



BC MENTAL HEALTH & SUBSTANCE USE SERVICES

Provincial Health Services Authority



BCMHSUS RESEARCH DAYS

November 23 - 27, 2020

12:00 PM to 12:45 PM

Join us on [Zoom](#) to celebrate research excellence at
BC Mental Health and Substance Use Services.



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MONDAY – NOVEMBER 23, 2020

Welcome Message

Lynn Pelletier, MHSc, is the Vice President, BC Mental Health and Substance Use Services at the Provincial Health Services Authority. She has oversight and executive responsibility for forensic psychiatric services, adult specialized mental health and substance use services, correctional health services and provincial contracted programs delivered by PHSA. Lynn is also the executive lead for the BC Mental Health and Substance Use Research Institute and is working in collaboration with the Executive Director, BCMHSURI to oversee the development and implementation of a research strategy. Lynn has several years' experience as a senior executive and consultant working across the health care system and post-secondary sector. Prior to her current role, Lynn held progressively responsible senior leadership positions at Vancouver Coastal Health Authority, Simon Fraser University and Women's College Hospital. She has a graduate degree in Health Administration from the University of Toronto and undergraduate degrees from University of Waterloo and Queens University.



BC Psychosis Program Research

William Honer, MD, FRCPC, FCAHS, is a Professor in the Department of Psychiatry at UBC, Jack Bell Chair in Schizophrenia, and have worked almost 30 years in the BC Psychosis Program. His talk involves the review of a clinical vignette from the BC Psychosis Program; describes changes that occurs with a “plasticity” mechanism; evaluate the effects of aerobic exercise on plasticity in treatment resistant psychosis; and briefly review other on-going BC Psychosis Program research.





TUESDAY – NOVEMBER 24, 2020

Introduction to the BCMHSUS Research Institute & Translating genetics research into better outcomes for people with psychiatric disorders

Jehannine Austin, PhD FCAHS CGC, is Executive director of the BC Mental Health and Substance Use Services Research Institute, and is a Professor in Psychiatry & Medical Genetics at the University of British Columbia, where she holds the Canada Research Chair in Translational Psychiatric Genomics. Her research work involves studying the impact of genetic counseling for people with psychiatric disorders and their families. She founded the world's first specialist psychiatric genetic counseling service that has won an award for its impact on patient outcomes, and in addition to peer-reviewed publications, has written a book, and won awards for teaching, leadership, and research. She is a member of the College of the Royal Society of Canada, and a Fellow of the Canadian Academy of Health Sciences.



Translating psychopharmacology research for clinical practice

Ric Procyshyn, BSc (Pharm.), MSc, PharmD, PhD, is a Clinical Professor in the Department of Psychiatry, UBC. He also holds the position of clinical research psychopharmacologist at the BC Mental Health and Addictions Research Institute and acts as a consultant for the BC Psychosis Program. Along with his Doctor of Pharmacy degree, Ric possesses a Ph.D. in Medicinal Chemistry. Ric has authored over 150 articles in peer-reviewed journals; is the principal editor of the Clinical Handbook of Psychotropic Drugs; and is the co-developer of the SWITCHRX website. Dr. Procyshyn enjoys teaching and has been awarded several teaching awards from the Faculty of Pharmaceutical Sciences, University of British Columbia.





WEDNESDAY – NOVEMBER 25, 2020

Clinical research at BCMHA: Where the rubber hits the road

Christian G. Schütz, MD, PhD, FRCPC, is Associate Professor at the Institute of Mental Health, UBC and a practicing addiction psychiatrist with the Burnaby Centre for Mental Health and Addiction. Trained in Medicine (MD), Chinese Studies (PhD), and Public Health (MPH) he further completed a Fogarty-Fellowship at NIDA/NIH and a DISCA-Fellowship at Yale University. He has published more than 120 peer reviewed articles and a dozen book chapters. His research is focused on addiction and concurrent disorders, as well as impulsivity and cognitive control.



Neurological complications in homeless and marginally housed populations

William Panenka, MD, FRCPC, is a dually certified psychiatrist and neurologist and Assistant Professor in the Department of Psychiatry at UBC. He is the Research Lead of the BC Provincial Neuropsychiatry program and a Researcher with the BCMHSUS and the Djavad Mowafaghian Centre for Brain Health. He is the Medical Lead at the Neuropsychiatry Concussion Clinic and Neurology Consultant to the Fraser health concussion clinic. His clinical focus is on treating complex neuropsychiatric illness while his research program focuses on mental health, addictions, and traumatic brain injury in multiple populations.





THURSDAY – NOVEMBER 26, 2020

Mind reading with brain imaging? An fMRI solution to the reverse-inference problem

Todd Woodward, PhD, is a Professor at the Department of Psychiatry at UBC, Research Scientist at BCMHSUS RI, Director of the UBC Cognitive Neuroscience of Schizophrenia Laboratory (CNoS), and Principal Investigator of the UBC Brain Dynamics Laboratory. He has been instrumental in identification of the task-based brain networks, and development of a novel treatment for delusions in schizophrenia through group-facilitated experiences of everyday thinking biases. He has published over 160 peer-reviewed manuscripts.



