

ADHD Research Digest

Message from the Chair



Welcome to the Summer 2022 issue of the CADDRA Research Digest. As the spring term wraps up, we hope you have had a productive academic term and are planning to enjoy some summer weather.

We are currently preparing for CADDRA's 9th annual Research Day, which will be live and inperson in St. John's, Newfoundland! I am pleased to be co-chairing this year's CADDRA Research Day with

Dr. Jacqueline Hesson, Faculty of Education, Memorial University. In addition to an exciting lineup of Canadian presenters showcasing their work, Drs. Margaret Sibley and Dora Wynchank will join us as international experts. The day will include a live poster exhibition with an additional ePoster option for those unable to travel.

Research Day was initiated in 2014 as a way of bringing Canadian researchers together, and to serve the important function of connecting clinicians and researchers through CADDRA. Our success in meeting this aim is evidenced by the substantial number of clinicians who have attended ADHD Research Day, which seems to be increasing each year. The collaboration of these groups, which were quite separate before, has led to more formally integrating patient/ client perspectives into our research.

We look forward to seeing you at Research Day where you can experience the laid-back culture, welcoming community, vibrant arts, cultural and culinary scene, and beautiful natural environment of St. John's Newfoundland!

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Maggie Toplak Ph.D., C.Psych. CADDRA Research Committee Chair

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Editors: Anne-Claude Bedard Ph.D. Brandy Callahan Ph.D., R.Psych.

CADDRA Research Committee

The committee oversees the planning of Research Day and the implementation of CADDRA's mission and research agenda identified as part of CADDRA's overall strategic plan.

Anne-Claude Bedard Ph.D. Debra Butt M.Sc., M.D., C.C.F.P. Brandy Callahan Ph.D., R.Psych. Emma A Climie Ph.D., R.Psych. Penny Corkum Ph.D., R.Psych. Jennifer Crosbie Ph.D., C.Psych.

Natalie Grizenko M.D., F.R.C.P.C. Lily Hechtman M.D., F.R.C.P. Jacqueline B Hesson Ph.D., R.Psych. Nair Rajesh MRCPsych Yuanyuan Jiang Ph.D., C.Psych. Martin Katzman M.D., F.R.C.P.C. Carlin J Miller Ph.D., C.Psych.

Heather Paul M.Ed. Sarah Pickett Ph.D., R.Psych. Maria Rogers Ph.D., C.Psych. Maggie Toplak Ph.D., C.Psych.

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9th Annual ADHD Research Day Friday, September 30

St. John's, NL

Registration Open Soon!

Research Day Keynote Speakers



Margaret (Maggie) Sibley, Ph.D. Dr. Sibley will present on variable patterns of remission in the MTA study Read her full bio.

Read some recent work:

- Variable Patterns of Remission From ADHD in the Multimodal Treatment Study of ADHD
- Late-Onset ADHD Reconsidered With Comprehensive Repeated Assessments Between Ages 10 and 25



Dora Wynchank, MBChB, MMed, FCPsych, Ph.D.

Dr. Wynchank will present on ADHD throughout the reproductive cycle. Read her full bio.

Read some recent work:

- Cycling With ADHD?
- The Association Between Metabolic Syndrome, Obesity-Related Outcomes, and ADHD in Adults With Comorbid Affective Disorders

Our 9th Annual ADHD Research Day is returning to in-person!

The meeting brings together researchers, clinicians, educators, and students from a wide variety of disciplines to share knowledge, discuss innovative research findings and develop new collaborative research projects in ADHD.

Co-chaired by Jacqueline B Hesson Ph.D., R.Psych. and Maggie Toplak Ph.D., C.Psych.

Research Day is followed by the 18th Annual CADDRA Conference, the only two-day national meeting in Canada showcasing the latest scientific, clinical and practical information on ADHD diagnosis, assessment and treatment in children, adolescents and adults.

Dr. Samuele Cortese will be a keynote speaker at the conference, along with Drs. Sibley and Wynchank.



Samuele Cortese, M.D., Ph.D. Dr. Cortese will present the latest research and meta-analyses on psychosocial treatments and pharmacological treatments in two keynote sessions.

Read his full bio.

Read some recent work:

- Assessing undertreatment and overtreatment/misuse of ADHD medications in children and adolescents across continents: A systematic review and metaanalysis
- The Effects of ADHD Teacher Training Programs on Teachers and Pupils: A Systematic Review and Meta-Analysis

CADDRA/KBHN Awards

We are pleased to announce that Kids Brain Health Network (KBHN) has again offered their support to Research Day.

