

30th Annual Sebastian K. Littmann Research Day

Friday, March 03rd, 2017 Village Park Inn

FOOTHILLS 1 / EDMONT ROOM

08:30 to 08:55		Foothills 1 - Registration	Snacks & Coffee / Poster Presenters Set-up Poster - Entering Via Foothills 2
08:55 to 09:00		Dr. Scott Patten: Welcome & Introductory Remarks	
Research Methodology Bootcamp (Foothills 1)	09:05 to 09:25	 Dr. Cynthia Beck – How to Find Evidence	
	09:25 to 09:45	 Dr. Thomas Raedler – How to Read a Clinical Trial	
	09:45 to 10:05	 Dr. Kirsten Fiest – Statistics 101	
	10:05 to 10:25	 Dr. Frank MacMaster – Reading a Brain Imaging Study	
10:25 to 10:30 Coffee Break – Entering Via Foothills 2 Poster Presenters: Please Ensure Your Posters are Ready by 10:25H			
Foothills 2 Poster	10:30 to 11:00	Presentations by: Kyle Judd, Daniel Devoe, Syl Corbett, Yun Lu, Q. McLellan, Grace Georgopoulos, Carley Paterson, Faisal Sheikh, Iliana Ortega, Raveen Virk, Sylvia Romanowska, Carmen Guenther, Sara Binder	
Parallel Sessions	11:00 to 11:20	Foothills 1: Moderator-Patten	Edgemont Room: Moderator- MacMaster
		Medical Assistance in Dying – Could Mental Illness be a Qualified Condition? Authors: <u>Trew, M, Madan</u>	Risk of depression among patients with acne: a population-based study. Authors: <u>Vallerand IA</u> , Lewinson RT, Parsons LM, Lowerison MW, Frolkis AD, Kaplan GG, Barnabe CC, Bulloch AGM, Patten SB
	11:20 to 11:40	Cognitive Behaviour Social Skills Training. Authors: <u>Donna Rutherford, Santana Cunningham, Cathy Reid</u>	The role of diet and gut microbiota in obsessive compulsive disorder in youth: Study design of a combined case-control and randomized control trial exploration. Author: <u>Emily Macphail</u> , Paul Arnold, Raylene Reimer
11:40 to 12:00	Changes in counselling outcomes, distress levels and employment status during an economic recession. Authors: <u>Sandy Berzins, Robbie Babins-Wagner, Kathleen Hyland, Dmytro Petlovanyi</u>	The Healthy Immigrant Effect on Major Depression in Canada Disappears with Age. Author: <u>Ruth Diaz</u>	
12:00 to 13:00 Lunch Foothills 1 / Poster Viewing - Entering Via Foothills 2			
Keynote Presentations (Foothills 1)	13:00 to 14:00	 Dr. Russell Schachar (U of Toronto): Cognitive Neuroscience of ADHD	
	14:00 to 15:00	 Dr. Wallace Smart (U of Lethbridge): ADHD in postsecondary students	
15:00 to 15:15 Poster Viewing / Coffee Break - Entering Via Foothills 2			
Parallel Sessions	15:15 to 15:35	Foothills 1: Moderator-Patten	Edgemont Room: Moderator-Bulloch
		Local Population-based Autism Study Author: <u>Cawthorpe, D.</u>	Returning to stimulants in children with treatment resistant ADHD. Authors: <u>Sterling Sparshy</u> , John D. McLennan
	15:35 to 15:55	Neuronal Hacking and Implications for Future Health Author: <u>Badri Rickhi (Bud)</u>	Prevalence of Mild Behavioral Impairment in Mild Cognitive Impairment and Subjective Cognitive Decline & its association with caregiver burden Authors: <u>F Sheikh</u> , Z Ismail, M Mortby, P Barber, A Cieslak, K Fischer, R Granger, D Hogan, A Mackie, C Maxwell, B Menon, P Mueller, D Patry, D Pearson, J Quickfall, T Sajobi, E Tse, M Wang, E Smith
15:55 to 16:15	Findings from the Second Evaluation of Client Experience at the Carewest Operational Stress Injury Clinic Author: <u>Novick, Jason</u>	On becoming trauma-informed: Validation and utility of the Adverse Childhood Experience Survey in tertiary child & adolescent mental health services. Authors: <u>Rahman A</u> , Kuntz J, Deegan A, Perry A, Cawthorpe D.	
1615H to 1620H Award Presentation & Closing (Foothills 1)			

