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ABOUT the discipline FOR the discipline

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M E N T A L
H E A L T H
ACROSS THE
L I F E C Y C L E

L A I S :
OLD, CLASSIC, VINTAGE
OR VALUABLE?

A S T I T C H
I N T I M E

RECOVERY, AND ITS
SILHOUETTE OF FEAR

VISIT BY **TREVOR
HURWITZ** -
TARA HOSPITAL



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**BIOLOGICAL
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CONGRESS 2019

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Dear Readers,

welcome to the final issue for 2019 – issue 21. A 21st is usually cause for celebration...so welcome to our celebratory issue. It has been 5 years since issue 1 appeared in November 2014, and what started out as an initiative with no immediate goal other than to get to the next issue has now yielded 21 such issues. One can never know what the future holds and for *South African Psychiatry* it is no different. It appears that the publication has established a niche of its own and will continue to exist in the same spirit that led to issue 2... with the intention of many more to come. The current issue is especially pleasing as it is what one might call a *post-Congress* issue following as it does the recent Biological Congress, with all of the abstracts, as well as registrar written reports related to presentations at the Congress by the international speakers. Not only does it provide information for those who were not able to attend but it also serves as an opportunity for registrars to actively contribute. In this regard, aside from acknowledging and welcoming such contributions, a big thanks to Soraya Seedat (Professor & Head – Department of Psychiatry, Stellenbosch University) as Congress Convenor for her support of the idea, to Ulla Botha (Associate Professor, Department of Psychiatry, Stellenbosch University) for assistance with compilation, as well as Sonja du Plessis (Londocor – Congress organizers) for facilitating. We are hopeful that a similar approach could be adopted for the 2020 SASOP Congress – this remains to be discussed. As always the final issue of the year is cause for reflection. The range of material published during 2019 covered many topics in terms of the *Feature* content – all based on clinical experience and grounded in relevant theory. There were interesting issues raised by the *Perspective* content – each one worthy of careful consideration. The *Departmental News*, as well as the events covered in the *Report* content, once again highlighted the fact that South African Psychiatry remains a vibrant discipline notwithstanding challenges. *Headline* compiled by the South African Society of Psychiatrists (SASOP) provided regular, tangible evidence of the extent to which our professional body serves its constituency. It is important that the office bearers are acknowledged for their efforts with a special thanks to Bernard Janse van Rensburg, as the current editor of *Headline*, as well as the contributors to *Headline* for providing the detail they do. We try to provide something beyond discipline specific content and a word of thanks to both David Swingler (*Wine Forum*) and Franco Visser (*Movie Review*) for their contributions during 2019. Our relationship with industry is a positive one and a word of thanks to all for their support and involvement as important role players within the discipline. Finally, there would be no end product without the team – to Vanessa, Rigel and Tibor...thanks!



I look forward to seeing you in 2020. Until then, I hope you enjoy this issue.

Editor-in-Chief: Christopher P. Szabo – *Department of Psychiatry, University of Witwatersrand*

Advisory Board: Soraya Seedat – *Head, Department of Psychiatry, University of Stellenbosch*

Dan Stein – *Head, Department of Psychiatry and Mental Health, University of Cape Town*

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Zuki Zingela – *Head, Department of Psychiatry, Walter Sisulu University*

Bonga Chiliza – *Head Department of Psychiatry UKZN; President South African Society of Psychiatrists*

Headline Editor: Bernard Janse van Rensburg

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BIOLOGICAL PSYCHIATRY CONGRESS



EXHIBITOR STANDS



Dr. Reddy's Stand and registration area.



Pharma Dynamics Stand. From left to right: Shouqat Mugjenker, Liezl van der Merwe, Debbie Fester and Abdurahmaan Kenny.



Sanofi Stand. From left to right: Ashley Nefdt and Troy Potgieter



The Akeso Stand with attendees.



Lundbeck Stand. From left to right: Lynda Lawrenson, Raqs Gheewala, Julie Howarth, Wendy Cupido and Denzil Bart



SASOP Stand with Peet Kotzé and Joey Hanekom



Cherrymed Stand with Colleen Cherry



Janssen Stand. Left to right: Lillo Mapholi, Leonie Viljoen, Gonny Moodly, Melissa du Toit and Renette Howell



Pfizer Stand. Back seated, Lebo Letlape, Faith Mthokoa, and Cheryl Paul, front seated



Aspen Stand. Left to Right: Alison McIlree and Wanda Mileham



Mylan Stand. Left to right: Minè Swart, Iain McGregor and Elzaan Bekker .



Takeda Stand. From left to right: Freda Naidoo, Fabian Schuma, Dina Avyidi and Sharon Davidson



Life Mental Health Stand. Left is Adele Fourie, Marketing and Clinical Standards Specialist (Life Healthcare), and right is Marcel Rwasabisi, Unit Manager: Life St Vincent's at Life Vincent Pallotti Hospital.



Zydus Stand. From left to right: Sally-ann Kotzé, Victor Behrens and Kobie Coetzee



Adcock Ingram stand. Left to right: Samantha Loveday and Jessica Meyer



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NEUROPSYCHIATRY
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BIOLOGICAL PSYCHIATRY CONGRESS

20 - 23 September 2019

A B S T R A C T S ORAL PRESENTATIONS

PRESENTER

Dr Olusegun Adeoluwa

Department of Pharmacology and Therapeutics,
Faculty of Basic Medical Sciences College of
Medicine University of Ibadan.

adeoluwaolusegun@yahoo.com

AUTHORS

Adeoluwa, O. Adebayo¹, Aderibigbe, A. Oladele²,
Ajayi, A. Mayowa², Eduviere A. Taghogo³, Agu, G.
Onyinye²

Department of Pharmacology and Therapeutics,
Faculty of Basic Medical Sciences, College of
Medicine and Health Sciences Afe Babalola
University Ado Ekiti¹, Department of Pharmacology
and Therapeutics, Faculty of Basic Medical
Sciences College of Medicine University of Ibadan²,
Department of Pharmacology and Therapeutics,
Faculty of Basic Clinical Science University of
Medical School Ondo State³

ABSTRACT TITLE

N-butanol fraction of *Olax subscorpioidea* attenuates lipopolysaccharide-induced depressive-like symptoms via inhibition of neuroinflammation and indolamine-2, 3-dioxygenase expression in mice

BACKGROUND/AIM

The leaves of *Olax subscorpioidea* are a mainstay in the management of inflammatory diseases and mental illness in folkloric medicine in Nigeria. Previous studies have shown its antidepressant and anti-inflammatory properties in experimental animals. Recently its antidepressant action was linked with the involvement of monoaminergic transmission. However, with accumulating evidences suggesting links between immuno-inflammatory signaling pathways and depression, there is a dearth of information linking antidepressant mechanism of *O. subscorpioidea* and its anti-inflammatory effects. We thus evaluated the effect of n-butanol fraction (BF) of *O. subscorpioidea* leaves on lipopolysaccharide (LPS)-induced depressive-like behaviours and we investigated its antidepressant effects with respect to its action on inflammatory and oxidative pathways.

METHODOLOGY

Sixty male Swiss albino mice were randomly assigned into six groups (n= 10). Mice were treated with vehicles of BF (5, 10, 20 mg/kg) or imipramine (10 mg/kg) intraperitoneal for seven days. Thirty minutes after treatment on day seven, animals were injected with LPS (0.83 mg/kg, i.p.) except group 1 (vehicle only). Twenty-four hours after LPS injection,

animals were assessed for depressive symptoms using sucrose preference test and immobility using tail suspension test (TST). Brain levels of pro-inflammatory mediators interleukin-1 β (IL-1 β) and tumor necrosis factor- α (TNF- α), oxidative stress biomarkers such as malondialdehyde and reduced glutathione and plasma level of corticosterone were measured by ELISA while expressions of indolamine-2,3-dioxygenase (IDO), inducible nitric oxide synthase (iNOS) and nuclear factor-kappa B (NF- κ B) were quantified by immunohistochemistry.

RESULTS

LPS significantly ($p < 0.05$) increased immobility of mice in TST and decreased sucrose preference which is indicative of depressive-like behaviours. These behaviours were significantly attenuated by BF and imipramine when compared to controls. LPS increased levels of malondialdehyde, corticosterone, TNF- α , IL-1 β , and increased expressions of IDO, iNOS and NF- κ B and reduced level of glutathione in the brain. These were significantly reversed by treatment with BF and imipramine.

CONCLUSION

Attenuation of LPS-induced depressive-like phenotypes by BF and imipramine further indicates their antidepressant effects are comparable. The findings thus suggest that antidepressant actions may be related to inhibition of neuroinflammation, oxidative stress and IDO.

PRESENTER

Dr Sahba Besharati

University of the Witwatersrand

Sahba.besharati@wits.ac.za

AUTHORS

Sahba Besharati¹, Paul Jenkinson², Michael Kopelman³, Valentina Moro⁴, Aikaterina (Katerina) Fotopoulou⁵

Department of Psychology, School of Human and Community Development, University of the Witwatersrand¹, Department of Psychology, School of Life and Medical Sciences, University of Hertfordshire, UK², Department of Psychological Medicine, Institute of Psychiatry, Psychology and Neuroscience, UK³, Department of Philosophy, Pedagogy and Psychology, University of Verona, Italy⁴, Clinical, Educational & Health Psychology, Division of Psychology & Language Sciences, University College London, UK⁵

ABSTRACT TITLE

Restoring awareness: rehabilitation interventions for unawareness of paralysis following stroke

BACKGROUND/AIM

Anosognosia for hemiplegia, or unawareness of motor deficits contralateral to a brain lesion, has lasting negative implications for the management and rehabilitation of patients. Recently some progress has been made towards the management and rehabilitation of anosognosia, however, to date no evidence-based treatment exists. A recent,

bedside psychophysical intervention, namely self-observation by video replay, lead to a lasting remission of an acute stroke patient presenting with severe anosognosia. In the present study, we aimed to investigate how the use of similar simple self-observation techniques, using mirror and video replay, could restore or enhance awareness of motor paralysis.

METHODOLOGY

We will present a series of clinical case studies of patients with right hemisphere damage following stroke with a clinical diagnosis of anosognosia for hemiplegia. Two intervention-based protocols were applied using mirror and video-based self-observation techniques. Protocols also involved elements of rapport building and emotional support.

RESULTS

The results revealed that mirror and video-based self-observation had dramatic, immediate effects on awareness in both acute and chronic stages and it seemed to act as an initial trigger for eventual symptom remission. Nevertheless, these effects did not automatically generalise to all functional domains.

CONCLUSION

This study provides provisional support that mirror, and video-based self-observation may be included in wider rehabilitation programs for the management and restoration of anosognosia. A dynamic theoretical model of multifaceted nature of anosognosia, using a predictive coding framework, is proposed and discussed.

PRESENTER

Professor Johannes Bodenstein

Faculty of Pharmacy, Division of Pharmacology, Rhodes University, Grahamstown

johannes.bodenstein@ru.ac.za

AUTHORS

Ms Bavika Naidu¹, Mrs Mari-san Bodenstein², Prof Martie S. Lubbe³

Faculty of Pharmacy, Division of Pharmacology, Rhodes University, Grahamstown, South Africa¹, Pharmacy Department, Fort England Hospital, Grahamstown, South Africa; Faculty of Pharmacy, Rhodes University, Grahamstown, South Africa², Faculty of Health Sciences, School of Pharmacy, Medicine Usage in South Africa (MUSA), North-West University, Potchefstroom, South Africa³

ABSTRACT TITLE

Evaluating the prescribing and management practices of venlafaxine at a public sector psychiatric hospital

BACKGROUND/AIM

Neuropsychiatric conditions have been ranked third in South Africa according to some of the most recent reviews of disease burden, following human immunodeficiency virus/acquired immune

deficiency syndrome and other infectious diseases. The antidepressant class of selective noradrenaline reuptake inhibitors (e.g. venlafaxine) is relatively new on the market. Currently there is no published information concerning its prescribing and management patterns as well as the incidence and types of adverse effects experienced by patients in the public health sector of South Africa. This study aimed to evaluate the prescribing and management practices of venlafaxine to outpatients at a public healthcare sector psychiatric hospital. Objectives were to determine its prescribing patterns and compliance with recommended treatment guidelines as well as to identify its interactions and adverse effects.

METHODOLOGY

A retrospective drug utilisation review was conducted on the files of 85 outpatients aged 18-years and older who received venlafaxine treatment at the institution between 1 January 2017-31 December 2017.

RESULTS

Results showed that most of the patients were diagnosed with either a depressive (n=53; 62.36%) or anxiety-related disorder (n=13; 15.29%), suggesting that venlafaxine was correctly indicated for most of the patients (n=66; 77.65%). Concerning initiation of therapy, 78.82% (n=67) of the patients had their dose titrated. Data analysis revealed that 74.12% (n=63) patients did not experience any adverse effects from treatment with venlafaxine. Furthermore, blood pressure monitoring was conducted for 95.29% (n=81), body weight monitoring for 94.12% (n=80), pulse rate monitoring for 95.29% (n=81) and total cholesterol monitoring for 31.76% (n=27) of the patients. However, there was no information available for the majority of patients (n=80; 94.12%) to ascertain whether triglyceride, low-density lipoproteins, high-density lipoproteins and sodium levels were monitored, suggesting lipograms and electrolyte levels are target areas for improvement.

CONCLUSION

Venlafaxine therapy was fairly monitored metabolically and in the majority of cases initiation of venlafaxine was compliant with recommended treatment guidelines. Healthcare professionals should be trained on the optimal prescribing and monitoring guidelines to promote the rational use of venlafaxine.

PRESENTER

Mrs Mari-san Bodenstein

Pharmacy Department, Fort England Hospital, Grahamstown. Faculty of Pharmacy, Rhodes University, Grahamstown
marisanmoolman@yahoo.com

AUTHORS

Vimbisai M. Mukoko¹, Johannes Bodenstein², Martie S. Lubbe³
 Faculty of Pharmacy, Division of Pharmacology, Rhodes University, Grahamstown¹, Faculty of

Pharmacy, Division of Pharmacology, Rhodes University, Grahamstown², Faculty of Health Sciences, School of Pharmacy, Medicine Usage (MUSA), North-West University, Potchefstroom³

ABSTRACT TITLE

An evaluation of the prescribing and monitoring of clozapine at a public sector psychiatric hospital

BACKGROUND/AIM

Approximately 1% of the South African population suffers from schizophrenia. About 30% of patients with schizophrenia fail a trial of conventional antipsychotics. Clozapine has proven to be more effective than conventional antipsychotics in the management of both positive and negative symptoms of schizophrenia. The reputation of clozapine lies mainly with its repeated proven efficacy in the treatment of refractory schizophrenia. However, the risk of a haematological event such as neutropenia and agranulocytosis is the greatest with clozapine. Other common adverse effects include weight gain and metabolic syndrome. Haematological and metabolic monitoring is paramount with clozapine therapy. The aim of this study was to conduct a drug utilisation review on clozapine by investigating its prescribing and monitoring patterns in outpatients at a public sector psychiatric hospital as well as compliance with the recommended treatment guidelines.

METHODOLOGY

A retrospective drug utilisation review was conducted. A descriptive, cross-sectional research approach was implemented to analyse the data of 57 outpatients who were on clozapine therapy between 1 January 2017 and 31 December 2017.

RESULTS

Of the 57 patients, 78.95% (n=45) were on their first trial of clozapine. A total of 15 cases (26.32%) were compliant with guidelines for prescribing clozapine. Baseline haematological and metabolic monitoring was not evident in the majority of cases. Only 23.81% (n=10) cases were fully compliant with the haematological monitoring guidelines. Metabolic monitoring was evident in 80.70% (n=46) cases. However, there were inconsistencies in complying with the recommended intervals of the metabolic monitoring tests. Metabolic or endocrine co-morbid disease states were common in 29.82% (n=17) of the patients.

CONCLUSION

Haematological monitoring was found to be mostly inadequate. Adherence to haematological guidelines should be emphasised to minimise the fatal outcomes of agranulocytosis. The intervals for the various metabolic monitoring tests should also be adhered to. This would prevent predisposing patients to co-morbid disease states, and it would be useful in the management of adverse effects. Healthcare professionals should be trained on the existing prescribing and monitoring guidelines of clozapine. A prescribing and monitoring tool was designed to promote the rational use of clozapine.

PRESENTER**Dr. Saïd Boujraf**

Department of Biophysics and Clinical MRI Methods, Faculty of Medicine; Fez, Morocco. Clinical Neurosciences Laboratory, Faculty of Medicine; Fez, Morocco. Department of Radiology and Clinical Imaging, University Hospital of Fez, Fez, Morocco. sboujraf@gmail.com

AUTHORS

Saïd Boujraf^{1,2} Mohammed Benzagmout^{1,2}, Badreddine Alami^{1,2,3}, Hassan Ali Amadou^{2,4}, Amine Bennani^{1,2,3}, Mounir Jaafari², Ismail Rammouz², Mustapha Maaroufi^{1,2,3}, Driss Boussaoud
Department of Biophysics and Clinical MRI Methods, Faculty of Medicine; Fez, Morocco¹. Clinical Neurosciences Laboratory, Faculty of Medicine; Fez, Morocco². Department of Radiology and Clinical Imaging, University Hospital of Fez, Fez, Morocco³. Department of Psychiatry, University Hospital of Fez, Fez, Morocco⁴.

ABSTRACT TITLE

Scene Induced emotion processing in Parkinson's disease: BOLD-fMRI study

BACKGROUND

Parkinson's disease is a neurodegenerative disorder caused by loss of dopamine neurons in the substantia nigra pars compacta. Tremor, rigidity, and bradykinesia are the major symptoms of the disease. These motor impairments are often accompanied by affective and emotional dysfunctions which have been largely studied over the last decade. The aim of this study was to investigate emotional processing organization in the brain of patients with Parkinson's disease and to explore whether there are differences between recognition of different types of emotions in Parkinson's disease.

METHODOLOGY

We examined 18 patients with Parkinson's disease (8 men, 10 women) with no history of neurological or psychiatric comorbidities. All these patients underwent identical brain blood oxygenation level-dependent functional magnetic resonance imaging for emotion evaluation.

RESULTS

Blood oxygenation level-dependent functional magnetic resonance imaging results revealed that the occipito-temporal cortices, insula, orbitofrontal cortex, basal ganglia, and parietal cortex which are involved in emotion processing, were activated during the functional control. Additionally, positive emotions activate larger volumes of the same anatomical entities than neutral and negative emotions.

CONCLUSION

Results also revealed that emotional disorders associated with Parkinson's disease are increasingly recognized as disabling as classic motor symptoms. These findings help clinical physicians to recognize the emotional dysfunction of patients with Parkinson's disease.

PRESENTER**Dr Tanya Calvey**

University of the Witwatersrand
tanya.calvey@wits.ac.za

AUTHORS

Tanya Calvey¹, Joseph Woolf², Martin Polanco³, Robert Palmer⁴, Benjamin Malcolm⁵, Benjamin Kelmendi⁶, Caroline Dickens⁷, Joseph Barsuglia⁸
School of Anatomical Sciences, Faculty of Health Sciences, University of the Witwatersrand¹, School of Anatomical Sciences, Faculty of Health Sciences, University of the Witwatersrand², Crossroads Treatment Center, Tijuana, Mexico³, Yale School of Medicine, New Haven, CT, USA⁴, College of Pharmacy, Western University of Health Sciences, Pomona, CA, USA⁵, Department of Psychiatry, Yale University School of Medicine, New Haven, CT, USA⁶, Department of Internal Medicine, University of the Witwatersrand⁷, New School Research, LLC, North Hollywood, CA, USA⁸

ABSTRACT TITLE

Combination Psychedelic Therapy to Treat Substance Use Disorders: Insights from Human and Rodent Studies

BACKGROUND

Ibogaine and 5-MeO-DMT have demonstrated rapid-onset anti-addictive effects in pre-clinical and human studies. When used in combination, pre-treatment with ibogaine potentiates the dosage effects of 5-MeO-DMT which may be due to ibogaine's NMDA receptor affinity working to prime the glutamatergic system. The therapeutic effects of both compounds in treating substance use disorders (SUDs) require further investigation and there are no published human neuroimaging findings of either treatment to date.

METHODOLOGY

We present the case of a 31-year-old male with moderate alcohol use disorder who sought treatment at an inpatient clinic in Mexico that utilized a sequential protocol with ibogaine hydrochloride (1550mg, 17.9mg/kg) and 5-MeO-DMT (bufotoxin 5-MeO-DMT content, 5-7mg). The patient received SPECT neuroimaging that included a resting-state protocol before, and 3 days after completion of the program.

In order to assess neurochemical changes following ibogaine administration, male Sprague-Dawley rats were divided randomly into two groups of n=10 to test ibogaine administration (single ibogaine HCl i.p. 50mg/kg) versus saline control. Upon termination, right dorsal hippocampal tissue was obtained for qPCR analyses of GRIA1 mRNA expression relative to three reference genes.

RESULTS

On post-treatment SPECT neuroimaging, increases in brain perfusion were noted in bilateral caudate nuclei, left putamen, right insula, as well as temporal, occipital, and cerebellar regions compared to the patient's baseline scan. The patient reported improvement in mood, cessation of alcohol use, and reduced cravings at 5 days post-treatment, effects which were sustained at one month, with a partial return to mild alcohol use at two months.

CONCLUSION

Serial administration of ibogaine and 5-MeO-DMT resulted in increased perfusion in multiple brain regions broadly associated with alcohol use disorders and known pharmacology of both compounds, which coincided with short-term therapeutic outcome. By down-regulating GRIA1 expression, ibogaine may prime glutamatergic neurotransmission affecting the complex interplay between the serotonergic and glutamatergic systems which control neuronal excitability in networks involved in SUD. Combination psychedelic therapy may be synergistic in treating chronic, treatment-resistant SUD which warrants further investigation.

PRESENTER

Dr Stéfán Du Plessis

Department of Psychiatry, Stellenbosch University
stefandup@sun.ac.za

AUTHORS

Stéfán du Plessis¹, Frederika Scheffler², Hilmar Luckhoff³, Laila Asmal⁴, Sanja Kilian⁵, Lebogang Phahladira⁶, Robin Emsley⁷
 Department of Psychiatry, Stellenbosch University^{1,2,3,4,5,6,7}

ABSTRACT TITLE

Childhood trauma and hippocampal subfield volumes in first-episode schizophrenia and healthy controls

BACKGROUND

Childhood trauma and schizophrenia are both associated with neuroanatomical abnormalities in the hippocampus, a stress-sensitive structure vulnerable to developmental insults. However, few studies have evaluated the effects of childhood trauma exposure on hippocampal morphometry in minimally treated first-episode schizophrenia patients. Here we aim to investigate the associations of childhood trauma with hippocampal subfield volumes in a cohort of antipsychotic-naïve or minimally treated first-episode schizophrenia spectrum disorder patients and matched controls.

METHODOLOGY

79 patients with first-episode schizophrenia spectrum disorder and 82 matched controls completed the childhood trauma questionnaire and underwent MRI assessment. Hippocampal subfields were reconstructed using FreeSurfer 6.0. We considered inter-correlations between the various subfields, by entering them as dependent variables into a multivariate analysis of co-variance (MANCOVA), modeling for interactions between diagnosis, childhood trauma total score and gender while controlling for substance abuse, scanner sequence and age.

RESULTS

MANCOVA revealed a significant interaction between sex, childhood trauma total scores and diagnosis across hippocampal sub-regions ($p=0.012$). Bonferroni corrected post-hoc analysis revealed a significant sex*diagnosis*childhood

trauma score interaction for the hippocampal fissure ($F(1,161)=9.485, p=.002$). Hippocampal fissure size showed a positive relationship with CA structures as well as whole hippocampal size in the larger sample.

CONCLUSION

Findings from the present study suggest that childhood trauma exposure exerts illness-specific effects on hippocampal structures in female patients with first-episode schizophrenia, consistent with increased stress sensitivity in this group.

PRESENTER

Ms Johané Gericke

Centre of Excellence for Pharmaceutical Sciences, School of Pharmacy, North West University, Potchefstroom
johane.gericke@gmail.com

AUTHORS

Johané Gericke¹, Makhotso Lekhooa², Stephan Steyn³, Alvaro Viljoen⁴, Brian Harvey⁵
 Centre of Excellence for Pharmaceutical Sciences, School of Pharmacy, North West University, Potchefstroom¹, Centre of Excellence for Pharmaceutical Sciences, School of Pharmacy, North West University, Potchefstroom², Centre of Excellence for Pharmaceutical Sciences, School of Pharmacy, North West University, Potchefstroom³, SAMRC Herbal Drugs Research Unit, Department of Pharmaceutical Sciences, Tshwane University of Technology, Pretoria⁴, Centre of Excellence for Pharmaceutical Sciences, School of Pharmacy, North West University, Potchefstroom⁵

ABSTRACT TITLE

Preliminary evidence of the antidepressant-like properties of *Sceletium tortuosum* (Zembrin™) in a genetic animal model of depression

BACKGROUND/AIM

Only 40% of patients with major depression (MD) respond to traditional antidepressant treatments, predominately acting on brain monoamines. Hence, a need exists for alternative treatments targeting multiple biological pathways. MD is described as a redox-inflammatory condition. Natural substances with anti-inflammatory actions may therefore have therapeutic value in the treatment of MD. This study explores the antidepressant activity of the South African plant *Sceletium tortuosum* in a rat model of depression.

METHODOLOGY

The depressive phenotype of Flinder's Sensitive Line (FSL) rats ($n=12$) was confirmed vs. Flinder's Resistant Line (FRL) control rats ($n=6$) in the forced swim test (FST). FSL rats received either the SSRI escitalopram (5, 10, 20 mg/kg; $n=10$ /group) as positive control or a standardized extract of *Sceletium tortuosum* (Zembrin™; 5, 10, 25, 50 mg/kg; $n=10$ /group), administered via oral gavage 24 hours, 6 hours and 1 hour before behavioural testing. Immobility, swimming and struggling as well as locomotor activity was assessed in the FST and OFT respectively.

Swimming and struggling is indicative of serotonergic and noradrenergic coping mechanisms, respectively. Data were analysed by Student's t-test, 1-way ANOVA with Tukey's post-hoc test ($p < 0.05$ deemed significant), and Cohen's d statistics.

RESULTS

FSL rats showed significantly reduced swimming and struggling, and greater immobility than FRL rats, thus confirming their depression-like behaviour. Escitalopram 5 and 10 mg/kg significantly increased swimming. 5 mg/kg significantly decreased immobility in FSL rats. 50 mg/kg Sceletium tortuosum tended to increase swimming, while 25 and 50 mg/kg significantly reduced immobility, indicating antidepressant-like effects. 25 and 50 mg/kg Sceletium tortuosum tended to increase struggling with a large effect size. No confounding locomotor effects were evident.

CONCLUSION

This study confirms the face and predictive validity of the FSL model following acute antidepressant exposure. Preliminary data suggest that 25 and 50 mg/kg Sceletium tortuosum present with antidepressant-like activity. These results will be used to evaluate the efficacy of Sceletium tortuosum (Zembrin™) alone and as adjunctive therapy compared to escitalopram following chronic treatment.

PRESENTER

Ms Mandi Hamman

Centre of Excellence for Pharmaceutical Sciences (PharmaCen™), Division of Pharmacology, School of Pharmacy, North-West University (Potchefstroom Campus)
22086935@nwu.ac.za

AUTHORS

Mandi Hamman¹, Marisa Möller-Wolmarans², Brain H Harvey³

Centre of Excellence for Pharmaceutical Sciences (PharmaCen™), Division of Pharmacology, School of Pharmacy, North-West University (Potchefstroom Campus), South Africa¹, Centre of Excellence for Pharmaceutical Sciences (PharmaCen™), Division of Pharmacology, School of Pharmacy, North-West University (Potchefstroom Campus), South Africa², Centre of Excellence for Pharmaceutical Sciences (PharmaCen™), Division of Pharmacology, School of Pharmacy, North-West University (Potchefstroom Campus), South Africa³.

ABSTRACT TITLE

Efavirenz distinctively modifies striatal serotonin and plasma oxytocin levels in rats without affecting depressive-like or ambulatory behaviour, compared to rats receiving cocaine

BACKGROUND/AIM

Efavirenz prompts numerous neuropsychological effects similar to that of known addictive substances and clinically has been reported to induce depressive-like symptomologies when used in antiretroviral therapy. This study sought to

demonstrate the effect of sub-chronic efavirenz, compared to that of a known dependence-forming drug (cocaine), exposure on depressive-like and ambulatory behaviours and associated neurochemical and peripheral biomarkers.

METHODOLOGY

Male Sprague-Dawley rats ($n=16$ /exposure) received intraperitoneal vehicle (control) or drug administration across an alternating sixteen-day dosing protocol. Control administration (saline/olive oil; 0.2 ml) occurred on odd-numbered and drug administration (efavirenz (5 mg.kg⁻¹), cocaine (20 mg.kg⁻¹)) on even-numbered days. Impact of drug exposure on depressive-like behaviour (forced swim test (FST)), ambulation (open field test (OFT)), regional brain serotonin and noradrenaline, and peripheral neuropeptide (oxytocin) expression were assessed vs controls. Statistical significance was determined by one-way or Kruskal-Wallis ANOVA, with significance deemed as $p=0.05$. Ethics approval: NWU-00291-17-A5.

