamson, T., Patel, A. B., Premji, S., Tough, S., ... & Metcalfe, A. (2020). Neighbourhood socioeconomic status modifies the association between anxiety and depression during pregnancy and preterm birth: a Community-based Canadian cohort study. *BMJ Open*, 10, 1-9.

### Study Title: Parenting interacts with plasticity genes in predicting behavioural outcomes in preschoolers

This paper serves to examine how nature and nurture work together to influence human development by exploring the interaction between parent-child relationship quality and plasticity alleles in predicting preschool children's behaviour. Existing research shows that certain genotypes provide greater differential susceptibility or plasticity to environmental stressors. In other words, children with the same genotype exposed to more or less stress have worse or better outcomes respectively, in a differentially susceptible manner. This paper uncovers the interaction between maternal-child relationship qualities (specifically, controlling, and unresponsiveness) and genotype in 6-month-old infants, in predicting behavioral problems; namely internalizing (e.g. anxiety and depression) and externalizing (e.g. aggression and hyperactivity) when those infants at 24 months of age, using prospective methods. We tested our assumption that individual allelic variants would interact with parent-child relationship quality in a

differentially susceptible manner to predict behavioral outcomes. Findings demonstrate that children's genotype interacts with parenting qualities of controlling and responsiveness in parent-child relationships in predicting internalizing and externalizing behavioral problems in children. For externalizing behaviors, findings revealed that children who possessed the *CNR1*-A plasticity allele and experienced *higher* caregiver controlling behavior displayed significantly *more* externalizing behavior, while other children who possessed the *CNR1*-A plasticity allele and experienced *lower* caregiver controlling behavior displayed significantly *fewer* externalizing behaviors, in a differentially susceptible manner. To summarize, parents who are emotionally engaged and supportive of their children during infancy and early life may prevent behavioral problems in their children.

**Reference:** Letourneau, N., de Koning, Jason, Sekhon, B., Ntand, H., Kobor, M., Deane, A.J., ... & APrON Study Team. (2019). Parenting interacts with plasticity genes in predicting behavioural outcomes in preschoolers. *Canadian Journal of Nursing Research*, 1, 1-18.

To request the above or any other APrON publication please contact us at [apron@ucalgary.ca](mailto:apron@ucalgary.ca)

[Click here](#) to view all of the APrON publications to date, or by following the link below:

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### Send Us Your Feedback!

If you have any comments or questions about the APrON Newsletter, we want to hear them! We would also like to hear your ideas for future newsletters. Please contact us at [apron@ucalgary.ca](mailto:apron@ucalgary.ca). We truly value your feedback!

### Help Keep Our Files Up-To-Date

Staying in touch with our participants is a key part of our work. When we lose touch with people we lose our ability to answer important health questions. If you have moved, changed your phone number or have a new email address, please take a moment to let us know of these changes. Keep in mind that we can send you surveys and keep you up-to-date with the APrON Leaflet no matter where you live, even if you are outside of Alberta or Canada.



#### apronstudy.ca

Questions? Email us at [apron@ucalgary.ca](mailto:apron@ucalgary.ca)

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