Junior Presenter Awards

KBHN/CADDRA will provide 10 \$500 travel support grants to junior researchers.

Research Day Registration Awards

KBHN/CADDRA will provide registration awards to junior presenters at ADHD Research Day.





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CADDRA Member Research Achievements

CADDRA member names are bolded.

Presentations

2022 Canadian Society for the Study of Education Conference Virtual May 14-20, 2022

The impact of COVID-19 and the role of parental involvement factors in school absenteeism. Krause, A., Rogers, M., Ritchie, T., Climie, E.A., Corkum, P., Jiang, Y., Mah, J.W.T. Oral presentation.

Development 2022: A Canadian Conference on Developmental Psychology Calgary, Alberta June 15-16, 2022

Risk Factors for mental health problems in children and youth during the COVID-19 pandemic. Ritchie, T., Rogers, M., Mah, J., Krause, A., Y., Jiang, Y., Corkum, P., Climie, E.A. Lightening Talk.

Physical activity and mental health in children with attention-deficit/hyperactivity disorder during COVID-19. Curry, C., Climie, E.A., Corkum, P., Jiang, Y., Krause, A., Mah, J., Ritchie, T., Rogers, M. Poster presentation.

Perinatal maternal anxiety and offspring ADHD symptoms through epigenetic age acceleration: DNA methylation: A preliminary research proposal. Lowe, C., Climie, E.A., Letourneau, N., Ross, K. M. Poster presentation.

ADHD VIBES: Impact of a virtual behavioural support intervention on mental health in children with ADHD. Miller, C., Climie, E. A., Wilcox, G., Kowbel, A., Hai, T., Lemay, J.F. Poster presentation.

Self-Stigma and Self-Esteem: The Experience of Youth with ADHD Across Ages 8 to 17. Jelinkova, K., Climie, E.A. Poster presentation.



Canadian Psychological Association's 83rd

Annual National Convention Calgary, Alberta June 17-19, 2022 How Okay Are You? The Strengths and Resilience of Children with ADHD. Charabin, E., Climie, E.A. Poster presentation.

The Relationship Between Self-Stigma and Self-Esteem in Youth with ADHD. Jelinkova, K., Climie, E.A. Poster presentation.

Parent-Child Reported Strengths in Children with ADHD. Miller, C., Climie, E.A. Poster presentation.

Mindfulness-based interventions and emotional dysregulation in Attention-Deficit/Hyperactivity Disorder (ADHD): A systematic review. Gamboa, J., Climie, E.A. Poster presentation.

Enhancing Children's Reading Development: Psychometric Properties of the Reading Readiness Screening Tool. Minhas, P., Miller, C., Climie, E.A. Poster presentation.

Impact of ADHD VIBES support for children with ADHD and their families during COVID-19 on academic engagement and motivation. Wilcox, G., Kowbel, A., Miller, C., Climie, E.A., Hai, T., Lemay, J.F. Poster presentation.

Maternal distress, DNA methylation and ADHD: A systematic review. Lowe, C., Ross, K. M., Climie, E.A. Poster presentation.

We Want to Hear from You!

This digest will highlight achievements by CADDRA members and students.

Please submit by the first of each publication month (March, June, September, December).

Email stacey.espinet@caddra.ca.

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CADDRA Member Research Achievements

CADDRA member names are bolded.

Publications (from the past 3 months) Real-world correlates of judgment and decision-making paradigms in developmental samples. Toplak, M.E. Cognitive Sophistication and the Development of Judgment and Decision-Making.

Measurement-Informed Care in Attention-Deficit/ Hyperactivity Disorder (ADHD). Weiss, M.D., Stein, A. Child and Adolescent Psychiatric Clinics.

The association between ADHD and the severity of COVID-19 infection. Merzon, E., Weiss, M.D., Cortese, S., Rotem, A., Schneider, T., Craig, S.G., Vinker, S., Golan Cohen, A., Green, I., Ashkenazi, S., Weizman, A. Journal of Attention Disorders.

Cognitive and neuroimaging profiles of older adults with attention deficit/hyperactivity disorder presenting to a memory clinic. Callahan, B.L., Ramakrishnan, N., Shammi, P., Bierstone, D., Taylor, R., Ozzoude, M., Goubran, M., Stuss, D.T., Black, S.E. Journal of Attention Disorders.