FOOTHILLS II ROOM POSTER PRESENTATIONS

Youth At-Risk of Serious Mental Illness

Author(s): Kyle Judd, Catherine Marshall, Glenda MacQueen, Jian Li Wang, Signe Bray, Catherine Lebel, Jean Addington

Cognitive Behavioral Social Skills Training for Youth at Risk of Psychosis

Author(s): Daniel Devoe, Monika Allen, Catherine E. Marshall, Laina B. McAusland, Jean M. Addington

Aerobic Exercise Intervention for Youth At-Risk of Serious Mental Illness

Author(s): Syl Corbett, Glenda MacQueen, Jian Li Wang, Signe Bray, Catherine Lebel, Jean Addington

Perceptual abnormalities in clinical high risk and the role of trauma, cannabis use and anxiety

Author(s): Yun Lu, Catherine Marshall, Kristin S. Cadenhead, Tyrone D. Cannon, Barbara A. Cornblatt, Thomas H. McGlashan, Diana O. Perkins, Larry J. Seidman, Ming T. Tsuang, Elaine F. Walker, Scott W. Woods, Carrie E. Bearden, Daniel Mathalon, Jean Addington

Cortical Thickness and Treatment Response to Repetitive Transcranial Magnetic Stimulation in Youth with Treatment Resistant Major Depressive Disorder

Author(s): McLellan Q, Kirton A, Wilkes TC, Schwartz KD, Ma K, Jaworska N, Langevin LM, Swansburg R, Zewdie E, Ciechanski P, Damji O, MacMaster FP.

The Role of Genetic Risk in the Later Development of Psychosis

Author(s): Grace N. Georgopoulos¹, Jacqueline R. Stowkowy¹, Kristin S. Cadenhead², Tyrone D. Cannon³, Barbara A. Cornblatt⁴, Thomas A. McGlashan³, Diana O. Perkins⁵, Larry J. Seidman⁶, Ming T. Tsuang², Elaine F. Walker⁷, Scott W. Woods³, Carrie E. Bearden⁸, Daniel H. Mathalon⁹, Jean M. Addington¹.

Thematic Analysis of Individuals' Experiences with Food and Eating Addiction

Author(s): Carley Paterson & Dr. Kristin von Ranson

Descriptive analysis of the Reality Challenged Clinic: A Program Evaluation

Author(s): Ortega I, Wilkes C, Stewart R.

The Effect of Repetitive Transcranial Magnetic Stimulation on Cerebral Blood Flow

**FOOTHILLS II ROOM
POSTER PRESENTATIONS**

in Youth with Treatment Resistant Depression

Author(s): Raveen Virk, Yamile Carranza, Elodie Boudes, Kristina Lynberg, Adam Kirton, R. Marc Lebel, Rose M. Swansburg, Frank P. MacMaster

Pilot study of cognitive remediation for youth at risk of serious mental illness

Author(s): Danijela Piskulic, Sylvia Romanowska, and Jean Addington

Evaluation of a CBT-based skills group for adults with attention deficit hyperactivity disorder

Author(s): Sara Binder, Carmen Guenther

Prevalence of Mild Behavioral Impairment in Mild Cognitive Impairment and Subjective Cognitive Decline, and its association with caregiver burden

Author(s): Faisal Sheikh^a, Zahinoor Ismail^{a,b,d}, Moyra E. Mortby^{e,f}, Philip Barber^c, Alicja Cieslak^c, , Karyn Fischer^d, Robert Granger^a, David B. Hogan^{d,g}, Aaron Mackie^a, Colleen J Maxwell^{h,i}, Bijoy Menon^c, Patricia Mueller^d, David Patry^c, Dawn Pearson^c, Jeremy Quickfall^a, Tolulope Sajobi^d, Eric Tse^d, Meng Wang^d and Eric E Smith^{c,d}

