SASKATCHEWAN PSYCHIATRIC ASSOCIATION

RESIDENT RESEARCH SESSION

10:00 – 11:15 a.m.

VIRTUAL CONFERENCE & ANNUAL GENERAL MEETING

APRIL 24, 2021

Questions to research.psychiatry@usask.ca

Department of Psychiatry, CoM, University of Saskatchewan

Adjudicators:

Saskatoon: Dr. Huma Aftab; Dr. Dan Huynh (Resident)

Regina: Dr. Andriyka Papish; Dr. Senthil Damodharan

*Presenters:

#	Residents	Campus	Adjudicators
1	Evyn Peters	Saskatoon	SD & HA
2	Kerstina Boctor	Regina	AP & DH
3	Fiyinfoluwa Peluola & Joshua Howie	Regina	SD & HA
4	Christine MacCauley & Tanisha Uppal	Regina	AP & DH
5	Nerusha Ragulan	Regina	SD & HA
6	Arun Sahanan	Regina	AP & DH
7	Anjena Gandham	Saskatoon	SD & HA
8	Phillip Radetzki	Saskatoon	SD & DH

- Residents will be presenting their research through the Zoom virtual platform.
- Similar to an in-person poster presentation, this session will proceed in the order identified and maintain the schedule.
- Each talk will be comprised of a Presentation (4-5 min) and subsequent Q&A (2-3 min).
- Judges will ask you up to three (3) questions, so up to one minute will be allocated to each question.
- No questions/comments from the audiences unless time permits.
- There will be prizes of $600 (1st prize), $300 (2nd prize), $100 (3rd prize).

Presentation #1

Project Title: Melancholic depression and response to quetiapine: A pooled analysis of four randomized placebo-controlled trials

Authors: E. Peters*(MD), L. Balbuena (PhD), R. Bowen (MD, PhD)

*Department of Psychiatry (Saskatoon Campus), University of Saskatchewan

Background

Melancholic depression may preferentially respond to certain treatments. This study examined the efficacy of extended-release quetiapine monotherapy in patients with melancholic and nonmelancholic major depressive disorder.

Methods

Data from four randomized placebo-controlled trials was pooled. Melancholic features were assessed with baseline depression scale items according to DSM criteria. The outcome measure was response on the Montgomery–Åsberg Depression Rating Scale. Cox regression models predicting response over time with interactions between treatment condition and melancholic status were used to test for treatment effect heterogeneity.

Results

The 6-week response rate difference between quetiapine and placebo was roughly 10% greater in the melancholic subgroup, primarily due to a lower placebo response, although the subgroup-treatment interactions did not reach statistical significance. The main effect of quetiapine was significant in every model.

Conclusions

The main limitations were the retrospective analysis and the post-hoc designation of melancholic depression based on scale items not designed for that purpose. Results should be considered preliminary and exploratory until replicated. Nevertheless, the lower placebo response rate in the melancholic subgroup is consistent with past research and reinforces the benefit of pharmacotherapy for these patients.

Acknowledgements

Presentation #2

Project Title: A mixed prospective comparative analysis of Montreal Cognitive Assessment versus St. Louis University Mental Status in an outpatient based Geriatric resource team

Authors: K. Boctor (MD, MAS)*, S. Durrani (MD, FRCPCP), E. Karreman (PhD), K. Gottselig (MScOT)

*Department of Psychiatry (Regina Campus), University of Saskatchewan

Background

The copyrighting and mandatory certification of the Montreal Cognitive assessment (MoCA) questionnaire has presented healthcare personnel with a new challenge in finding an accessible equally sensitive and free tool that could screen for executive function and cognitive performance. To date, no study has compared the St. Louis University Mental Status (SLUMS) questionnaire to MoCA in its ability to screen for cognitive deficits. We aimed to assess whether SLUMS may be a reliable tool when compared to MoCA in identifying neurocognitive disorders.

Methods

Utilizing a prospective-retrospective mixed study model, patients referred for an initial neurocognitive assessment underwent screening with MoCA and SLUMS no more than one month apart. Using the original score cut-offs for SLUMS and MoCA, patients were grouped in one of three diagnostic categories: Normal, Mild Neurocognitive Disorder (MCI) & Dementia. Total scores, as well as the individual domains in each screening tools were compared to each other.

Results

Data of 42 females and 19 males (N=61), with a mean age of 80.2 years (± 6.9) were collected (marital status: Married, n = 27; Divorced, n = 2; Widowed, n = 25; Unknown, n = 7). Average SLUMS and MoCA total scores, both out of 30, were 14.5 (± 6.4) and 17.7 (± 5.1), respectively. The same diagnosis was made in 43 out of 61 cases (70.5% - kappa coefficient = .42) indicating a moderate level of agreement. Furthermore, an intraclass correlation coefficient (ICC) of .79 suggests good reliability between the two scales.

Conclusions

SLUMS is a potential economical and user-friendly screening tool for neurocognitive disorders that provides good reliability and moderate level of agreement in comparison to the current gold standard of the MoCA.