Characterizing the ASD-ADHD phenotype: measurement structure and invariance in a clinical sample. Krakowski, A.D., Cost, K.T., Szatmari, P., Anagnostou, E., Crosbie, J., Schachar, R., Duku, E., Georgiades, S., Ayub, M., Kelley, E., Nicolson, R. Journal of Child Psychology and Psychiatry.

Mostly worse, occasionally better: impact of COVID-19 pandemic on the mental health of Canadian children and adolescents. Cost, K.T., Crosbie, J., Anagnostou, E., Birken, C.S., Charach, A., Monga, S., Kelley, E., Nicolson, R., Maguire, J.L., Burton, C.L., Schachar, R. European child & adolescent psychiatry.

Shared and Distinct Patterns of Functional Connectivity to Emotional Faces in Autism Spectrum Disorder and Attention -Deficit/Hyperactivity Disorder Children. Safar, K.,

Vandewouw, M.M., Pang, E.W., de Villa, K., Crosbie, J., Schachar, R., Iaboni, A., Georgiades, S., Nicolson, R., Kelley, E., Ayub, M. Frontiers in Psychology.

Psychometric properties and validation of the Parent Cognitive Error Questionnaire: A measure of parental attributions of child problems. Jiang, Y., Delucchi, K., Kaiser, N., Hinshaw, S., McBurnett, K., Pfiffner, L. Research on Child and Adolescent Psychopathology. Advance online publication.

In the Media

Screen time and sleep for youth with ADHD during COVID-19. Jiang, Y. Attention Magazine.

Important Dates

Funding

Mitacs Elevate Spring 2022 Application deadline: July 6, 2022 Find out more

Child-Bright Training Innovation Fund Application deadline: September 15, 2022 Find out more

Ontario Brain Institute: Open Call for Integrated Discovery Programs Application deadline: September 15, 2022 Find out more

Upcoming Events

Kids Brain Health Congress 2022 Kids Brain Health Network will be holding their 12th annual conference in partnership with the DOHaD World Congress.

Vancouver, BC, August 27-31, 2022 Register here

Family Engagement in Research Certificate Program

A 10-week course delivered online by CanChild and Kids Brain Health Network in partnership with McMaster Continuing Education. The course is designed for researchers (graduate students, research coordinators, investigators) and family members (parents, siblings, grandparents) who have an interest in child health research and family-researcher partnerships.

Fall 2022 Cohort, September 19 – November 27, 2022 Register here

Advertise ADHD Research Jobs & Volunteer Opportunities

Send your information to: stacey.espinet@caddra.ca

Information must be submitted by the first of each publication month (March, June, September, December).

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Student Achievements

Names of CADDRA members and their students' names are bolded.

Thesis

Matt Orr, Dalhousie University. A user-centered approach to the development of an elearning program for classroom teachers of students with disruptive classroom behaviour. Submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy. Supervisor: Dr. Penny Corkum

Degree Completion

Gwendolyn Adams-Sadiqi, Saint Paul University, Master of Arts, School of Counselling, Psychotherapy, and Spirituality. Supervisor: YuanYuan Jiang

Publications (from the past 3 months)

A cohort study examining the association between children's ADHD symptoms, internalizing symptoms, and mindful parenting during the Covid-19 pandemic. O'Rielly, H, Rogers, M., Ritchie, T., Ogg, J., Santuzi, A., Shelby, E. Pediatrics and Child Health.

The effects of ADHD symptomatology and academic enabling behaviours on undergraduate academic achievement. Dou, T., Oram, R., & Rogers, M. Psychology in the Schools.

Parental involvement in education and academic achievement in adolescents with Attention-Deficit/ Hyperactivity Disorder. Musabelliu, G., Wiener, J., & Rogers, M. Canadian Journal of School Psychology. Online First.

Mindfulness-Based Cognitive Therapy (MBCT) and ADHD Undergraduate Students: A Commentary on Randomized Controlled Trial Results. Wozniak J. Intersect: The Stanford Journal of Science, Technology, and Society.

Presentations

Canadian Psychological Association's 83rd Annual

National Convention Calgary, Alberta

June 17-19, 2022 Feasibility and Implementation of a Virtual Behavioural Support Intervention for Children with ADHD. Hai, T., Lemay, J.F., Gaber, J., Kowbel, A., Miller, C., Climie, E.A., Wilcox, G. Poster presentation.