RESULTS

Cocaine was significantly depressogenic compared to efavirenz ($p=0.0335$) and only moderately decreased swimming behaviour. Cocaine stimulated ambulation ($p=0.0044$) possibly resulting from significantly increased frontocortical ($p=0.0039$), striatal ($p=0.0069$), and hippocampal ($p=0.0041$) serotonin and hippocampal noradrenaline ($p=0.0007$) levels vs vehicle exposure and can therefore not be responsible for the observed behaviours in the FST. Furthermore, cocaine reduced plasma oxytocin levels ($p=0.0007$), a neuropeptide known to be involved in mood and substance abuse disorders. Efavirenz, however, failed to induce depressive-like behaviour vs vehicle exposed animals, but significantly increased swimming-duration vs vehicle ($p=0.0348$) and vs. cocaine-exposed animals ($p=0.05$ vs control), but rather to significantly elevated striatal serotonin ($p=0.0023$ vs control). Efavirenz significantly reduced plasma oxytocin expression ($p=0.0030$ vs control) to a similar extent as cocaine. No significant effects on struggling behaviour were observed for either drug.

CONCLUSION

This study demonstrates that, despite a lack of inducing depressive-like behaviours, efavirenz reduced plasma oxytocin in a manner comparable to cocaine. Thus, efavirenz is capable of modifying both central and peripheral biomarkers associated with drug abuse and depressive disorders. However, the precise mechanism mediating the aforementioned changes remains unclear and requires future investigation.

PRESENTER

Dr Leigh Janet

Private Practice
leigh.janet@mweb.co.za

AUTHORS

Miles Leigh Janet¹
 Private Practice¹

ABSTRACT TITLE

The evolving Role of CRISPR in Psychiatry

BACKGROUND/AIM

In 2018 I summarised the recent history of CRISPR. In this talk, I will review the latest developments in CRISPR. Although CRISPR genome editing as a treatment tool has been placed on hold until its safety can be established, its role in diagnosis and the determination of disease mechanisms is moving to centre stage. Is CRISPR the tool we need to unravel the complexity of psychiatric diagnosis?

CONCLUSION

This is an up-to-date review of the status of CRISPR in medicine and psychiatry.

PRESENTER

Dr Sanja Kilian

Department of Psychiatry, University of Stellenbosch
sanjakilian83@gmail.com

AUTHORS

Dr. Sanja Kilian¹
 Department of Psychiatry, University of Stellenbosch¹

ABSTRACT TITLE

Childhood trauma and treatment outcomes in first episode schizophrenia – a 2-year longitudinal study

BACKGROUND/AIM

Schizophrenia is an illness characterized by heterogeneous outcomes with many patients experiencing poor outcomes. While first-episode schizophrenia patients generally initially respond well to treatment, they often have poor outcomes over the long term. Poor outcomes may be ascribed to environmental factors. One such environmental risk factor is exposure to childhood trauma (CT), which in addition to increasing the risk of developing schizophrenia, is associated with lower remission rates and poorer treatment outcomes. In this study, we addressed the question of whether patients with a history of CT had a poorer response to antipsychotic treatment than those without such a history, when other potential confounds are taken into account.

METHODOLOGY

Our sample consisted of 78 patients diagnosed with a first episode of schizophrenia. We used linear mixed effect models for continuous repeated measures to study interactions between time and childhood trauma by group and controlled for age, gender and education. We used within analyses Fisher's Least Significant Difference post-hoc tests to compare the means between the high and low trauma group at baseline and at the end of the 2-year follow-up period.

RESULTS

This is the first study to document the association between CT and treatment outcome in schizophrenia in a setting in which treatment was standardized. The main findings were that, while psychopathology improvements were slower in the CT high patients,

symptom severity levels were similar between the groups at 24 months. At the same time, while psychosocial functionality and quality of life response trajectories were similar between the groups, the high CT group improvements were less robust, with significantly poorer social and occupational functioning and quality of life persisting at month 24.

CONCLUSION

While we found only small differences between improvements in psychopathology, significant differences were demonstrated of psychosocial outcomes and self-rated quality of life. This would suggest that in the management in schizophrenia, exposure to childhood trauma should be routinely enquired after and interventions tailored accordingly. Interventions focusing on social and occupational functionality as well as self-esteem may be particularly important in those with a history of CT.

PRESENTER

Mr Joonas Korhonen

Turku University of Applied Sciences & University of Turku, Turku, Finland
joonas.korhonen@turkuamk.fi

AUTHORS

Joonas Korhonen¹, Anna Axelin², Gerhard Grobler³, Abigail Kusi Amponsah⁴, Mari Lahti⁵
 Turku University of Applied Sciences & University of Turku, Turku, Finland¹, University of Turku, Turku, Finland², University of Pretoria, Pretoria, South Africa³, University of Turku, Turku, Finland & Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana⁴, Turku University of Applied Sciences, Turku, Finland⁵

ABSTRACT TITLE

Content validation of an instrument measuring primary health care workers' mental health literacy in Africa

BACKGROUND/AIM

Mental health literacy (MHL) consists of knowledge and beliefs about mental health issues. Lack of knowledge on mental health issues among primary health care workers has been recognized in Africa. Good MHL among health professionals aid the recognition, management and prevention of mental disorders, making the development of context specific instruments for measuring MHL crucial. The Mental Health Literacy Scale (MHLS) is a newly developed instrument measuring all attributes of MHL. The aim of this paper is to assess the content validity of MHLS in South Africa and Zambia.

METHODOLOGY

A heterogeneous expert panel method comprising of professional research experts (PE) and clinical experts (CE) was used to assess the content validity of MHLS in an African context. Expert panels were held for the both groups separately, for PEs in South Africa and CEs in Zambia between April and May 2018. PEs (n=11) and CEs (n=10) from primary health care were asked to assess the relevance of the 35

items of MHLS on a 4-point scale from 1 (not relevant) to 4 (very relevant). Content validity indexes for the item level (I-CVI) and scale level (S-CVI/Ave) were calculated.

RESULTS

Participants' educational qualifications varied from certificate to PhD -level. PEs were mental health professionals, who mostly had working experience of 15 years or more. CEs had no research experience; majority of them were registered nurses and midwives, half of them having working experience up to five years. The I-CVIs for 35 items assessed by PEs ranked from 0.82 to 1.00, all of the items meeting the cutoff criteria ≥ 0.8 for relevance. I-CVIs ranked by the CEs varied from 0.1 to 1.00, ten of the items meeting the desired cutoff criteria. Scale level average (S-CVI/Ave, cutoff ≥ 0.9) for all 35 items rated by PEs was 0.95 and by CEs 0.63. Mean (S-CVI/Ave) for the both groups was 0.8, slightly below the desired cutoff 0.9.

CONCLUSION

MHLS has appropriate content validity in African context. However, ratings between the groups varied. Working experience and education influences the assessment of item relevance.

PRESENTER

Dr Marlana Kruger

MindUnique Education

marlena@mindunique.co.za

AUTHORS

Marlana Kruger¹

MindUnique Education¹

ABSTRACT TITLE

Neuroscientific power of technology addiction on us

BACKGROUND/AIM

We're living in a techno-immersed world where mind-boggling technology innovations and associated applications are developed on a daily basis and at the speed of light worldwide. There are many innovative developments that are helping people in many different areas of their lives. Unfortunately, there are also certain developments that are putting our health and wellness at risk. Educational software programs provide engaging interactions while learning, but unfortunately also easily over stimulating people's brains, because of too many rewarding and pleasurable interactions and consequently over-secretion of dopamine. Dopamine is the main pleasure hormone in our brains and bodies. Dopamine also plays a significant role in technology addiction.

METHODOLOGY

The researcher facilitated a 3-hour workshop, focusing on living a well-balanced life with technology and social media to promote development, health and wellness. The workshop was attended by 40 first-year students at the beginning of their academic year in January 2019. A Technology Addiction Test

(TAT) was administered at the end of the workshop. It consists of 25 items on a 5-point Likert scale that measure mild, moderate and severe levels of internet addiction.

RESULTS

The researcher received 38 (95%) completed questionnaires. The data of the 25 items of each questionnaire were captured and analysed. The overall results are presented and categorised into the three levels of internet addiction. Based on these results, possible solutions to our real-life challenges with regards to neuroscientific development, health and wellness when spending too much time during our lifelong learning pathways with technology and social media, will be discussed.

CONCLUSION

We need to acknowledge the neuroscientific impact of technology addiction on our brains and bodies. We must acknowledge that our brains only mature fully at the age of 25 years and therefore we can't expect young children and people to manage these technologies effectively and wisely. It is reported that there is also an increase in the number of children with ADHD, Autism Spectrum Disorder (ASD) and Functional Disorder Syndrome (FDS). We must evaluate these trends and take precautionary steps to limit overall screen time for all children at homes and in classrooms to prevent technology addiction.

PRESENTER

Dr Rykie Liebenberg

Private practice

rml@global.co.za

AUTHORS

Rykie Marlet Liebenberg¹

Private Practice¹

ABSTRACT TITLE

Chaos and Crisis: Mothers with ADHD

BACKGROUND/AIM

The presentation will aim to present the challenges facing parents with ADHD, but specifically focusing on mothers. We know that female sufferers with ADHD are often misdiagnosed, especially at a young age. It does mean that women underperform and lead difficult lives professionally and personally. The subtype of ADHD might be very different in women, and present unique challenges in diagnosis and management. The diagnosis is often only made when adult life becomes more complex, such as marriage and children, or when comorbidities become evident. The presentation will explore parenting and professional challenges facing mothers, often also with children with ADHD. Some of the topics will be executive functioning, genetics, emotional regulation and time management, with some case studies.

METHODOLOGY

Literature search and original cases.

RESULTS

Not applicable as this is not original research.

CONCLUSION

The parenting difficulties of mothers with ADHD will be discussed, and hopefully some solutions suggested.

PRESENTER

Dr Hilmar Luckhoff

Department of Psychiatry, Faculty of Medicine and Health Sciences, Stellenbosch University

hilmarklaust@gmail.com

AUTHORS

Hilmar Luckhoff¹, Sanja Kilian², Riaan Olivier³, Lebogang Phahladira⁴, Freda Scheffler⁵, Stefan du Plessis⁶, Bonginkosi Chiliza⁷, Laila Asmal⁸, Robin Emsley⁹

Department of Psychiatry, Faculty of Medicine and Health Sciences, Stellenbosch University^{1,2,3,4,5,6,8,9},

Department of Psychiatry, Nelson R Mandela School of Medicine, University of Kwazulu-Natal, South Africa⁷,

ABSTRACT TITLE

Relationship between changes in metabolic syndrome constituent components over 12 months of treatment and cognitive performance in first-episode schizophrenia

BACKGROUND/AIM

Few studies have investigated the longitudinal effects of treatment-emergent metabolic syndrome changes on cognitive performance in first-episode psychosis. The aim of the present study was to determine the associations between changes in metabolic syndrome constituent component over 12 months of treatment and end-point cognitive performance in schizophrenia spectrum disorders.

METHODOLOGY

This single site-cohort study included 72 minimally treated or antipsychotic-naïve first-episode patients. Cognitive performance was evaluated using the MATRICS Consensus Cognitive Battery (MCCB). Our primary objective of interest was the relationship between metabolic syndrome constituent component changes over 12 months of treatment and end-point cognitive performance. Secondary objectives included investigating whether this relationship was affected by age, sex, antipsychotic dose, treatment duration and substance use.

RESULTS

Weight gain predicted better overall cognition ($p = 0.02$) at end-point, adjusting for age, sex, substance use, baseline cognitive score and BMI, modal antipsychotic dose and treatment duration. Weight loss ($p = 0.04$) and substance use ($p = 0.01$) were both associated with poorer working memory performance at endpoint. Low baseline BMI showed differential effects on end-point working memory performance in substance users (unfavourable) compared to non-users (favourable) ($p < 0.05$).

CONCLUSION

Weight gain over the course of antipsychotic treatment is associated with better overall cognitive

performance and the working memory domain in first-episode schizophrenia spectrum disorder patients. In contrast, low baseline BMI may represent an unfavourable marker in substance users, who demonstrated weight loss compared to non-users.

PRESENTER

Dr Sibongile Mashaphu

University of Kwazulu-Natal

mashaphus@ukzn.ac.za

AUTHORS

S Mashaphu¹, G Wyatt², E Gomo³, A Tomita⁴

University of Kwazulu Natal^{1,3,4}, UCLA²

ABSTRACT TITLE

Prevalence and Correlates of Intimate Partner Violence among HIV Serodiscordant Couples in Durban South Africa

BACKGROUND

South Africa has high prevalence rates of intimate partner violence (IPV) and HIV which can be further exacerbated by HIV serodiscordancy in the couple dyad. Further exploration of the impact of the sidedness of the discordancy as well as mediating factors such as alcoholism and its impact on IPV is required. The aim of this paper is to investigate the prevalence and correlates of (IPV) in HIV serodiscordant couples in Durban South Africa.

METHODOLOGY

A cross-sectional analysis of data including participants' HIV status, reports of IPV, trauma and alcohol use was conducted on 30 serodiscordant couples in Durban South Africa at the point of enrolment into a pilot study of an HIV Risk Reduction Intervention for serodiscordant couples. The analysis examined gender differences in the intimate partner violence exposure, post-traumatic stress symptomatology and alcoholism risk outcomes using the statistical procedure for dependent small sample.

RESULTS

Of the 30 couples enrolled, 60% of the discordancy was in women. Over half of the participants, 53.3% were in the current relationship for more than 5 years. There were more reports of IPV and Posttraumatic Stress symptoms in women than men. The IPV dependence proportion between men and women was 0.29 and 0.89 respectively, with a significant difference ($\text{diff} = -0.61$, 95% CI: -0.82 to -0.39) $p < 0.01$). Similarly, median trauma symptoms scores between men and women was 22 (IQR = 40) and 44 (IQR = 28) with a significant difference based on Wilcoxon signed-rank test ($p = 0.03$). There were no significant gender differences for alcoholism risk among all couples.

CONCLUSION

The findings demonstrated high levels of IPV and Posttraumatic stress symptoms in HIV serodiscordant couples, especially in cases where the woman was HIV positive. HIV intervention programs should address domestic violence among heterosexual couples. Key words: HIV, IPV, serodiscordant couples, PTSD, alcohol use.

PRESENTER**Dr Thembeka Portia Matshoba**University of KwaZulu Natal
mbeza115@gmail.com**AUTHORS**Dr Sibongile Mashaphu¹, Dr Saeeda Paruk², Dr Andrew Tomita³
University of Kwa-Zulu Natal^{1,2,3}**ABSTRACT TITLE****A Comparative Survey on knowledge, attitudes, practices and beliefs about HIV and AIDS among patients with chronic mental and medical illnesses in Durban, Kwa-Zulu Natal****BACKGROUND/AIM**

Poor knowledge about the Human Immunodeficiency Virus (HIV) remains a challenge in the post highly active antiretroviral treatment era, with a majority of the population acquiring information from different sources, such as the media, family, friends and small proportion of information from the health care facilities. Mental illness and substance use disorders influence high-risk sexual behaviours. Poor knowledge about the virus may render the mentally ill less receptive to HIV prevention information. The mentally ill population is more at risk of HIV infection than the general medical population, and the dissemination of information on HIV should be prioritized in this vulnerable group. The aim, to assess knowledge, attitudes, beliefs and practices (KABP) relating to HIV infection and Acquired immunodeficiency syndrome (AIDS) among patients with mental and medical illnesses.

METHODOLOGY

A cross-sectional structured questionnaire survey of patients with psychiatric disorders and medical disorders attending two general hospitals in Durban, which offered both psychiatric and medical outpatient services, was conducted.

RESULTS

110 participants with mental illness and 110 participants with a medical illness were interviewed. Participants were predominantly female (69.5%), single and unemployed. The diagnosis of mental illness ($p=0.02$) was associated with poorer general knowledge of HIV but not for knowledge on HIV transmission or prevention. Educational level was significantly associated with poorer general knowledge of HIV ($p=0.01$), HIV transmission KBAF ($p=0.02$) and HIV prevention KBAF ($p=0.01$).

CONCLUSION

Patients with mental illness displayed poorer KAPF regarding HIV than patients with medical illnesses suggesting need to upscale HIV health education in psychiatric settings

PRESENTER**Dr Lihle Mgweba-Bewana**University of Cape Town, University of Pretoria
lihle.mgweba@gmail.com**AUTHORS**Lihle Mgweba-Bewana¹, Jonathan Ipser², ProfessorJohn Joska³University of Cape Town^{1,2,3}**ABSTRACT TITLE****Triple comorbidity of severe mental illness, HIV infection & alcohol abuse in a female population at a community psychiatric clinic in Cape Town: Prevalence and correlates****BACKGROUND/AIM**

The main aim of this study was to investigate the prevalence of a triple co-morbidity of SMI, HIV infection and hazardous alcohol use in a female population at a community psychiatric clinic in Cape Town South Africa; and the impact of this triple comorbidity on medication adherence. Furthermore, we set out to identify demographic and clinical variables that are predictors of poor adherence to both psychotropic medication and ART where applicable.

METHODOLOGY

We conducted a cross-sectional study of female patients presenting to Gugulethu psychiatric clinic over a ten-month period. A descriptive analysis of the demographic and predictor variables was undertaken to explore the prevalence of concurrent HIV infection and hazardous alcohol use in out-patients with SMI; as well as to investigate whether co-morbidity is associated with poor levels of adherence to psychotropic medication, as well as antiretroviral treatment (ART) in HIV positive patients.

RESULTS

We interviewed 127 patients, of whom 55 were HIV positive (43.3%). The overall prevalence of a triple comorbidity in this population was 7.9%. Only 20% within this triple comorbidity group were adherent to their psychotropic medication. Out of the 10 participants with a triple comorbidity, only five were on ART. Of these 5 participants, only two were adherent. Individuals with hazardous alcohol use were less adherent to psychotropic medication compared to those without. The seven respondents in the dual diagnosis group (SMI and hazardous alcohol use) had the lowest overall psychotropic adherence levels compared to the other subgroups (0%). Furthermore, concurrent hazardous alcohol use predicted poorer levels of compliance to ART for those with HIV infection.

CONCLUSION

The presence of a triple diagnosis was not found to be a predictor of poorer medication adherence, compared to having one or two diagnoses. Nevertheless, there was evidence that concurrent hazardous drinking in SMI patients predicted poor compliance to both psychotropic and ART treatment regimens (for those living with HIV). These patients should be supported in future interventions to improve medication adherence and reduce hazardous drinking.

PRESENTER**Dr Emmanuel Mwesiga**Department of Psychiatry and Mental Health,
University of Cape Town
MWSEMM001@myuct.ac.za

AUTHORS

Dr Emmanuel Kiiza Mwesiga¹, Dr Dickens Akena², Dr Nastassja Koen³, Dr Reuben Robbins⁴, Prof. Noeline Nakasujja⁵, Prof. Dan Stein⁶

Department of Psychiatry and Mental Health, University of Cape Town^{1,3,6}, College of Health Sciences, Makerere University^{2,5}, HIV Centre for Clinical and Behavioral Studies, New York State Psychiatric Institute and Columbia University Medical Center⁴

ABSTRACT TITLE

Utility and validity of a smart phone application for the assessment of cognitive function among patients with a first episode of psychosis in Uganda

BACKGROUND/AIM

Cognitive assessments of patients with psychotic disorders are not usually performed in low- and middle-income countries due to human resource limitations. Cognitive assessments delivered via smart phone applications may allow assessment of cognitive function in low resource settings, few have been validated and none are in common use. We aimed to validate the Neuroscreen, a smart phone application for use in patients with a first episode of psychosis in Uganda.

METHODOLOGY

250 patients with first episode psychosis admitted at the National psychiatric teaching and referral hospital in Uganda were included in the study. The psychosis diagnosis was confirmed with the MINI, patients followed from admission until psychotic symptoms resolved, and cognitive assessments then performed. The Neuroscreen is a collection of cognitive assessments delivered via a smart phone application. It was administered by diploma level psychiatric clinical officers. The MATRICS consensus cognitive battery (MCCB) that is the gold standard for assessment of cognitive function in patients with psychosis, was administered by clinical psychologists. Both the Neuroscreen and MCCB were given on the same day, with breaks in between each assessment. ROC analysis was undertaken to determine the sensitivity and specificity of the Neuroscreen.

RESULTS

In preliminary results, the average time for both administration and scoring of a cognitive assessment with the Neuroscreen was 30.4 mins. The average time for administering and scoring the MCCB was 141.0 mins. There was a significant positive association between many tests on both tools. For example there was a positive association between the visual discrimination task on the Neuroscreen and the symbol coding task on the MCCB, ($r(89)=0.6203$, $p=0.0047$).

CONCLUSION

These preliminary results suggest that the Neuroscreen may have utility in assessing cognitive function in patients with a first episode of psychosis. Additional validation results are pending.

PRESENTER

Dr Thejini Naidoo

Department of Psychiatry, UKZN
thejini.naidoo@gmail.com

AUTHORS

Dr. Thejini Naidoo¹, Dr. Andrew Tomita^{2,3}, Dr. Saeeda Paruk^{4,5}

Department of Psychiatry, UKZN^{1,4}, KZN Research Innovation and Sequencing Platform (KRISP), College of Health Sciences, UKZN², Centre for Rural Health, School of Nursing and Public Health, College of Health Sciences, UKZN³, King Dinizulu Hospital Psychiatry, Department of Health, KZN⁵

ABSTRACT TITLE

Burnout, Anxiety and Depression in South African Doctors Working in Kwazulu-Natal Training Hospitals: An eThekweni Perspective.

BACKGROUND

The dehumanisation of medicine not only applies to the patient population, but to medical doctors (MD) as well. This commonly manifests itself as burnout, anxiety and depression which is associated with impaired functioning personally and professionally. Establishing the extent of the problem as well as potential modifiable factors may lay the foundation for public health interventions to prevent or attenuate negative outcomes.

Objective: To determine the prevalence of burnout, anxiety and depression and their associations with practitioner and work-related factors among MD employed at state hospitals in the eThekweni municipality of KwaZulu-Natal.

METHODOLOGY

A cross sectional survey was conducted among MD at 5 training hospitals using a sociodemographic questionnaire, the Maslach Burnout Inventory – Human Services Survey (MBI-HSS), the Generalised Anxiety Disorder questionnaire 7 (GAD 7), and the Patient Health Questionnaire 9 (PHQ 9).

RESULTS

Eighty-eight (59%) of the 150 participants reported burnout, as indicated by high scores on the emotional exhaustion or depersonalisation subscales of the MBI-HSS. Thirty (20%) participants reported anxiety and 32 (21%) reported depressive symptoms. Burnout was associated with anxiety ($p<0.01$) and depression ($p<0.01$). There were also significant associations between burnout and junior occupational rank ($p=0.02$); lack of support by clinical supervisor ($p<0.01$); lack of hospital resources ($p<0.01$); and negative impact of work on personal life ($p<0.01$). In addition, females had an increased risk of screening positive for depression ($p=0.02$).

CONCLUSION

Burnout, anxiety and depression in MD are highly prevalent in resource-constrained KwaZulu-Natal training hospitals and possibly have complex bidirectional associations. Factors such as gender, occupational rank, support by clinical supervisor, hospital resources and impact of work on personal life appear to play an important role in its development. Programs to support MD in resource restrained settings need to be urgently considered.

PRESENTER**Dr EM Peter-Ross**

Department of Psychiatry and Mental Health, University of Cape Town, Neurogenetic Psychiatric Outpatients Clinic, Groote Schuur Hospital, Main Road, Observatory 7935, Cape Town, South Africa; Life Vincent Pallotti Hospital, Suite 116, Alexandra Road, Pinelands 7405, Cape Town, South Africa. peterem@mweb.co.za

AUTHORSDr. Elizabeth Peter¹

Department of Psychiatry and Mental Health, University of Cape Town, Neurogenetic Psychiatric Outpatients Clinic, Groote Schuur Hospital, Life Vincent Pallotti Hospital¹

ABSTRACT TITLE

Searching for the elusive Pathobiological causes of Catatonia

BACKGROUND

The pathobiological causes, the shared cellular and molecular pathways in catatonia and in catatonic presentation in neuropsychiatric disorders are yet to be determined. In this presentation, a hypothesis is presented to postulate the underlying cause of catatonia and its many clinical presentations and to explain its relationship to the neuroleptic malignant syndrome and the serotonin syndrome. A second hypothesis speculates the causative gene for periodic catatonia on 15q15. Future precision psychiatry will need more such accurate pathophysiologically defined psychiatric diagnoses to accelerate the discovery of specific molecular-targeted medications to improve therapeutic outcomes

METHODOLOGY

The two hypotheses have been deduced from the latest scientific research findings and clinical observations of patients with genetic disorders, behavioural phenotypes and other family members suffering mental disorders.

RESULTS

The first hypothesis postulates that catatonia and the heterogeneity of catatonic signs and symptoms involve nucleolar dysfunction arising from abnormalities of the brain-specific, non-coding micro-RNA, SNORD115 genes (either duplications or deletions) which result in pathobiological dysfunction of various combinations in the downstream pathways (possibly along with other genes in these shared pathways). SNORD115 controls five genes CRHR1, PBRM1, TAF1, DPM2, and RALGPS1 as well as the alternative splicing of serotonin 2C receptor. The second hypothesis postulates that periodic catatonia (PC) on 15q15 involves abnormalities of vacuolar protein sorting 39 (VPS39), a proven de novo schizophrenic gene in this chromosomal locus and part of the HOPS complex.

CONCLUSION/DISCUSSION

SNORD115 abnormalities with varying downstream multigene involvement would account for catatonia as a nucleolar disorder across the life span within some subtypes of autism spectrum disorders,

schizophrenia, bipolar and major depressive disorder, psychosis, genetic disorders, and in immune disorders such as anti-N-methyl-D-aspartate receptor (NMDAR) antibody encephalitis as well as the susceptibility to the neuroleptic malignant syndrome (NMS) if environmentally triggered. Furthermore, SNORD115 genes may underlie a genetic vulnerability when environmental triggers result in excess serotonin producing the serotonin syndrome, a condition similar to NMS in which catatonia may occur. Dysfunction of SNORD115-PBRM1 connecting with SMARCA2 as well as other proven schizophrenia-associated genes might explain why traditionally catatonia has been classified with schizophrenia. SNORD115-TAF1 and SNORD-DPM2 dysfunction introduce possible clues to the parkinsonism and increased creatinine phosphokinase in NMS, while abnormalities of SNORD115-RALGPS1 suggest links to both anti-NMDAR encephalitis and the proven predisposing catatonic SHANK3 gene. These will impact the autophagic and endocytic pathways, thereby lowering lysosomal degradation. VPS39 mutations may be considered also to disrupt lysosome-mitochondria tethering and transport of lipids and calcium through membrane contact sites (MCSs). To account for the periodicity in PC it is speculated that the mammalian equivalent of the vacuole and mitochondria patch (vCLAMP) would be altered by VPS39 mutations and subsequently followed by the mammalian equivalent of endoplasmic reticulum mitochondria encounter structure (ERMES) restoring mitochondrial homeostasis.

PRESENTER**Dr Lihle Qulu**

University of KwaZulu-Natal
qulu.freepirit7@gmail.com

AUTHORS

Lihle Qulu¹, Andria Wilkins²
University of KwaZulu-Natal^{1,2}

ABSTRACT TITLE

The role of Oxytocin on a Sexual Defeat Rat Model

BACKGROUND/AIM

South Africa has been named the "rape capital of the world" with 110 rape cases reported daily. Sexual violence against women is a major international public health problem and a violation of women's human rights. However, there is a dearth of viable data on factors perpetuating sexual violence and whether aggressive behaviour or factors leading to aggressive behaviour such as social isolation play a role in perpetuating sexual violence. The hypothalamic pituitary adrenal axis plays a pivotal role in the stress response by regulating both corticosterone and oxytocin. The hypothalamic pituitary adrenal axis has been shown to be susceptible to dysregulation by social isolation. Furthermore, there is a dearth of animal models designed to mimic sexual violence in a controlled laboratory environment. Therefore, the aim of this study was to create a model of sexual defeat using juvenile Sprague-Dawley rats (SD).

METHODOLOGY

Virgin male SD rats were exposed to either group housing or social isolation concurrently for seven days. After this the resident-intruder test was used to assess aggressive behaviour. These males were then exposed to females in oestrus, and upon the second intromission the female in oestrus was removed and replaced with a female not in oestrus. This model was repeated for a total of four days after which the resident-intruder paradigm was repeated. After the resident-intruder paradigm, the social dominance tube test was used to assess social deficits in the male rats, while the forced swim test was performed on the females.

RESULTS

Our findings show that social isolation resulted in increased sexual aggression towards females which also culminated increased aggression towards male intruders and social deficits. These findings were confirmed by high oxytocin levels observed in the group housed males in comparison to the isolated sexual defeating males. Female rats showed depressive-like behaviour and increased systemic corticosterone levels.

CONCLUSION

In conclusion, this model will allow for the study of sexual aggression in both man and woman in a controlled environment, with a focus on physiological changes which may occur in perpetrators.

PRESENTER

Dr HG Laurie Rauch

UCT Division of Exercise Science and Sports Medicine
laurie.rauch@uct.ac.za

AUTHORS

HG Laurie Rauch¹, Michael T King²
 UCT Division of Exercise Science and Sports Medicine, Department of Human Biology, Faculty of Health Science¹, Ocean Safety Research Lab Marine Institute, Memorial University²

ABSTRACT TITLE

Strengthening the Brain Reward System via physical activity to combat addictive behaviours

BACKGROUND/AIM

Addiction has been characterized as a 3-stage cycle
 1) positive stage of compulsive drug seeking,
 2) loss of control over drug intake, and
 3) a negative withdrawal stage that engages the brain stress system.

To lessen the likelihood of addictive behaviours taking root in the increasingly sedentary modern lifestyles, there is a great need to establish effective preventative measures. We identified two components of the Brain Reward System (BRS) that can be strengthening by physical activity (PA) to combat development of addictive behaviours:
 1) Willingness to work to obtain a set goal, and
 2) locomotor muscle activation via central pattern generators (CPGs).