Mini talks/trainee series (*abstracts on pages 8-10)

- 1. Profile of fentanyl users among individuals with severe concurrent disorders** – Jennifer Multani, Undergraduate Student
Supervisor: Dr. Christian Schütz, BCMHA
- 2. Subjective cognitive functioning in treatment resistant schizophrenia** – Daniah Zumrawi, Summer Student
Supervisor: Dr. Ivan Torres, BCPP
- 3. Opioid assisted treatment in an integrated inpatient treatment program for severe concurrent disorders** – Javeria Irfan, PharmD Student
Supervisor: Reza Rafizadeh, BCMHA
- 4. Exploring staff supported community outings (SSCOs) in a forensic psychiatric sample** – Karen Petersen, PhD
Supervisor: Dr. Tonia Nicholls, FPH
- 5. An examination of white matter imaging in chronic schizophrenia: Comparing DTI and Myelin Water Imaging** – Peter Senften, MSc Candidate
Supervisor: Dr. Donna Lang, BCMHSUS



FRIDAY – NOVEMBER 27, 2020

Highlights from the National Trajectory Project – a Pan-Canadian study of 1800 persons found Not Criminally Responsible on Account of Mental Disorder (NCRMD)

Tonia Nicholls, PhD, is a Professor in the Department of Psychiatry, UBC and Distinguished Scientist, BCMHSUS. Her work on violence, crime and mental health has resulted in >100 journal articles and chapters, and several books and manuals. Her contributions have been acknowledged by the American Psychological Association Award for Distinguished Professional Contributions, Canadian Psychological Association (CPA) President's New Researcher Award, the Chad Buckle Visiting Fellowship (New Zealand) and the CPA Criminal Justice Section significant contribution award.



Research applied to clinical practice

Vijay Seethapathy, MD, PhD, FRCPC, is the newly appointed Chief Medical Officer, BCMHSUS. Dr. Seethapathy is a Psychiatry Fellow of the Royal College of Physicians of Canada and is certified in addiction medicine by the American Board of Addiction Medicine. He has clinical expertise in assessment and management of complex concurrent disorders, ACT and acute psychiatry. He also has business and leadership training in health care and completed Executive MBA in Health Administration from Keele University in UK & Physician Leadership Program at UBC Sauder School of Business.



Closing Address from Dr. Jehannine Austin

Dr. Jehannine Austin will close out BCMHSUS Research Days with some exciting announcements about the BCMHSUS Research Challenge and a new membership category.



POSTER ABSTRACTS

Multani, Jennifer: “Profile of fentanyl users among individuals with severe concurrent disorders”

Introduction: The aim of this study was to gain an understanding of the attitudes toward fentanyl use among those with severe concurrent disorders, which has not been explored before. Specifically, we were interested in the differences between three subgroups: opioid users with reported fentanyl use, opioid users with no reported fentanyl use, and non-opioid users. **Method:** 211 clients at the Burnaby Centre for Mental Health and Addiction (BCMHA) completed the self-report, cross-sectional survey and consented to a review of their medical charts. Measures included the Maudsley Addiction Profile (MAP), an overdose questionnaire, Service Utilization, and demographic information. Descriptive analyses were used for all sociodemographic and clinical variables. Bivariate analyses were used to compare the three categories for each variable. **Results:** Nearly half the participants (45.23%) reported no use of opioids based on the MAP data. Among those 54.77% with a history of opioid use 31.42% reported use of opioids but no use of fentanyl, and 23.33% reported use of fentanyl. We found little differences between our three subgroups. Research indicated fentanyl use to be less pronounced in the aboriginal population. Fentanyl users were more likely to report overdoses, more recent emergency room visits, and were more likely to be in substitution treatment. They were less likely to be certified and less likely to have a psychotic disorder. The differences though generally did not reach significance. Surprisingly, we found little difference in the attitudes between these three subgroups of participants towards the safety of fentanyl use. **Conclusion:** It appears that people who use fentanyl are not more likely to think that fentanyl is safer or less concerned about its use. It seems that differences between fentanyl users and non-users seem to be quite limited. Non measured factors such as local availability may play a bigger role than specific characteristics or attitudes.