Revised: 2017-03-10

TIME	FOOTHILLS I ROOM - ORAL PRESENTATIONS
09:05 – 09:25	<p>Title: How to Find Evidence Authors: <u>Cindy Beck</u>, <u>Heather Ganshorn</u></p> <p>In both research and clinical care, we are often faced with needing to search for evidence. In this talk, we will discuss how to formulate a searchable question and choose a relevant type of evidence (eg. synthesis versus primary study). Sources of evidence available through the University of Calgary, and how to access them, will be reviewed. Examples of how to construct searches for these databases will be given. In addition, Alberta Health Services has some knowledge resources that we will touch on.</p>
09:25 – 09:45	<p>Title: How to Read a Clinical Trial Authors: Thomas Raedler</p>
09:45 – 10:05	<p>Title: Statistics 101 Authors: <u>Kirsten Fiest</u></p> <p>This talk gives a brief and introductory overview of statistics commonly employed in health research. Topics to be covered include distributions, measures of central tendency & measures of variability; random error & precision; classical & non-</p>

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	<p>parametric tests of hypotheses; and regression analyses. Commonly used tests of hypotheses (e.g., t-tests, X^2, rank-sum test) will be described, along with when to use them. Time will be dedicated to interpreting both statistical output and results presented in scholarly articles. Following this talk, learners should be able to: (1) understand common statistical tests; (2) know when to use which statistical test; and (3) evaluate statistics presented in the academic literature.</p>
<p>10:05 – 10:25</p>	<p>Title: How to Read a Brain Imaging Study Authors: <u>Frank P. MacMaster</u></p> <p>The number of research studies using brain imaging to improve our understanding of addictions and mental health is increasing. These include magnetic resonance imaging (MRI), functional MRI, magnetic resonance spectroscopy (MRS), diffusion tensor imaging (DTI), and positron emission tomography (PET). Each of these technologies offers both insights and pitfalls. Critically appraising the brain imaging literature can be a difficult task. In this presentation, we will discuss how to best utilize the brain imaging literature.</p>
<p>10:25 – 10:30</p>	<p style="text-align: center;">Coffee Break – Foothills 2 Poster Presenters, Please Ensure Your Posters are Ready by 1025H in Foothills 2</p>
<p>10:30 – 11:00</p>	<p style="text-align: center;">Poster Presentations - Foothills 2 - Coffee Available Presentations by: Kyle Judd, Daniel Devoe, Syl Corbett, Yun Lu, Q. McLellan, Grace Georgopoulos, Carley Paterson, Faisal Sheikh, Iliana Ortega, Raveen Virk, Sylvia Romanowska, Carmen Guenther, Sara Binder</p>
<p>11:00 – 11:20</p>	<p>Title: Medical Assistance in Dying – could Mental Illness be a Qualified Condition? Authors: <u>Trew, M., Madan, S.</u></p> <p>Medical Assistance in Dying (MAID) is now legal in Canada since early 2016. The current law requires that death is “reasonably foreseeable” as a natural consequence of the condition in question, thus ruling out Mental Health diagnoses as the primary disabling condition. Parliament has required that a report regarding Mental Illness as an acceptable condition be tabled by December 2018.</p> <p>The goal of this presentation is to review the current legal framework and invite discussion of whether there may be a place for MAID for psychiatric conditions. If there is a place for MAID, how could we imagine protection for those vulnerable to more transient conditions?</p> <p>Case vignettes will be presented to facilitate the discussion.</p>
<p>11:20 – 11:40</p>	<p>Title: Cognitive Behaviour Social Skills Training Authors: <u>Donna Rutherford, Santana Cunnington, Cathy Reid</u></p> <p>Background: Cognitive Behaviour Social Skills Training (CBSST) is an evidence-based intervention that combines cognitive behavioural therapy and social skills training with the goal of assisting individuals with serious mental illness to achieve meaningful goals. Its implementation in Calgary Zone Addiction and Mental Health Services began in 2012 and by 2013 CBSST groups were being operated in eight services. Evaluation was undertaken to examine the benefits of CBSST in our services, provide evidence in support of its continued implementation, and capture services’ learning as they applied CBSST with their client populations. Methods: Evaluation methods included outcome</p>