METHODOLOGY

- 1) We measured the extra amount of work (completed during 13 min of hand-gripping intervals at 70% MVC) that 29 participants (29.7 ± 9.7 years, BMI: 26.1 ± 6.8, moderate to vigorous/week PA 569 ± 706 min) completed with methylphenidate (MPH) vs. without MPH ingestion.
- 2) We examined the relationship between heart rate variability (HRV - measure of stress) and CPG output - specifically by measuring joint angles between the head, spine, pelvis and feet - during a mock boxing stressor, both pre and post 10 sessions of Tai Chi training.

RESULTS

- 1) The less habitual PA an individual engaged in the greater their improvement in handgrip force output with MPH. ($r = -0.4$ $p < 0.05$)
- 2) Before Tai Chi training there was a significant positive correlation between HRV (stress marker) and back-footed CPG stance (i.e. wider head, spine, pelvis and feet angles) during boxing ($r = 0.87$, $p < 0.02$). After training HRV was significantly negatively correlated to front-footed CPG stance (i.e. narrower head, spine, pelvis and feet angles) during boxing ($r = -0.87$, $p < 0.005$).

CONCLUSION

The level of physical PA people habitual partake in is associated with DA neurotransmission that impacts willingness to work to obtain a set goal. An effective way to strengthen locomotor CPGs (that co-ordinates the motor output to obtain a set goal) is via 'movement from the spine' such as during walking, jogging, pedaling, swimming, paddling, Tai Chi, Qigong, etc.

PRESENTER

Ms Mathilda Regan

Harvard University
mregan@g.harvard.edu

AUTHORS

Mathilda Regan, MPH,¹ Said Aboud, MD, PhD^{2,3}, Wafaie Fawzi, MBBS, DrPH¹ Sylvia Kaaya, MD⁴ Ferdinand Mugusi, MD⁵ Alfa Muhihi, MD². Tumaini Nagu, MD, MPH^{2,5} Mary Kay Smith Fawzi, ScD⁶ Nzovu Ulenga, PhD² Chris Sudfeld, ScD⁶
 Department of Global Health and Population, Harvard T H Chan School of Public Health, Boston, MA, USA¹, Management and Development for Health, Dar es Salaam, Tanzania², Department of Microbiology and Immunology, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania³, Department of Psychiatry, Muhimbili University College of Health Sciences, Dar es Salaam, Tanzania⁴, Department of Internal Medicine, Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania⁵ Department of Global Health and Social Medicine, Harvard Medical School, Boston, MA, USA⁶

ABSTRACT TITLE

Depressive symptoms and viral suppression among a cohort of HIV-infected adult men and women initiating ART in Dar-es-Salaam, Tanzania

BACKGROUND/AIM

There is a growing body of evidence that depression is linked to poor health outcomes among HIV-infected adults on antiretroviral therapy (ART). However, the relationship between depression and viral suppression remains unclear, particularly in resource-limited settings.

METHODOLOGY

We conducted a prospective cohort study of 3,996 adult men and women initiating ART in Dar-es-Salaam, Tanzania. Depressive symptoms were assessed using the Hopkins Symptoms Checklist at baseline, six months, and twelve months post-ART initiation. Log binomial models were used to assess the association between depression at ART initiation and six months of ART with the risk of unsuppressed viral load (greater than 400 copies/ μ l) at 6 months.

RESULTS

The prevalence of symptoms consistent with depression at ART initiation was 49.8% among 2,732 women and 45.4% among 1,264 men. Prevalence among men decreased to 23.7% at six months and 13.9% at twelve months post-initiation. Among women it decreased to 29.1% at six months and 20.8% at twelve months post-initiation. After multivariate adjustment, women with depression at six months of ART had 1.56 times (95% CI: 1.10, 2.21; $p=0.01$) the prevalence of concurrent unsuppressed viral load. Men with the top tertile of depression score at six months had 1.69 times the prevalence of an unsuppressed viral load (RR: 1.59; 95% CI: 1.04, 2.44; $p=0.03$).

CONCLUSION

These findings suggest that interventions to reduce depression among adults initiating ART would not only improve their own health but, importantly, also reduce their risk of transmitting HIV.

PRESENTER

Dr Lesley Robertson

University of the Witwatersrand
lesley.robertson@wits.ac.za

AUTHORS

Lesley J. Robertson¹, Halima Dawood², Trudy D. Leong³
 Department of Psychiatry, University of the Witwatersrand¹, Department of Internal Medicine, University of KwaZulu-Natal², Essential Drugs Programme, National Department of Health³

ABSTRACT TITLE

Rapid evidence synthesis and development of a treatment algorithm for Bipolar Disorder

BACKGROUND

The medical management of Bipolar Disorder (BD) is complex and guideline heterogeneity with poor guideline adherence are well documented. Polypharmacy has been documented locally and internationally, commonly in relation to depressive episodes, but also related to acute phase medicines being continued as maintenance. Treatment may be complicated by a high prevalence of medical

comorbidity, in turn worsened by poorly controlled BD. The goal of care should be euthymia with optimal biopsychosocial functioning for the individual. The aim of this review was to recommend the best practice for medical treatment of BD and draft an evidence-based, clinically relevant, algorithm for South Africa.

METHODOLOGY

To obtain recent evidence, the PubMed and Cochrane databases were searched for systematic reviews on the treatment of BD published in English in the past five years. Search terms were (bipolar disorder OR bipolar depression OR mania) AND (treatment OR medication OR lithium OR antipsychotics OR anticonvulsants OR antidepressants). Of the 338 publications, 11 were used for overall decision-making. An additional meta-analysis was added from reference list searching. Further searches were conducted to update the systematic reviews with any studies published in the past two years and to answer specific questions which arose during the evidence synthesis.

RESULTS

Because of the general poor quality of randomized controlled trials in BD, findings on acute and maintenance treatment from comparative effectiveness reviews were corroborated with results of systematic reviews on specific treatments, observational studies, and expert opinion. After assessment of the evidence, medicines were selected through consensus agreement of the Adult Hospital Standard Treatment Guidelines Committee and algorithms drafted for 1st, 2nd, and 3rd line treatment of predominantly manic and depressive courses of illness. Final recommendations will follow review and ratification by the National Essential Medicines List Committee, external comment by clinical stakeholders, and a re-iterative process on receipt of these comments. These will then be incorporated in the National Essential Medicines List and Standard Treatment Guidelines.

CONCLUSION

Treatment algorithms for BD, updated using recent evidence from multiple sources and a transparent, consultative process, will be available for presentation in September 2019 and published for implementation by early 2020.

PRESENTER

Dr Duncan Rodseth

University of Witwatersrand DGMC
drodseth@icon.co.za

AUTHORS

Duncan Ian Rodseth¹
 University of Witwatersrand DGMC¹

ABSTRACT TITLE

Experience from a Ketamine Clinic of more than 50 patients treated for resistant depression

BACKGROUND/AIM

Over the past decade there has been an increasing interest in the use of ketamine in sub- anaesthetic

doses for the treatment of both unipolar and bipolar depression. Ketamine has a particularly rapid effect and appears to be modulated by its action as a non-competitive NMDA antagonist and neuroplastic effects. This has been confirmed by a number of randomised controlled trials. This presentation will discuss the experience gained from treating more than 50 patients at an infusion clinic. The treatment regime and practical arrangements will be described as well as several case reports.

PRESENTER

Mrs Freda Scheffler

Department Psychiatry, Stellenbosch University
fredas@sun.ac.za

AUTHORS

Freda Scheffler¹, Stefan Du Plessis², Laila Asmal³, Sanja Kilian⁴, Lebogang Phahladira⁵, Hilmar K Luckhoff⁶, Bonga Chiliza⁷, Robin Emsley⁸
Department of Psychiatry at Stellenbosch University^{1,2,3,4,5,6,8} Department of Psychiatry at the University of KwaZulu Natal⁷

ABSTRACT TITLE

Cannabis use and hippocampal subfield volumes in males with first episode schizophrenia and healthy controls

BACKGROUND

Both Schizophrenia and cannabis use are associated with structural brain changes. The hippocampus is a region of particular interest due to its role in memory and select cognitive functions, impairment of which is a core feature of schizophrenia and has also been observed in substance abuse. This study aimed to explore the effects of cannabis use on hippocampal subfield volumes in male first-episode schizophrenia spectrum disorder patients and matched controls.

METHODOLOGY

This cross-sectional, case-control study included 63 patients and 58 controls scanned on 3T MRI scanners, with hippocampal segmentation performed using recently validated Free surfer v6.0 software. Urine toxicology screening was done on the day of the MRI scan. We used multivariate analysis of covariance (MANCOVA) with age and scan sequence as covariates, with subsequent analysis of variance (ANOVA) to test the effects of diagnosis and cannabis use status on individual hippocampal subfields.

RESULTS

We found a diagnosis by cannabis use interaction effect in the subiculum ($F=7,832$; $p=0,006$), with smaller volumes observed in the cannabis non-using patients than the cannabis using patients, and smaller volumes in the cannabis using controls than the cannabis non-using controls.

CONCLUSION

The larger subiculum volume in cannabis using patients compared to cannabis non-using patients was unexpected and raises important questions regarding the pathophysiology of schizophrenia and the role of cannabis use therein.

PRESENTER

Prof Renata Schoeman

Stellenbosch University, Private
renata@renataschoeman.co.za

AUTHORS

Renata Schoeman¹
Stellenbosch University¹

ABSTRACT TITLE

The management of ADHD during pregnancy

BACKGROUND/AIM

Attention-deficit/hyperactivity disorder (ADHD) medications are used by increasing numbers of reproductive-age women. Untreated ADHD increases the risk for the development of comorbid mental health disorders. However, the safety of psychopharmacological treatment of ADHD during pregnancy has not been well described. This talk will evaluate available literature and also unpublished studies requested from pharmaceutical companies and propose the safest options in terms of pharmacological and non-management of ADHD during pregnancy.

METHODOLOGY

A Pubmed search was conducted for all published articles (systematic reviews, trials, and case reports) for the management of ADHD during pregnancy. Pharmaceutical companies were contacted for all available unpublished data.

RESULTS

Findings will be presented during this presentation and to propose a course of action for the management of ADHD during pregnancy.

CONCLUSION

The risks and benefits of treatment versus non-treatment of ADHD for both mother and fetus needs to be carefully evaluated for each individual patient.

PRESENTER

Dr Taiwo Lateef Sheikh

Department of Psychiatry, Ahmadu Bello University, Zaria, Nigeria
latshe@yahoo.com

AUTHORS

Taiwo Lateef Sheikh¹, Jude U. Ohaeri²
Department of Psychiatry, Ahmadu Bello University, Zaria, Nigeria¹, Department of Psychological Medicine, University of Nigeria Teaching Hospital, Enugu, Nigeria²

ABSTRACT TITLE

The prospects for research in biological psychiatry in Nigeria

BACKGROUND/AIM

Biological psychiatry deals with abnormalities of brain and genetic functioning and how they interact with environmental factors to underlie the genesis, manifestation, and response to treatment of mental disorders. These issues have not featured

significantly in the Nigerian psychiatric scene. Hence, we are witnessing a withering away of the biological foundations of psychiatry as a clinical science in Nigeria, and a re- definition of our discipline as a social science. The objectives of this write-up are, to highlight the reasons for this deficiency, and suggest how research in biological psychiatry can flourish as a career choice.

As a research agenda, three levels of studies are feasible: (i) simple studies that can be carried out with commonly available tests; (ii) relatively deeper studies that need more difficult to obtain equipment; and (iii) more sophisticated studies. In addition, methodologists should band together in subspecialty associations, and promote the ideals of scientific rigor and contribution to the evidence base pyramid. The political leadership should provide the necessary infrastructure (electricity, pipe borne water) and stabilize the labor market, while the health and higher education administrators should effect the institutional training accreditation requirements, and employ staff that have the aptitude, zeal and skill for research.

PRESENTER

Dr Sharain Suliman

University of Stellenbosch
sharain@sun.ac.za

AUTHORS

Sharain Suliman¹, Leigh van den Heuve², Kavitha Kolappa³, Soraya Seedat⁴
 University of Stellenbosch^{1,2,4}, Harvard Medical School³,

ABSTRACT TITLE

Can enhanced social relationships mitigate metabolic disarray in PTSD?

BACKGROUND/AIM

A growing body of evidence has suggested that enhanced social relationships or support can affect incidence and severity of PTSD; moreover, a separate, burgeoning body of evidence has suggested that social support affects numerous physical health outcomes including mortality, cardiovascular, and cerebrovascular disease.

We aimed to explore the potential effect of social support on physical health, particularly metabolic syndrome (MetS), in individuals with PTSD.

METHODOLOGY

Two hundred and ninety-three adults from the Western Cape Province of South Africa were included in the analysis. All were diagnosed with PTSD on the Clinician-Administered PTSD Scale for DSM-5 (mean score: 53.7 ± 9.4). Social support was assessed with the Multidimensional Scale of Perceived Social Support (MSPSS) and MetS risk was based on JIS criteria. Social support was regressed on MetS using ordinal regression, with age, and PTSD severity included as covariates.

RESULTS

The sample was mostly female (74.4%) and had

an average age of 41.8 ± 11.7 years. Participants presented with an average of 1.8 ± 1.4 MetS symptoms, with 30.4% meeting criteria for MetS. Overall, participants reported a moderate amount of perceived social support (4.4 ± 1.6). The regression model was significant $\chi^2(3) = 40.35$, $p = 0.000$ and accounted for 13.4% (adjusted R²) of the variance in MetS risk factors. When the other variables were accounted for, age ($p = 0.000$) and perceived social support were significant predictors of MetS ($p = 0.046$).

CONCLUSION

Similar to findings in other populations, older individuals were likely to have more symptoms of MetS. Further, these results suggest that social support plays a significant role in mitigating metabolic disease in persons with PTSD in this sample. Further exploration of this is warranted, particularly the potential role played by hypothalamic pituitary axis and downstream inflammatory cascades.

PRESENTER

Mr Sylvanus Toikumo

Department of Psychiatry, Stellenbosch University
sylvanus89@sun.ac.za

AUTHORS

Sylvanus Toikumo¹, Stefanie Malan-Muller², Gerard Tromp³, Soraya Seedat⁴, Sian Hemmings⁵
 Department of Psychiatry, Stellenbosch University^{1,2,4,5},
 Division of Molecular Biology and Human Genetics,
 Stellenbosch University³,

ABSTRACT TITLE

Epigenome-wide association study on PTSD diagnosis and metabolic syndrome in a mixed ancestry South African population

BACKGROUND/AIM

Posttraumatic stress disorder (PTSD) is a disabling psychiatric disorder and shares overlapping pathogenic mechanism with metabolic syndrome (MetS). Epigenetic changes in response to trauma may provide insight into underpinning biological mechanisms involved in PTSD and metabolic outcome. The aim of this study was to identify genome-wide alterations in DNA methylation associated with PTSD and MetS.

METHODOLOGY

Blood samples were collected from PTSD cases (N = 61) and controls (N = 59) with/without MetS, and DNA methylation was interrogated using the Illumina Infinium EPIC BeadChip. The association between PTSD diagnosis and DNA methylation was assessed for each CpG site using generalized linear models that adjusted for MetS effect, age, sex, smoking, childhood trauma, and cellular heterogeneity. Gene ontology (GO) and pathway analyses were conducted using Enrichr, and Bonferroni correction was applied to adjust for multiple testing.

RESULTS

Two hypomethylated CpG sites spanning SHC1 and PRKCSH genes were associated with PTSD diagnosis ($p 1E-7$, FDR 0.05), independent of MetS effect, age, sex,

and cellular heterogeneity. Controlling for childhood trauma and smoking did not attenuate these results. The top 100 differentially methylated CpG sites were located in genes involved in phosphatidylcholine transporter activity (GO:0008525; $p = 1.2E-3$) and neurotrophin signalling pathway ($p = 0.03$).

CONCLUSION

Our data reveal aberrant DNA methylation in the periphery in PTSD and suggests phospholipid metabolism associated with neurotransmission as a potential biological pathway involved in trauma-related pathophysiology.

PRESENTER

Prof Ilse Truter

Drug Utilization Research Unit (DURU), Nelson Mandela University

ilse.truter@mandela.ac.za

AUTHORS

Ilse Truter¹

Drug Utilization Research Unit (DURU), Department of Pharmacy, Nelson Mandela University, Port Elizabeth, South Africa¹

ABSTRACT TITLE

Pregabalin prescribing in private healthcare settings in South Africa with specific focus on dosages

BACKGROUND/AIM

Pregabalin (3-isobutyl gamma-aminobutyric acid (GABA)) is a GABA analogue with antiepileptic, analgesic and anxiolytic activity. Pregabalin is registered in South Africa for post-herpetic neuralgia and painful diabetic polyneuropathy in adults. It is increasingly prescribed for neuropathic pain, generalised anxiety disorder, epilepsy, migraine and fibromyalgia. The primary aim of the study was to analyse the prescribing patterns and cost of pregabalin with the focus on dosages prescribed.

METHODOLOGY

A retrospective drug utilisation study was conducted on a South African medical insurance administrator database for 2018. The database contained 4 191 138 records for medicine, medical devices and procedures. All products in ATC group N03AX16 were analysed. No ICD-10 codes were available.

RESULTS

A total of 726 patients (54.41% males) were prescribed 1 888 pregabalin products during 2018 at a total amount claimed of R400 183.89. The average age of patients was 50.38 (SD=13.59) years. Most patients (72.45%) were between 30 and 59 years of age. Two trade name products were prescribed (the originator product and one generic), and both were available in capsules in strengths of 25 mg, 75 mg and 150 mg. The originator product accounted for 72.83% of prescription volume. The 75 mg capsules of the originator product was prescribed the most (44.92% of prescriptions), followed by the 25 mg capsule of the originator. The average Prescribed Daily Dose (PDD) was 73.44 mg. The average amount claimed per pregabalin prescription was R211.96 (SD=R196.85). Most prescriptions were dispensed by

pharmacies (57.10%), followed by hospitals (32.10%). Smaller quantities were prescribed in hospitals. If only pharmacy prescriptions were considered, the average PDD of pregabalin to the 464 patients was 89.36 (SD= 67.38) mg. Dosages varied from 4.17 mg to 310.71 mg. The most popular specific PDD was 75 mg, followed by 150 mg. A third (31.08%) of PDDs were between 75 mg and 100 mg.

CONCLUSION

Pregabalin is used for different indications, also often off-label. Similarly, a wide variation of dosages was prescribed. In pharmacies, a PDD of 75 mg was the most popular dose. The importance of accurate diagnoses codes in electronic databases to enable dosage linking cannot be overemphasised.

PRESENTER

Dr Leigh van den Heuvel

Stellenbosch University

luellaz@gmail.com

AUTHORS

Leigh van den Heuvel¹, Tobias Stalder², Clemens Kirschbaum³, Soraya Seedat⁴

Stellenbosch University^{1,4}, University of Siegen², TU Dresden³,

ABSTRACT TITLE

Hair cortisol and the interaction between PTSD and metabolic syndrome

BACKGROUND/AIM

Individuals with posttraumatic stress disorder (PTSD) demonstrate an increased prevalence of metabolic syndrome (MetS). Both PTSD and MetS are associated with alterations in hypothalamic pituitary adrenal (HPA) axis function. Hair cortisol concentration (HCC) provides insight into longer-term HPA axis function, thus providing a possible biomarker of chronic stress, PTSD and the comorbidity of PTSD and MetS. In a case-control study evaluating factors that contribute to increased risk for cardiovascular disease risk (as defined by the MetS) in neuropsychiatric disorders, we aimed to determine whether HCC was associated with PTSD diagnostic status and severity and with PTSD and comorbid MetS.

METHODOLOGY

We utilised the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) to determine PTSD diagnostic status and severity scores in 219 females of mixed ancestry aged between 20 and 79 years (M = 44.0, SD = 13.3). Hair samples, representing a three-month retrospective window of cortisol levels were obtained and analysed utilizing liquid chromatography tandem mass spectrometry. We constructed multivariate regression models to evaluate whether HCC (reciprocal square root transformed to achieve normality) were associated with PTSD diagnostic status, PTSD severity and MetS comorbidity, controlling for socio-demographic, clinical, hair related and trauma related factors.

RESULTS

The prevalence of MetS was 30.3% in PTSD patients (n = 110) and 40.4% in trauma-exposed controls (n

= 109). In both unadjusted (OR = 4.7, 95% CI = 1.8 - 12.2) and final adjusted (OR = 4.8, 95% CI = 1.1 - 13.9) models, HCC was significantly higher in PTSD patients than in trauma-exposed controls. Similarly in both unadjusted ($\beta = 14.4$, 95% CI = 7.0 - 21.8) and final adjusted ($\beta = 9.2$, 95% CI = 2.2 - 16.1) models, HCC was associated with PTSD severity. HCC was not significantly associated with MetS nor with PTSD and MetS comorbidity.

CONCLUSION

We demonstrate increased long-term cortisol levels in PTSD patients, with a clear dose-response relationship. This study provides evidence of a chronically dysregulated neuroendocrine mediated stress response in PTSD. This dysregulated stress response does, however, not appear to be a factor associated with the comorbidity of PTSD and MetS in this sample.

PRESENTER

Ms Berte van der Watt
Stellenbosch University
bertevdwatt@sun.ac.za

AUTHORS

Ilaria Ventimiglia¹, Alberta SJ van der Watt², Martin Kidd³, Soraya Seedat⁴
University of Florence¹, Stellenbosch University^{2,3,4}

ABSTRACT TITLE

Association between trauma exposure mood trajectories in patients with mood disorders

BACKGROUND

Trauma exposure can impact on mood disorder development and phenotypic presentation. Although the influence of trauma exposure on cross-sectional mood data is well known, there is a lack of information on the influence of trauma on weekly mood trajectories. We investigated the association between childhood and lifetime trauma exposure, and mood trajectories over 16 weeks; the associations between trauma exposure severity and mood symptom severity across time; and the influence of trauma on the fluctuations in mood symptom severity over 16 weeks.

METHODOLOGY

Method: Mood disorder patients (N = 107; female = 81; mean age = 37.04 years, SD = 10.862 years) were assessed for trauma exposure using the Childhood Trauma Questionnaire (CTQ) and Life Events Checklist (LEC). They completed weekly telephonic mood assessments using the Quick Inventory of Depressive Symptomatology (QIDS) and Altman Self-Rating Mania scale (ASRM) over a 16-week period. Associations between trauma exposure, severity of mood symptoms, and mood trajectories, were analysed using Pearson's correlation, LS Mean scores, f-statistics, and RMANOVA.

RESULTS

Childhood trauma was persistently associated, albeit with fluctuating strength, with depressive symptomatology, with emotional abuse showing the most persistent association over time.

Childhood sexual abuse was minimally associated with depressive symptomatology. The severity of childhood trauma exposure was positively correlated with the average severity of depressive symptoms. With the exception of total LEC scores, no association between trauma exposure and mania symptoms were found.

CONCLUSION

The findings indicate the need of careful assessment of childhood trauma in mood disorder patients who report depression symptoms, with a focus on emotional abuse. A history of childhood trauma should be considered as a treatment target in the clinical monitoring process, in order to mitigate its influence on the severity of depression symptoms. Further research is needed to understand which factors might contribute to temporal changes in the association between childhood trauma and depressive symptoms. Nonetheless, it is encouraging that high, compared to low, trauma exposure did not result in a more compromised outcome in terms of improvement across 16 weeks, bringing hope to mood disorder patients in a country riddled with trauma.

PRESENTER

Ms Cailin van Staden

Centre for Pharmaceutical Sciences, Department of Pharmacology, North-West University, Potchefstroom
cailinvanstaden@gmail.com

AUTHORS

Cailin van Staden¹, Sarel Jacobus Brand², Geoffrey de Brouwer³, Tarryn Botha⁴, Karin Finger-Baier⁵, De Wet Wolmarans⁶
Centre for Pharmaceutical Sciences, Department of Pharmacology, North-West University, Potchefstroom^{1,3,6}, Water Research Group, Unit for Environmental Sciences and Management, North-West University, Potchefstroom^{2,4}, Department Genes - Circuits - Behavior, Max Planck Institute of Neurobiology, Martinsried, Germany⁵

ABSTRACT TITLE

Dopaminergic and Serotonergic Modulation of Social Reward Appraisal in Zebrafish (*Danio rerio*)

BACKGROUND/AIM

Cognitive rigidity and deficits in reward and punishment feedback processing are often observed in obsessive-compulsive disorder (OCD). This work aimed to establish a model of OCD in zebrafish (Zf) by manipulating social reward appraisal in a cue-contingency learning task as subject to chronic dopaminergic (apomorphine; APO) and serotonergic (escitalopram; ESC) intervention.

METHODOLOGY

Seven groups of fish (12 weeks old; n = 6/group) were either not treated (control) or treated for 24 days (days 1 - 24; 1h/day) with APO (50/100ug/day), ESC (500/1000ug/day) or APO and ESC (A100/E500 or A100/E1000ug/day) (ZebTEC). Testing comprised three phases from day 15. Phase 1 involved the acquisition of a cued social reward contingency in one arm of a T-maze. In Phase 2, the

reward-predicting value of the cue was diminished by presenting the red cue card alone. In Phase 3, the reward was reintroduced in the non-cued arm; however, the red cue card was still presented in the alternative arm.

RESULTS

Phase 1: Control Zf displayed a natural aversion for the red cue card, remaining insensitive to the presence of social conspecifics. This was reversed by all treatment groups which facilitated reward appraisal. Phase 2: ESC-treated Zf made more entries into the non-cued arm; however, 1000ug ESC-treated Zf still spent more time in the cued arm. 50ug APO-treated Zf persisted to enter the cued arm, while 100ug APO-treated Zf remained uncertain in terms of arm-choice. In the absence of reward-presentation, neither ESC concentration was sufficient to counter APO-induced behaviour. Phase 3: 100ug APO—alone and in combination with ESC 500ug—treated Zf continued to demonstrate behavioural inflexibility. All other treated groups relearned the newly paired reward-contingency.

CONCLUSION

Phase 1: Control Zf displayed a natural aversion for the red cue card, remaining insensitive to the presence of social conspecifics. This was reversed by all treatment groups which facilitated reward appraisal. Phase 2: ESC-treated Zf made more entries into the non-cued arm; however, 1000ug ESC-treated Zf still spent more time in the cued arm. 50ug APO-treated Zf persisted to enter the cued arm, while 100ug APO-treated Zf remained uncertain in terms of arm-choice. In the absence of reward-presentation, neither ESC concentration was sufficient to counter APO-induced behaviour. Phase 3: 100ug APO—alone and in combination with ESC 500ug—treated Zf continued to demonstrate behavioural inflexibility. All other treated groups relearned the newly paired reward-contingency.

PRESENTER

Dr Ingrid Williamson

Psychiatrist in private practice
williamson.ingrid@gmail.com

AUTHORS

Dr Ingrid Williamson¹
 Psychiatrist in private practice¹

ABSTRACT TITLE

ADHD in females: a view of the symptomatology across their lifespan

BACKGROUND/AIM

ADHD in females presents as less “loud”, impulsive and hyperactive than in males. The prevalence of ADHD in children in community samples is 3:1 in favour of boys, and girls are more likely to be the Inattentive Type, introverted, daydreaming, struggling to finish a task or organise their lives and isolated. Girls’ ADHD is more likely to be overlooked until they reach adolescence and young adulthood when they begin to show lack of self-regulation, self-management and social inappropriateness which affects their self-esteem and contributes to co-morbid depression,

anxiety, eating disorders and substance abuse. Girls with ADHD experience greater peer rejection than boys. Many women are first diagnosed with ADHD in adulthood when expectations of the woman to be the organiser, planner, primary parent, manage the home and work become overwhelming. Adult women may also have to face the reality of their academic or occupational underachievement resulting from many years of unrecognised ADHD. They are likely then to present with co-morbidities of depression, anxiety, poor self-esteem or sleep disorders. Change can be effected by psychiatric and psychosocial interventions at all stages of ADHD through the female lifespan. Increasing awareness of screening for ADHD in educators, primary care medical practitioners, parents, psychiatrists and psychologists could change the life course for many girls, adolescent females and adult women ■



ABSTRACTS POSTER PRESENTATIONS

PRESENTER

Mrs Fatima Ahmed

Stellenbosch University
fahmed@sun.ac.za

AUTHORS

Fatima Ahmed¹, Lindi Martin², Soraya Seedat³
 Stellenbosch University^{1,2,3}

ABSTRACT TITLE

Structural brain differences in adolescents with anxiety proneness and childhood trauma.

BACKGROUND/AIM

Studies have shown that anxiety disorders are among the most prevalent category of psychiatric disorders among adolescents and they are more prone to suffer brain volumetric reductions compared to controls. Individuals with childhood trauma are at greater risk of developing anxiety disorders. The aim of this study was to compare brain structure among adolescents with childhood trauma and anxiety proneness. Our hypothesis was that adolescents with high levels of childhood trauma and high level of anxiety will demonstrate significantly more pronounced volumetric reductions compared to adolescents with comparable levels of childhood trauma but who also have low levels of anxiety.

METHODOLOGY

Participants (N=94) were selected from schools in the Cape Town area and underwent structural magnetic resonance imaging at CUBIC (Cape Universities Brain Imaging Centre). The sample consisted of 23 participants with high anxiety/high trauma, 24 with high anxiety/low trauma, 19 low anxiety/high trauma and 28 healthy controls, with low anxiety

and low trauma. We used Freesurfer v.5.3 to assess brain volumes and SPSS v.25 to conduct analysis to calculate the possible significant volumetric differences in brain regions.

