THROUGH THE microscope

The Children's Hospital Research Institute of Manitoba

Children's Hospital Research Institute of Manitoba Newsletter Fall 2022

What's inside:

The Children's Hospital Research Institute of Manitoba, or CHRIM as we like to call it, is the research division of the Children's Hospital Foundation of Manitoba.

At the Institute, more than 300 world-class researchers are working together to better understand the specific and unique conditions faced by children in Manitoba and beyond, including those that disproportionately impact First Nations, Métis, and Inuit communities.

CHRIM brings together top researchers from a variety of health disciplines who share a common goal of improving the health of children and youth. By including a wide range of areas, CHRIM has the unique ability to look at the overall picture of child health – not just one area.

CHRIM is also a catalyst to help recruit and retain top healthcare professionals at HSC Children's Hospital so kids continue to get the best care possible when families need it most.

We are excited to share valuable child health knowledge gained by researchers at CHRIM in our newsletter, Through the Microscope. To learn more about the exciting research happening at CHRIM, please visit www.chrim.ca and follow us on social media (Twitter, Facebook, Instagram, and LinkedIN).

Terry Klassen MD, MSc, FRCPC
CEO & Scientific Director, CHRIM

FEATURE STORY

Easing back to school anxiety for your child

Anxiety surfaces in children in similar ways as it does in adults and is common when dealing with things that are unknown or new. When returning to school, these feelings can appear with the transition to a new school or teacher; things that are out of one's control, like taking the bus for the first time; and around uncertainties of what to expect.

WHAT DOES ANXIETY IN KIDS LOOK LIKE?

Anxiety may look different in different kids. Some indicators of anxiety in children include:

- → Changes in sleep patterns (e.g., difficulty staying or falling asleep)
- → Loss of appetite
- → More frequent headaches and/or stomachaches
- → Increased irritability
- → More frequent tantrums
- → Children acting out more often
- → Increased fatigue, even when children have gotten a good night's sleep
- → Restless or fidgety behaviours
- → Difficulties concentrating on tasks
- → Avoiding or escaping activities that cause anxiety (e.g., being unwilling to get ready for school in the morning)

As parents and caregivers, it's helpful to listen to your child and support their feelings, even if just as a listening ear.

Leading up to World Mental Health Day on October 10, 2022, we connected with **Tasmia Hai**, incoming CHRIM post-doctoral fellow; **Kaeley Simpson**, school psychology student; and **Dr. Leslie Roos**, child psychologist and CHRIM researcher; for some tips to help you and your child work together through their feelings.

If your child expresses concern:

Hear them out
Listen to what your child is experiencing and provide supportive and caring responses.

Focus on validating feelings by saying things like:

- √ *"It is normal that you feel this way, it can be hard moving to a new teacher."*
- √ *"Starting school again can be scary, what can we do to make it easier?"*

Try to avoid language that minimizes their feelings. This may cause the anxiety to persist longer:

- X *"It's not a big deal."*
- X *"Don't worry about it."*

Show your support by helping them do little steps on the way.
If your child is having a tough time separating from you and getting out the door, help them out by assisting with daily routine tasks such as tying their shoes.

Be Patient!
With time, anxiety levels will reduce as your child settles into their new routine. It is normal for children to be anxious when starting something new. Over time, building your child's confidence that they can feel nervous *and* do the school routine anyways is an important life-long skill that will help them be brave to take on challenges in the future.

Give your child praise for small accomplishments each day.
Try to "catch them" listening, following directions the first time you ask, and participating in activities they may have been hesitant in. Reinforcing small progress over time will help get you and your child to the end goal.

Children learn from their parents/caregivers.
Try sharing some times when you've felt nervous about a new experience and modeling effective ways to cope with stress. Show children how they can manage stress through things like relaxation breathing, positive self-talk, or sharing with a friend about how you're feeling. It can also be helpful to share age-appropriate strategies for feeling comfortable in new situations, like bringing a sentimental object (favourite book or stuffed animal) or finding someone they know to sit with right when they get to school.

School-family partnerships.
During the back-to-school transition, anxiety that persists for multiple weeks after children have transitioned and impacts daily function and home, school, or with friends may be a concern. Talk to teachers and school staff and be partners in supporting your child. School and parents/caregivers can work collaboratively to discuss goals and solve problems. Such partnerships contribute to student academic achievement, social development, and well-being.

Post-Pandemic Support for Kids

Pre-pandemic child mental illness rates in Manitoba are double the national average. That means approximately one in seven Manitoba kids between the ages of six and 19 were diagnosed with a mental disorder by a physician between 2009 and 2013.