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	<p>measures of social functioning and personal recovery, client feedback questionnaires, clinician questionnaires regarding CBSST's impact, extraction of healthcare utilization data, and focus groups with CBSST facilitators. Results: Pre-post analysis ($n=68$) showed statistically significant improvement on the Social Functioning Scale and the Recovery Assessment Scale. The most substantial effect sizes were found in hope, goal orientation, decreasing isolation, and improved relationships. Client feedback indicated that 81% of clients felt they were dealing more effectively with their problems, 76% felt they were dealing more effectively with friends/family, 77% felt better able to deal with crises, and 67% felt better able to deal with social situations. Clinicians reported that while attending CBSST, 33% of clients required fewer individual sessions and 58% required fewer calls for crisis support. Although sample sizes and study design do not allow for firm conclusions to be drawn, comparing use of urgent, emergency and acute care services one year pre- and one year post-CBSST, suggested that, on average, service use by clients who did not complete CBSST stayed the same while it decreased for those who completed CBSST. Conclusions: These findings provide strong evidence of the effectiveness of CBSST in the Alberta Health Services Calgary Zone setting.</p>
11:40– 12:00	<p>Title: Changes in counselling outcomes, distress levels and employment status during an economic recession Authors: <u>Sandy Berzins</u>, Robbie Babins-Wagner, Kathleen Hyland, Dmytro Petlovannyi Background: The Calgary unemployment rate increased significantly from 4.6% in Dec 2014 to 10.1% in Dec 2016 (Stats Canada, 2017). Correspondingly, Calgary Counselling Centre (CCC) had an increased demand for services during this time. CCC uses routine outcome measurement (ROM) so all clients complete the Outcome Questionnaire (OQ-45) (Lambert et al., 2004) to measure their level of distress at each counselling session. Demographic information such as marital status, gender, education level, income as well as length of problem is collected at intake. Results are stored in our comprehensive administrative database, which allows CCC to study relationships between client characteristics and treatment outcomes. The aim of this study was to examine the relationship between employment status and counselling outcomes over the past 3 years. Methods: Mean level of distress at the first session as well as improvement over the course of therapy were calculated for clients employed full time, unemployed-not looking for work, and unemployed-looking for work. As well, frequency distributions of demographic characteristics were broken down by year. Differences were assessed using chi square and paired t-tests. Results: 14,280 CCC cases closed between January 2014 and December 2016 and had OQ scores for both the first and last sessions. From Jan 2014-December 2016, client levels of distress steadily increased. In 2014, 11.4% of our clients were unemployed and looking for work, while 53.3% were employed full-time; the mean level of distress at first session was 71.9 (clinical cutoff=63). In 2016, 16.0% of clients were unemployed and looking for work, and 41.4% were employed full-time. Average level of distress significantly increased to 75.1 ($p<.05$). Distress levels were highest for clients reporting they were unemployed and not looking for work. Conclusions: The distribution of employment status changed since the beginning of the recession, with fewer clients reporting they were employed full-time and a higher proportion of clients reporting unemployment. A relationship between employment status and level of distress was observed. On average, unemployed clients reported higher distress levels and lower levels of improvement. This is an example of how</p>

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	routine outcome measurement can be used at an agency/community level to illustrate the effect of economic factors on mental health status in the general population as well as on community mental health service utilization.
12:00– 13:00	Poster Viewing - Foothills 2 Room Lunch Break - Edgemont Room
13:00 – 14:00	<p>Title: Cognitive Neuroscience of ADHD Authors: <u>Schachar, R.</u> Attention deficit hyperactivity disorder (ADHD) is a common, persistent and impairing childhood-onset neurodevelopmental disorder. ADHD is characterized by a wide range of deficits in executive function resulting in impaired goal-directed behavior. The understanding of these executive functions could accelerate our understanding of the genetic and physiological mechanisms of ADHD. However, to succeed in this endeavor we must change the way we understand and study cognition in psychopathology. This argument will be supported by the results of a programme of research into the rapidly unfolding and interacting cognitive processes involved in performance of a simple laboratory task-the stop signal task-which assesses response inhibition. After describing the task and the race model of inhibitory control, the clinical research into inhibition and ADHD will be reviewed including our most recent studies of the genetics of response inhibition. More importantly, the role of preparation, error detection and post-error adjustment in the context of the stop-signal task will be explained and used to radically reinterpret the nature of the cognitive deficit in ADHD. This body of research carries implications for the study of ADHD, executive function and other neuropsychiatric disorders.</p>
14:00 – 15:00	<p>Title: Attention-deficit/hyperactivity disorder in postsecondary students Authors: <u>Smart, W.D.</u> A PubMed review was conducted for papers reporting on attention-deficit/hyperactivity disorder (ADHD) in postsecondary students. The review was performed in order to determine the prevalence and symptomatology of ADHD in postsecondary students, to examine its effects on academic achievement, and discuss appropriate management. The prevalence of ADHD symptoms among postsecondary students ranges from 2% to 12%. Students with ADHD have lower grade point averages and are more likely to withdraw from courses, to indulge in risky behaviors, and to have other psychiatric comorbidities than their non-ADHD peers. Ensuring that students with ADHD receive appropriate support requires documented evidence of impairment to academic and day-to-day functioning. In adults with ADHD, stimulants improve concentration and attention, although improved academic productivity remains to be demonstrated. ADHD negatively impacts academic performance in students and increases the likelihood of drug and alcohol problems. Affected students may therefore benefit from disability support services, academic accommodations, and pharmacological treatment.</p>
15:00 – 15:15	Poster Viewing - Foothills 2 - Coffee Available
15:15 – 15:35	Title: Local Population-based Autism Study.