RESULTS

Results revealed a trend for significance in the right Anterior Cingulate Cortex between high anxiety/low trauma and high anxiety/high trauma ($p = 0.069$) participants, and between low anxiety/high trauma and high anxiety/high trauma ($p = 0.084$) for the left PFC and low anxiety/high trauma and low anxiety/low trauma for the right PFC ($p = 0.089$) participants respectively.

CONCLUSION

We, unfortunately, did not find any significant values, but our results that led towards significance for both the trauma exposed and anxiety groups speaks volumes about the role of both on brain structure. The effects of childhood trauma on brain structure are known, but as we are dealing with adolescents whose brains are still developing, the role of anxiety proneness needs further analysis.

PRESENTER

Dr Mohamed Jebriil Benelmokhtar

Stellenbosch University

mohamed.jebril@gmail.com

AUTHORS

Dr Mohamed Jebriil Benelmokhtar¹, Prof Bonginkosi Chiliza², Dr Lebogang Phahladira³, Prof Robin Emsley⁴, Prof Laila Asmal⁵

ABSTRACT TITLE

Factors associated with adherence to follow-up at two years post initiation of treatment in First Episode Schizophrenia

BACKGROUND/AIM

Prevention of new episodes during the first two years after a first episode of psychosis is vital because it may delay treatment refractoriness, deterioration in symptoms, and brain morphological changes over time. However, adherence to treatment is characteristically poor in these patients. The aim of this study was to examine time to drop out in the first 24 months of treatment and clinical and socio-demographic factors associated with patient drop out in patients with first episode schizophrenia.

METHODOLOGY

All patients were treated with flupentixol decanoate (Fluanxol Depot) as part of a larger research study in Cape Town, South Africa. Patients were treated for 24 months from treatment initiation. Drop-out was defined as a patient initiated leaving the study. We compared all those who dropped out of treatment ($n=40$, 37%) to those who completed 24 months of treatment ($n=69$, 63%). We examined the relationship between age, gender, ethnicity, diagnoses, duration of untreated psychosis (DUP) and history of illicit substance use and adherence. We used unadjusted and adjusted logistic regression to assess for an association between adherence variables that were

identified on bivariate analyses. We examined time to drop out and factors associated with time to drop-out using Kaplan Meier curves and Cox regression analyses.

RESULTS

We found that drop-out was associated with substance abuse ($p=0.01$), fewer positive symptoms at baseline ($p=0.03$), higher educational level ($p=0.0028$), older age of onset of illness ($p=0.02$) and shorter DUP ($p=0.012$). On regression analysis, we found that those who used substances were more likely to drop-out if they were older at age of onset of illness with a shorter DUP.

CONCLUSION

We identified several demographic and clinical factors that may influence non-adherence in a cohort of first-episode schizophrenia patients treated with flupentixol decanoate. Focusing on these factors may have a positive influence on adherence and potentially patient outcomes.

PRESENTER

Dr Busisiwe Bhengu

University of KwaZulu Natal, Department of Psychiatry

busiduba26@gmail.com

AUTHORS

Busisiwe Siphumelele Bhengu¹, Andrew Tomita², Sibongile Mashaphu³, Saeeda Paruk⁴

Department of Psychiatry, University of KwaZulu Natal^{1,2,3,4}

ABSTRACT TITLE

Adverse childhood experiences, HIV status and substance use in pregnancy at a general hospital in KwaZulu-Natal, SA

BACKGROUND/AIM

Background: Early adverse experiences may be associated with poorer physical and mental health outcomes later. Substance use disorders and HIV remain major public health concerns in South Africa and globally particularly in young women. Perinatal substance use and HIV status is associated with several negative maternal and foetal outcomes and may have bidirectional associations.

Aim: To describe the prevalence of early childhood trauma and perinatal substance use in females post-delivery and to explore the possible associations between early life trauma and substance use in HIV infected and non-infected pregnant women.

METHODOLOGY

A cross-sectional questionnaire survey was conducted among 223 adult women within one-week post-partum using a socio-demographic questionnaire, the WHO Alcohol, Smoking and Substance Involvement Screening Test-(ASSIST V3.0) and WHO Childhood Traumatic Experiences (WHO-ACE IQ V1.).

RESULTS

The most common form of childhood adverse experience reported was having one or no parent,

parental separation or divorce (n= 119, 53.36%) and the participants mean ACE score was 3.27 (SD =2.76). The most commonly used substance in pregnancy was nicotine (n=27, 12.11%), followed by alcohol (n=18, 8.07%). Lifetime and perinatal nicotine and alcohol use was not significantly associated with HIV status (p=0.35 and p=0.60). There was a significant association between adverse childhood experiences and HIV positive status with no viral suppression (p=0.11), alcohol (p=0.02) and tobacco (p=0.01) use in pregnancy.

CONCLUSION

The association between childhood adverse experiences, alcohol and tobacco use and virally unsuppressed HIV status in pregnant women suggest that negative childhood experiences may influence critical health behaviours and outcomes later.

PRESENTER

Mrs Erine Bröcker

Stellenbosch University
erineb@sun.ac.za

AUTHORS

Erine Bröcker¹, Sharain Suliman², Miranda Olff³, Soraya Seedat⁴
Stellenbosch University^{1,2,4}, University of Amsterdam³

ABSTRACT TITLE

Feasibility and Acceptability of a clinician monitored PTSD Coach Online Intervention: A Pilot Randomised Control Trial in a low resource setting

BACKGROUND/AIM

Posttraumatic stress disorder (PTSD) is a prevalent and impairing disorder in the general population.^{1,2} An evidence-based treatment of choice for PTSD is Prolonged Exposure Therapy (PET) with numerous randomised control trials and meta-analyses demonstrating efficacy in reducing symptoms of both acute and chronic PTSD when compared to other therapeutic strategies. Unfortunately, few clinicians are trained in PET, many have negative perceptions about PET, and PET is time intensive. Creative alternatives are, therefore, required to make services a) more accessible and b) more efficient. Considering the increasing rate of access to the internet, mobile health provides an alternative to service delivery. A mobile health application known as 'PTSD Coach Online' is a potentially accessible treatment alternative for PTSD in the absence of a psychologist or other psychiatric services. Aims: To our knowledge, PTSD Coach Online (PCO) has not previously been evaluated in resource-constrained settings, such as South Africa. Prior to embarking on a well-powered randomised controlled trial (RCT), we conducted a pilot study to assess: a) the feasibility of recruiting, assessing and monitoring individuals with PTSD; b) the appropriateness of the selected assessment battery; c) the utility of the PTSD Coach Online platform in the current setting and d) to compare changes in PTSD symptom severity over the course of treatment between the two intervention arms.

METHODOLOGY

Ten participants with PTSD were randomised to one

of the two intervention arms namely, PTSD Coach Online (PCO) or enhanced treatment as usual (e-TAU). Participants were evaluated at three time points (baseline, mid-point at four weeks, and post intervention at eight weeks). The primary outcome was PTSD symptom severity and was assessed with the Clinical Administered PTSD Scale (CAPS-5). Descriptive statistics was done to look for significant differences between the two treatment arms in terms of demographics. Next, we conducted a linear mixed effects analysis to study changes in the PTSD outcome measure (CAPS-5) over time. Verbal feedback from both participants and the volunteer counsellor informed the feasibility, acceptability and utility of PCO.

RESULTS

The results indicate that there was no statistically significant difference in the treatment response trajectories for the PCO and e-TAU groups for CAPS (F2.95, p=0.98). However, each intervention produced clinically significant improvement. Additionally, there was a larger improvement in the PCO arm from baseline (M=40.20; SD=3.27) to post-assessment (M=17.33; SD=14.19) compared to e-TAU (baseline M=37.20; SD=8.43 post-assessment M=25.25; SD=10.24).

CONCLUSION

At post-intervention the PCO participants reported that they found the technical support of the intervention helpful and the sessions tolerable. With regards to PTSD symptom severity the preliminary results suggest that a supported PCO intervention can alleviate symptoms in our setting.

PRESENTER

Mr Morne Du Plessis

University of Stellenbosch
duplessism@sun.ac.za

AUTHORS

Morne Du Plessis¹, Jacqueline Womersley², Patricia Swart³, Leigh van den Heuvel⁴, Soraya Seedat⁵, Sian Hemmings⁶
Stellenbosch University^{1,2,3,4,5,6}

ABSTRACT TITLE

Methylated quantitative trait loci associated with PTSD in the South African Coloured population

BACKGROUND/AIM

Posttraumatic stress disorder (PTSD) is a complex psychiatric disorder characterised by symptoms of intrusive thoughts, avoidance behaviours, hyper-arousal and negative alterations to cognition and mood. PTSD is unique among psychiatric disorders in that it is a consequence of trauma exposure. Yet, studies previously conducted in the USA have shown that although 50-85% of individuals will encounter a traumatic event in their lifetime, the prevailing prevalence of PTSD is approximately 7%. This discrepancy serves to highlight the existence of factors granting individuals contingent resistance or vulnerability to the development of PTSD. While the genetic mechanisms elemental to PTSD remain largely

unknown, prior epigenome-wide association studies investigating the epigenetic patterns underlying the disorder have shown that PTSD presents methylation alterations associated with disparate functioning in immune- and stress-response pathways that mediate risk and resilience to PTSD. The aim of this study is to integrate genomic and epigenetic data to identify methylated quantitative trait loci associated with PTSD in the uniquely admixed South African Coloured population.

METHODOLOGY

High throughput genomic and epigenetic data previously generated for a cohort of trauma-exposed controls (n = 54) and PTSD patients (n = 55) will be assessed to identify genetic variants that are positionally associated with methylated regions. PTSD severity scores obtained through the Clinician Administered Posttraumatic Stress Disorder Scale for DMS-5 will then be used to investigate whether the severity of PTSD experienced is related to differential methylation levels at any of the considered variants.

CONCLUSION

The data generated will supplement our current research on the genetic and epigenetic mechanisms underlying the development of PTSD in the South African Coloured population.

PRESENTER

Mr Morne Du Plessis

University of Stellenbosch
duplessism@sun.ac.za

AUTHORS

Morné Du Plessis¹, Jacqueline Womersley², Patricia Swart³, Georgina Spies⁴, Soraya Seedat⁵ Sian Hemmings⁶
Stellenbosch University^{1,2,3,4,5,6}

ABSTRACT TITLE

Telomere-related gene expression in childhood trauma, depression and HAND

BACKGROUND/AIM

HIV infection can exert pathological effects on the central nervous system. Collectively referred to as HIV-associated neurocognitive disorders (HAND), these effects include symptoms such as neurocognitive impairment, emotional disturbances and motor abnormalities that exist along a spectrum of severity. The risk of developing HAND has been linked to the experience of depression and childhood trauma. Accelerated telomere shortening, an indicator of biological aging, has been independently associated with HIV, depression and childhood trauma, and previous studies in our laboratory have suggested that telomere shortening may act as a biomarker for HAND. The aim of this study is to investigate how the expression of a gene related to telomere length (TL) maintenance, telomerase reverse transcriptase (TERT), is associated with HIV status, childhood trauma, depression and cognitive function.

METHODOLOGY

RNA was extracted from blood samples collected from a cohort of HIV-positive (n = 95) and -negative

women (n = 105) with varying exposure to childhood trauma. Gene expression was assessed by polymerase chain reaction using primers specific for TERT. The relationships between cognitive function, HIV status, childhood trauma, depression, TERT expression and TL were investigated using regression models.

RESULTS

HIV seropositivity was found to be associated with lower TERT expression ($p = 2.725e-06$) and reduced TL ($p = 2.289e-07$); yet neither HIV status, TERT expression or TL presented a predictive effect on global cognitive score.

CONCLUSION

Our results indicate that HIV infection is associated with TL shortening as well as reduced TERT expression, but that future longitudinal studies are needed to further investigate the relationship between TL and cognitive function within the context of HAND.

PRESENTER

Dr Stéfán Du Plessis

Department of Psychiatry, Stellenbosch University
stefandup@sun.ac.za

AUTHORS

Stéfán Du Plessis¹, Alexander Perez², JP Fouche³, Nicole Phillips⁴, John Joska⁵, Matthijs Vink⁶, Landon Myer⁷, Heather ZAR⁸, Dan Stein⁹, Jacqueline Hoare¹⁰
Department of Psychiatry, Stellenbosch University, Cape Town, South Africa¹, Division of Epidemiology and Biostatistics, School of Public Health & Family Medicine, University of Cape Town², Division of Epidemiology and Biostatistics, School of Public Health & Family Medicine, University of Cape Town³, Department of Psychiatry and Mental Health, University of Cape Town^{4,5,9,10}, Red Cross Children's Hospital, UCT⁸

ABSTRACT TITLE

Efavirenz is associated with altered fronto-striatal function in HIV+ adolescents

BACKGROUND

Neurotoxicity associated with the antiretroviral efavirenz (EFV) has been documented in HIV-infected adults, but there are no data on the impact of EFV on brain function in adolescents. We therefore investigated potential alterations in fronto-striatal function associated with EFV use in adolescents.

METHODOLOGY

A total of 86 adolescents underwent a Stop Signal Anticipation Task (SSAT) during fMRI: 39 HIV+ adolescents receiving EFV, 27 HIV+ adolescents on antiretroviral therapy without EFV (matched on age, gender, education, CD4 cell count and HIV viral load), and 20 HIV-negative matched controls (matched on age and gender). The task required participants to give timed GO responses with occasional STOP signals at fixed probabilities. Reactive inhibition was modelled as a correct STOP response and proactive inhibition was modelled after response slowing as the STOP probability increases. A priori

mask based regions associated with reactive and proactive inhibition were entered into two respective Multivariate ANOVAs.

RESULTS

The EFV treatment group showed significantly blunted proactive inhibitory behavioural responses compared to HIV+ adolescents not receiving EFV. There was no difference in reactive inhibition between treatment groups. We also demonstrated a significant effect of EFV treatment on BOLD signal in proactive inhibition regions. There was no difference in regions involved in reactive inhibition. We found no differences between adolescents not receiving EFV and HIV- controls, showing that functional and behavioural differences were unique to the EFV group.

CONCLUSION

Here we demonstrate for the first time a potential adverse impact of EFV on higher cortical function in young HIV+ adolescents.

PRESENTER

Dr Roxane Jones

University Stellenbosch
roxanejones@gmail.com

AUTHORS

Elsa du Toit¹, Dana Niehaus², Esme Jordaan³, Liezl Koen⁴, Jukka Leppanen⁵
 Stellenbosch University, Panorama Healthcare Psychiatry¹, Stellenbosch University^{2,4}, Medical Research Council, University of Western Cape³, University of Tampere⁵

ABSTRACT TITLE

Suicidality during the course of pregnancy and the postpartum period in women with serious mental illness

BACKGROUND

To identify factors that are linked to suicidality during pregnancy and the postpartum period among women with known psychiatric diagnoses.

METHODOLOGY

Pregnant South African women over the age of eighteen with a psychiatric disorder who presented at one of the two maternal mental health clinics where recruitment took place were included in the study sample. Suicidality was assessed by means of a psychiatric interview, The Mini International Neuropsychiatric Interview and the Montgomery Asberg Depression Rating Scale.

RESULTS

Results revealed that women were at a higher risk of experiencing suicidal thoughts if they: had attempted suicide before, presented at a later gestation for psychiatric care, or were employed. However, when interactions between variables were considered, unemployed women who simultaneously experienced unwanted pregnancies also showed a significantly elevated risk of suicidality. It was also clear that multiple assessments, by

means of clinical interviews and various scales, were necessary to screen successfully for suicidality in pregnant women diagnosed with psychiatric illness.

CONCLUSION

Results confirm the view of the World Health Organization that in order to improve maternal morbidity and mortality linked to suicidality, women's health should be viewed contextually, not in isolation. Screening for and treatment of perinatal mental illness are essential if we hope to meet the maternal morbidity and mortality targets of the United Nations by 2030.

PRESENTER

Ms Ereshia Gabier

Department of Psychiatry, Faculty of Medicine and Health Sciences, Stellenbosch University
egabier@sun.ac.za

AUTHORS

Ereshia Gabier¹, Jacqueline Womersley², Patricia Swart³, Jonathan Carr⁴, Robin Emsley⁵, Soraya Seedat⁶, Sian Hemmings⁷
 Department of Psychiatry, Faculty of Medicine and Health Sciences, Stellenbosch University^{1,2,3}, Division of Neurology, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town⁴, Department of Psychiatry, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town^{5,6,7}

ABSTRACT TITLE

An exploratory study of the blood microbiome in posttraumatic stress disorder, schizophrenia and Parkinson's disease

BACKGROUND/AIM

Commensal human microbiota has shown to be vital in understanding health and disease. The gastrointestinal tract's microbiota and their metabolites play a role in digestion, homeostasis, the immune system's maturation and, recent studies show, in the brain's development and function. Gut microbiome has been associated with psychiatric and neurological disorders such as posttraumatic stress disorder (PTSD), schizophrenia (SCZ) and Parkinson's disease (PD), whereas the relationship between blood microbiome and these disorders have not been adequately investigated. In recent years, studies have shown that blood, which was previously thought to have been sterile, contains human microbiome. The presence of microbiota in the blood could be the result of translocation from their usual place of origin such as the gut and skin etc. To investigate the differences of the microbiome in blood, a study has re-analysed previous RNA sequences through the assembly of unmapped reads to the microbial genomes that are available. Exploring the differences in the gut and blood microbiome profiles would provide better insight into the gut-blood barrier's role in the underlying pathological mechanisms of these neuropsychiatric disorders. The aim of this study is to analyse and correlate the microbial profile of blood in patients with PTSD (cases: n=40; controls: n=39), SCZ (cases: n=18; controls: n=21) and PD (cases: n=15; controls: n=19).

METHODOLOGY

For this study, RNA was extracted from peripheral blood that was collected in PAXgene tubes. High quality RNA paired-end sequence reads (at 120bp read length and a depth of 50 million bp) will be separated into human and non-human reads whereby the latter would be identified as candidate microbial reads. For taxonomy profile assignment, PhyloSift will be used. The *asbio* and *vegan* packages from R, a statistical programming language, will be used to determine the different microbial compositions and the alpha- and beta-diversity estimations.

RESULTS

For this study, an analytical pipeline will be developed, and preliminary results will be attained.

PRESENTER

Mr Christoff Geldenhuys

Stellenbosch University
18358918@sun.ac.za

AUTHORS

Christoff Geldenhuys¹; Moleen Zunza²; Nicki Tiffin^{3,4,5}; Liezl Koen⁶; Eric Decloedt⁷

Undergraduate studies - MBChB, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town¹, Division of Epidemiology and Biostatistics, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa², Computational Biology Division, Integrative Biomedical Sciences, University of Cape Town, South Africa³, Wellcome Centre for Infectious Disease Research in Africa, Institute of Infectious Diseases and Molecular Medicine, University of Cape Town, South Africa⁴, Centre for Infectious Disease Epidemiology Research, School of Public Health and Family Medicine, University of Cape Town, South Africa⁵, Division of Psychiatry, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa⁶, Division of Clinical Pharmacology, Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa⁷

ABSTRACT TITLE

Clozapine Haematological Side Effect Monitoring in the Western Cape: A Retrospective Review the Provincial Health Data Centre Database 2015-2017

BACKGROUND/AIM

Clozapine is indicated for treatment-resistant schizophrenia but may cause life threatening leukopenia and agranulocytosis requiring haematological monitoring. Haematological side effects (HSEs) incidence data from Sub-Saharan Africa are lacking. Clozapine reduces cellular immunity and it is unknown whether clozapine is a risk factor for tuberculosis or whether HIV is a risk factor for developing HSEs. The objective was to assess the frequency of white blood cell (WBC) monitoring and to determine the incidence of HSEs during the first 24 weeks of clozapine therapy. The secondary objective was to establish the incidence of tuberculosis and to determine the association of HIV with HSEs.

METHODOLOGY

A retrospective descriptive study of patients initiated on clozapine between January 2015 and December 2017 using data from the Provincial Health Data Centre. A control group of patients initiated on risperidone were selected. Follow-up was 24 weeks.

RESULTS

We identified 22519 patients; 5213 had WBC monitoring (n=1047 clozapine and n=4166 risperidone). The WBC of patients on clozapine were measured at a median of 21 weeks, interquartile range 14 – 23 weeks. The incidence of leukopenia in patients on clozapine was 0.38% (95% CI 0.01-0.76%); 0.41% in patients on risperidone (95% CI 0.21-0.6%), (p=0.91). The incidence of agranulocytosis in patients on clozapine was 0.19% (95% CI 0.0-0.46%); 0.07% in patients on risperidone (95% CI 0.0-0.15%), (p=0.266). The incidence of tuberculosis disease were similar in patients on risperidone and clozapine (0.97% and 0.81% respectively; p=0.542). HIV infected patients had a higher relative risk than non-HIV infected patients of developing leukopenia (1.64% versus 0.22%, p<0.001) and agranulocytosis (0.36% versus 0.04%, p=0.004).

CONCLUSION

Our incidence of clozapine-induced HSEs were lower than in the reported literature (0.8%) and not significantly different compared to risperidone. HIV infection was associated with HSEs. Our findings suggest the possibility of reducing the extent of WBC monitoring in HIV-negative patients.

PRESENTER

Prof Susan Janse Van Rensburg

University of Stellenbosch
sjvr@sun.ac.za

AUTHORS

Coenraad Hattingh¹, Mariaan Jaffha², Clint Johannes³, Maritha Kotze⁴, Penelope Engel-Hills⁵, Merlisa Kemp⁶, Ferial Isaacs⁷, Susan J van Rensburg⁸ University of Stellenbosch^{1,3,8}, University of Cape Town², NHLS and University of Stellenbosch⁴, Cape Peninsula University of Technology^{5,6,7}

ABSTRACT TITLE

MRI brain volume difference between two multiple sclerosis (MS) patients with low vs high disability status suggests a new hypothesis for MS

BACKGROUND/AIM

Treatments for MS targeting the immune system have not resulted in disability prevention, suggesting the need for a new approach. Clinically, patients present with "power outages" to different organs or limbs, which become intermittently non-functional due to interruption of the "power supply" (signal transmission) from the brain. The medical literature posits that the problem is due to sabotage of the "power lines" (myelinated axons) by "security personnel" (the immune system), stating that T-cells are activated by an antigen that mimics myelin. However, no such antigen has ever been found. The aim of the present study was to investigate other reasons for the "blackouts".

METHODOLOGY

Female patients with MS (n=22) and matched controls were included in an MRI study. Lesion numbers and -volumes, as well as brain volumes were determined. For the present presentation, brain volumes of two MS patients of similar disease duration, but with low vs high disability measured with the Expanded Disability Status Scale (EDSS), were compared together with biochemistry, nutrient intake and lifestyle.

RESULTS

Patient no.1, 58y, disease duration 16y, participated in the Stellenbosch University Pathology-supported genetic testing (PSGT) MS study since diagnosis. This included nutrition- and lifestyle interventions for iron-, vitamin B12 and vitamin D deficiencies directed by regular biochemistry testing. Her EDSS was maintained at 2 (benign), with minimal effects on her daily life. White- and grey matter brain volumes were preserved. Patient no.2, 50y, disease duration 15y, had low iron, vitamin B12 and vitamin D, and low dietary intake of fruits and vegetables. Her EDSS was 6.5: she could not drive and could not walk without support. Her brain volume was reduced. After 9 months of sufficient nutrient intake through supplementation and diet, her EDSS was 4.0, she could drive again and walk without support. Neither of the patients was on MS medications.

CONCLUSION

Brain volumes and disability levels of the two patients suggested that interruption of signal transmission in MS occurs due to neglected maintenance of the "power stations" (oligodendrocytes, that synthesise myelin). Myelin insulates axons and is involved in enhanced signal transduction. Oligodendrocytes require iron and methylation capacity to synthesise myelin. Therefore, a lack of these nutrients results in "power outages".

PRESENTER

Jonathan Ipser

University of Cape Town

jonathan.ipser@uct.ac.za

AUTHORS

Annerine Roos¹, Katherine Narr², Roger Woods³, Heather Zarr⁴, Dan Stein⁵, Kirsty Donald⁶

MRC Unit on Risk and Resilience in Mental Disorders¹, UCLA, Department of Neurology^{2,3}, UCT, Department of Paediatrics and Child Health^{4,6}, UCT, Department of Psychiatry and Mental Health⁵

ABSTRACT TITLE

Prenatal nicotine exposure is associated in young children with abnormal connectivity of resting-state cognitive control networks

BACKGROUND/AIM

Prenatal exposure to substances of abuse can have detrimental effects on neurodevelopment in early childhood. Rapid functional differentiation of somatosensory and cognitive control (CC) brain networks in young children may make them

particularly vulnerable to associated neurotoxicity. Accordingly, we tested whether prenatal nicotine exposure is associated with subsequent differences in the connectivity of intrinsic CC and somatosensory functional brain networks in 2-3-year-old children.

METHODOLOGY

fMRI data was acquired for a cohort of 31 nicotine-exposed (NEX) and 18 nicotine unexposed (NUE) infants (average age: 33 months (range: 30-39), 59% male), as part of the Drakenstein Child Health Study. Scans were conducted during 8 minutes of non-sedated sleep in a 3T Siemens scanner at the Cape Universities Body Imaging Centre. Nicotine exposure was defined as a positive urine test for cotinine during the 2nd trimester of pregnancy. Evidence of pre-natal exposure to alcohol was grounds for exclusion from this analysis. A non-parametric permutation procedure was used to identify statistically significant group differences in the connectivity of a subset of networks identified in this cohort using probabilistic independent components analysis.

RESULTS

The NEX and NUE children were comparable with respect to gender distribution and weight, though the former were on average slightly younger (32.6 vs 34.3 months, Mann Whitney Z = 2.93, p =0.003). Of the 6 networks of interest (salience, default mode, bilateral frontoparietal, and lateral and medial somatosensory networks), greater connectivity was observed in the NEX subjects for all the higher order cognitive networks, after adjusting for age and average motion (p 0.01). Nicotine exposure was not associated with somatosensory network connectivity.

CONCLUSION

We present novel evidence that pre-natal exposure to nicotine is associated with disruptions to the functional integrity of CC networks. Future work will assess the implications of the presented findings on associated cognitive functioning in these children

PRESENTER

Dr Kajero Jaiyeola

Post graduate student Stellenbosch University, Federal Neuropsychiatric Hospital Yaba Lagos, Nigeria

jaiyeolakajero@yahoo.com

AUTHORS

Jaiyeola Abiola Kajero¹, Soraya Seedat², Jude Ohaeri³, Abidemi Akindele⁴, Olugbenga Aina⁵, Federal Neuropsychiatric Hospital Yaba, Lagos¹, Stellenbosch University², University of Nigeria Nsukka³, College of Medicine University of Lagos⁴, National Institute of Medical Research Yaba Lagos, Nigeria⁵

ABSTRACT TITLE

Investigation of the Effects of Cannabidiol on Vacuous Chewing Movements, Locomotion, Oxidative Stress and Blood Glucose in Rats Treated with Oral Haloperidol

BACKGROUND/AIM

This study is important in a country like Nigeria where

movement disorders are still common because the relatively cheap conventional antipsychotics are still widely in use. Movement disorders are known to be more common in patients on the conventional antipsychotics though they have also been reported in the atypical antipsychotics. Tardive dyskinesia (TD) is however more problematic because unlike the acute dystonias, it can be irreversible. Although several agents have been tried in the management of tardive dyskinesia the results have not proved fruitful. It is therefore pertinent to continue to search for new and better forms of management of this difficult to manage movement disorder in psychotic patients. Hypothesis: My main hypothesis is that Cannabidiol (CBD) is neuroprotective and can be used to prevent symptoms of oro-bucco-lingual dyskinesia in patients with psychotic disorders on antipsychotics. AIM: The purpose of the research is to find out if cannabidiol can be used to ameliorate the symptoms of tardive dyskinesia. OBJECTIVES: To determine the efficacy of cannabidiol in ameliorating vacuous chewing movement (VCM). We compared the FBS within and between the groups. We also compared elevated plus maze line crossing in open field test, rota rod and objective recognition tests to assess if cannabidiol can ameliorate the oxidative stress induced by antipsychotics in animals.

METHODOLOGY

There are six groups; the first group consists of oral haloperidol at 5mg/kg only for three weeks. The second group consists of 10 animals treated with oral haloperidol at 5mg/kg and cannabidiol at 5mg/kg for 21 days and VCM scored after 12h, 5 days, and 3 weeks of medication withdrawal. The third group consists of oral haloperidol 5mg/kg and cannabidiol at 3mg/kg for 21 days and VCM scored after 12h, 5 days, and 3 weeks of medications. The fourth group consists of haloperidol 5 mg/kg p.o. + cannabidiol 10 mg/kg p.o. The fifth group consists of cannabidiol 5mg/kg per oral only. The sixth group is the control where none of the medications were administered except distilled water.

RESULTS

The results showed that there was a significant difference between Group A and other groups on post hoc analysis, ($p=0.0001$) with Group A exhibiting more VCM compared to the other groups

CONCLUSION

We confirmed that CBD can ameliorate motor impairments produced by haloperidol. Our data suggest that CBD can be combined with haloperidol to prevent the emergent of extrapyramidal side effects and long-term movement disorders such as tardive dyskinesia.