Throughout the pandemic, children who were part of a sample study self reported increased levels of stress, anxiety, and depression. However, going back to school may have a positive influence on your child's overall well-being.

Returning to school may be anxiety-provoking for some children, but research during the pandemic has shown that children with access to friends and social settings, indoor and outdoor spaces to visit, play and exercise have a positive correlation to mental health in Canadian children.

So how can caregivers/parents support children and their emotions as pandemic-related recovery begins?

1. **Talk to the child about their emotions and feelings.** Ask them what they find stressful about going back to school and work with them to problem solve.
2. **Get them excited about something at school.** Find a hobby they like within the school setting and help get them involved.
3. **Collaborate with the school on how to best support the child.** Let your child's teacher and school know how your child is feeling about transitioning back into the school year. Share strategies with one another.
4. **Find quality one-on-one time to spend with your child.** Time with a secure attachment figure may help to calm your child's anxiety.
5. **If the problems persist, seek expert support.** Connect with your child's school-based team, including counselors, psychologists, and social workers.

FEATURE STORY

Managing food allergies at school

Parents with children with food allergies have more on their plates to plan for as kids return to school this fall. Helping prepare a child and implementing plans for the upcoming school year will help keep a child safe from allergic reactions to foods at school and provides reassurance to parents and caregivers who won't be with them during school hours.

Food allergies affect 4-8% of children worldwide. In Canada, about 7% of children have a food allergy, and an estimated one out of every two people knows someone with a food allergy.

In some cases, food allergies can be life-or-death, and all families, not just those with food allergies, can help.

"An atmosphere of mutual respect can greatly contribute to the long-term safety of children with food allergies (and all children) in the classroom."

Dr. Elinor Simons

Assistant Professor and Clinician Scientist, Department of Pediatrics and Child Health, University of Manitoba

Researcher, CHRIM

Allergic reactions from food can range from mild to moderate or severe

Mild symptoms include an itchy nose, itchy skin, or stomach upset, where more severe symptoms can include a fast drop in blood pressure, fainting, stop in breathing, and anaphylaxis.

Anaphylaxis often occurs quickly and is a potentially fatal reaction to something that the body cannot tolerate, such as a specific food.

Although anaphylaxis deaths are very rare, it is important to know how to treat anaphylaxis – with epinephrine (commonly an EpiPen ®) – when it is first suspected.

Prevention is key to avoiding any reaction

Children should be encouraged to share ideas, stories and games, rather than their food. As parents and caregivers for children with food allergies, it's best to send enough food for the entire day.

If children are younger, parents may wish to also have open and respectful discussions with other parents with regard to food allergy. Children who are mature enough to carry their own epinephrine autoinjector (such as an EpiPen®) are encouraged to carry it on their person (such as in a pouch around their waist, or a cross-body bag).

If children are not yet ready to carry an autoinjector on their person, it should be with them in their backpack, or a well-known, and easily accessible place in the school that is close to the student. (A locker or locked office is not recommended.) Families may wish to also leave a second autoinjector at school, again in a well-known, and easily accessible place, and which accompanies children on field trips.

With proper planning ahead and discussions with your children, teachers, and caregivers, the transition back to school will be easier and hopefully provide the guidance for your child to have the best year ahead!

TIPS TO PREVENT ALLERGIC REACTIONS

Washing hands

Wiping down eating areas and similar places

Pack an extra snack that you know your child will enjoy without risk of an allergic reaction

We encourage having additional discussions with the school teacher and principal to make sure everyone is on the same page in terms of understanding the allergy, and signs and symptoms of a food allergic reaction

It may be helpful to remember the acronym, FAST, to recognize symptoms of anaphylaxis:

F: Face (hives, swelling, itching, redness of the face, tongue or lips);

A: Airways (trouble breathing, swallowing or speaking, nasal congestion, sneezing);

S: Stomach (pain, vomiting, diarrhea);

T: Total Body (hives, itching, swelling, weakness, dizziness, sense of doom, loss of consciousness).

Trick or treat!

This Halloween, make sure to have a few non-food treats on hand to give out so all children can participate!

- Books, bookmarks
- Bouncy balls*
- Bubbles
- Finger puppets
- Glow sticks
- Necklaces
- Notepads
- Pencil erasers/toppers*
- Pencils and pens
- Playing cards
- Rings
- Small toys
- Stickers
- Stress balls*
- Yo-yos

**Avoid items made of latex. Look for latex-free versions instead*

FEATURE STORY

How participating in a CHRIM study inspired a patient to pursue a career in research

I feel that I have gained a wealth of knowledge through my involvement with CHRIM. I better understand the fundamentals of patient engagement and recognize the value that my experiences and stories can provide to research overall.