TIME	FOOTHILLS I ROOM - ORAL PRESENTATIONS
	<p>Authors: <u>Cawthorpe, D.</u></p> <p>Context: Few published studies of autism spectrum disorder (ASD) and comorbidity are population based. Objective: To describe the comorbidity of ASD and disorders listed in the main classes of the International Classification of Diseases, Ninth Revision (ICD-9) in a general population. To provide a summary of the population-study to date. Design: Direct physician billing data for the city of Calgary, Alberta, for the treatment of any presenting concern in the Calgary Health Zone (n = 763,449) from 1994 to 2009 were extracted. Diagnosed ICD-9 disorders (independent variable) were grouped into 17 categories using ICD-9 diagnosis codes. ASD (dependent variable) was classified under ICD-9 Code 299. Individuals with and without independent disorder classes were counted by the presence or absence of any ASD. Odds ratios (ORs) and 95% confidence intervals of the association were calculated. Main Outcome Measures: ORs of ASD comorbidities. Results: Annual rates of ASD increased 3.9-fold for males and 1.4-fold for females. Diagnosed disorders ranked by OR in the independent ICD-9 categories indicated that males with ASD had overall higher ORs (> 1.0) in 11 main ICD-9 classes, and females with ASD had higher ORs (> 1.0) in 12 main ICD-9 classes. Males with ASD had lower ORs in 4 main ICD-9 disease classes; females with ASD had lower ORs related only to the main class “complications of pregnancy and childbirth.” Five main ICD-9 classes were not significant for males or females. Conclusions: Patients with ASD have significant comorbidity of physical disorders. This finding may inform other areas of research and assessment in clinical management. Other examples of the population impact are illustrated.</p>

TIME	FOOTHILLS I ROOM - ORAL PRESENTATIONS
15:35 - 15:55	<p>Title: Neuronal Hacking and Implications for Future Health</p> <p>Authors: <u>Rickhi, B.(Bud)</u></p> <p>“Electroceutical” is a rapidly evolving field. NIH has already committed \$248 million to this area to be dispensed over the next seven years. Private funding has already invested close to five billion dollars. “Signals travel along neural networks in different temporal patterns, like a drumbeat or morse code. These patterns dictate chemical and biological changes throughout the body,” (Waltz). Researchers are attempting to hack into this complex nervous system and restore or correct communication. For example, stimulation of the vagus nerve seems to enhance production of inhibitory neurotransmitters such as serotonin, acetylcholine, norepinephrine and GABA, helping bring them back to normal levels (Errico). A presentation of the pros and cons, as well as the successes and failures to date will be discussed.</p>
15:55 – 16:15	<p>Title: Findings from the Second Evaluation of Client Experience at the Carewest Operational Stress Injury Clinic</p> <p>Authors: <u>Novick, Jason</u></p> <p>Objective: To investigate variations in client perception of care at the Carewest Operational Stress Injury Clinic across time and in accordance with demographic characteristics, treatment progression, and perceived pressure to seek treatment.</p> <p>Methods: We draw on two datasets to examine client perception of care using the Ontario Perception of Care Tool for Mental Health and Addictions (OPOC-MHA). The datasets comprise patients who obtained treatment services from March – April 2016 (<i>n</i> = 133) and October – December 2016 (<i>n</i> = 142). Clients were asked to fill out the OPOC-MHA once during each data collection window. For our analysis, we compare client perception of care between these two samples and examine predictors of client perception of care among clients who participated in the second round of data collection.</p> <p>Results: This investigation reveals the sustained favourable client perception of care at the Carewest OSI Clinic. LGBT and non-Caucasian clients expressed an augmented perception of the overall quality of care compared to heterosexual and Caucasian clients. Furthermore, optimal client perception of care might be inhibited for clients who are younger, in the earlier stages of treatment, and who felt pressured to seek treatment.</p> <p>Conclusion: The current study provides guidance for the provision of resources aimed at optimizing client perception of care. Accordingly, continued emphasis on beneficial aspects and potential modifications to the accessibility and delivery of services will enable client recovery outcomes to be enhanced over the long-term across the Canadian network of OSI clinics.</p>
16:15 – 16:20	<p>Awards & Closing Comments - Foothills I Room</p>