Zumrawi, Daniah: “Subjective cognitive functioning in treatment resistant schizophrenia”

Introduction: Although previously studied in schizophrenia, little is known about the relationships between subjective cognitive functioning (SCF), objective cognitive functioning (OCF), and depression in treatment-resistant psychosis (TRP). This study aims to: 1) assess and compare SCF in TRP using positively and negatively worded scales, 2) assess accuracy of these two methods, and 3) explore the association between these subjective rating scales and depression. We hypothesize that both SCF approaches would be highly correlated, would be minimally associated with OCF, and would be similarly associated with depression. **Method:** A retrospective chart review was conducted using clinical data from 54 inpatients treated within the BC Psychosis Program, presenting with treatment resistant psychosis. An OCF composite score was derived from a broad neuropsychological battery. SCF was assessed with the PROMIS 2.0 Cognitive Function (negatively



worded) and Abilities (positively worded) subscales. A depression scale score was generated by summing relevant items from the PANSS. **Results:** Relative to population norms, SCF ratings were higher in patients than OCF. There was a small but significant correlation between the PROMIS subscales ($r=.29$), but neither PROMIS subscale was associated with OCF ($r=-.13$, $r=.02$). There was a significant correlation between depression and the positively worded PROMIS subscale ($r=-.310$) but not the negatively worded scale ($r=-.13$). **Implications:** This study provides evidence that individuals with TRP inaccurately rate their cognitive functioning regardless of SCF methodology, and that SCF associates variably with depression. Poor awareness of cognitive functioning can lead to functional and social difficulties and should therefore be studied and addressed.

Irfan, Javeria: “Opioid assisted treatment in an integrated inpatient treatment program for severe concurrent disorders”

Objectives: British Columbia has declared a public health emergency in response to the opioid predominated rise in drug overdoses and deaths. The Burnaby Centre for Mental Health and Addiction (BCMHA) is one facility that provides inpatient treatment to individuals suffering from concurrent disorders. This current study looks at the prevalence of opioid use disorder (OUD), the rate and dosing of opioid agonist therapy (OAT), and frequency of relapse at BCMHA in the context of the public health emergency. **Methods:** This study is a retrospective chart-review of concurrent disorder patients at BCMHA admitted from May 1st 2016 until a convenience sample size of 100 patients was reached. **Results:** The percentage of patients admitted with a history of OUD was 52%, the rate of OAT in clients with OUD on admission was 69.2% and the percentage of patients with OUD discharged on OAT was 80.8%. Overall, the mean relapse frequency/100 days for clients on buprenorphine/naloxone appeared lower (1.3) than the methadone (2.3) group and those not on OAT (1.9). On admission, the mean doses of methadone and buprenorphine/naloxone were 75 and 16.41 mg, respectively and on discharge were 74.50 and 14.17 mg, respectively. **Conclusions:** Given the opioid crisis, our admission and discharge data suggest there is opportunity to connect OUD patients with OAT. Although our study is limited, differences in frequency of substance use relapse suggest inferiority of methadone to buprenorphine/naloxone in this specific population. Lastly, according to the patients’ own accounts, therapy discontinuation was largely due to medication-related effects.

Petersen, Karen: “Exploring staff supported community outings (SSCOs) in a forensic psychiatric sample”

Introduction: Staff Supported Community Outings (SSCOs) are designed to support safe forensic psychiatric patient re-integration into the community. They allow patients to maintain family ties, access community resources (e.g., transit skills, grocery shopping, fitness), and develop vocational and leisure skills. There is currently a dearth of evidence examining the rehabilitative efficacy of short-term community access in a forensic population. **Methods:** We employed a cross-sectional design in which we examined all SSCO in one Canadian forensic psychiatric hospital for a one-year period (January 1, 2017 - December 31, 2017). **Results:**



Most patients attending SSCOs were male with a primary diagnosis in the schizophrenia spectrum. A large number of SSCOs occurred during the one-year period, including 87 Assessment SSCOs in which two staff escort one patient on a short outing to assess their readiness to attend further SSCOs. Of particular interest, there were no significant adverse events (e.g. violence, AWOL) on any SSCO during the one-year period.

Conclusion: The results can help address misconceptions about the risks associated with community access by patients given that there were no significant adverse events. In addition, results contribute to the international dearth of literature regarding the utility and safety (patient, staff, public) of SSCOs.

Senften, Peter: “An examination of white matter imaging in chronic schizophrenia: Comparing DTI and Myelin Water Imaging”

Aberrant white matter may contribute to the emergence of the schizophrenias. To measure white matter in-vivo requires the use of diffusion tensor imaging (DTI) and/or myelin water imaging (MWI) MRI sequences. What these two MRI sequences actually measure is important to understand within the context of clinical research to appropriately interpret research findings using them. With that in mind, DTI and MWI are compared and contrasted to provide insight into the changes that occur in a cohort of chronic schizophrenia patients.



This event was brought to you by the BCMHSUS Research Operations Leadership and the Strategic Initiatives Team



Dr. Jehannine Austin
Executive Director,
BCMHSUS Research Institute



Lynn Pelletier
Vice President,
BCMHSUS



Deborah Ross
Provincial Director,
Strategic Initiatives



Rhonda Ellwyn
Manager,
Research Operations



Karen Chu
Research Coordinator,
BCMHSUS RI/Strategic Initiatives



Glory Mogas
Administrative Assistant,
BCMHSUS Research Institute

For more information regarding research at BCMHSUS, membership, and/or the Research Challenge, email BCMHSUS_Research@phsa.ca.