PRESENTER

Mr Allan Kalungi

Doctor of Philosophy student, Stellenbosch University, South Africa & Makerere University, Uganda
Allankalungi1@gmail.com

AUTHORS

Allan Kalungi^{1,2,3}, Eugene Kinyanda^{2,4}, Jacqueline S Womersley¹, Wilber Ssembajje², Moses L Joloba^{3,5}, Soraya Seedat¹, Sian M J Hemmings¹

Department of Psychiatry, Stellenbosch University, Cape Town, South Africa¹, Mental Health Section, MRC/UUVRI and LSHTM Uganda Research Unit, Entebbe, Uganda², Department of Medical Microbiology, College of Health Sciences, Makerere University, Kampala, Uganda³, Department of Psychiatry, College of Health Sciences, Makerere University, Kampala, Uganda⁴, School of Biomedical Sciences, College of Health Sciences, Makerere University, Kampala, Uganda⁵

ABSTRACT TITLE

The rs2736100 within the telomerase reverse transcriptase gene and rs16847897 within the telomerase RNA complex gene moderate the association between internalizing mental disorders and telomere length attrition among HIV+ children and adolescents in Uganda

BACKGROUND/AIM

Internalizing mental disorders (IMDs) are associated with accelerated telomere length (TL) attrition; however, the nature of this association is unknown. Single nucleotide polymorphisms in the telomerase reverse transcriptase (TERT) and telomerase RNA component (TERC) genes have been reported to influence mean TL, while genetic variations in the serotonin transporter (SLC6A) and the tryptophan hydroxylase 2 (TPH2) genes have been reported to moderate the association between social environment and TL. This case-control study investigated the moderating effects of selected polymorphisms in TERT, TERC, SLC6A4 and TPH2 on the association between IMDs and relative TL (rTL), among Ugandan HIV+ children and adolescents (5-17 years).

METHODOLOGY

In 368 cases with any internalizing mental disorder (IMD) and 368 age- and sex-matched controls, rTL was assessed using quantitative polymerase chain reaction. Variants in TERT (rs2736100, rs7726159, rs10069690, rs2853669), TERC (rs12696304, rs16847897, rs10936599) and TPH2 (rs1843809, rs1386494, rs34517220) and SLC6A4 (5-HTTLPR (rs35531, STin2.VNTR) were genotyped. Independent sample t-tests were used to assess the association between IMDs and rTL at baseline and 12 months, while two-way ANOVA was used to assess the interaction effect between each of the polymorphisms and IMDs on rTL both at baseline and 12 months.

RESULTS

At baseline, cases had significantly longer mean rTL compared to controls ($p = 0.001$). None of the polymorphisms significantly moderated the association between IMDs and rTL at baseline. At 12 months, we observed no statistically significant difference in 12-month rTL between baseline cases and controls ($p = 0.117$), however, on modeling the effects of each of the selected polymorphisms, we observed that the interaction of IMDs and each of

rs2736100 (TERT) and rs16847897 (TERC) significantly influenced rTL ($p = 0.007$ and $p = 0.012$, respectively).

CONCLUSION

The TERT rs2736100 and TERC rs16847897 polymorphisms moderate the association between IMDs and rTL among Ugandan HIV+ children and adolescents. The T-allele for rs2736100 and a G-allele for rs16847897 are associated with accelerated rTL attrition among cases of IMDs. The mechanisms under which these alleles interact with IMDs to moderate rTL requires further investigation.

PRESENTER

Mrs Merlisa Kemp

Department of Medical Imaging and Therapeutic Sciences, Faculty of Health and Wellness Sciences, Cape Peninsula University of Technology, Bellville campus, Cape Town, South Africa
kempme@cput.ac.za

AUTHORS

Merlisa Kemp¹, Coenraad Hattingh², Maritha Kotze³, Penelope Engel-Hills⁴, Ferial Isaacs⁵, Clint Johannes⁶, Mariaan Jafftha⁷, Christianne Bouwens⁸, Susan Janse van Rensburg⁹

Department of Medical Imaging and Therapeutic Sciences, Faculty of Health and Wellness Sciences, Cape Peninsula University of Technology, Bellville campus, Cape Town, South Africa^{1,5}, School of Medicine, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg Hospital, 7500, Tygerberg, Cape Town, South Africa², Division of Chemical Pathology, Department of Pathology, National Health Laboratory Service (NHLS) and Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg Hospital, Tygerberg, South Africa³, Faculty of Health and Wellness Sciences, Cape Peninsula University of Technology, Bellville campus, Cape Town, South Africa⁴, Department of Internal Medicine, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg Hospital, Tygerberg, South Africa^{6,8}, Cape Universities Body Imaging Centre (CUBIC), University of Cape Town, Magnetic Resonance Imaging (MRI), Unit 10, J Block, Groote Schuur Hospital, Observatory, Cape Town, South Africa⁷, Division of Chemical Pathology, Department of Pathology, Stellenbosch University, Tygerberg Hospital, Tygerberg⁹

ABSTRACT TITLE

Rare finding of diffuse carotid artery disease, IJV stenosis and brain pathology in a patient with Multiple Sclerosis: case report

BACKGROUND/AIM

Cerebral hypoperfusion and impaired cerebral venous drainage are reported to be risk factors for multiple sclerosis (MS). Furthermore, lifestyle and biochemistry have significant effects on the brain and vascular system. We report a 60-year-old female with MS who participated in a research study and presented with diffuse extracranial vascular disease and brain pathology.

METHODOLOGY

Grey-scale imaging, Colour and Spectral Doppler analysis of the carotid arteries and internal jugular veins were performed on the patient. The vessels were sonographically interrogated to determine patency, stenosis, occlusions and/or abnormal blood flow patterns. The patient also had magnetic resonance imaging (MRI) of the brain to exclude structural and functional pathology. Biochemistry, lifestyle, genetic and disability (Expanded Disability Status Scale, EDSS) assessments were available.

RESULTS

The vascular ultrasound demonstrated multiple stenotic lesions (50%) in bilateral carotid arteries and stenosis of the left internal jugular vein (IJV), suggestive of chronic cerebrospinal venous insufficiency (CCSVI). The MRI illustrated normal pressure hydrocephalus and brain degeneration which is in keeping with the vascular ultrasound findings. The radiological findings of multiple extracranial vascular pathologies in conjunction with brain pathology in a single MS patient remains a rarity as these specified pathologies were not seen in the remaining 24 MS patients who participated in the MS research study.

CONCLUSION

In summary, this case demonstrates the importance of extracranial vascular ultrasound and brain MRI in the assessment of extracranial vascular disease and brain pathology in patients diagnosed with MS. Identification of risk factors associated with MS using these imaging modalities, may result in the implementation of appropriate patient management aimed at slowing down disability progression and improving the quality of life of the patient.

PRESENTER

Dr Sarah Kanana Kiburi

Department of psychiatry, Mbagathi Hospital, Nairobi County.

AUTHORS

Sarah Kanana Kiburi¹
 Department of psychiatry, Mbagathi Hospital Nairobi County¹

ABSTRACT TITLE

Cannabis use in adolescence and psychosis later in life: Are there factors mediating the relationship? A systematic review and meta-analysis

BACKGROUND/AIM

Research has shown a pattern of increased risk for psychosis as well as worse outcome in psychosis among individuals exposed to cannabis during adolescence. This study was a systematic literature review investigating whether cannabis use during adolescence interacts with other factors to increase risk for psychosis later in life.

METHODOLOGY

First, a narrative review is presented. A meta-analysis was subsequently conducted using Review Manager

5.3. The statistical method used was Mantel-Haenzel, random effects analysis was applied, and results were presented in the form of risk ratios.

RESULTS

36 studies met inclusion criteria and were included in the review and 16 studies were included in the meta-analysis. Overall adolescent cannabis use increased risk for psychosis compared to no cannabis use (RR=1.75, 95%CI, 1.45-2.10). Early-onset of cannabis use had greater risk for psychosis compared to late-onset use (RR=2.32, 95%CI, 1.15-4.66). Frequent cannabis use had increased risk for psychosis compared to infrequent and no cannabis use (RR= 2.38, 95%CI, 1.51-3.74 and RR= 2.75, 95%CI, 1.90-3.97). Other factors found to moderate the relationship between cannabis use and the risk of psychosis were exposure to childhood trauma, concurrent use of other substances and genetic factors.

CONCLUSION

Adolescent cannabis use is associated with an increased risk for psychosis later in life. In addition, there are factors that mediate this relationship. There is a need for more research to assess the interaction between these factors, adolescent cannabis use and psychosis risk.

PRESENTER

Ms Natasha Kitchin

Department of Psychiatry, Stellenbosch University
natashak@sun.ac.za

AUTHORS

Dr Stefanie Malan-Muller¹, Dr Jacqueline S. Womersley², Dr Michelle Parker³, Anna-Susan Marais⁴, Marlene M. de Vries⁵, Prof Phillip A. May⁶, Prof Soraya Seedat⁷, Prof Sian M. J. Hemmings⁸
Department of Psychiatry, Stellenbosch University^{1,2,3,4,5,7,8}, Department of Nutrition, Gillings School of Global Public Health, Nutrition Research Institute, University of North Carolina⁶,

ABSTRACT TITLE

Alcohol's effect on the gut microbiome of pregnant women

BACKGROUND/AIM

Prenatal alcohol exposure is one of the most preventable causes of birth defects, developmental disorders and mental retardation, yet the prevalence of Fetal Alcohol Spectrum Disorder (FASD) in the Western Cape of South Africa is 20-28%, significantly higher than the global prevalence of 0.77%. Excessive alcohol intake can result in alterations in the gut microbiome, causing both the microbial composition and functions to change from a beneficial state to one that is harmful to the host's health. The aim of this study was to compare gut microbial composition between women who exhibited hazardous alcohol use during pregnancy (cases) and those who abstained from drinking throughout pregnancy (controls).

METHODOLOGY

A total of 78 pregnant women were recruited - 38 cases and 40 controls. Microbial DNA extraction was performed on stool samples, followed by sequencing of the 16S rRNA V3-V4 region. The dada2 pipeline was used to pre-process the fastq sequencing files, create an amplicon sequence variant table, and assign taxonomy using the Ribosomal Database Project reference database. Differential compositional analyses were performed using PhyloSeq, while statistical analyses of microbial composition, alpha- and beta-diversity calculation and enterotype determination was done using the R programming environment.

RESULTS

The gut microbiome was dominated by *Prevotella*, *Bacteroides* and *Succinivibrio*. There were no significant differences in diversity measures or relative abundance of genera between cases and controls. The faecal communities clustered into two enterotypes - enterotype 1, enriched in *Bacteroides*, and enterotype 2, enriched in *Prevotella*. Although no significant gut microbial differences were identified, several cases exhibited a higher relative abundance of *Prevotella* which has been linked to mucin degradation. Mucin degradation may result in a compromised intestinal barrier, which, in turn, may result in increased bacterial translocation across the normally impenetrable intestinal barrier.

CONCLUSION

Although no significant differences were identified between cases and controls, differences may become evident with a larger sample size. An altered maternal gut microbiome may exert its influence on the fetal brain via immune-mediated pathways or it may result in abnormal infant gut colonisation, thereby resulting in altered infant gut microbiota functioning, which may subsequently result in increased susceptibility to disease.

PRESENTER

Dr Heinrich Koekemoer

University of the Free State

AUTHORS

Heinrich Koekemoer¹, Prof Richard J Nichol², Prof Marius J Coetzee³, Dr Jaco Joubert⁴, Prof Gina Joubert⁵
University of the Free State^{1,2,3,4,5}

ABSTRACT TITLE

Prevalence of psychiatric comorbidities and quality of life in adults with inherited bleeding disorders in central South Africa

BACKGROUND/AIM

Inherited bleeding disorders (IBDs) are relatively uncommon, but pose unique health-related challenges. IBDs are acquired through inheritance of single-gene mutations that cause abnormal bleeding. Due to their chronic nature, one would expect similar psychosocial problems as seen in other chronic diseases. The aim of this study was first, to evaluate the prevalence of psychiatric

comorbidities in a population with IBDs, and second, to evaluate risk factors for the development of psychiatric disorders and impaired quality of life.

METHODOLOGY

We conducted a cross-sectional, observational study in two South African Haemophilia Treatment Centers (HTCs) by interviewing 40 adult patients with IBDs on their usual follow update. We collected demographic and clinical data using a standardized questionnaire and accessing patient files, we evaluated patients for psychiatric illness using the M.I.N.I., health-related quality-of-life (HR-QoL) using the EuroQoL (EQ-5D) and functional status using the FISH tool.

RESULTS

The median age of the sample was 29,5 years. The majority were male (83%), unemployed (75%), receiving a disability grant (53%) and had never been married (65%). The majority had haemophilia (73%), followed by hereditary haemorrhagic telangiectasia (HHT), Von Willebrand Disease (VWD) and Bernard-Soulier syndrome (BSS) (23%, 2,5%, and 2,5%, respectively). 10% of the sample were affected by HCV and HIV respectively. 43% of the sample had one or more psychiatric disorder and the lifetime prevalence of MDD was 30%. Patients with a bleeding frequency of less than once per month had a significantly lower risk of having any problems in the domains of self-care (0%) and usual activities (13%) when compared to patients with a bleeding frequency of 1-3 times per month (25% and 56%, respectively, p-value=0,048) and >3 times per month (33% and 44%, respectively, p-value=0,042). In addition, patients who perceived family and friends as supportive were less likely to score high in the domain of pain/discomfort than patients who did not (18,8 versus 32,2, respectively; p-value=0,01).

CONCLUSION

The prevalence of psychiatric disorders is high in the population suffering from IBDs and screening routinely is justified. HR-QoL might improve if bleeding frequency can be reduced with prophylactic, home-based care and psychoeducating families.

PRESENTER

Dr Kazione Kulisewa

University of Malawi- College of Medicine
kkulisewa@yahoo.com

AUTHORS

K. Kulisewa¹, A.M Bengtson², J.M Dussault³, B.N Gaynes³, V. Go³, M.C. Hosseinipour⁴, A. Kutengule⁴, K. LeMasters³, S. Meltzer-Brody³, D. Midiani⁴, S. Mphonda⁴, B.W Pence³, M.Udedi⁵.
 University of Malawi- College of Medicine¹, Brown University², University of North Carolina- Chapel Hill³, University of North Carolina Project- Lilongwe⁴, Ministry of Health, Malawi⁵

ABSTRACT TITLE

The feasibility and acceptability of perinatal depression screening and counselling for women living with HIV in Malawi

BACKGROUND/AIM

Depression is highly prevalent in antenatal and postnatal women living with HIV (WLHIV) in the sub-Saharan region yet remains underdiagnosed and undertreated. Perinatal depression (PND) is associated with adverse pregnancy and infant outcomes. The antenatal period presents an opportunity for Malawian WLHIV to be linked to antiretroviral (ART) care; however, depression is implicated in poor engagement with ART services and poor ART adherence. Malawi lacks mental health personnel and infrastructure. Integration of depression screening and management into existing antenatal clinics may close the treatment gap in perinatal WLHIV who have comorbid depression. This study aims to understand the feasibility of perinatal depression (PND) screening and preferences for treatment among WLHIV in Malawi.

METHODOLOGY

We completed consecutive PND screening in WLHIV attending pre- or post-natal appointments at 5 maternity clinics in Lilongwe, Malawi using a validated local language version of the Edinburgh Postnatal Depression Scale (EPDS). In-depth qualitative interviews were subsequently conducted on women who screened positive for PND (EPDS score >10) (n =24) and different cadres of maternity health care providers (n =10) at the clinics. In-depth interviews themes included barriers and facilitators to the integration of PND interventions and treatment preferences. Interviews were audiotaped, transcribed, translated and salient themes were coded. Analysis was conducted using NVivo 12 software

RESULTS

All women and providers welcomed PND screening and counselling. Nurses were identified as the most suitable health personnel to deliver screening and counselling. Possible barriers to the uptake of PND interventions were lack of human resource and health worker attitudes. Women stated a preference for one-on-one counselling over group counselling or antidepressant medication.

CONCLUSION

Treating PND is essential to improve pregnancy outcomes, maternal and infant health and engagement in HIV care. Our results suggest that an effective and sustainable PND intervention for this population consists of a brief streamlined screening questionnaire and individualised counselling.

PRESENTER

Dr Antonio G. Lentoor

Sefako Makgatho Health Sciences University, Department of Clinical Psychology, School of Medicine
lentoor.antonio@gmail.com

AUTHORS

Antonio G. Lentoor¹
 Sefako Makgatho Health Sciences University, Department of Clinical Psychology, School of Medicine¹

ABSTRACT TITLE

Cognitive Deficits in Perinatally Acquired HIV-positive Children on cART in South Africa

BACKGROUND

Children with perinatally acquired HIV (PHIV) are at risk for significant neurodevelopmental problems due to the direct effects of HIV on the brain, in utero ART exposure, and environmental factors that can be observed as early as infancy. This study aimed at identifying cognitive deficits in children with PHIV who was virally suppressed on cART.

METHODOLOGY

The Wechsler Preschool and Primary Scale of Intelligence-III was administered to assess the cognitive function of 152 purposively recruited hospital based sample of children with PHIV on cART, aged 3 years to 7 years 6 months (mean age 63.13 months).

RESULTS

The results showed that children with PHIV performed poorly on the cognitive measure, with more than 70% showing impairment in the domain of global cognitive function. They performed more poorly on block design, object assembly, symbol search, coding and similarities.

CONCLUSION

The findings supports an association between HIV infection in children and cognitive impairment in the domains of working memory and processing speed, despite being virally suppressed on cART. These cognitive faculties act as basic executive functions that are critical for learning, school readiness and success, and ultimately treatment adherence in adolescence. The need for early identification of neurodevelopmental problems is crucial since early psychosocial interventions can lead to better outcome for children with PHIV.

PRESENTER

Ms Ane Lombaard

Centre of Excellence for Pharmaceutical Sciences, North-West University, Potchefstroom, South Africa
ane.lombaard@gmail.com

AUTHORS

Ane Lombaard¹, Dan J Stein², Brian H. Harvey³, De Wet Wolmarans⁴

Centre of Excellence for Pharmaceutical Sciences, North-West University, Potchefstroom, South Africa^{1,4}, Department of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa, MRC Unit on Risk and Resilience in Mental Disorders Cape Town, South Africa², Centre of Excellence for Pharmaceutical Sciences, North-West University, Potchefstroom, South Africa, MRC Unit on Risk and Resilience in Mental Disorders Cape Town, South Africa³

ABSTRACT TITLE

Different behavioural phenotypes in the deer mouse model of obsessive-compulsive disorder and its response to serotonergic and dopaminergic modulation

BACKGROUND/AIM

Obsessive-compulsive disorder (OCD) is a chronic and debilitating psychiatric condition, characterized by a significant rate of treatment resistance to first-line selective serotonin reuptake inhibitor (SSRI) intervention. In this regard, augmentation strategies employing low-dose anti-dopaminergic drugs have demonstrated some value. It has previously been suggested that different obsessive-compulsive phenotypes may be associated with unique neurobiological involvement; this may potentially contribute to treatment response. Therefore, the aim of this study was to explore the treatment response of two unique, but equally persistent and naturalistic behavioural phenotypes in the deer mouse model of OCD, viz. large nest building (LNB) and high marble burying (HMB) to serotonergic, anti-dopaminergic and combination intervention.

METHODOLOGY

LNB and HMB were characterized as described previously. Briefly, nest building behaviour was assessed over 7 consecutive dark cycles, while marble burying has been scored over 3 consecutive trials. Subsequently, 24 animals expressing LNB and HMB respectively were treated with either 1) normal water, 2) the SSRI, escitalopram oxalate (50 mg/kg/day), 3) the dopamine antagonist, flupentixol dihydrochloride (0.9 mg/kg/day) or 4) a combination. All animals (n = 6 per treatment group) received treatment for 28 days via the drinking water with new drug solutions prepared every day.

RESULTS

LNB behaviour was significantly attenuated by escitalopram as well as the combination of escitalopram and flupentixol, while marble burying demonstrated a moderate response to escitalopram only, remaining insensitive to either flupentixol alone or combination treatment.

CONCLUSION

The results reported here indicate that LNB and HMB can be distinguished based on the unique involvement of serotonergic and dopaminergic signaling. Our findings support literature suggesting that different obsessive-compulsive phenotypes may potentially be associated with unique neurobiological involvement. Future research is necessary to elucidate the role of serotonin-dopamine interactions in patients presenting with different obsessive-compulsive phenotypes.

PRESENTER

Ms Heslie Loots

Center of Excellence for Pharmaceutical Sciences, North West University, Potchefstroom
heslie.loots@gmail.com

AUTHORS

Heslie Loots^{1*}, De Wet Wolmarans¹, Marli Vlok¹, Stephan Steyn¹, Allan Kalueff³, Brian Harvey^{1,2}
Centre of Excellence for Pharmaceutical Sciences, North West University, Potchefstroom, South

Africa¹, MRC Unit on Risk and Resilience in Mental Disorders, University of Cape Town, Cape Town, South Africa², School of Pharmacy, Southwest University, Chongqing, China and St Petersburg State University, St Petersburg, Russia³

ABSTRACT TITLE

Development of a post-traumatic stress disorder model in zebrafish: Conspecific alarm substance induced fear conditioning

BACKGROUND/AIM

Post-traumatic stress disorder (PTSD) is a disorder that manifests in some individuals after experiencing a severely traumatic event. Because zebrafish (Zf) exhibit various homologies with rodents and humans, they have emerged as a useful model species to study disorders such as PTSD. Conspecific alarm substance (CAS) is a pheromone-like exudate released upon skin damage of Zf, eliciting alarm reactions in neighbouring Zf, and hence has etiological relevance in assessing the natural fear response of Zf. Therefore, in developing a translational Zf model of PTSD, the aim of this study was to assess the behavioural responses of CAS-exposed Zf during exposure and contextual re-exposure.

METHODOLOGY

Zf were randomly divided into four different groups (n = 10 per group), viz. 1) vehicle/no cue, 2) CAS/no cue, 3) vehicle/cue and 4) CAS/cue. On day 1, exposures were performed for 6 min, following a habituation period of 1 h in the same trapezoid tanks (15 cm x 28 cm (top) / 22 cm (bottom) x 7 cm) as those in which behavioural analysis was conducted. Behavioural observation commenced immediately after the stressor had been introduced. On day 2, Zf were again introduced in the same tanks as those used for the initial exposure, albeit in the absence of actual CAS exposure. Anxiety-like behaviour was measured on both days by measuring the time spent in and the number of entries into the top and bottom sections of the tanks over 6 min.

RESULTS

Our results indicate that CAS exposed Zf displayed a significant degree of anxiety-like behaviour during the initial exposure to the stressor, which was maintained on the subsequent day when exposed to a contextual reminder, under both non-cued and cued circumstances.

CONCLUSION

By demonstrating fear conditioning and persistence in the absence of the primary stressor, CAS exposure induces behavioural changes akin to PTSD in Zf. Further, Zf are sensitive to temporal and contextual modification and therefore present pre-clinical research with a useful model with which to study the pharmacology and biology of PTSD.

PRESENTER

Dr Hilmar Luckhoff

Department of Psychiatry, Faculty of Medicine and Health Sciences, Stellenbosch University
hilmarklausl@gmail.com

AUTHORS

Hilmar Luckhoff¹, Stefan du Plessis², Sanja Kilian³, Laila Asma⁴, Freda Scheffler⁵, Lebogang Phahladira⁶, Riaan Olivier⁷, Robin Emsley⁸
 Department of Psychiatry, Faculty of Medicine and Health Sciences, Stellenbosch University^{1,2,3,4,5,6,7,8}

ABSTRACT TITLE

Hippocampal subfield volumes and change in body mass index over 12 months of flupentixol decanoate treatment in first-episode schizophrenia spectrum disorders

BACKGROUND/AIM

Localized and lateralized abnormalities in hippocampal subfield size have been demonstrated in both schizophrenia and obesity. However, the effects of hippocampal structure on the temporal evolution of metabolic syndrome risk factors in schizophrenia remains unclear. In response to this knowledge gap, the aim of the present study was to explore the associations between hippocampal subfield volumes and change in body mass index (BMI) over 12 months of treatment first-episode schizophrenia spectrum disorders

METHODOLOGY

The present study included 90 antipsychotic-naive or minimally treated patients (66 males, 24 females; mean age = 24.7 ± 6.8 years). BMI was assessed at baseline, and again at months 3, 6, 9 and 12, and hippocampal subfields of interest (CA1, CA3, CA4, presubiculum, subiculum) were assessed using a segmentation algorithm included in the Freesurfer 6.0 software program.

RESULTS

In male patients, there was a significant inverse correlation between baseline BMI and total hippocampal size as well as CA1, CA3, and CA4 subfield volumes, independent of age and substance use, which survived correction for multiple comparisons (adjusted p-value = 0.041). In female patients, the BMI change score was significantly inversely associated with total hippocampal size, as well as CA1, CA3 and subiculum subfield volumes, adjusting for the same covariates. The association between smaller subiculum and weight gain in female patients surviving correction for multiple comparisons (adjusted p-value = 0.036).

CONCLUSION

High baseline BMI may be associated with smaller hippocampal subfield volumes in first-episode schizophrenia, which, in turn, correlates with greater weight gain over 12 months of treatment, in a sex-dependent fashion.

PRESENTER

Dr Johannes McCallaghan

Private Psychiatrist
jjcobus14@gmail.com

AUTHORS

Johannes McCallaghan¹, Maryam Eltawil²
 Fraser Health BC Canada¹, Fraser Health²

ABSTRACT TITLE**Better Care with Faster Reporting****BACKGROUND/AIM**

This presentation aims to initiate a discussion around Quality Improvement in Psychiatric healthcare. This poster provides a framework to discuss the various components of what was named by W. Edward Deming as the "System of profound knowledge" - his insight was cardinal in the application of this science. To illustrate this model a small study was undertaken, i.e. the time it took the transcriptionist to complete a transcription of a psychiatric consultation.

METHODOLOGY

The PDSA (Plan, Do, See, Act) cycle which is the framework for the "Model of Improvement" asks 3 questions, namely: (1) what are we trying to accomplish, (2) how will we know the change is an improvement and (3) what change can we make that will result in improvement. The skills to support improvement are discussed in terms of (1) supporting change with data, (2) developing change and (3) testing the change. The study measured the transcription time, and this served as baseline data. A change was initiated, and the outcome measured.

RESULTS

This poster illustrates how values-based and clinical practice skills (awareness, knowledge, reasoning skills and communication) are used with the PDSA cycle to gather data and document change regarding the time it took to complete transcriptions at a healthcare facility. The results show that the change was effective in that transcription time was significantly reduced. The importance of the driver diagram, and the primary and secondary drivers on achieving the change ideas are reviewed. The use of data for improvement in healthcare and understanding variation using run charts (including Shewhart) form part of the discussion.

CONCLUSION

The model of improvement shows that Quality Improvement in psychiatric healthcare can be achieved by applying the science of improvement.

PRESENTER**Dr Lucy R. Mgopa**

Muhimbili University of Health and Allied Sciences, School of Medicine, Department of Psychiatry and Mental Health, Dar Es Salaam, Tanzania
lucymgopa@gmail.com

AUTHORS

Lucy R. Mgopa¹, Jessie Mbwambo¹, Samuel Likindikoki¹, Pedro Pallangyo²

Muhimbili University of Health and Allied Sciences, School of Medicine, Department of Psychiatry and Mental Health, Dar es Salaam, Tanzania¹, The Jakaya Kikwete Cardiac Institute, Directorate of Research & Publications, Dar es Salaam, Tanzania²

ABSTRACT TITLE**Violence and depression among men who have sex with men in Tanzania****BACKGROUND/AIM**

Men who have sex with men (MSM) continue to be at an increased risk of violence, HIV transmission and mental disorders, such as depression, in addition to numerous bio-psycho-socio challenges they face as a result of their sexual orientation.

METHODOLOGY

We recruited 345 MSM using a respondent-driven sampling technique. The revised Conflict Tactic Scale, PHQ-9 and questions adapted from the TDHS 2010 were used to assess for violence, depression and HIV-risk behaviors. Continuous and categorical variables were analyzed using Student's t-test and the Chi-square test, respectively. Logistic regression analyses were performed to identify predictors of depression and HIV-risk behaviors. All tests were two-sided and $p < 0.05$ was taken as significance level.

RESULTS

Overall, 325 (94.2%) of the participants experienced any form of violence, with 90.1% experiencing emotional violence, while physical and sexual violence were reported by 254 (73.6%) and 250 (72.5%) of the participants, respectively. Depressive symptoms were present in 245 (70.0%) and participants who experienced violence had a 3-fold increased risk of depressive symptoms compared to their violence-free counterparts ($p < 0.001$). On the other hand, participants who experienced any form of violence displayed an over 11-fold increased rate of depressive symptoms compared to their counterparts who were violence-free ($p < 0.001$). Violence experience was found to be the strongest associated factor for depressive symptoms.

CONCLUSION

The rates of violence, depressive symptoms and HIV risk behaviours amongst MSM are astoundingly high, necessitating extensive interventions. In view of this, deliberate measures to deal with the reportedly high rates necessitate joint intervention efforts from the policy makers, health providers and community at large.

PRESENTER**Maria Lerato Mokwatsi**

Psychiatry Registrar
mokwatsim@yahoo.com

AUTHORS

Maria Lerato Mokwatsi¹, Dr Lesley Robertson²
University of Witwatersrand^{1,2}

ABSTRACT TITLE**Substance use prevalence and outcomes in a psychiatric outpatient population in Southern Gauteng****BACKGROUND/AIM**

Substance use is commonly comorbid with mental illness. A comorbid substance use disorder (SUD) in patients with mental illness increases the likelihood of

poorer outcomes of psychiatric care, including poor medication adherence, and increased frequency and length of stay of hospital admissions. South African studies have documented a prevalence of substance use of between 40-50% in a general hospital psychiatric setting. Aim: To ascertain the prevalence of substance use, its clinical correlates, and relationship with hospital admissions among patients attending an urban community psychiatric clinic.