Revised: 2017-03-10

TIME	EDGEMONT ROOM - ORAL PRESENTATIONS
11:00 – 11:20	<p>Title: Risk of depression among patients with acne: a population-based study</p> <p>Authors: Vallerand IA; Lewinson RT; Parsons LM; Lowerison MW; Frolkis AD; Kaplan GG; Barnabe CC; Bulloch AGM; Patten SB.</p> <p>Background: Acne contributes to stress related to physical appearance, and many reports have suggested high rates of depressive symptoms among acne patients. Despite this, the population-level risk of physician- diagnosed major depressive disorder (MDD) among patients with acne is not known. As such, our objective was to determine if patients with acne are at an increased risk of developing MDD compared to the general population without acne. Methods: We conducted a population-based retrospective cohort study from 1986 to 2012 with up to 26 years of follow-up using The Health Improvement Network (THIN), a primary care medical records database representative of the United Kingdom’s population. Individuals with incident acne were identified in THIN. Only those aged 7-50 at baseline and without history of MDD were included, yielding a cohort of 134,437 patients with acne. A general population reference cohort comprising 1,731,608 patients in the same age range was identified by including only patients without any medical codes related to acne. Baseline covariates identified at the start of the study period included age, sex, medical comorbidities, socioeconomic status, smoking status, alcohol use and obesity. Patients were followed up until the earliest of either the development of MDD, death, transfer out of the practice or the end of the collection period. Crude and adjusted Cox proportional hazards models were used to determine the risk of developing MDD among patients with acne. Results: Overall, patients with acne were more likely to be younger, female, higher socioeconomic status, and never smokers, and less likely to use alcohol, have comorbid disease or be obese (all p-values < 0.0001). Cox proportional hazards models revealed that patients with acne were at a significantly (p<0.0001) increased risk of developing MDD compared to the referent cohort, an association that remained significant after adjusting for all covariates (HR=1.41, 95%CI: 1.35-1.47). Exclusion of patients using isotretinoin did not change these results. Conclusion: Acne significantly increases the risk of developing MDD compared to the general population. Dermatologists and primary care physicians involved in managing acne should be astute to symptoms of MDD and able to initiate referral to mental health services when warranted</p>
11:20 – 11:40	<p>Title: The role of diet and gut microbiota in obsessive compulsive disorder in youth: Study design of a combined case-control and randomized control trial exploration.</p> <p>Authors: Emily Macphail, Paul Arnold, Raylene Reimer</p> <p>Background: Obsessive compulsive disorder often has its onset in youth; however, without effective treatment, it can result in years of struggle and disabling symptoms. Youth (particularly females) are more likely to have zinc deficiency risk factors, and are also in a life stage where deficiency of zinc has greater potential to be problematic, given its importance in development. Zinc supplementation has been linked to improved mental health, and neural zinc levels have implications for neuroplasticity. Neuroplasticity affects cognitive flexibility, which can be impaired in OCD. Zinc deficiency has also been shown to alter the gut microbiota in animal models and there is evidence for connections between gut microbiota and the state of an individual’s mental health. Objectives: This project will investigate, in youth with OCD, associations between zinc intake/status, cognitive flexibility, anxiety/depression/OCD symptoms,</p>