Study Recruitment

Better Nights, Better Days (BNBD) A free, evidence-based eHealth program to support parents of children aged 4 to 12 years with neurodevelopmental disorders who experience sleeping problems. Read about the program Sign up to participate

York University: Secret Agent Society: Operation Regulation – Virtual Trial An invitation to a research study for families with children between 8-13 years of age with a neurodevelopmental disability. Read the flyer

SNAPPER Trial

A stratified randomised controlled trial to evaluate the clinical and cost-effectiveness of stimulant compared with non-stimulant medication for adults with ADHD and a history of psychosis or bipolar disorder.

To participate, contact rajesh.nair@cntw.nhs.uk

Need to Recruit Study Participants?

Advertise at no cost on the CADDRA website. Complete this form to submit your information. View CADDRA's current list of research studies.

CADDRA Welcomes a Summer Student



Priyanka Minhas Psychology Student University of Calgary

Priyanka's work at CADDRA this summer will be focused on translating ADHD research to support clinical work through literature searches and summaries, infographics, and papers.

Summer placement is funded by the Government of Canada's Canada Summer Jobs program.

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ADHD Research in the News

Updated estimates of ADHD Prevalence and Comorbidity

A recent US study of 11,878 children aged 9 to10 estimates the national prevalence of ADHD, as defined by multiple informants, at 3.5% for this age group. Of these cases, 70% had a comorbid psychiatric disorder. Nearly 1/3 had comorbid anxiety (27.4%) or behavioral disorder (30.9%), while 21% had a mood disorder. High genetic loading was associated with a 63% increased risk for ADHD. Story Article

Study finds potential mechanism for Dopamine removal at the synapse

This study finds that the dopamine transporter (DAT) relies on potassium for dopamine removal. This helps to clarify the molecular mechanism for dopamine removal from the synapse, paving the way for improved pharmaceutical development that modifies rather than blocks dopamine uptake. Story Article

Genetic risk for ADHD predicts poor health outcomes

The role of ADHD genetic liability (i.e., polygenic risk score) on somatic health conditions in mid-to-late life was examined in a general population sample (N = 10,645), untreated and undiagnosed for ADHD. Results suggest that polygenic risk for ADHD is moderately associated with somatic health problems in adulthood, particularly cardiometabolic outcomes (obesity, peripheral vascular disease, heart failure and cerebrovascular disease). These associations are partially mediated by life-course risk factors (i.e., education, BMI, tobacco use and alcohol misuse).

Autonomic arousal profiles may inform personalized intervention for ADHD Autonomic arousal profiles (i.e., heart rate variability) were examined in 106 children/ adolescents with autism, ADHD, autism/ADHD, and neurotypical controls examined during restingstate, a 'passive' auditory oddball task and an 'active' response conflict task. Compared to those without ADHD, those with ADHD showed hypoarousal during resting and passive states, whereas those with autism showed hyper-arousal during active state. Article

Topics of Discussion

Vegetable intake and ADHD

Fruit and vegetable intake is inversely associated with severity of inattention in a pediatric population with ADHD symptoms: the MADDY Study Story Article

Could Vitamin Supplementation Benefit Kids with ADHD?

A study compared 135 medication-free children who took either micronutrients (i.e. high dose of vitamins and minerals, along with some amino acids and antioxidants) for eight weeks and 55 kids who took a placebo. Children who received the micronutrients were three times as likely to see a significant reduction in ADHD symptoms compared to kids who took the placebo. Story Article

Did you attend CADDRA's recent Fireside Chat on June 14?

Bringing "Research" into your Clinical Practice: the why's, what's, how-to's, and all the rest?



Drs. Carlin Miller (L), Maggie Toplak (C) and Ainslie Gray (R) held a lively discussion on integrating research into clinical practice to support patient care.

For further reading on this important topic, this article is aimed at providing step-by-step guidance to support clinicians in creating a research database from the data they collect to guide their clinical work.

Clinicians who collect progress monitoring data from their clients to guide their clinical work are accruing valuable research data that can contribute to the research literature.

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Researcher Spotlight



Maggie Toplak, Ph.D., C.Psych. Associate Professor Department of Psychology York University

Core Member LaMarsh Centre for Child and Youth Research

CADDRA Research Committee Chair

Dr. Toplak describes her academic journey to her current research position.