METHODOLOGY

A retrospective record review of patients who had attended a community psychiatric clinic in Southern Gauteng over a 24-month period. Systematic sampling was used to ensure a representative sample of clinical files. Data regarding socio-demographic and clinical profiles were collected. Missed clinic appointments were used to measure adherence to care. Other outcomes measured were the number of hospital admissions and average length of hospital stay during a 24-month period. Those with substance use and those with no substance use were then compared using these variables.

RESULTS

A total of 368 clinical records were analysed. The study sample consisted predominantly of males 52.2 % with the population being mainly black 99.2 %, single and with secondary schooling. The percentage of the sample was also unemployed and not on disability grant. The most common psychiatric disorder was schizophrenia followed by substance induced psychotic disorder. The most commonly used substance was cannabis, followed by alcohol. Those with schizophrenia had a higher comorbid SUD compared to other primary psychiatric disorder. A significantly higher number of missed clinic appointments ($p = 0.0001$) and number of hospital admissions ($p = 0.0001$) was found among those with a SUD than those without. Considering only 170 patients with 1 or more hospital admissions, we find no significant differences in the median hospital length of stay of SUD and non-SUD groups ($p=0.43$).

CONCLUSION

The study highlights the negative effect of substance use in patients with mental illness with regards to their adherence to clinic appointments, recurrent hospital admissions and longer duration of stay during hospital admission.

PRESENTER

Dr Sumaya Mall

Division of Epidemiology and Biostatistics, School of Public Health. Faculty of Health Sciences. University of the Witwatersrand
Sumaya.Mall@wits.ac.za

AUTHORS

Sibongile Mondlana¹, Sumaya Mall², Lesley Robertson²
 Department of Psychiatry, Faculty of Health Sciences. University of the Witwatersrand¹, Division

of Epidemiology and Biostatistics. School of Public Health. Faculty of Health Sciences. University of the Witwatersrand²

ABSTRACT TITLE

Perspectives of Traditional Healers in the Sedibeng District of Gauteng on mental illness and collaborative work with western mental health care

BACKGROUND

People with mental illness in South Africa consult traditional healers. Collaboration between westernized mental healthcare services and traditional healers has been proposed to improve care outcomes. This study aimed to explore the perceptions of traditional healers in the Sedibeng District of collaboration with mental health professionals.

METHODOLOGY

A qualitative study with individual in-depth interviews was conducted. A purposive sample of traditional healers in the Sedibeng district was recruited and interviewed in their practice-setting. The framework approach was employed to analyze the data.

RESULTS

Seven traditional healers were interviewed. All were involved in HIV/AIDS, hypertension and diabetes screening but had little contact with mental healthcare services. Several explanatory models for the causes of mental illness were held, but psychotic and non-psychotic symptoms were accurately identified. Although six participants recognized a role for western mental healthcare services, all participants believed that western mental healthcare cannot treat mental illness of supernatural aetiology. All participants reported feeling disrespected by healthcare practitioners. They felt their understanding of the patient and their family should be taken into consideration. Most wanted educational workshops to improve their mental health knowledge.

CONCLUSION

Collaboration between traditional healers and Sedibeng mental health services is a possibility but requires effort in mutual respect and communication.

PRESENTER

Ms Allegra Moodley

Division of Molecular Biology and Human Genetics, Stellenbosch University
amoodley@sun.ac.za

AUTHORS

Allegra Moodley¹, Patricia Swart², Jacqueline Womersley³, Stefanie Malan-Muller⁴, Leigh van den Heuvel⁵, Jonathan Carr⁶, Robin Emsley⁷, Soraya Seedat⁸, Sian Hemmings⁹
 Division of Molecular Biology and Human Genetics, Stellenbosch University¹, Department of Psychiatry, Stellenbosch University^{2,3,4,5,6,7,8,9}

ABSTRACT TITLE

Investigating Inflammation in Neuropsychiatric Disorders

BACKGROUND/AIM

Neuropsychiatric disorders (NPDs) have a high prevalence of nearly 30% in South Africa and influences the health and economic well-being of affected individuals. Numerous studies have reported an inflammatory mechanism, characterised by increased concentrations of pro-inflammatory cytokines, that contributes to the pathophysiology of these disorders. Furthermore, a heightened state of inflammation pre-disorder has been linked to increased susceptibility and risk for comorbidity. The aim of this study is to measure pro-inflammatory cytokines as markers of inflammation in patients with posttraumatic stress disorder (PTSD), Parkinson's disease (PD) and schizophrenia (SCZ), as well as controls. Furthermore, a longitudinal analysis was done for the SCZ cohort at baseline (treatment naïve) and 12-month follow-up (following treatment).

METHODOLOGY

Samples were previously collected as part of a larger cohort study ("Shared Roots"). The pro-inflammatory cytokines interleukin 1-beta (IL-1 β), interleukin 6 (IL-6), tumor necrosis factor alpha (TNF- α) and interferon-gamma (IFN-g) were measured in duplicate in serum samples of the three NPDs (138 PTSD, 46 PD, 32 baseline SCZ, and 16 follow-up SCZ patients, as well as 180 PTSD, 21 PD, 39 baseline SCZ, and 23 follow-up SCZ controls) using the MILLIPLEX α Map Human Cytokine/Chemokine Magnetic Bead Panel (Merck's) on the Bio-Plex α 200 Luminex system (Bio-Rad), according to the manufacturer's specifications.

RESULTS

Statistical analysis is underway, and data will be analysed. Results will be presented at the conference.

PRESENTER

Mrs Ashmitha P. Munasur-Naidoo

Nelson Mandela University
s216840295@mandela.ac.za

AUTHORS

Ashmitha P. Munasur-Naidoo¹, Ilse Truter²
Nelson Mandela University^{1,2}

ABSTRACT TITLE

Adult Attention-Deficit/Hyperactivity Disorder in South Africa: What is the academic literature reporting on?

BACKGROUND

The development of an individual is affected if Attention-Deficit/Hyperactivity Disorder (ADHD) is left untreated or is misdiagnosed. Studies have reported that 6% to 8% of school children are affected by ADHD. Behavioural symptoms require treatment during preschool years. At each stage of growth other areas of academic, social and emotional development are negatively impacted. Though initially thought to be condition affecting only children, this no longer holds true. ADHD persists into adulthood in two-thirds of patients and globally the focus in adults has garnered considerable interest. The objective of the

study was to provide an overview of the studies and research conducted on adults with ADHD in South Africa.

METHODOLOGY

A systematic review of research articles published on adult ADHD in South Africa was undertaken from January 1960 to November 2016. Electronic databases including EBSCOHost, Emerald, Pubmed, Sabinet and Science Direct were used. The database search resulted in 1209 articles being identified. The review resulted in 29 articles being included in the analysis.

RESULTS

A greater number (58.62%) of the articles were published in local South African journals, 27.59 % of the articles were published in international journals and 13.79 % were published in African journals (excluding South Africa). Fourteen of the 29 studies reviewed were exploratory, 10 were reviews/commentaries, four were developmental studies and one was a phenomenological study. The impact factors for nine of the journals were not stated and the remaining 11 have impact factors ranging from 0.207 to 6.78. In 2004, only one article on adult ADHD was published in South Africa and by 2015, the number of publications increased to six. Areas covered in the various publications included the following themes: reviews/commentaries, university students, co-morbid conditions, impact on siblings, prevalence, smoking, mental health disorders, drug utilisation, and healthcare professionals.

CONCLUSION

In South Africa adult ADHD is gaining interest, however, there are limited studies conducted to date. It is hence recommended that further studies are conducted in this new and developing field.

PRESENTER

Ms Jani Nöthling

Stellenbosch University
janinothling@sun.ac.za

AUTHORS

Jani Nöthling¹, Sian Hemmings², Soraya Seedat³, Stellenbosch University^{1,2,3}

ABSTRACT TITLE

Genome-wide differentially methylated genes associated with PTSD in female rape survivors

BACKGROUND

Alterations to the epigenome in response to psychological trauma have been reported as a mechanism mediating gene and environmental interactions. Differentially methylated genes involved in the biological pathways associated with the adverse phenotypic behavioural presentations in posttraumatic stress disorder (PTSD) have previously been identified. However, the majority of studies focussed on differential methylation of single candidate genes in participants exposed to heterogeneous index traumas as opposed to

genome-wide methylation differences associated with homogeneous trauma types. The objective is to identify genome-wide differences in methylation profiles of a group of women exposed to rape, with and without PTSD.

METHODOLOGY

The sample included female isiZulu participants (n = 48) between 18 and 40 years old, who reported an incident of rape within the previous twenty days. Participants were matched on HIV status, age, childhood maltreatment and other lifetime trauma exposure, body mass index and smoking status. DNA was extracted from peripheral blood and analysed using the Illumina Epic BeadChip microarray.

RESULTS

The results of the epigenetic comparison will be discussed pending the outcome of the analysis and longitudinal validation of the findings (in selected top genes using EpiTYPER; n = 200) at baseline, 3 months and 6 months post-rape.

CONCLUSION

Previous studies have found significant differences in epigenetic profiles of participants with and without PTSD. Differential methylation has been associated with genes related to the nervous system, immune and inflammatory response, and neural and cellular circuitry development. The findings of this study will be compared to previous results.

PRESENTER

Prof Dana Niehaus

Department of Psychiatry, University of Stellenbosch
Djhn@sun.ac.za

AUTHORS

Michele Tracy Parker¹, Dana JH Niehaus², Felix CV Potocnik³

Department of Psychiatry, Stellenbosch University^{1,2,3}

ABSTRACT TITLE

Attitudinal differences towards Mental Health Services between younger and older South African adults

BACKGROUND/AIM

Life expectancy among the global population is increasing and, for the first time in history, most people can expect to live to the age of 60 and older. An important concern is that older adults underutilize mental health services. Internationally, attitudinal barriers represent the primary barriers to help-seeking and adherence, but there is a lack of similar data from Southern Africa and, particularly, from South Africa. Objectives: The study investigates attitudinal differences towards mental care in a group of older adults and their younger adult progeny in the Pinelands suburb of Cape Town. The assessment was done using the Inventory of Attitudes towards Seeking Mental Health Services (IASMHS). The preferred type of care and the effect of exposure to previous help-seeking experience on attitudinal differences were also assessed.

METHODOLOGY

Cross-sectional data using self-administered (younger adults) and interviewer-administered (older adults) questionnaires were collected for the older adults and their younger adult progeny. Statistical analysis using SPSS was conducted to determine the attitudinal differences between the two groups of adults and concordance within the family.

RESULTS

A total of 103 older adults (mean age 81 years) and 24 younger adults (mean age 52 years) were recruited. The overall IASMHS score was high for both groups (73.80 versus 78.08), with no differences between the groups on two of the sub-scales: attitude towards help-seeking behaviour and indifference to stigma. There was a significant difference in the psychological openness subscale, with the younger adults appearing more open. General practitioners, God, religious/spiritual leaders, and spouses/partners were favoured as first port-of-call for discussing mental health issues. The younger adults included psychologists as part of this list. There was no significant difference in the choice of first contact between those that had (28% of older and 70% of younger adults) or had not used mental health services before, and the majority experienced this help as positive.

CONCLUSION

This study challenges the notion that stigmatization of mental health illness is at the core of limited use of psychological and psychiatric services by the elderly in South Africa. Our findings indicate that the barrier to service utilization is psychological openness and challenges the South African mental health services to focus on the education of the lay public (spouses/partners) in the identification of psychiatric symptoms, to strengthen the expertise of general practitioners and to focus on empowering spiritual and religious leaders in dealing with mental health issues reported to them.

PRESENTER

Dr Mahomed Esmail Paruk

Stellenbosch University
Dr.meparuk@yahoo.com

AUTHORS

Mahomed Esmail Paruk¹, Rene Nassen², Karis Moxley³
 Stellenbosch University^{1,2,3}

ABSTRACT TITLE

Cyberbullying perpetration and victimisation among adolescent psychiatric patients at Lentegeur Hospital, South Africa

BACKGROUND/AIM

Cyberbullying is a new phenomenon that has emerged with the advent of the internet. The prevalence of cyberbullying is increasing. Research has shown that cyberbullying is associated with psychiatric co-morbidity. The primary aim of this study was to determine the prevalence of cyberbullying amongst adolescents attending the Lentegeur

Hospital CAMH. The secondary aim was to determine the DSM-5 psychiatric diagnoses associated with cyberbullying.

METHODOLOGY

This study was a cross sectional study with convenience sampling. The study included 97 participants recruited from in-patient and outpatient services. Participants were aged between 13-18 years and provided assent along with parental consent. Quantitative data was captured using a questionnaire. Descriptive and inferential analysis of the data was performed.

RESULTS

The overall prevalence rate of cyberbullying in this sample was 56.7%. The prevalence rates for perpetrator only was 6.2%, for victim only was 20.6% and for perpetrator victims was 29.9%. Females were more involved in all forms of cyberbullying. There was no significant association between cyberbullying and any psychiatric diagnoses, as the study was underpowered. The overall prevalence of cyberbullying based on the primary psychiatric diagnosis of major depressive disorder was 72.4%, schizophrenia 57.1% and attention-deficit/hyperactivity disorder (ADHD) 22%. The overall prevalence of cyberbullying based on secondary psychiatric diagnosis of substance use disorders was 75% and mild intellectual disability was 27.7%. Most patients with ADHD (n = 14, 77.8%) and autism-spectrum disorder (n = 3, 60%) were uninvolved in cyberbullying behaviour. The proportions of perpetrators only and victims only were highest amongst individuals with schizophrenia (n = 3, 21.4%) and bipolar affective disorder (n = 3, 50%), respectively. The cyberbullying acts most frequently reported by perpetrators and victims were insulting or being insulted by someone and sending or receiving embarrassing and hurtful messages. There was no significant difference between in- and outpatients with regards to perpetrating or being a victim of cyberbullying.

CONCLUSION

The high percentage of adolescents involved in cyberbullying suggests that it is a major problem in this population. More screening and treatment programmes need to be implemented to address this issue.

PRESENTER

Dr Anthea Payne

Stellenbosch University, Registrar
antheapayne@yahoo.com

AUTHORS

Anthea Payne¹, Inge Smit², Prof Liezl Koen³, Prof Dana Niehaus⁴
 Stellenbosch University^{1,2,3,4}

ABSTRACT TITLE

Burnout and job satisfaction of nursing staff in a South African acute mental health setting

BACKGROUND/AIM

Psychiatric nurses are a fundamental component of the mental health care system in South

Africa. However, high levels of burnout and job dissatisfaction amongst nursing staff have been associated with reduced empathy and quality of care, and poor service delivery. Stikland Psychiatric Hospital is a state psychiatric hospital situated in Bellville, Western Cape, South Africa, and provides all levels of psychiatric care to a large part of the Cape metro region. To our knowledge, no previous studies have examined burnout and job satisfaction amongst nurses in this setting. We assessed the relationship between burnout and job satisfaction amongst nursing staff at Stikland Psychiatric Hospital, Cape Town, South Africa.

METHODOLOGY

This cross-sectional study used the Copenhagen Burnout Inventory and the Job Satisfaction Survey to assess burnout and job satisfaction amongst 127 psychiatric nursing staff.

RESULTS

In this population of mostly female (83.5%) nurses, scores for personal, work-related and client-related burnout were relatively high, but job satisfaction was also high. Higher levels of burnout were significantly associated (Pearson linear correlation, $r = -0.077$, $p = 0.01$) with lower levels of job satisfaction. There were no significant associations between burnout/job satisfaction and gender, rank or years of experience.

CONCLUSION

If mental health service delivery is to be optimised, supportive or preventative structures should be implemented to reduce the prevalence of burnout in psychiatric nurses. This study adds to scarce local knowledge and provides information that can be used to inform the development of supportive strategies for psychiatric nursing staff in South Africa.

PRESENTER

Dr Deirdre Pieterse

Department of Psychiatry and Mental Health, UCT
deirdre.pieterse@gmail.com

AUTHORS

Deirdre Pieterse¹, Jackie Hoare², Kerry-Ann Louw³, Elsie Breet⁴, Ian Lewis⁵, Michelle Henry⁶, Jason Bantjes⁷
 University of Cape Town, South Africa^{1,2,5,6}, University of Stellenbosch^{3,4,7}

ABSTRACT TITLE

Factors associated with deliberate self-harm methods among patients in a tertiary hospital in South Africa

BACKGROUND/AIM

Hospital-based research provides important insight into the burden of suicide behaviour and methods used in deliberate self-harm (DSH). The information on methods used in DSH may be useful to plan suicide-related intervention and prevention programmes. We aimed to investigate the socio-demographic and clinical factors associated with the methods used in DSH at a tertiary hospital in Cape Town, South Africa.

METHODOLOGY

Socio-demographic, clinical and treatment data were collected from 238 consecutive DSH patients

who presented for emergency department treatment at the hospital. Univariate analyses and logistic regression models were used to explore the associations between these variables and violent and non-violent methods of DSH.

RESULTS

Self-poisoning was the most common method of self-harm (80.3%, n=191). Prescription medication was the most common form of self-poison (57.6%, n = 137) while a large number of patients used the non-prescription medication paracetamol (40.9%, n = 54). In the bivariate regression analysis, male gender, stating that the reason for DSH was to escape a situation and history of substance use were associated with violent methods of DSH.

CONCLUSION

This study contributes to emerging literature on methods used in DSH in South Africa. There is an urgent need to improve monitoring of prescription medication commonly used in DSH. More research on the source of prescription medication and its relationship to DSH is needed in this context. Limiting the quantity and reviewing the packaging of paracetamol available in supermarkets may be an effective means of restriction that should be adopted in South Africa. This study underscores the need for increased collaboration between the Department of Social Development and the Department of Health in providing substance use interventions to high-risk population groups.

PRESENTER

Dr Krishanand R. Roopun

University of KwaZulu-Natal
krishroopun@gmail.com

AUTHORS

Dr Krishanand R. Roopun¹, Dr Andrew Tomita², Dr Saeeda Paruk³,
 University of KwaZulu-Natal, Nelson Mandela School of Medicine¹, School of Nursing and Public Health, College of Health Sciences, University of KwaZulu-Natal, Durban, South Africa. - Research Associate: KwaZulu-Natal Research and Innovation Sequencing Platform (KRISP) - Research Associate: Africa Health Research Institute (AHRI)², University of KwaZulu-Natal, Nelson Mandela School of Medicine and Senior Specialist at King Dinuzulu Hospital Complex³

ABSTRACT TITLE

Patients' attitudes and preferences towards oral and long acting injectable antipsychotics in KwaZulu-Natal, South Africa

BACKGROUND/AIM

Drug attitudes and preference to treatment may influence adherence and outcomes. There is limited literature on patients' drug attitudes to oral and long acting injectable (LAI) antipsychotic formulations in Africa.

Aim: To describe patients' attitudes and preferences

towards oral versus LAI antipsychotic formulations and to explore factors influencing patients' drug attitudes towards their respective antipsychotic formulation at two psychiatric units in KZN, SA.

METHODOLOGY

A cross-sectional survey of adult patients receiving LAI and/or oral antipsychotics (N = 70) compared to those on oral antipsychotics only (N = 70) was conducted. A socio-demographic questionnaire and Drug Attitude Inventory scale (DAI-30) were used to assess patient drug formulation preference and drug attitudes.

RESULTS

96 (68%) of 140 participants preferred oral antipsychotic compared to LAI. 98 (70%) preferred their current medication formulation they were prescribed, at the time of the study. 132 (94.3 %) participants reported a positive drug attitude towards both oral and LAI antipsychotic formulations. 4 participants on LAI and 4 on oral had a score of zero or a negative DAI score. Factors associated with a poorer DAI score were divorced/widowed status (p = 0.01), lower income (p = 0.02), shorter duration of illness (p = 0.04) and a clinical diagnosis of schizophrenia versus schizoaffective or other psychotic disorders (p = 0.04) based on an adjusted regression model. Participants who were on formulations that matched their preference scored better on DAI compared to individuals with mismatch in use and preference (p = 0.01).

CONCLUSION

Drug attitude is influenced by several factors including matched medication use and personal preference and this should be considered to improve adherence. Further research in larger samples is required.

PRESENTER

Mrs Freda Scheffler

Department Psychiatry, Stellenbosch University
fredas@sun.ac.za

AUTHORS

Frederika Scheffler¹, Hilmar Luckhoff², Stefan du Plessis³, Sanja Kilian⁴, Laila Asmal⁵, Lebogang Phahladira⁶, Robin Emsley⁷
 Stellenbosch University^{1,2,3,4,5,6,7}

ABSTRACT TITLE

Relevance of substance use as a predictor of clinical outcome in first-episode schizophrenia spectrum disorder patients over 24 months of treatment with flupentixol depot

BACKGROUND/AIM

Substance use is generally associated with an unfavourable course of illness in first-episode schizophrenia, including non-remission of psychopathology symptoms, higher rates of relapse and re-hospitalization, and poorer functioning. The aim of this study was to explore the influence of cannabis and methamphetamine use on

clinical and treatment outcomes in first-episode schizophrenia spectrum disorder patients over 24 months of assured antipsychotic treatment.

METHODOLOGY

The present longitudinal study included 123 minimally treated or antipsychotic-naïve first-episode patients assessed over 24 months of treatment with flupentixol decanoate according to a standardized regimen. Time to relapse, visit-wise changes in psychopathology severity and overall functioning were compared between cannabis users ($n = 41$) and non-users ($n = 82$) stratified based on urine toxicology results.

RESULTS

While both cannabis users and methamphetamine users were more likely to relapse at any point over 24 months of treatment, neither cannabis nor methamphetamine use were significant predictors of relapse. However, methamphetamine use, and cannabis use time interaction effects were found on global psychopathology. Follow-up analyses indicated that while cannabis users had poorer social and occupational functioning scores at baseline, neither cannabis use nor the frequency of use was associated with poorer improvement in social and occupational functioning over the course of treatment. In contrast, methamphetamine use had a significant individual effect on social and occupational functioning scores, as well as the excitement-hostility and disorganised PANSS domains.

CONCLUSION

Since neither frequency of cannabis use nor methamphetamine use were predictors of relapse, neither substances are likely to be reliable predictors of overall treatment outcome. Although substance use still needs to be targeted to improve the functional outcomes of substance using patients, in particular for methamphetamine users, assured antipsychotic medication appears to be sufficient to attenuate symptomatology and relapse in substance-using patients.

PRESENTER

Dr Georgina Spies

Department of Psychiatry, Stellenbosch University
ggiocos@sun.ac.za

AUTHORS

Georgina Spies¹, Martin Kidd², Soraya Seedat³
 NRF/DST South African Research Chairs Initiative, PTSD Program, Department of Psychiatry, Stellenbosch University¹, Centre for Statistical Consultation, Department of Statistics and Actuarial Sciences, Stellenbosch University², Department of Psychiatry, Stellenbosch University³

ABSTRACT TITLE

A factor analytic study of the Childhood Trauma Questionnaire-Short Form in an all-female South African sample with and without HIV infection

BACKGROUND/AIM

The Childhood Trauma Questionnaire-Short Form (CTQ-SF) is widely used around the world but no norms have been established for South African users of the CTQ. The CTQ has been employed in South Africa but not yet validated. The present study aims to address this gap. There is great need in both clinical and research settings for an assessment tool that adequately measures childhood trauma, a sensitive and challenging construct to measure.

METHODOLOGY

This study explores the psychometric properties of the CTQ-SF in an all-female cohort living with and without HIV infection in South Africa, the first study of its kind in this population. The CTQ-SF was administered to 314 women (170 HIV uninfected; 144 HIV infected) in Cape Town, South Africa. Internal consistency of the CTQ-SF was determined by Cronbach alpha coefficients. Using Lisrel, a confirmatory factor analysis (CFA) was performed, followed by an exploratory factor analysis (EFA) to explore an alternative factor structure model in this cohort.

RESULTS

For the group as a whole, the model fit was acceptable but not good. However, for the sub-sample of women living with HIV, the CFA revealed poor model fit. The EFA revealed a three-factor model, with mostly stable factor loadings for four of the five subscales. However, the Physical Neglect (PN) subscale cross loaded on two of the three factors.

CONCLUSION

Our findings revealed an alternative factor structure from the original model in this study cohort. The PN subscale does not have stable factor loadings and is not homogenous. The original instrument may therefore benefit from revision for use in this population. Measures such as the CTQ can be informative for preventative strategies in HIV-infected or at-risk youth and for clinical interventions aimed at mitigating the negative psychological sequelae of childhood maltreatment.

PRESENTER

Dr Georgina Spies

Department of Psychiatry, Stellenbosch University
ggiocos@sun.ac.za

AUTHORS

Georgina Spies¹, Christy Denckla², Sumaya Mall³, Jonathan Levin⁴, Soraya Seedat⁵, Noeline Nakasujja⁶, Eugene Kinyanda⁷
 NRF/DST South African Research Chairs Initiative, PTSD Program, Department of Psychiatry, Stellenbosch University¹, Department of Epidemiology, Harvard T. H. Chan School of Public Health, Cambridge, MA, USA², Division of Epidemiology and Biostatistics, School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa^{3,4}, Department of Psychiatry, Stellenbosch University⁵, Department of Psychiatry, Makerere University, Kampala, Uganda^{6,7}

ABSTRACT TITLE

The relationship between cognitive change and physical health and behavioural outcomes in a Ugandan cohort of adults living with HIV – a longitudinal study.

BACKGROUND/AIM

The burden of global HIV infection is largely found in the Sub-Saharan African region. It is important to better understand factors that improve health outcomes for People living with HIV/AIDS (PLWHA). Given increased access to and availability of more potent ART regimens, PLWHA today, who comply with treatment, have extended life expectancies approaching population norms. The present study sought to assess the association between changes in cognitive function and physical health and behavioural outcomes in a longitudinal Ugandan cohort of PLWHA. We believe that there are a paucity of longitudinal studies mapping cognitive impairment in HIV-infected populations on the African continent. In light of this, the present study aims to fill this gap.

METHODOLOGY

We investigated changes in cognitive function and physical health and behavioural outcomes (HIV disease progression, health-seeking behaviour, adherence to HIV medications and risky sexual behaviour) at baseline and 12 months later among 1126 Ugandan adults living with HIV.

RESULTS

Overall, cognitive function improved from baseline to follow-up, except for gait speed, which was slower at follow-up compared to baseline. There were improvements in physical health and behavioural outcomes by follow-up, with greater improvements among individuals on ART compared to those not on ART. Change in gait speed over time significantly predicted risky sexual behaviours at follow-up.

CONCLUSION

This is the first study to investigate the longitudinal relationships between cognitive function and health outcomes among Ugandan adults living with HIV and provide insights into the possible links between cognitive function and negative clinical and behavioural health outcomes in people living with HIV.

PRESENTER

Dr Sharain Suliman
Stellenbosch University
sharain@sun.ac.za

AUTHORS

Sharain Suliman¹
Stellenbosch University¹

ABSTRACT TITLE

Investigating Mental Health Literacy of PHC Practitioners in South Africa and Zambia: Phase 1 of the MEGA Project – Preliminary Findings from the Western Cape

BACKGROUND

A high prevalence and burden of psychiatric illness in childhood and adolescence suggests that primary health care (PHC) practitioners should routinely consider mental illness when assessing youth. However, common psychiatric disorders remain largely undetected and untreated in PHC settings, suggesting a need for greater awareness of these conditions. The MEGA project aims to identify gaps in PHC practitioner knowledge with regard to child and adolescent mental health in South Africa and Zambia, in order to provide training to address these gaps and develop a locally relevant mobile-health tool to screen for these problems. We assessed the mental health literacy and experiences of PHC nurses in managing child and adolescent psychiatric disorders.

METHODOLOGY

70 PHC nurses from 7 PHC clinics in Cape Town completed (i) a background questionnaire, which contained questions related to demographics, work experience, mental health knowledge and training, and resource availability; and (ii) the Mental Health Literacy Scale (MHLS). This is a 35-item questionnaire that can be used to assess mental health knowledge, attitudes toward mental health and help-seeking. Scores range between 35 and 160, with higher scores indicating more knowledge.

RESULTS

Participants were between 21 and 58 years of age, mostly female (87%), and had an average of 13.0 (± 10.0) years of experience. Although the majority (74%) were confident about where to obtain information pertaining to mental illness, only half (50%) reported ever receiving any mental health training. Participants reported seeing an average of 2 (± 2.9) adolescents with suicidal thoughts or attempts and 9 (± 26.9) who had experienced a traumatic event each month. The mean score on the MHLS was 127.3 (± 12).

CONCLUSION

These findings suggest that PHC nurses would benefit from increased support with regard to managing mental health conditions. By identifying the needs of PHC practitioners in managing youth with common mental health problems, we hope to develop targeted training and a brief mental health screening tool that will aid in identifying youth in need of further attention. In this way we anticipate improved access to mental health services and enhanced mental health care for youth in South Africa and Zambia.

PRESENTER

Dr Patricia Swart
Stellenbosch University
patswart@sun.ac.za

AUTHORS

Patricia C Swart¹, Jacqueline S Womersley², Jaco Rossouw³, Elna Yadin⁴, Sian M J Hemmings⁵, Soraya Seedat⁶
Stellenbosch University^{1,2,3,5,6} University of Pennsylvania⁴,

ABSTRACT TITLE

The Val66Met brain-derived neurotrophic factor genotype does not predict PTSD treatment response in South African adolescents

BACKGROUND/AIM

Posttraumatic stress disorder (PTSD) is a psychiatric condition characterised by intrusive thoughts, avoidance behaviours, hypervigilance and cognitive deficits that may occur consequent to trauma exposure. Recent studies suggest that genetic predisposition plays an important role not only in the risk of developing psychiatric disorders, but also into the response to therapeutic interventions. The purpose of this study was to determine whether Val66Met, a functional variant in the brain-derived neurotrophic factor (BDNF) gene, predicts treatment response in adolescents with PTSD.