Presentation #3

Project Title: A comparison of medical outcomes for schizophrenia patients treated with clozapine vs. those who are eligible but are not treated with clozapine

Authors: F. Peluola (MD),* J. Howie (MD),* E. Karreman (PhD), M. McLeod (BSP, PhD), K. Harrison, M. Eisa (MD, FRCPC)

*Department of Psychiatry (Regina Campus), University of Saskatchewan

Background

Clozapine is a second-generation antipsychotic known to be efficacious and the treatment of choice for treatment resistant schizophrenia (TRS). Due to its potentially dangerous side effect profile, it requires registration and close monitoring to be prescribed in North America. Its higher level of efficacy promises potentially better outcomes in those treated with it. The purpose of this study was to compare the functional outcomes of patients diagnosed with treatment resistant schizophrenia who were treated with and without clozapine.

Methods

A retrospective chart review study of 299 patients treated with (n=177) and without clozapine (n=122) was conducted. The two groups were compared on demographic and a number of medical- and social-themed variables including the total number of hospital visits within the first year of being diagnosed with TRS, vocational recovery, outpatient follow up compliance, and independent living status using chi-squared tests (for categorical variables) and independent samples t-tests (for continuous variables).

Results

Significant differences ($p < .001$) between both groups were found for hospital visits, vocational recovery, and follow-up compliance favouring the clozapine group. No significant differences were found for sex, age, and independent living status.

Conclusions

Clozapine treatment showed clear benefits in vocational outcomes, outpatient compliance, and reduced hospitalization rates within the first-year post diagnosis for patients with TRS.

Presentation #4

Project Title: Acute agitation associated with psychostimulant use

Authors: C. MacCauley (MD)*, T. Uppal (MD)*, N. Patel (MD), E. Karreman (PhD)

*Department of Psychiatry (Regina Campus), University of Saskatchewan

Objectives

This study aims to characterize the use of chemical sedation, healthcare resource utilization, and patient safety considerations in the Emergency Department (ED) management of psychostimulant-related agitation.

Methods

A retrospective review was completed for all patients presenting to the Regina General Hospital (RGH) ED between February, 2020, and July, 2020, with a diagnosis related to psychostimulant or multiple substance use (per International Classification of Diseases, Tenth Revision). Patient-endorsed psychostimulant use or a positive drug screen for psychostimulant use was verified. Primary data recorded included use of chemical sedation and use of restrictive interventions.

Results

There were 339 ED visits (n=252 patients). The following data is presented as a percent of study visits. Crystal methamphetamine (87.9%) was the most commonly used psychostimulant. During their course in the ED, 48.4% required chemical sedation with benzodiazepine and/or antipsychotic medications, of which olanzapine was most commonly used (33.3%), followed by lorazepam (21.2%). Constant observation was required in 16.5%. Security staff intervention was required in 26.0%, and physical restraints were used in 15.0%.

Conclusions

Chemical sedation is required to manage psychostimulant-related agitation in nearly one-half of patients presenting to the ED following psychostimulant use. Restrictive interventions are frequently required for agitation management, including constant observation and physical restraint. Psychostimulant-related agitation requires pharmacological treatment, behavioural de-escalation, and environmental interventions to maintain patient and staff safety. Further studies are warranted to develop and evaluate a standardized approach to the use of chemical sedation for psychostimulant-related agitation, optimizing patient and staff safety and use of ED resources.

Presentation #5

Project Title: Recollection of childhood trauma changes according to the shift in individual attachment rather than psychiatric diagnosis

Authors: N. S. Ragulan* (MD), A. J. Wrath, T. Le (PhD), G. C. Adams (MD, MSc, FRCPCP)

*Department of Psychiatry (Regina Campus), University of Saskatchewan

Background

Childhood trauma influences development of psychiatric disorders. While the experience of trauma cannot be changed, attachment security and psychopathology severity are modifiable. Factors impacting childhood trauma reporting is scarce. This novel study is designed to explore how childhood trauma recollection changes over one-year; and to assess how the impact of trauma recollection caused by changes in symptomatology and attachment insecurity over one-year.

Methods

Individuals with depression (MDD; n=49) and healthy controls (HC; n=28) were included in the study (total n=77). Participants completed questionnaires on depression severity, childhood trauma and attachment at baseline and one year later. Multivariable regressions were performed to test the predictability of change in trauma recollection by changes in attachment and depression severity.

Results

Baseline scores of emotional abuse, physical neglect, and sexual abuse were significant predictors of their respective follow up scores (all $p<0.01$). The interaction between two attachment dimensions was significantly associated with changes in recollection of emotional abuse, physical neglect, and total trauma. Decreases in both attachment anxiety and attachment avoidance were significantly associated with a reduction in recollection of emotional abuse, physical neglect, and total trauma (all $p<0.001$).