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	<p>and the gut microbiota. It will also explore the differences in these factors between youth with OCD and healthy controls, and will assess the effects of prebiotic supplementation in youth with OCD, with respect to symptoms and gut microbial diversity. Methods: Youth (ages 12-17) with OCD (40) and healthy controls (20) will be recruited in Calgary via clinics and public advertising. All youth will complete measures of dietary intake (three-day food record); zinc status (via blood and hair samples); cognitive flexibility (Berg's Card-Sorting Test and Trail Making Tests A&B); and anxiety, depression, and OCD symptoms (GAD-7, PHQ-9, RCADS, OCI-CV, and CY-BOCS). They will also provide a stool sample for gut microbiota analysis. Healthy control participants will only do measures at a single time point. Youth with OCD will be randomized to receive either prebiotic fibre or a placebo for eight weeks, completing measures again at four and eight weeks of supplementation. Measures of youth with OCD at baseline will be compared to the measures at four weeks and eight weeks of supplementation, and to healthy controls' measures. Significance: The impact of nutritional status on mental health is underexplored, and no literature to date combines analysis of zinc, cognitive flexibility, and gut microbiota, particularly in OCD. This research has the potential to aid development of nutrition-based adjunct therapies for OCD in youth, which, compared to traditional pharmaceuticals and CBT, may be more acceptable to patients and improve accessibility and economically sustainability of long-term treatment.</p>
11:40 – 12:00	<p>Title: The Healthy Immigrant Effect on Major Depression in Canada Disappears with Age Authors: <u>Diaz, R.L.</u>, Bulloch, A.G.M., Sajobi, T.T., Bejoy, T. D., Williams, J.V.A., Lavorato, D.H., Patten, S. B.</p> <p>Background: Evidence that immigrants have lower prevalence of depression than non-immigrants (i.e. the healthy immigrant effect (HIE)) is inconclusive. This study aimed to explore the existence of the HIE on past-year major depressive episode (MDE) in Canada. Methods: Data were from 10 surveys representative of the Canadian household population collected by Statistics Canada between 1996 and 2014. Survey-specific log odd ratios were calculated using logistic regression. Then, these estimates were pooled using random effects meta-analysis and meta-regression. Results: Evidence of the HIE was found; however, another effect was also observed: a j-shaped pattern in relation to age, suggesting that the HIE on MDE disappears with age. This was observed overall and within strata defined by sex, country of birth, and three out of four categories of time since immigration. Compared to Canadian-born, older immigrants seem to have similar or higher odds of MDE regardless of sex, country of birth, or time since immigration. Conclusions: The existence of a HIE may lead to an erroneous interpretation that all immigrants are at lower risk of MDE, but this was not confirmed by this study. Results similar to the ones found in this study have been reported in the US. These results support the importance of programs and strategies to improve the mental health of older immigrants. Future research is needed to determine why older immigrants may be at higher risk of MDE.</p>
12:00– 13:00	<p style="text-align: center;">Poster Viewing - Foothills 2 Room Lunch Break - Edgemont Room</p>

TIME	EDGEMONT ROOM - ORAL PRESENTATIONS
15:00 – 15:15	Poster Viewing - Foothills 2 Room
15:15 – 15:35	<p>Title: Returning to stimulants in children with treatment resistant ADHD Authors: Sterling Sparshu, John D. McLennan Background: There is limited evidence-based guidance to inform medication approaches for children with attention-deficit/hyperactivity disorder (ADHD) who have had initial poor responses to stimulants. In addition to using approved non-stimulant ADHD medications, retrying stimulants may be considered. However, there has been little reported investigation of this strategy. This study examined retrying stimulants in a case series of children to determine: (i) clinical reasoning for (a) discontinuing initial stimulant use, (b) discontinuing subsequent non-stimulant medication, (c) retrying stimulants, and (ii) final clinical outcomes. Methods: Clinical details were extracted from health records of children who received treatment in an ADHD medication service in Canada between September 2015 and June 2016. Inclusion criteria included that the child (i) was medication naïve at the time of entry into the service, (ii) had had trials of at least one stimulant from each stimulant class, (iii) had subsequently received a non-stimulant ADHD medication, and (iv) was retried on stimulants. Results: Of children treated within the study time period, seven met the inclusion criteria. Parental consent was given to extract health records information for six of these children. Initial stimulant discontinuation was typically a function of adverse effects and/or limited symptom improvement. Minimal response and/or adverse effects to non-stimulants contributed to the decision to retry stimulants. Final ADHD symptom ratings by parents and teachers were significantly better than baseline for this cohort. Three children were discharged on stimulants, two as monotherapy. Conclusion: There may be a role for retrying stimulants in children with ADHD who had an initial unacceptable or inadequate response to stimulants. A larger more systematic study is required to determine the extent of response to stimulants for those with a history of an inadequate stimulant response in order to developed evidence-based treatment algorithms for supposed treatment resistant ADHD.</p>
15:35 – 15:55	<p>Title: Prevalence of Mild Behavioral Impairment in Mild Cognitive Impairment and Subjective Cognitive Decline, and its association with caregiver burden Authors: Faisal Sheikh^a, Zahinoor Ismail^{a,b,d}, Moyra E. Mortby^{e,f}, Philip Barber^c, Alicja Cieslak^c, , Karyn Fischer^d, Robert Granger^a, David B. Hogan^{d,g}, Aaron Mackie^a, Colleen J Maxwell^{h,i}, Bijoy Menon^c, Patricia Mueller^d, David Patry^c, Dawn Pearson^c, Jeremy Quickfall^a, Tolulope Sajobi^d, Eric Tse^d, Meng Wang^d and Eric E Smith^{c,d}</p> <p>Background: Mild Behavioural Impairment (MBI) has been defined as later-life acquired, sustained neuropsychiatric symptoms (NPS) in cognitively normal individuals or those with Mild Cognitive Impairment (MCI), and has been hypothesized to identify individuals at increased risk for cognitive decline. We developed an operational definition of MBI and tested whether the presence of MBI was related to caregiver burden in patients with subjective cognitive decline (SCD) or MCI assessed at a memory clinic. Methods: MBI was assessed in 282 consecutive memory clinic patients between January 2010 until September 2015 with SCD (n=119) or MCI (n=163) in accordance with the ISTAART-AA research diagnostic criteria. We operationalized a definition of MBI using the Neuropsychiatric Inventory Questionnaire (NPI-Q). Caregiver burden was assessed using the Zarit caregiver burden scale. Generalized linear regression with a negative binomial distribution was used to model the effect of MBI domains on caregiver burden. Results: While MBI was numerically more prevalent in MCI (85.3%)</p>