METHODOLOGY

We performed secondary analysis of data collected from 52 South African adolescents (70 % of Mixed-Ancestry) diagnosed with PTSD and examined the relationship between treatment response and Val66Met genotype. Study participants were randomly assigned to one of two intervention programs, either prolonged exposure therapy (PE) or supportive counselling (SC). DNA was extracted from saliva samples provided by each participant.

RESULTS

Genotyping was successfully performed on samples from 47 participants (PE, n = 22; SC, n = 25). PTSD symptom severity, as assessed by the Child PTSD Symptom Scale-Interview, improved significantly with treatment ($p = 2.0 \times 10^{-16}$). However, a repeated measures analysis of covariance, with Val66Met genotype as the between factor and time as the within factor, revealed no significant effect of genotype on treatment outcome.

CONCLUSION

The results of this study require replication in a larger study group that accounts for the multiple confounding factors affecting human genetic studies.

PRESENTER

Dr Kobus van der Walt

Department of Psychiatry & Mental Health, University of Cape Town

sarel.vanderwalt@westerncape.gov.za

AUTHORS

Kobus van der Walt¹, Dr John Parker², Prof Margie Schneider³

Department of Psychiatry & Mental Health, University of Cape Town^{1,2,3}

ABSTRACT TITLE

Exploring mechanisms of effect in an in-patient psychotherapy program: mood and anxiety symptoms, difficulty with emotion regulation, and five facets of mindfulness

BACKGROUND

This exploratory enquiry into the effectiveness of an in-patient psychotherapy program measured the changes in mood and anxiety symptoms, difficulty with emotion regulation, and dispositional mindfulness in a clinical population with diverse psychiatric morbidity. Participants were 53 adults (74.5% female, mean age = 35 years) who participated in a 4-week in-patient psychotherapy program offering a variety of interventions, including mindfulness skills training, and Dialectical Behaviour Therapy-psychosocial skills training.

METHODOLOGY

A prospective cohort descriptive study, using an observational design with one-group, pre-test/post-test, and discrete outcomes, was conducted. This was an outcome assessment evaluation of an existing in-patient psychotherapy program delivered at a South African public sector tertiary-level psychiatric hospital. Program input data, demographic variables, psychiatric morbidity, and medication on discharge were tracked. Program outcomes were measured using the Mood and Anxiety Symptoms Questionnaire D-30, the Difficulty with Emotion Regulation Short-Form, and the Five Facets of Mindfulness Questionnaire.

RESULTS

There was an average improvement of 29.86 ± 20.56 on the Mood and Anxiety Symptoms Questionnaire-D30 and 12.43 ± 17.75 on the Difficulty with Emotion Regulation Scale-Short Form, indicating an improvement in mood and anxiety symptoms and difficulty with emotion regulation post-intervention. There was an average improvement of 17.6 ± 23.66 on the Five Facets of Mindfulness Questionnaire, indicating an increase in dispositional mindfulness post-intervention.

CONCLUSION

The overall results of this study show evidence of the effectiveness of the in-patient psychotherapy program. Attendance of the program resulted in improvements in mood and anxiety symptoms, difficulty with emotion regulation, and dispositional mindfulness. Differences in program outcomes and associations with demographic variables, psychiatric morbidity, and medication at discharge indicate that a nuanced approach to parcelling out the effects of program interventions is needed when considering a program effect theory.

PRESENTER

Ms Alberta SJ van der Watt

Stellenbosch University

bertevdwatt@sun.ac.za

AUTHORS

ASJ van der Watt¹, N Menze², Karis Moxley³, Irene Mbanga⁴, Soraya Seedat⁵
Stellenbosch University^{1,2,3,4,5}

ABSTRACT TITLE

Self-identification, training, practices, and perceptions of collaboration with medical providers: A two-province comparison of South African Xhosa-speaking traditional healers

BACKGROUND

Given the widespread use of traditional medicine in treating common mental disorders, especially among low-income groups, it is important to explore the self-identification, training, and practices of traditional healers (THs). We aimed to (i) explore the specific practices of different THs; (ii) determine whether the type of healing influences type of patient seen in practice, the mode of diagnosis/treatment, and the willingness to refer to conventional hospitals; and (iii) determine whether THs' practices differ between two provinces in South Africa.

METHODOLOGY

A comparative analysis was undertaken of Xhosa-speaking traditional healers (N = 118; female n = 96; mean age = 54.10, SD = 13.57 years) from the Western (n = 50) and Eastern (n = 68) Cape provinces. Participants completed the Patient Health Questionnaire (PHQ-9), and a structured questionnaire with two open-ended questions that collected data on self-identification, province, mode of diagnosis/treatment, perceived working relationship with conventional hospitals, and the type of illness (physical or mental) treated.

RESULTS

Self-identification as a specific type of TH was significantly associated with the mode of diagnosis/treatment, and the type of illness treated. Spiritualists, male THs, and THs who were previously hospitalised for mental illness were more likely to treat mental illness. There was a statistically significant association between THs who had previously been hospitalised for illness and who perceived their relationship with conventional hospitals to be functional (i.e., working).

CONCLUSION

This article highlights the complex practices of Xhosa-speaking THs that should be taken into consideration in future research. Clearer operational definitions of the type of TH are needed. Collaboration between THs and mental health care professionals and services could be facilitated by focusing on male THs, spiritualists, and THs who have previously been hospitalised for mental illness at conventional hospitals.

PRESENTER

Dr Jacqueline Womersley

Stellenbosch University
jsw1@sun.ac.za

AUTHORS

Jacqueline Samantha Womersley¹, Lindi Martin², Rob Sinnerton³, Lize van der Merwe⁴, Soraya Seedat⁵, Sian Megan Joanna Hemmings⁶
Stellenbosch University^{1,2,4,5,6}, Cardiff University³

ABSTRACT TITLE

The combination of childhood trauma and neuropeptide Y single nucleotide polymorphisms influence anxiety sensitivity in South African adolescents

BACKGROUND/AIM

Anxiety sensitivity (AS) refers to a fear of the physical, social and psychological consequences of anxiety and is predictor of the development of anxiety disorders, the most prevalent class of psychiatric disorders. Previous research conducted by our group indicated that childhood trauma (CT) experience interacts with genetic predisposition to influence AS. We decided to expand this study to investigate whether genetic variation in two neuropeptides implicated in the stress response, neuropeptide Y (NPY) and pituitary adenylate cyclase-activating polypeptide receptor 1 (ADCYAP1R1), interact with CT to influence AS in a sample of South African adolescents.

METHODOLOGY

Methods: Nine hundred and fifty-one adolescents, of which 634 self-identified as Black, Xhosa-speaking and 317 self-identified as South African Coloured, were recruited from schools in and around Cape Town. All study participants completed a battery of clinical measures, including the Childhood Anxiety Sensitivity Index (CASI) and Childhood Trauma Questionnaire (CTQ), which were used to assess AS and CT experience respectively. DNA was extracted from saliva samples and used for to genotype four NPY single nucleotide polymorphisms (SNPs) and a single ADCYAP1R1 SNP. The associative and interactive effects of SNPs and CT on AS were examined by ethnicity (Black, Xhosa-speaking or South African Coloured) and gender. All statistical analyses were performed using the R programming language and an α value of 0.05 was used to determine statistical significance.

RESULTS

The interaction of CT and the NPY rs5574 A allele increased AS in Coloured female participants. The rs3037354 deletion variant protected against AS as CT scores increased in Coloured male participants. In Xhosa females, the NPY rs5573 A allele and rs3037354 deletion variant were associated with increased and decreased AS respectively.

CONCLUSION

These results suggest that the rs5574 A allele and rs3037354 deletion variant interact with CT to act as risk and protective factors respectively for AS in an ethnicity- and gender-specific manner. Our results reaffirm the role of gene-environment interactions in anxiety-related behaviours. The differences in genetic contributions to AS by ethnicity and gender reinforce the need for psychiatric genetics investigations in understudied populations ■

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BIOLOGICAL PSYCHIATRY CONGRESS

20 - 23 September 2019

The Biological Psychiatry Congress took place in September (20th - 23rd) at the Century City Convention Center in Cape Town. Several registrars attended the Congress and provided their impressions of and insights on the talks they attended. This report was facilitated and compiled by Prof's Seedat and Botha (University of Stellenbosch)



PRESENTER

Professor Jonathan Downar

is an Associate Professor of Psychiatry at the University of Toronto, Scientist at the Krembil Research Institute, and Director of the MRI-Guided rTMS Clinic at the Toronto Western Hospital. Open since 2011, this free clinic receives >700 new referrals annually and treats

>80 patients every day. Prof Downar is a clinician-scientist with a PhD in functional neuroimaging. His work has been published in *Brain Stimulation*, *Biological Psychiatry*, *Nature Neuroscience*, and *Lancet*. His current research focuses on improving the cost-effectiveness, accessibility, success rate, and range of indications for therapeutic rTMS (Repetitive Transcranial Magnetic Stimulation) in psychiatric disorders.

ENTERING THE ERA OF RAPID PROGRESS IN THERAPEUTIC RTMS

There is a high prevalence of depression (4.7%), suicide and treatment resistant depression (2%). rTMS has progressed significantly since it was first used in Sheffield on 11 May 1985. It was discovered that through its mechanism, it can induce neuronal plasticity by daily treatments. In its early years of use, a few key points were noted which included that it could produce similar results to ECT without inducing seizures and later discovered that durable plasticity could be achieved with minimal duration of treatment. After 23 years, it received FDA approval and after 25 years it was noted that a greater response can be achieved after 10-12 weeks of treatment.

We are currently in the Rapid Progress Era which is the period of 25-33 years after first clinical use. The challenges we are currently encountering is complaints from patients involving long waiting lists and hospital costs. This poses the question, how must rTMS improve?

THERE ARE 3 CATEGORIES WHICH NEED TO BE ADDRESSED: CAPACITY, COST AND LOGISTICS. WHEN ASSESSING CAPACITY, CURRENT PROTOCOLS RECOMMEND SESSIONS OF LONG DURATION, APPROXIMATELY 30-60 MINUTES. THIS CREATES A LONG WAITING LIST. THE COST RANGES BETWEEN \$200-400 PER SESSION AND A TOTAL OF 20-30 SESSIONS ARE RECOMMENDED WHICH RESULTS IN THIS TREATMENT BEING VERY EXPENSIVE. THE LOGISTICS AROUND OBTAINING TREATMENT ALSO APPEARS IMPRACTICAL AS AN AVERAGE OF 20-30 HOSPITAL VISITS ARE REQUIRED WHICH IS CLEARLY DISRUPTIVE TO THE LIVES OF THE PATIENTS.

Based on these 3 factors, it is clear that this treatment will need to become more cost effective and increase its capacity by 3-10 times.

In an attempt to address these factors, a series of experiments were conducted. Firstly, the effectiveness of theta burst versus high frequency rTMS were compared. An experiment was conducted which

included 414 patients with Depression. Half of the sample were given the FDA protocol of 30 minute duration sessions and the other half were given the theta burst protocol which consisted of 3 minute duration sessions. Both groups were treated for a total of 20-30 sessions and on completion of treatment, the results showed that the treatment of both groups were equally effective. This showed that there was now a way to decrease the capacity, cost and waiting lists.

The next question posed was "Can we accelerate response with multiple daily sessions?" By applying the theta burst protocol, multiple sessions could be done within one day and a total of 50 sessions could be completed in a 5 day period instead of the treatment process taking a number of weeks. This resulted in an 80-90% remission rate!

The next component addressed was whether rTMS remission rates could be improved with personalised medicine. When analysing an fMRI, 4 biotypes of depression can be seen. Of particular interest is Biotype 2 which includes the right orbitofrontal cortex (the non-reward pathway) which is not usually stimulated in rTMS. By stimulating this region, prominent anhedonia improved and it also showed good response in OCD, obsessively anxious and neurotic patients. Other specific brain regions studied included the lateral orbitofrontal cortex which resulted in suppression of alpha and theta activity on intracranial EEG monitoring. This resulted in a decreased negative mood content. However, monitoring on iEEG is an invasive procedure and a simpler biomarker is required for monitoring. This simpler biomarker was found to be heart rate. Using intermittent theta burst stimulation resulted in a bradycardia which could be used as a measure of response.

BY PREDICTING AND PERSONALISING (USING A BIOMARKER) RTMS, THE REMISSION RATES WOULD INCREASE BUT IT WOULD ALSO RESULT IN AN INCREASE IN COST. WHEREAS BY COVERING ALL BASES, WE WOULD BE USING A RAPID, LOW COST TREATMENT WHICH HAS 100% ACCESS BUT LOWER RATES OF REMISSION.

The last component to be addressed is logistics. An increase in accessibility is needed which is simple, convenient, low cost and highly scalable. The question of whether rTMS would be possible at home is posed. This would mean that patients would be able to administer the rTMS themselves and the only cost incurred would be a once off payment for the machine. Currently, we need to figure out safe home based protocols. This could include protocols of one pulse per second of a 10Hz theta burst which would have minimal adverse effects and low risk of seizures. The area to be stimulated does not have to be very specific and 'overspill' is allowed making administration easier. The future aim is to explore

the possibility of prescribing and administering rTMS using latest technology such as smart phones.

In conclusion, Prof Downar's current research focusses on improving the cost effectiveness, accessibility, success rates, and range of indications for therapeutic rTMS in psychiatric disorders. The three main categories to address when attempting to improve rTMS services include capacity, cost and logistics. He has shown how the capacity can be decreased and waiting lists shortened by decreasing the duration of each session and increasing the frequency of sessions per day and hence per week. This in turn decreases the cost associated with treatment.

THE FINAL COMPONENT WOULD BE TO ADDRESS ACCESSIBILITY OF RTMS WITH THE AIM OF WORKING TOWARDS A SAFE AND SIMPLE METHOD OF ADMINISTERING RTMS AT HOME.

TAKE HOME MESSAGE:

rTMS has been around for more than 3 decades and has largely been expensive while only able to treat a few people. It has been useful in treating refractory illnesses such as depression. The recent decade has seen new developments in that theta burst stimulation given over 3 minutes has been found to be as effective as the 37,5 minutes high frequency. It was approved by the FDA in 2018 and is safe with good tolerability. Its response rates can be accelerated by delivering multiple daily sessions. The heart rate which is inexpensive and more practical has also been shown to be a biomarker. Future developments include at home rTMS at a cost of \$5 per day thus making it more accessible and affordable.

Dr. Anthea Payne, Psychiatry Registrar, Stellenbosch University & **Dr. Busisiwe Bhengu**, Psychiatry Registrar, University of KwaZulu-Natal



PRESENTER

Professor Christer Allgulander is a retired adjunct associate professor and senior lecturer in psychiatry at Uppsala University. He also holds a honorary professorship at the University of Cape Town and is an adjunct associate professor at the Washington University School of Medicine

Department of Psychiatry

SWEDISH CELEBRITIES WITH A (PSYCHIATRIC) TWIST

Prof Allgulander's talk at the congress on the 22nd of September 2019 was part of the plenary session "Naming and names".

Prof Allgulander's interesting perspective on his home country was highlighting some seventeen

famous and infamous Swedes and their known (or suspected) psychiatric diagnoses. These ranged from fictional (Pippi Longstocking and Lisbeth Salander) to royal: Princess Victoria recovered from anorexia nervosa. Another contemporary example is Greta Thunberg who is the face of global protests against climate change, and who suffers from autism spectrum disorder. Alfred Nobel is another globally recognised Swede. He had a specific phobia of being buried alive, speculated to be neurosyphilis-related.

THE TWIST OF THE TITLE TURNED OUT TO BE A SWEDISH CHOCOLATE – BUT THE TASTE THAT WOULD LINGER WAS PROF ALLGULANDER’S HOPEFUL REMINDER TO ALL PRESENT THAT “HAVING DEPRESSION, MANIA, PSYCHOSIS OR MORBID ANXIETY DOES NOT PRECLUDE REMARKABLE ACCOMPLISHMENTS AND A GOOD LIFE”.

Dr. Petrus Steyn, Psychiatry Registrar, Stellenbosch University



PRESENTER

Professor David C. Henderson, MD serves as Psychiatrist-in-Chief at Boston Medical Centre and Professor and Chair of Psychiatry at Boston University School of Medicine. His previous accolades and accomplishments include being Director of The Chester M. Pierce, MD Division of Global

Psychiatry at Massachusetts General Hospital (MGH), Director of the MGH Schizophrenia Clinical and Research program, and Medical Director of the Harvard Program in Refugee Trauma. Dr Henderson currently serves as Co-Director of the NIMH T32 Boston University School of Medicine (BUSM)/ Massachusetts General Hospital (MGH) Global Mental Health Clinical Research Fellowship. His work for the past 25 years has included settings which are resource-limited and had to endure violent and natural disasters. Importantly and needed in these areas, his work has been in field studies, needs assessments, the development of mental health policies and strategic planning, surveys, mental health capacity building programs for specialized and primary health professionals and skills-transfer program evaluation. The United States has also benefitted from his vast expertise by his conduction of more than 30 randomized clinical trials in the mentally ill population.

PREDICTING PSYCHOSIS UTILIZING MACHINE LEARNING

We were privileged to have had the opportunity to attend a presentation by Professor Henderson on “Predicting Psychosis utilizing Machine Learning” at the 2019 Biological Psychiatry Congress. This concept entails the utilization of medical records in research where the information is examined systematically. A central clinical data registry, such as the Research

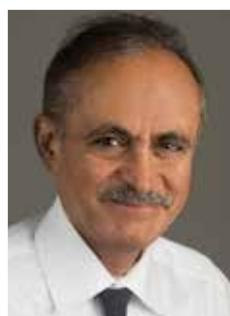
Patient Data Registry (RPDR) of Massachusetts General Hospital, allows for data from the hospital system to be gathered and stored in a single location. The application of electronic medical records to assist with prospective studies results in the funding sources being saved, the pool of data available to increase the understanding of disease burden. This heralds the possible onset of “Precision Psychiatry” where the possibility of prediction of the onset of illness prior to occurrence is a possibility. The importance of early detection is the future of medical and psychiatric research, and any tools with the means to detect this with the use of validated research scales and/or interviews to clinical high risk patients would provide a wealth of knowledge at our fingertips. In psychiatry, there is an overwhelming need for new methods for detecting those who are at risk for psychosis that may be identified in the pre-illness stage.

PREVIOUS STUDIES HAVE SHOWN THAT PSYCHOSIS RISK CALCULATORS ARE ABLE TO PERFORM AS WELL AS ESTABLISHED RISK CALCULATORS USED FOR VARIOUS OTHER MEDICAL CONDITIONS. THESE RELY ON A LIMITED SET OF PREDICTORS AND ARE APPLICABLE IN SECONDARY MENTAL HEALTH.

The use of a certified system is currently being made use of in the United States, both in office-based practices and acute care hospitals.

The “Power of Numbers” and easy access to Electronic Health Records (EHR) may be the beginning of exciting new prospects in research and an application which may contribute to lessening the burden of psychiatric illness.

Dr. Y Mohangi, Psychiatry Registrar, University of Pretoria



PRESENTER

Professor Matcheri Keshavan, MD joined the faculty of the BIDMC Department of Psychiatry and the Massachusetts Mental Health Center (MMHC) in 2008. Dr. Keshavan’s work focuses on neurobiological models of psychotic disorders and on the development and

implementation of early interventions with biopsychosocial treatment strategies, especially as it pertains to first episode psychotic disorders. His main areas of research include the neurodevelopmental basis of schizophrenia, neuroimaging, biomarkers and early intervention.

NEUROPLASTICITY AND COGNITIVE ENHANCEMENT IN SCHIZOPHRENIA

The nature of cognitive impairments in schizophrenia were explored initially, of which 80 to 90% is attributed to decline in working memory

and that of selective attention. Cognitive deficits in schizophrenia are pervasive, as well as persistent and they tend to present and progress early, eventually predicting the functional disability of the individual. Of much concern is that tact or social cognition is impaired. The nature of brain plasticity and its implication for cognitive remediation was further discussed. This particular type of cognitive rehabilitation is included in the Cognitive Enhancement Therapy (CET) along with support, educational, internal coping skills and finally socio-cognitive group therapy.

CET HAS BEEN FOUND EFFECTIVE IN CHRONIC SCHIZOPHRENIA AND PROMISING FINDINGS SHOWED EVEN BETTER RESULTS WHEN IT WAS INTRODUCED DURING THE EARLY COURSE OF THE ILLNESS. CET HAD REAL-WORLD BENEFITS ON FUNCTIONING AND SYMPTOMS IN A 3 YEAR FOLLOW UP STUDY.

Response to the therapy depends on many predictors, namely having a baseline brain structure indexed by more gray and white matter volumes, as well as surface area, which appear to predict better response to cognitive remediation in the early course of schizophrenia. The brain's 'functional reserve' may also be a potential predictor. Brain 'reserve' in schizophrenia may predict treatment response and still remains an area yet to harbour further studies.

TAKE HOME MESSAGE:

Schizophrenia must be identified as early as possible, and be treated by a well-structured multi-disciplinary team whereby CET with the combination of psychotropic medication, with the least neurocognitive side effects, show promising remission in an illness currently defined as a chronic and disabling mental disorder.

Dr. Krish Roopun, Psychiatry Registrar, University of KwaZulu-Natal



PRESENTER

Professor Cherie Armour is a Professor of Psychological Trauma and Mental Health in the School of Psychology at Queens University of Belfast. Prof Armour has published over 130 papers in the fields of Psychotraumatology and mental health. Recent publications have included research into

the mechanisms of 'resilience' and risks associated with the development of certain mental illnesses. In this vein she has reviewed the association between sleep and mental illness e.g. PTSD. One of the sessions presented at this year's Biological Psychiatry congress conference was a viability study involving sleep and PTSD in adolescents in Cape Town.

NOSOLOGY OF PTSD IN THE DSM

Prof Armour delivered her talk in Plenary Session 5 themed "Naming and Names". The session reviewed the development of the DSM diagnoses of PTSD over time. There have been changes in symptoms, symptoms groups and definitions, including the introduction of the new subtype "Dissociative PTSD".

SHE INTRODUCED THE CONTROVERSY THAT IS OFTEN ASSOCIATED WITH THE PTSD DIAGNOSIS. SHE FOCUSED ON SPECIFIC SYMPTOMS AND GROUPINGS THAT CAN ASSIST WITH APPROPRIATE DIAGNOSIS, AND HENCE APPROPRIATE TREATMENT.

She described certain theoretical models which looked at symptoms, and impact factors which were most consistently affiliated with clear PTSD. This also included review of associated comorbid psychiatric illnesses e.g. depression. Prof. Armour discussed certain factors which allow for the chronicity of the PTSD course. She suggested closer review of the 5-Factor model to clearly define PTSD symptoms to ensure greater specificity and hence treatment.

Dr. Jess Meddows-Taylor, Psychiatry Registrar, University of Witwatersrand



PRESENTER

Professor Paul Pauli from the University of Würzburg, Würzburg, Department of Psychology is also the co-founder and co-owner of a company that manufactures VR machines for research.

VIRTUAL REALITY - A NEW TECHNOLOGY FOR TREATMENT AND RESEARCH ON ANXIETY DISORDERS

Exposure treatment, a proven efficacious therapeutic modality, is part of the management of phobic and anxiety disorders. However, it is not without its challenges. These include, but are not limited to, reluctance by the therapist in lieu of having to leave the office, as well as being in an environment with several factors that are out of his/her control.

FURTHERMORE, EXPOSURE TREATMENT DOESN'T FIT WITH THE TRADITIONAL ONE-HOUR MODEL OF PSYCHOTHERAPY SESSIONS. PATIENTS MAY ALSO AVOID EXPOSURE TREATMENT, WITH UP TO 30% NOT SHOWING UP FOR THEIR APPOINTMENTS.

In lieu of the abovementioned challenges, along with the advent of the fourth technological revolution, virtual reality (VR) is now gaining traction as a

modality of therapy. It affords the therapist the ability to bring the world into his/her office, with resultant control of otherwise uncontainable dynamics. The Oxford dictionary defines VR as a computer-generated simulation of a three-dimensional (3D) world that an individual can interact with, using a variety of body movement trackers which track the individual's motion.

PROFESSOR PAULI RELATED HOW THREE THINGS ARE ESSENTIAL FOR THIS TECHNOLOGY TO BE USED, NAMELY AN INTERFACE FOR SENSORY INPUT, AS WELL AS A SECOND COMPUTER INTO WHICH THE THERAPIST CHOOSES THE INPUT EXPERIENCED BY THE PATIENT, ALONG WITH COMMUNICATING WITH THE CLIENT USING THIS TECHNOLOGY.

He went on to describe how most VR simulates visual and auditory input, while others simulate tactile, vestibular, and olfactory input. However, the latter is admittedly rare. The more technology available at the therapist's disposal, the more one can immerse a subject in the 3D VR world. And, the more immersion achieved, the greater the feeling of presence by the subject in this VR – which is an important aspect, as the subject subsequently 'forgets' the real world.

Professor Pauli reported how he and his team have carried out several studies, which assessed the efficacy of VR exposure treatment on acrophobia, arachnophobia, as well as aviophobia. In these studies, subjects were placed in a 3D VR world, wherein they were exposed to simulated versions of their phobias, i.e. height, spiders, and airplanes. Verbal feedback provided a subjective feedback to the stimulus, while an objective measure was obtained via a skin conductance test. The latter gave feedback regarding the arousal of the subject i.e. physiological response.

IN THE STUDIES, IT WAS NOTED THAT SUBJECTS DISPLAYED REAL FEAR TO THEIR SIMULATED PHOBIAS, DESPITE KNOWLEDGE THAT THEY WERE IN A VIRTUAL WORLD. SUBSEQUENT TO THE VR EXPOSURE THERAPY SESSIONS, THE SUBJECTS REPORTED REDUCTIONS IN THEIR RESPONSES TO THE ANXIETY PROVOKING OBJECTS OF THEIR PHOBIAS, AS ASSESSED BY POST VR EXPOSURE THERAPY AVOIDANCE TESTS, AS WELL AS DISPLAYING THE ABILITY TO CONTINUE WITH THEIR REDUCED FEAR IN THE REAL WORLD.

An example of such a test would be a patient with arachnophobia having to pull a tarantula spider closer to him/her following the VR exposure therapy.

Professor Pauli's team also conducted a study wherein VR exposure therapy was combined with rTMS of the medial prefrontal cortex (medial PFC), which revealed that multiple exposures in different contexts reduced the rate of return of fear, as noted in conditioning literature. Multiple exposure in different contexts leads to fear not returning.

In summary, the work done by Professor Pauli revealed:

- VR EXPOSURE THERAPY ELICITS VALID EMOTIONAL RESPONSES, RATED VERBALLY AND BY BEHAVIOUR AVOIDANCE. IT IS A VALID TOOL TO ELICIT FEAR RESPONSES, AND REDUCES CERTAIN ANXIETY IN SPECIFIC PHOBIAS, AND THESE GENERALIZE TO REALITY.
- Multiple context exposure reduces return of fear, and it might be that rTMS of the medial PFC can also improve reduction of fear in the short term.
- VR leads to fear reduction within and between sessions, and induces long lasting therapeutic changes as assessed with the subjective questionnaires. It also leads to improved avoidant behaviour.
- Advantages of VR: for fear treatment, a therapist has complete control of other wise uncontrollable situations, it can be done in the office/lab, can be repeated as often as indicated, it can assess behaviour in a standardized way, and is a perfect tool for research in a complex environment (high ecological validity and experimental control).

Dr. GS Matsebula, Psychiatry Registrar, University of the Free State



PRESENTER
Professor Melissa E. Milanak PhD, is a Licensed Clinical Psychologist and Associate Professor of the Sleep & Anxiety Treatment & Research Program (SATRP), Department of Psychiatry & Behavioral Sciences Medical University of South Carolina, Charleston, South Carolina, USA.

SWEET DREAMS OR NIGHTMARE: THE IMPACT OF TECHNOLOGY ON SLEEP

"How much time do you spend checking your phone?", Dr Milanak asked as she challenged the audience to reflect on the personal impact of technology on their lives and sleep in particular. This set the stage for her plenary session titled: "Sweet Dreams or Nightmare: The Impact of Technology on Sleep" at the Biological Psychiatry Conference held at the Century City Conference Centre, Cape Town. Dr Milanak, a licensed clinical psychologist and

associate professor from the Medical University of South Carolina, USA, drew on the latest research as well as her own clinical experience, to explore the impact of technology on sleep.

With the audience now awake and engaged, Dr Milanak provided a review of the underlying mechanisms, architecture and processes of sleep. Sleep consists of REM and stages N1 - 3 of Non-REM sleep. On average young adults spent 7-8 hours asleep, of which approximately 20-25% is spent in REM sleep and 15-25% is spent on Stage N3 (slow wave sleep). Sleep happens in cycles of 90-110 minutes during the course of the night. Early cycles tend to have more stage N3 slow wave sleep, with later cycles containing more REM sleep. If there is too little time spent in REM sleep, a REM rebound occurs to compensate. This happens at the expense of N3 slow wave sleep, which leaves a person feeling physically tired.

SLEEP IS REGULATED BY THE TWO-PROCESS MODEL OF SLEEP-WAKE REGULATION, WHICH CONSISTS OF PROCESS S AND PROCESS C. PROCESS S, ALSO KNOWN AS THE HOMEOSTATIC SLEEP DRIVE, IS THE ACCUMULATION OF THE SLEEP NEEDED, OR THE SLEEP DEBT. THE LONGER A PERSON HAS BEEN AWAKE, THE GREATER THE NEED FOR SLEEP IS.