She tells us about her new book titled Cognitive Sophistication and the Development of Judgment and Decision -Making

And she shares two key pieces of advice for students and trainees:

- 1. Never give up
- 2. Find something that makes you happy

2 Tell us about your academic background and current position.

MT I am an Associate Professor in the Department of Psychology at York University. I completed a PhD in School and Clinical Child Psychology at OISE/University of Toronto. I also completed training in teacher education at the Primary/Junior level. I am a registered psychologist with the College of Psychologists of Ontario, working with children, youth and families. I am also a member of the LaMarsh Centre for Child and Youth Research at York University.

 \mathcal{L} Tell us something unique or interesting about yourself.

M1 This might be the hardest question to answer! I used to be an amateur painter (paintings, not walls) and I love going to art galleries. I really began to appreciate great art when I had to draw an egg for an art class – do you know how hard it is to draw a good egg?

 \bigcirc Why did you choose your research area of focus?

MI The focus of my research is on judgment, decision-making and rational thinking, including their associations with individual differences in cognitive abilities and performance-based measures of executive function. My research has been informed by using participants across the lifespan (developmental and adult samples) and with special populations, including youth with ADHD, young offenders and pathological gamblers.

I have always been interested in study of reasoning and decision-making. Prior to my position at York University, my postdoctoral fellowship involved conducting research with adolescents diagnosed with ADHD. This unique group of youth are characterized as struggling with inattention, hyperactivity and impulsivity, but it has also been well-documented that they are susceptible to making poor life choices that result in negative life outcomes. I took away several important observations from this postdoctoral experience that have significantly shaped my research program. I realized that there was still considerable work to be done to operationalize several cognitive competences, such as time perception (the funded topic of my postdoc), executive functioning and decision-making in the field of ADHD. What I found particularly surprising was how much work was still needed to understand these constructs in community and non-clinical samples. I became sensitized to the difference between cognitive abilities related to the capacity and efficiency of information processing mechanisms versus performance based on less structured environments where the "right answer" or even how to approach solving the problem may be unclear. The former seemed to reflect competencies that are measured on intelligence and executive function tasks, but the latter seemed to be more characteristic of judgment and decision-making situations. It also became apparent that more work was needed to better understand judgment and decision-making in community samples of children and youth. Without having a reference point to findings based on community and/or non-clinical samples, this made it challenging to build a literature on decision-making in ADHD at that time. Time perception was the focus of my postdoctoral fellowship, but I was most compelled by my study of the lowa Gambling Task (IGT), a

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measure of decision-making, in my sample of adolescents with ADHD. To my knowledge, this was the first paper published on the study of a decision-making task in adolescents with ADHD and was well received in the field. So, this was the beginning of a now 20+ year program of research that continues!

 \bigcirc

Why are you at the institute you are at now?

I have been at York University for 18 years now. I feel very fortunate to have an academic position that allows me to pursue my research interests, share my research interests with students and to push the boundaries on the relevance of my research to issues in the real world.

Q

Tell us about a current project of interest - main objectives and outcomes.

Most recently, I have just completed a scholarly book on the development of judgment and decision -making that integrates a lot of the work I have been doing.

This book provides a survey of the literature to date on the development of judgment and decision-making, including findings from a 9-year longitudinal study I conducted with youth between the ages of 8 to 20 years of age.

What stage is the project at now and what do you hope to achieve with this project?

I am currently developing a prototype measure of judgment and decision-making for youth between the ages of 13 to 18 years of age. I currently have some data to analyze, which I can hardly wait to get to more intensely now that I have completed this book.



U

What excites you most about your research focus?

I am excited to think that developing new ways to assess competence, especially decision-making in youth. I think this is such an important domain of study in light of the challenges affecting all of our youth, including youth with special needs, such as individuals with ADHD. I am thinking a lot about how to integrate insights from my experimental research to benefit our youth, including considering how to support our youth in navigating and managing technology in their lives.

What advice would you like to share with students/trainees?

MT One of the things that often surprises trainees when I tell them is that I did not have my path figured

out at the outset. I really had no idea that I would become a professor of psychology at the beginning of my journey! I know that I had some very good fortune in there, timing and opportunity are important, but I do think there are some important qualities that help a great deal. While my exact goal may not have been apparent at the outset, I think the most important continuous characteristic that helped me the most was constantly believing that my efforts would pay off and never giving up, no matter what I was doing and even if I had encountered discouragement or setbacks. The second most important thing that I would highlight is the importance of finding something that will make you happy in your profession. I often tell students that getting a PhD is way too much work to not find a position that you love or really want to do! Everyone has their moments of doubt, but when you look at all of the aggregate data, the signal should indicate more good days than no-so-good days!



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