Chloé Janse van Rensburg

Hi! My name is Chloé Janse van Rensburg. I was first introduced to the exciting world of research when I was just a young girl. I was diagnosed with juvenile idiopathic arthritis when I was just 5 years old, which is an autoimmune disorder that causes inflammation of the joints, leading to pain, discomfort, and reduced mobility.

Once I got a bit older, my new specialist, Dr. Lily Lim, introduced me to the Children's Hospital Research Institute of Manitoba (CHRIM), where she is a research scientist and conducts her own research program. At the time, I thought it would be cool to participate in a research study and help scientists learn more about me and help me with my condition!

Today I'm 20 years old and continue to be involved with CHRIM, no longer as a participant, but a student research assistant! I've been part of **Dr. Kristy Wittmeier's** lab for about a year and am currently working on a study called *"Determining the benefits and drawbacks of parents using their personal and social networks for recruitment in research projects"*.

This project focuses on patient engagement and parent partnership, where I help with collecting and analyzing data, to creating paintings to share the results of our project!

Two of the three paintings Chloé created as an arts-based approach to knowledge translation (communicating research results with audiences, such as parent partners, researchers, and the public).

Patient engagement is an important area in research, in which patients, caregivers, and community members are involved in all aspects of the study process, which helps ensure the work being done is impactful to other patients and families. As a patient myself, I find this concept to be mind-blowing and it makes me want to get involved even more!

While working on this project, I was introduced to Carrie Costello who leads the patient engagement program at CHRIM. She introduced me to the **Research Advisory Council for Youth (RACY),** where I am now a member.

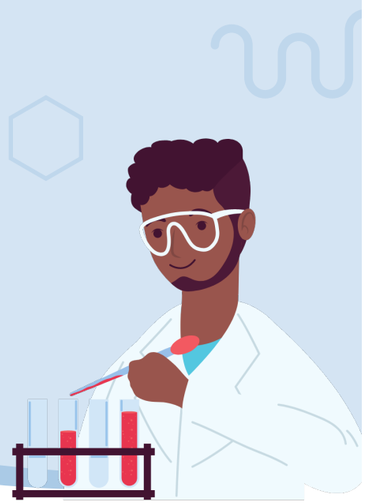
Being a part of the RACY has been such a wonderful opportunity. Ever since I was a child I felt like I had more to contribute to research than just data, and the RACY provides me with this opportunity. It has also been invaluable to meet other youths and hear their perspectives and ideas.

Over the years, I've gained a wealth of knowledge through my involvement with CHRIM. I better understand the fundamentals of patient engagement and recognize the value that my experiences and stories can provide to research overall.

At the beginning of my involvement, I wasn't sure if I would be able to provide much to the research (both as a student and as a partner), but from being part of the research team and RACY, I recognize that I can provide valuable suggestions and ideas! My team and the researchers we help through the RACY genuinely appreciate me, and the relationships I have with my team and the other members of the RACY feel very trusting and authentic.

My overall experience with CHRIM has been very positive, and I would highly recommend getting involved, whether it be as a participant, partner, or student!

Ask a scientist



Health facts

A mother's prenatal egg intake may influence her child's food allergy risk.

Mothers eating peanut, breastfeeding and introducing peanut early could help protect against peanut allergy in chidren.

Heart disease in young adults and teenagers may be linked to exposure to diabetes in the womb.

1 in 6 Canadians have used a vaping product, with the majority of users being young adults/youth.

Q. Why are there so many food allergies?

A. Experts don't know the exact reason but we have some ideas. The reason is likely a combination of factors. One factor is our genes, what we are born with and the other factor is our changing environment. Researchers think the following factors may play a role in developing food allergy:

- → Stress
- → The way food is cooked or processed
- → The age when we first try a food
- → Lack of Vitamin D. We now spend little time outside and many kids don't get enough vitamin D
- → Our chemical environment. Chemicals in our carpets or in cleaners we use are all part of our chemical environment
- → How clean our environment is
- → We are learning that our bodies need germs in order to develop an immune system. Having clean water, clean food, using lots soap etc. might be preventing our immune system from developing properly
- → Our lifestyle is changing so quickly. It is not just one thing that causes food allergies but a combination of things

Learn more about allergies here

Do you want to ask a scientist something?

Submit your questions to:
Communications@chrim.ca

Q. What are the negative impacts of vaping?

A. Dr. Chris Pascoe is leading a study to find out.

Vaping and e-cigarettes have gained popularity throughout recent years, especially amongst youth.