Discussion

Large decrease in attachment anxiety and avoidance was associated with recalling less emotional abuse, physical neglect, and childhood trauma. If attachment insecurity can be improved there may be a reappraisal of childhood experiences leading to recollection of less trauma. As trauma is associated with many mental health disorders, improving individuals' trust of themselves and others may mitigate trauma's influence on propagating these disorders.

Acknowledgements

Presentation #6
Project Title: Depression and anxiety in hemodialysis patients: A quality improvement study

Authors: A. Sahanan (MD)*, K. Reddi (MD, FRCPC)

*Department of Psychiatry (Regina Campus), University of Saskatchewan

Background
Depression and anxiety are prevalent comorbidities amongst individuals suffering chronic illnesses. Hemodialysis patients experience profound health and lifestyle changes involving a complex interplay of physiological, psychological, and social factors. Despite associations of poor outcomes, depression and anxiety in dialysis patients is often undetected. Patients experience disruptions to daily life including financial constraints, functional limitations, dietary restrictions, and occupational-social impairments. Such factors can adversely impact mental health and increase vulnerability to depression and anxiety. This study aimed to examine the occurrence of depression and anxiety among patients receiving hemodialysis.

Methods
Study population is individuals aged 18+ years, receiving dialysis at Regina General Hospital or Wascana Rehabilitation Centre. They will be mailed an invitation letter outlining the study. Participants complete a short survey which includes demographic, medical, and lifestyle questions along with Patient Health Questionnaire (PHQ-9) and Generalized Anxiety Disorder Assessment (GAD-7) during their dialysis appointment. Data analysis will be descriptive in nature.

Results
Due to the Covid-19 pandemic, this project, including other research activities on the hemodialysis unit, are presently on hold. No data has been collected so far.

Conclusions
There is potentially valuable and impactful future opportunities for data collection in this research area. The current plan is to continue this study once the Covid-19 pandemic settles. Additionally, recruitment of psychiatry residents to assist with data collection and dissemination for this project is planned.

Acknowledgements

Presentation #7:

Project Title: A collision of dual public health crises: the COVID-19 pandemic and opioid epidemic

Authors: A. Gandham* (MD), S. Frangou (MD, FRCPC)

*Department of Psychiatry (Saskatoon Campus), University of Saskatchewan

Background

As the world grapples with the COVID-19 pandemic, the 35-million individuals struggling with substance use disorders (SUDs) worldwide have disproportionately been affected. This already marginalized population has experienced an overwhelmingly increased psychosocial burden. Opioid overdoses, in particular, have skyrocketed during the pandemic. Our hypothesis is that the rise in opioid overdoses and increases in death are due to COVID-19 pandemic induced challenges in North America.

Methods

This study synthesizes the results from both 31 primary research articles and review papers published between March 2020-March 2021 in order to identify the challenges faced by opioid users during the pandemic.

Results

Of the 31 articles examined, all showed that pandemic-related challenges either directly or indirectly led to increases in opioid overdoses and deaths for SUD patients in the year 2020. Specifically, closure of substance use treatment clinics, solitary use and increased fentanyl supply are the three most often listed challenges in this regard.

Conclusions

Research conducted within the last year has definitively shown a rise in opioid overdoses in conjunction with the onset of the pandemic. Opioid overdoses have risen across Canada, with dramatic increases in the provinces of British Columbia, Alberta and Ontario. Data to implement changes in practice for opioid use disorder, such as individualizing treatment to incorporate vocational therapy and individualized counselling, show promising results in decreasing opioid overdoses and death. These results guide necessary changes in future policy and treatment practice.

Presentation #8

Project Title: Attachment and pathological personality traits in a psychiatric sample

Authors: P. Radetzki (MSc student)*, G. C. Adams (MD, MSc, FRCPC)

*Department of Psychiatry (Saskatoon Campus), University of Saskatchewan

Background

There is increasing interest in the role of attachment in the treatment of personality pathology. Yet, attachment-personality research has rarely used the most modern model of personality pathology—the dimensional-categorical model. Compared to the traditional categorical model, this alternative model assesses dysfunction and pathological traits instead of symptom thresholds. The current study is first to utilize the dimensional-categorical model to study the relationship between attachment and personality with a psychiatric sample of outpatients.

Methods

Self-report measures of attachment and personality pathology were administered to psychiatric outpatients prior to their initial meeting with a psychiatrist (N = 150). Bivariate correlations determined whether attachment dimensions were associated with total and domain-specific personality pathology. Multivariable regression analyses investigated the extent to which attachment dimensions uniquely predicted personality pathology.

Results

Insecure attachment positively correlated with overall personality pathology, with attachment anxiety having a stronger correlation than attachment avoidance. Distinct relationships emerged between attachment anxiety and negative affectivity and between attachment avoidance and detachment. Insecure attachment and male gender predicted overall personality pathology, but only attachment anxiety predicted all five trait-domains.

Conclusions

Insecure attachment might be a risk factor for pathological personality traits. Assessing attachment in clinical contexts and incorporating attachment-building strategies could benefit interpersonal and treatment outcomes.

Acknowledgements