TIME	EDGEMONT ROOM - ORAL PRESENTATIONS
	<p>than in SCD (76.5%), this difference did not meet the threshold for statistical significance ($p=0.06$). Overall prevalence of the various MBI domains were: <i>affective dysregulation</i> (77.8%); <i>impulse control</i> (64.4%); <i>decreased motivation</i> (51.7%); <i>social inappropriateness</i> (27.8%); and <i>abnormal perception or thought content</i> (8.7%). <i>Affective dysregulation</i> and <i>decreased motivation</i> were more prevalent in MCI than SCD patients ($p=0.033$ and 0.006, respectively). Caregiver burden was 3.35 times higher when MBI was present after controlling for age, education, sex and MCI ($p<0.0001$).</p> <p>Conclusions: MBI was common in non-demented memory clinic patients and was strongly associated with caregiver burden. These data show that MBI is a common and clinically relevant syndrome.</p>
15:55 – 16:15	<p>Title: On becoming trauma-informed: Validation and utility of the Adverse Childhood Experience Survey in tertiary child and adolescent mental health services.</p> <p>Authors: <u>Rahman, A., Kuntz, J., Deegan, A., Perry, A., Cawthorpe, D.</u></p> <p>Introduction: Following participation in the Alberta Family Wellness Initiative Accelerating Innovation Symposium (albertafamilywellness.org), the Adverse Childhood Experience survey was implemented the Child and Adolescent Mental Health and Addictions and Psychiatry Program (CAAMHPP). Methods: ACE surveys numbering 2398 (59% female) were collected between November 2015 and November 2016. These data were described and linked with clinical profile data by present registrations related to completion of the ACE survey for a particular child and also past registrations. Clinical profile data included Western Canada Waitlist Children’s Mental Health Priority Criteria Score (WCWL-CMH-PCS) form items, provisional diagnoses and demographics, sex, age and family composition. Results: Females had significantly greater ACE survey scores and scored significantly higher on particular ACE survey items (1,2,3,4,5 & 9). Multivariable regression analysis produced a reduced model of independent clinical provisional diagnoses: conduct, oppositional, substance, adjustment disorders, ADHD and other disorders, number of comorbid diagnoses, and WCWL-CMH-PCS items: family function, family history of psychiatric illness, comorbid psychiatric conditions, Child Global Assessment of Function Score, and demographics: sex, family composition, and age. These variables predicted 44% of the variance in the present registrations’ ACE scores (dependent variable) and 38% of the ACE survey scores linked to all survey’s present and past. Conclusions: CAAMHPP has successfully implemented the ACE study survey become a trauma-informed health service system. Clearly, a child presenting with ADHD or Anxiety and high ACE score requires treatment that is different from a child presenting with the same disorder and an ACE score of zero.</p>
16:15 – 16:20	Awards & Closing Comments - Foothills 1 Room

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