While research is still emerging in this area, investigators with the Biology of Breathing group at CHRIM have led the way in studying the effects of vaping on young lungs. In their most recent project they are recruiting young adults with collapsed lungs and will be exploring if their lung damage may be associated with e-cigarette use.

Once the researchers have collected the information from this group of research participants, they will use that data to plan a larger study analyzing the type of damage vaping causes, the types of products youth are using and reasons why people choose to vape.

Dr. Pascoe and his team hope the findings from this study will help inform government policies and reduce the use of e-cigarettes, especially amongst young people.

TIPS TO SCARE AWAY THE

sugar bugs after Halloween!

How much sugar is too much on Halloween?

We asked CHRIM Scientist Dr. Bob Schroth, who leads the Healthy Smile Happy Child (HSHC) community outreach dental program for kids, to give parents some tips for this upcoming Halloween season.

Dr. Schroth's tips: don't be afraid of having candy and treats on Halloween!

- → Sugar increases your child's risk of cavities
- → Brush your child's teeth twice a day with a soft toothbrush to scare the sugar bugs away
- → Flossing helps get rid of the sugar bugs between your child's teeth
- → Enjoy treats after mealtimes instead of throughout the day

Did you know?

Eating candy throughout the day can increase the acidic conditions in the mouth, leading to an increased risk of cavities – it's better to enjoy treats after mealtimes.

Find more healthy teeth tips from Healthy Smile Happy Child

ACTIVITY

Homemade Allergy-Safe Chocolate Balls

Here's one sweet treat that the kids can help make, and that is free of all priority allergens. Please read product labels to double-check ingredients before purchasing, and again before storing the ingredients at home and using them to prepare food!

Ingredients:

4 cups of rolled oats
1 1/4 cup of white sugar
1/2 cup unsweetened cocoa powder
1 cup vegan margarine
2 tablespoons of strong coffee
1 teaspoon vanilla extract
1/3 cup of coconut (optional)
Powdered sugar

Directions:

Mix the oats, sugar, and cocoa together in a bowl. Add the margarine, and mix the ingredients together to make a thick dough. Mix in the coffee and vanilla until thoroughly blended.

Place the powdered sugar in a small bowl. Pinch off small amounts of dough and roll between your hands to make small balls, about 1-1/2 inches in diameter. Roll the balls in the powdered sugar. Balls are ready to eat, or may be refrigerated for two hours to become firmer.

International Pain Awareness Month

September is International Pain Awareness Month. This month aims to raise public awareness around pain and pain management. Did you know that 15-39% of children live with chronic pain?

Our partners at Translating Emergency Knowledge for Kids have several pain resources for parents and families easily accessed through their website. These resources can help parents and families better manage their child's pain and learn what to expect when it comes to receiving care.

Upcoming Events

12-19 SEPT

THE SCIENCE OF HUMAN MILK

FREE ONLINE BREASTFEEDING "FESTIVAL" for educators, midwives, doulas, health professionals and parents. Learn from 7 top lactation scientists and hear from CHRIM Researcher, Dr. Meghan Azad, in a live interview.

https://microbirth.teachable.com/p/scienceofhumanmilk

25 OCT

CHILD HEALTH RESEARCH DAYS PUBLIC EVENT

The risk-taker's advantage: how to make kids more resilient by not over-protecting them

- 7:00 pm
- Canadian Museum for Human Rights
  85 Israel Asper Way, Winnipeg, MB

chrdmb.ca/agenda/public-event/

5 NOV

ICE CRYSTAL GALA

Presented by the Children's Hospital Foundation of Manitoba

- 4:30 pm
- RBC Convention Centre Winnipeg
  375 York Ave, Winnipeg, MB

goodbear.ca/events/ice-crystal-gala/

STUDIES CURRENTLY RECRUITING

Lifestyle change to prevent type 2 diabetes

Interested in improving your teen's mental and physical health? The DREAM research group at CHRIM is recruiting 5 teens (14-17) to learn about healthy lifestyle habits.

Learn more

SHRed Concussions Study

Recruiting youth athletes between the ages of 13-18 who participate in volleyball, basketball, hockey, ringette, sledge hockey, football, rugby, lacrosse, soccer, cheerleading, wrestling, snowboarding, or skiing.

Learn more

Thanks for subscribing to Through the Microscope!

If you enjoyed the content in this issue, follow us on social media to stay up to date with research happening at CHRIM. Share widely with friends and family, and stay tuned for the next issue, which will be released in Spring of 2023.