



Motivational Mentor

Christine Chambers sees the 'star' in each of her students

As a pediatric pain researcher at the IWK, clinical psychologist **Dr. Christine Chambers** is acutely aware of her vital role as a mentor. She currently supervises five PhD students in Dalhousie University's clinical psychology program, as well as postdoctoral fellows, masters students in psychology, nursing, and speech-language pathology, and undergraduate students in medicine and psychology.

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"It is very rewarding to see my trainees go on to develop their own unique professional identities and sense of purpose. While a big part of my job is to motivate them, I often find it is they who motivate me with their enthusiasm and accomplishments."

Christine Chambers

Over the past few years, Christine has attracted international interest for her work in children's pain—both during and after painful medical procedures, and in the everyday course of growing up. Yet she would be the first to herald the fact that many of the fascinating findings emerging from her research program are results of her trainees' studies.

Christine proudly shines the light on her students' accomplishments. She points out that **Lindsay Uman** garnered worldwide media coverage for her finding that psychological strategies, like distraction, are among the best ways to help children during painful procedures. Meanwhile, **Megan McMurtry's** finding that parents' reassurances make children feel worse during painful procedures was featured in the journal *Pain*.

Other trainees are working with Christine to explore how mothers and fathers react differently to their children's pain and how this influences their children's experience of pain, how anxiety influences children's memories of pain, and other nuances of parent and child responses to child pain.

Christine models her mentoring style after that of her primary mentor, **Patrick McGrath**, a noted child pain researcher as well as the IWK's Vice President of Research. "He always put the sky as the limit," she says. "He'd say, 'You could be the world expert on this!' That is powerfully motivating."

Pediatric pain researcher and clinical psychologist **Christine Chambers** urges her students to 'shoot for the stars' as they complete their studies and embark on their careers.

MELANIE NOEL PROBES LINKS BETWEEN ANXIETY AND PAIN



PhD student **Melanie Noel** uses a cold-water test and illustrated pain-rating scale to measure how painful kids find the test. She follows up later to see how painful they remember it to be and relates their memories to how anxious they were at the time of the test.

Melanie Noel wants to know how a child's feelings of anxiety at the time of a medical procedure influence how much pain they experience at the time, and how painful they remember it to be. Painful memories can make children more anxious about future procedures, she says, which can make those experience even more painful. Some may even avoid medical care later in life.

A PhD student in clinical psychology, Melanie is non-invasively measuring pain in children aged eight to twelve, using the 'cold presser test.' "The children put one hand in ice cold water and rate their discomfort on a scale of facial expressions," she explains. Half of the children are told they will give a speech after the test, while the others think they will watch a nature video—a relatively soothing prospect. Melanie calls them two weeks later to see how they remember the pain and if their memories are related to anxiety. She repeats the test a month later to see if their memories affect how they cope with pain.

"If we find anxiety intensifies children's experiences and memories of pain, we can design interventions to manage anxiety before medical procedures," says Melanie. "This may prevent negative memories from forming."

Working with **Christine Chambers** has helped Melanie carve out an area of expertise she can call her own. "I've really blossomed under Christine's supervision," she says. "She sees the star in all of her students and has a rare ability to help us realize the potential in ourselves."

NANCY BANDSTRA EXPLORES TODDLERS' EMPATHY FOR PAIN

While working on her PhD in clinical psychology with **Christine Chambers**, **Nancy Bandstra** became more and more intrigued by one of Christine's research questions: "What can toddlers teach us about pain?"

Knowing that empathy for another's pain influences how parents, caregivers and health professionals respond to and even treat children's pain, Nancy decided to explore how toddlers themselves react to another's pain. To do this, she played with children aged 18 months to three years, periodically pretending she had either hurt herself or that something had made her sad.

"The children in our study were more likely to be distressed by my sadness, and would respond to it, but were more likely to simply continue playing when I was in pain," says Nancy. She notes that teaching children to have empathy for others' pain at younger ages could prevent them from hurting other children or taking risks that could injure themselves.

Working with Christine has been an inspiration for Nancy. "From Christine, I've learned the importance of passion and commitment to what you're doing," she says. "Whether she's advocating for patients or pursuing a research project, she puts 100 per cent into everything she does and it shows in her results... I want to emulate that."



Nancy Bandstra recently defended her PhD dissertation on toddlers' empathy for pain and sadness. Most toddlers in her study responded to her sadness cues but ignored her signals of pain. She is now completing an internship in clinical psychology at the Cincinnati Children's Hospital.