Process C is the circadian rhythm by which the sleep-wake cycle is governed. It is regulated by light exposure, with more light making a person more alert. Normally these processes run concurrently. At the start of the day the sleep debt is minimal, which makes a person more awake and alert even though light exposure may still be minimal. As the day progresses, light intensity increases, which keeps a person awake and alert, even though sleep debt is accumulating. When evening comes sleep debt is high and the light intensity is usually low, which usually causes a person to fall asleep. Light exposure could shift the circadian rhythm. High light exposure in the early hours of the morning can advance the circadian rhythm while high light exposure at night could delay sleep. Knowing this, it stands to reason that technology has the potential to impact sleep in a variety of ways.

"THE TECH TRAP!", WAS THE TITLE OF THE NEXT SECTION OF THE TALK WHERE DR MILANAK COVERED STUDIES THAT EXAMINED HOW TECHNOLOGY IMPAIRS SLEEP. IN A 2015 REVIEW OF 67 STUDIES, HALE AND GUAN FOUND THAT SCREEN TIME WAS ADVERSELY ASSOCIATED WITH SLEEP OUTCOMES IN ADOLESCENTS.

The authors advised that youth limit or reduce screen time exposure before and during bedtime to minimize the harmful effects of screen time on sleep. Bartel et al. also demonstrated that computer use was associated with decreased total sleep.

Arora et al. examined the influence of different technology types use on sleep. They demonstrated that all types of technology use were inversely associated with weekday sleep duration. Frequent video gamers and music listeners were shown to have delayed sleep onset. Another interesting finding from this study was that music listeners were at increased risk of frequent nightmares, while frequent television users were more likely to report higher sleepwalking frequency. Greater cognitive difficulties were seen in association with all technology use, except music and mobile phones.

Sleep problems related to technology use amongst college students are mediated through several mechanisms, as shown by Rosen et al. These mechanisms include displacement of sleep due to technology use, executive functioning impairment and impact of stress and anxiety around the availability of technology. The relationship between technology and sleep is bidirectional. Anxiety has also been shown to increase daily smartphone usage.

As significant and variate as the negative influence is, technology is also known to improve sleep as shown by Dr Milanak in the part of her talk titled, "Tech at its best!" Studies done by Arendt et al. as well as Battaglia to evaluate the effectiveness of Cognitive Behavioural Therapy for Insomnia (CBT-I) done via telemedicine, showed similar results. There was no difference in therapeutic alliance or warmth. There was also no significant difference in the confidence in the therapist's skills.

CBT-I REMAINED EFFECTIVE AND HAS BEEN SHOWN TO IMPROVE SLEEP OUTCOMES, INCLUDING SLEEP LATENCY AS WELL AS SLEEP EFFICIENCY. QUALITY OF LIFE AND DAILY FUNCTIONING IMPROVED BUT NO IMPROVEMENT WAS SEEN IN ANXIETY AND DEPRESSION. THE LATTER WAS CONTRADICTED BY A 2015 STUDY CONDUCTED BY PILLAI, DEMONSTRATING THAT A WEB-DELIVERED CBT-I WAS EFFECTIVE IN INDUCING SLEEP.

The plenary session on a rapidly advancing field was extremely informative. Disruption in the different sleep phases and cycles, as well as altered Process S and Process C clearly influences sleep. The latest research shows that technology has positive and negative influences on sleep. The negative effects of technology on sleep are frequently mediated by the amount of light

exposure as well as other aspects of use, such as technology type and usage patterns. Technology and telemedicine also have potential for the field of sleep medicine.

THE EFFECTIVENESS OF CBT-I HAS ALREADY BEEN DEMONSTRATED IN NON-INFERIORITY STUDIES. FURTHERMORE, SOME STUDIES DEMONSTRATED SOME MENTAL HEALTH BENEFITS COULD RESULT FROM THIS WAY OF ENGAGEMENT. THE PRESENTATION WAS PRACTICAL, AND THOROUGHLY ENJOYED BY ALL WHO ATTENDED.

Dr. EJ Smith, Psychiatry Registrar, University of Cape Town



PRESENTER

Professor Matcheri Keshavan, MD is the Stanley Cobb Professor of Psychiatry at the Beth Israel Deaconess Medical Center; Harvard Medical School (HMS), a position he assumed in April 2008. He is also Vice-Chair for the department's Public Psychiatry division, and a senior psychiatric advisor

for the Massachusetts Mental Health Center. Since September 2017, he serves as the Director of the Commonwealth Research Center at BIDMC.

Professor Keshavan received his medical training in Mysore, India (where he graduated at the top of his University), and his psychiatric training in Bangalore, Vienna, London, and Detroit. In 1986, Dr. Keshavan joined the faculty at Western Psychiatric Institute and Clinic, Pittsburgh, PA. He was appointed full tenured Professor in 1998. Between 2004 and 2008, he served as Tenured Professor and Associate Chair of the Department of Psychiatry and Behavioral Neurosciences, Wayne State University, Detroit, MI. Dr. Keshavan is closely involved in research in neurobiology of psychosis, especially as it pertains to first episode psychotic disorders. His research has resulted in over 550 publications to date, including over 500 peer reviewed papers, and 4 books. He has received several awards including the Gaskell Gold Medal of the Royal College of psychiatrists (1985); Nancy Roschke Certificate for Teaching Excellence of the American Psychiatric Association in 1993; Teaching awards at the Departments of Psychiatry in Pittsburgh (1992, 1994, and 2004), Wayne State University (2008) and at Harvard (2011); the Research Scientist Development Award from NIMH (National Institute of Mental Health); the 2003 NAMI (National Alliance for the Mentally Ill) of Pennsylvania Psychiatrist of the Year Award, the 2014 Stuart Hauser mentoring award at HMS, the 2013 Gerard Hogarty Award for Research from the University of Pittsburgh and the 2016 Kempf award of the American Psychiatric Association.

He is a distinguished Fellow of the American Psychiatric Association; a Fellow of the Royal

College of Physicians, Canada; and a Fellow of the Royal College of Psychiatrists, UK. His main areas of research include the neurodevelopmental basis of schizophrenia, neuroimaging, biomarkers and early intervention. He teaches HMS medical students and residents, and co-directs the neuroscience, critical thinking and public psychiatry courses for Harvard BIDMC residents.

NEUROBIOLOGY OF THE EARLY COURSE OF SCHIZOPHRENIA: CONNECTING THE DOTS

At the 2019 Biological Psychiatry Conference, Dr Keshavan presented his research entitled: "Neurobiology of the Early Course of Schizophrenia: Connecting the Dots."

HE OPENED THE CONVERSATION WITH A METAPHOR IN WHICH SIX BLIND MEN EACH FELT A DIFFERENT PART OF AN ELEPHANT. DUE TO ITS TREMENDOUS SIZE, EACH MAN DESCRIBED SOMETHING DIFFERENT WHEN ASKED WHAT HE HAD FELT. SUCH IS THE VASTNESS OF SCHIZOPHRENIA.



He provided insight into the phasic nature of schizophrenia. Elaborating on the various aetiological theories we currently have: neurodevelopmental structural and functional changes in adolescence, immunological mechanisms, alterations in neurochemical regulatory pathways, dysregulated dopamine, hypofunctioning of NMDA receptors and the genetic basis of the illness.

While the elephant we face is colossal, and our understanding at times may be uncertain, it is thanks to the academic insights of psychiatrists such as Professor M Keshavan that every day, we get closer to a clearer understanding of mental disease ■

Dr. Tejil Morar, 3rd year registrar in the Department of Psychiatry, University of the Witwatersrand. She is the registrar representative for the Department of Psychiatry's Executive and Postgraduate Committees. She is also the registrar representative of the SASOP Southern Gauteng Subgroup.

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MOUNT KILIMANJARO ADVENTURE

Drs Alicia Porter (5th from left) and Indhri Chetty (3rd from right) were part of an expedition that recently climbed Mount Kilimanjaro. A full Report of their achievement will appear in the February 2020 issue ■



SCHOOL OF CLINICAL MEDICINE - BIENNIAL RESEARCH DAY, 23RD OCTOBER 2019

The Department of Psychiatry was well represented at the Biennial Research Day. Drs Tejil Morar and Felicity Marcus won first and second prize for the best registrar poster section. Dr Morar's poster related to burnout amongst registrars and Dr Marcus's to voting knowledge amongst hospitalised mental health care users. Dr Nirvana Morgan's oral presentation, related to Nyaope use and psychiatric co-morbidity, was also very well received. ■



Dr Morgan



Dr Morar, Prof. Subramaney (Academic HoD - Psychiatry), Prof. Janse van Rensburg (Chairman - Research Day Organising Committee)



Drs Marcus and Morar

UNIVERSITY OF CAPE TOWN



WELCOME

Dr Khalid Abdalhai, an assistant professor at the International University of Africa and Taha Baashar Psychiatry Hospital, Khartoum, Sudan, and an APFP fellow, is warmly welcomed to the Division of Child and Adolescent Psychiatry. ■

CONGRATULATIONS

1. Sumaiyah Docrat, health economist, Prof Crick Lund and team, are commended on their recent study: Docrat S, Besada D, Cleary S, Daviaud E, Lund C. Mental health system costs, resources and constraints in South Africa: a national survey. Health Policy Plan. 2019 Sep 23. pii: czz085. doi: 10.1093/heapol/czz085.

For the first time, South Africa now has a nationally representative reflection of the state of mental health spending and an appreciation of the inefficiencies and constraints emanating from existing mental health investments.

The findings are indicative of a current mental healthcare system that is focused on treating the most severe conditions, rather than preventing or providing early interventions.

The study in addition points to some obvious improvements that could be made.

2. Nastassja Koen, Deputy Head: Division of Psychopharmacology & Biological Psychiatry, is congratulated on being appointed as N-GAP senior lecturer in Psychiatric Genetics in the Department (N-GAP is a government-initiated program to assist Universities with transformation and growth).

3. The following registrars are congratulated on their respective academic achievements obtained/to be obtained in 2019:

- Dr Ingrid Eloff and Dr Lindokuhle Thela, senior registrars in neuropsychiatry, successfully completed the **Certificate in Neuropsychiatry**
- Dr Jessica Stanbridge will be awarded **MMed Psych** in December 2019
- Dr Nadia Lagerstrom will be awarded **MMed Psych** in December 2019
- Dr John-Randal Vermaak will be awarded **MMed Psych** in December 2019
- Dr Avani Maharaj obtained **FCPsych(SA)** and will be awarded **MMed Psych** in Dec. 2019
- Dr Talia Planting obtained **FCPsych(SA)** and will be awarded **MMed Psych** in Dec. 2019
- Dr Shazia Mungly obtained **FCPsych(SA)** and will be awarded **MMed Psych** in Dec. 2019
- Dr Kobus van der Walt is obtaining **FCPsych(SA)** at the end of Oct. 2019, and **MMed Psych** in Dec 2019

- Dr Adam Fakrodeen is obtaining **FCPsych(SA)** at the end of Oct. 2019
- Dr Saulos Gondwe is obtaining **FCPsych(SA)** at the end of Oct. 2019
- Dr Marc Hector is obtaining **FCPsych(SA)** at the end of Oct. 2019
- Dr Dipika Haripersad passed the final modules of the **Part 1 FCPsych(SA)** examination

4. The Department wishes to congratulate the following persons on obtaining their respective Masters degrees:

MSc Med (Neuroscience) – Angelo Dias

MPhil (Intellectual Disability) - Sarah-Jessica Strachan (with distinction), Nicole Goldberg

Mphil (Addictions) – Edward Rall

5. Prof Petrus de Vries is proudly congratulated on the following extraordinary achievements during the last year:

- Fellow of the Royal College of Psychiatrists (FRCPsych);
- Chair of the African Division of the Royal College of Psychiatrists;
- Treasurer of the International Association of Child & Adolescent Psychiatry and Allied Professions (IACAPAP);
- African Representative on the Society for the Study of Behavioural Phenotypes (SSBP) Committee;
- Lecture named in recognition of contributions as Chair of the SSBP (2008 to 2017);
- Invited to deliver the annual Archibald Clark-Kennedy Lecture, Lewis Society for Medicine, Corpus Christi College, Cambridge;
- Secretary of the International Society of Autism Research (INSAR);
- Co-Chair of the INSAR Global Senior Leaders in Autism Committee; and
- President of the South African Association of Child & Adolescent Psychiatry and Allied Professions ■



Prof Petrus de Vries

THANKS/APPRECIATION

The HPCSA visited and emphasized the high quality of undergraduate teaching in mental health. Sincere thanks are conveyed to all in the Department who contributed to this achievement. ■

FORENSIC CONFERENCE

The theme of the 6th National Forensic Mental Health Conference 2019 was titled **"Reconciling Risk with Recovery"**. The conference took place from 7 to 8 August and was coordinated by Prof Sean Kaliski, Head of Division: Forensic Psychiatry at Valkenberg Hospital.

We had the privilege of having Prof Jay Singh, an internationally renowned expert on risk assessment, deliver the keynote address. Prof Singh serves as Visiting Senior Scholar at the University of Cambridge, as well as Clinical Associate at the University of Pennsylvania.

Other eminent speakers included Prof Tuviah Zabow, Drs Evah Mulutsi, Indhrin Chetty, Claudia de Clercq, Nyameka Dyakalashé, Sizwe Mazibuko, Samantha Naidoo, Marc Roffey, Rodhie Sapinoso, Tania Swart and David Swingler ■



Prof Jay Singh

SOCIAL RESPONSIVENESS EVENTS

HARM REDUCTION: COMMON SENSE OR NONSENSE

Lisa Dannatt, Consultant Psychiatrist at Grootte Schuur Hospital/Senior Lecturer at the University of Cape Town; and member of the Social Responsiveness Committee, convened an event on **Harm Reduction**.

The Social Responsiveness Committee collaborated with the Division of Addiction Psychiatry, Department of Psychiatry and Mental Health, UCT, as well as with various service providers, including the SA HIV ATTC and TB/HIV Care.

This highly successful social responsiveness event which was held on 17 September 2019, can be largely attributed to the following prominent speakers: **Dr Goodman Sibeko**, Head of Addiction Psychiatry at the University of Cape Town; **Dr Lisa Dannatt**, Consultant Psychiatrist at Grootte Schuur Hospital; **Dr Lize Weich**, an addiction Psychiatrist at Stikland Hospital who coordinates substance programs for the Western Cape; **Dr Andrew Scheibe**, a medical doctor who works in harm reduction research, programmes and policy in South Africa; **Mr. Shaun Shelley**, who holds an appointment at the University of Pretoria and member of several advisory boards, **Tara Gerardy**, National Coordinator of TB HIV Care's OST and Psychological Programmes; and **Mrs. Shaheema Allie**, who is a Registered Counsellor with the Health Professions Council of South Africa (HPCSA) and lecturer on the Post Graduate Diploma in Addictions Care at UCT.



Dr Goodman Sibeko



Mr. Shaun Shelley



INTERNATIONAL DAY OF OLDER PERSONS 1 OCTOBER 2019

The Social Responsiveness Committee in collaboration with the Division of Neuropsychiatry, UCT, hosted an

event on **Dementia** on 1 October 2019 to commemorate **International Day of Older Persons**.

Prof Dana Niehaus, a Consultant Psychiatrist (Geriatric Psychiatry) at the Psychogeriatrics Unit of Stikland Hospital and member of the Department of Psychiatry at the Faculty of Medicine and Health Sciences, University of Stellenbosch, was the keynote speaker on the day.

The theme of his address was **"A call for creativity in the management of symptoms of dementia"**.

The other speakers were Karen Borochowitz, Founder/Executive Director of Dementia SA, and Terri Casper, currently the Social Work Supervisor at Age-in-Action Western Cape.

The Committee engaged Dementia SA regarding the sharing of pertinent knowledge, which included the sharing of a number of valuable resources.

MENTAL HEALTH PROMOTION AND SUICIDE PREVENTION

The Alan J. Flisher Centre for Public Mental Health (CPMH) paid tribute to World Mental Health Day on 10 October 2019, with the focus on mental health promotion and suicide prevention.

The Centre proudly hosted its very first webinar on the day, with Dr Lisa Brenner as an internationally renowned speaker.

Dr Lisa Brenner, Ph.D., is a Board Certified Rehabilitation Psychologist, a Professor of Physical Medicine and Rehabilitation (PM&R), Psychiatry and Neurology at the University of Colorado, Anschutz Medical Campus, and the Director of the Department of Veterans Affairs Rocky Mountain Mental Illness Research, Education, and Clinical Center (MIRECC).

Dr Brenner has numerous peer-reviewed publications, participates on national advisory boards, and has co-authored a book regarding neurodisability and suicide ■

Compiled by: **Delcia Liedeman-Prosch**, Senior Clinical Psychologist, Female Acute Unit Lentegeur Psychiatric Hospital / University of Cape Town **Email: Delcia.Liedeman-Prosch@westerncape.gov.za**

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VISIT BY TREVOR HURWITZ NEUROPSYCHIATRIST - TO TARA HOSPITAL

Sandra Fernandes

Neuropsychiatry as a subspecialty is relatively new in Johannesburg. Thanks to Prof Trevor Hurwitz, a neuropsychiatrist from the University of British Columbia, five neuropsychiatrists were accredited by the HPCSA with this subspecialty from 2015 following his tutelage and guidance. Prof Hurwitz is currently on a 'road show' presenting his research on 'Hypoactivity in the Paraterminal Gyrus following Bilateral Anterior Capsulotomy'. The related article is open access in The Canadian Journal of Psychiatry (with supplementary material and videos). We were fortunate to welcome him once again to Johannesburg, and in particular to Tara Hospital on the 11th October 2019 for a presentation of his work (and local patient case discussion).

HISTORICALLY ABLATIVE SURGERY FOR PSYCHIATRY DISORDERS LEAD TO FRONTAL LOBE SYNDROME.

Since 1998, Prof Hurwitz has been a member of the Vancouver Limbic Surgery Group, offering a focused surgical intervention for treatment resistant depression and treatment resistant OCD for patients in British Columbia, Canada. This has been for a highly selected group of patients over the past 20 years. They have been using Bilateral Anterior Capsulotomy (BAC). During this procedure, severing of the anterior limbs of the internal capsules is done by radiofrequency lesioning.

It appears that one of the most prominent positive effects has been the decrease in 'sadness', termed and coined by his team as 'tristolysis', (*tristis*, meaning sadness, *lysis*, destruction) without any cognitive deficits. A retrospective study found that these lesions, following SPECT scans 6 to 12 months post procedure, show reduced metabolism in the orbitofrontal/orbitomedial cortex and anterior cingulate gyrus. Notably significant cerebral blood flow reduction after surgery was found in the paraterminal gyrus bilaterally. It appears that there is an indirect effect following surgery with the disruption of the paraterminal gyrus (PTG). Tristolysis, a reduction in sadness, is the most striking clinical effect of Bilateral Anterior Capsulotomy. This effect seems to be immediate and seen within the first 2 weeks following surgery (accompanied

by a gradual sustained reduction in symptoms of depression). This immediate effect seems to result from the hypofunction of the PTG (as seen on SPECT studies). Prof Hurwitz pointed out that the PTG is therefore implicated as the limbic cortical locus for the emotion of sadness.

IT WAS VERY INTERESTING TO HEAR THAT PROF HURWITZ HAS BEEN PERSONALLY FOLLOWING UP THE INDIVIDUALS FROM THIS STUDY OVER THE LAST 20 YEARS. THEY ALL HAVE REMAINED WELL WITHOUT ANY RELAPSES, EXCEPT FOR ONE.

This procedure may offer hope to many who have severe treatment resistant depression in British Columbia, Canada. South Africa with its limited resources struggles to effectively treat treatment resistant depression. Perhaps it is time that we venture into uncharted territory?



Dr K Lawton (Psychiatrist and training fellow in neuropsychiatry, 2019); Dr P Nicker (Neuropsychiatrist); Dr C Bracken (Neuropsychiatrist); Prof Trevor Hurwitz (Neuropsychiatrist, Canada); Dr S Fernandes (Neuropsychiatrist); Dr A Pillay (Neuropsychiatrist), Dr Y Nel (Psychiatrist)

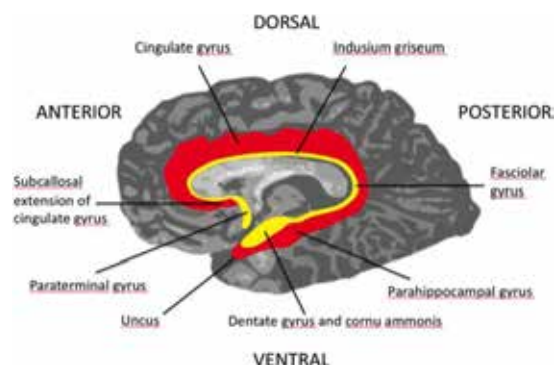


Figure 4. Arches of the limbic lobe. Inner (yellow) and outer (red) arches of the limbic lobe.. Hurwitz, T.A., Honey, C.R, McLeod, K.R., Poologaindran, A. and Kuan, A.J. (2019) Hypoactivity in the Paraterminal Gyrus Following Bilateral Anterior Capsulotomy. The Canadian Journal of Psychiatry.

Sandra Fernandes is a Neuropsychiatrist at Tara Hospital and a lecturer in the Department of Psychiatry, University of the Witwatersrand, Johannesburg, South Africa. **Correspondence: Sandra.Fernandes@gauteng.gov.za**



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SASOP SOUTHERN GAUTENG MOTHER AND CHILD SYMPOSIUM: “MENTAL HEALTH ACROSS THE LIFECYCLE”

Lisa Galvin & Alexandra Maisto

On the 27th of July 2019 the SASOP Southern Gauteng Mother and Child and Biological Special Interest Subgroups hosted a symposium examining key topics in maternal and child mental health. The event was chaired by Dr Alexandra Maisto and Dr Lisa Galvin and took place at The Focus Rooms conference venue in Sunninghill, Johannesburg.

The programme focused on mother and child mental health as a continuum across the lifespan. Mental illness during and after pregnancy may result in serious negative consequences for both the parent and child. Children born of mothers with untreated mental illness have an increased risk of developing mental illness. They are also at increased risk of lower socioeconomic attainment and experiencing psychosocial adversity. This in turn further increases the risk of future mental illness within the perinatal period, perpetuating the cycle.

THE OPPORTUNITY TO INTERRUPT THE CYCLE AND IMPROVE OUTCOMES TRANSGENERATIONALLY MAY BE OBTAINED BY UNDERSTANDING PIVOTAL POINTS TO FOCUS INTERVENTIONS.

The day was opened by Dr Yandiswa Mlandu, an obstetrician at Chris Hani Baragwanath Academic Hospital with a special interest in maternal

mental health. The focus was the pre-conception period. She presented “The Ethical and Practical Dilemmas in Contraceptive Choices in Mental Health Care Users”. This topic provided valuable guidance to advise women with mental illness to make informed reproductive choices, and included a comprehensive review of available contraceptive options and their advantages and disadvantages.

The next topic led on to the post conception period with “A Review of Perinatal Depression”. Dr Carina Marsay, Clinical and Research Psychiatrist working in private practice, presented a comprehensive overview of perinatal disorders and treatment algorithms.

The importance of screening for, and early intervention of perinatal depression was discussed. Various methods of screening were explored for their relevance and ease of use in a South African context.

South Africa’s health policies mandate integrated perinatal mental health care within the Mental Health Care Act 2002 (No. 17 of 2002), National Mental Health Policy Framework and Strategic Plan 2013-2020 and South African National Development Plan 2030 (2012); however, maternal care guidelines fail to include screening, assessment for detecting perinatal mental illnesses or guidelines regarding recommended treatment and referral pathways.

The importance of the early detection of perinatal illnesses was further explored by Dr Corinne Johnson, Clinical Psychiatrist at Chris Hani Baragwanath Academic Hospital with a special interest in maternal mental health.

Her presentation was entitled "Conception to Three: Neurobiological & Psychological Development of Foetus, Infant and Child within the Mother-Infant Dyad. A Focus on Early Intervention." She elaborated on the importance of the early uterine environment and the influence of maternal prenatal stress on the physical as well as future emotional development of the fetus. Epigenetic mechanisms such as DNA methylation in the placenta, fetus and infant altered gene expression can determine biological developmental trajectories and long-term outcomes.

THE PARENT CHILD INTERACTION IS ONE OF THE MOST SIGNIFICANT ENVIRONMENTAL FACTORS WHICH CAN ACCOUNT FOR DIFFERENCES IN RESILIENCE TO STRESS, COGNITIVE ABILITY AND SOCIAL BEHAVIOURS.

Mental illness in mothers may have an impact on the mental health of subsequent generations if maternal-infant bonding is impaired and interventions to improve attachment may serve as a vital point to effect improvement in children's mental health. The role of parent infant psychotherapy to address this need was discussed.

While early attachment is a key area to target to alter the trajectory of mental health, the final presentation emphasised the importance of identifying mental health issues in adolescence. Dr Helen Clark, Head of Child and Adolescent Psychiatry at Chris Hani Baragwanath Academic Hospital discussed "ADHD as a Traveling Partner Through Adolescence". ADHD evolves as a disorder from childhood to adolescence and results in significant impairment in all areas of functioning as well as forming the foundation for multiple other comorbid psychiatric diagnoses.

ADOLESCENCE REPRESENTS A VULNERABLE PERIOD WITH UNIQUE CHALLENGES WHICH NEED TO BE UNDERSTOOD IN ORDER TO EFFECTIVELY MANAGE MENTAL ILLNESS AND EFFECT IMPROVEMENT IN OUTCOMES ACROSS THE LIFESPAN.

Lisa Galvin is a consultant psychiatrist who also works at the Perinatal HIV Research Unit – since 2018 – at Chris Hani Baragwanath Academic Hospital. She has a special interest in maternal mental health with an emphasis on preventative mental health strategies aimed at improving long term outcomes in mother and child. She was awarded a masters of medicine in psychiatry in 2019 for her research topic, titled "Contraceptive Use Among Female Mental Health Care Users of Childbearing Age Attending Chris Hani Baragwanath Academic Hospital in Soweto". She was awarded an Early Career Fellowship by the World Psychiatric Association (WPA) and presented a short oral titled "Low Contraceptive Use in Women with Mental Illness in a Low-Middle Income Setting in Soweto, South Africa" at WPA 2019 in Portugal. She is a member of the SASOP Southern Gauteng Subgroup. **Correspondence:** galvin@phru.co.za

Alexandra Maisto is a consultant psychiatrist at Chris Hani Baragwanath Academic Hospital since 2017. She works in the maternal mental health clinic at Chris Hani Baragwanath Academic Hospital and has a special interest in Perinatal and maternal mental health. She was awarded a masters of medicine in psychiatry in 2019 for her research topic, titled "Screening for Antenatal Depression in Women Attending the Chris Hani Baragwanath Academic Hospital Antenatal Clinic". She is a member of the SASOP Southern Gauteng Subgroup. ■

The day concluded with a lively discussion of clinical cases. The open discussion was chaired by Dr Lavinia Lumu (Clinical Psychiatrist), Dr Alexandra Maisto (Clinical Psychiatrist) and Dr Lisa Galvin (Clinical Psychiatrist). Cases included an ethical discussion around the conflict between cultural practices and statutory obligations of reporting sexual assault; preparing parents for the fourth trimester and coping with guilt and ambivalent feelings toward newborn infants and evaluating the capacity of mentally ill mothers in caring for infants, assessing their attachment relationships and how to avoid negative outcomes and offer support.

The delegates were clinicians from both private and public sectors and included training registrars in psychiatry, psychiatrists, as well as psychologists. The event served to promulgate the exchange of knowledge, ideas and research along with serving as a medium for networking between researchers, clinicians and industry.

The SASOP Southern Gauteng Subgroup would like to thank the speakers as well as Dr Reddy's, Novartis and Sanofi (in no particular order), whose ongoing support contributed to making the symposium a resounding success.



Left to right: Dr Alexandra Maisto; Dr Lavinia Lumu; Dr Lisa Galvin; Dr Corinne Johnson; Dr Carina Marsay; Dr Yandiswa Mlandu; Dr Helen Clark



Left to right: Dr Alexandra Maisto; Dr Carina Marsay; Dr Lisa Galvin



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ARE WE GIVING UP ON THE ELDERLY TOO EASILY?

POSITIVE PROGNOSIS FOR MANY SENIORS' MENTAL HEALTH, SAYS GERIATRIC PSYCHIATRIST

“People often consider cognitive decline to be a ‘normal’ part of the ageing process. In many cases, however, much can be done to support and improve the mental health and wellness of seniors.”

“While families tend to notice when children and younger adults experience mental health problems — in the elderly these are often mistakenly attributed to a decline associated with ageing and there is an unfounded belief that nothing can be done to improve their situation. As a result mental health problems in older individuals often go undiagnosed and untreated,” says Dr Ryan Fuller, who specialises in psychiatry for senior citizens.

“This is most unfortunate, as mental health problems in elderly people can in many instances be successfully managed. While dementia and Alzheimer’s disease are much more commonly associated with older age, it can be a mistake to assume that a loved one is experiencing memory loss and psychological distress as a normal part of their ageing process,” adds Dr Fuller, who has established multi-disciplinary psycho-geriatric MemoryCare units at both Akeso Parktown and Akeso Alberton in Johannesburg in association with fellow psychiatrist, Dr Lolita Mostert.

ACCORDING TO THE WORLD HEALTH ORGANIZATION (WHO), APPROXIMATELY 15% OF ADULTS AGED 60 AND OVER GLOBALLY SUFFER FROM A MENTAL DISORDER OF SOME KIND. GIVEN THE STEADILY INCREASING ELDERLY POPULATION BOTH INTERNATIONALLY AND IN SOUTH AFRICA, DR FULLER BELIEVES THAT THERE IS A NEED FOR MUCH GREATER AWARENESS OF THIS FIELD OF MENTAL HEALTHCARE.

“Approximately half of the patients that we see at our psycho-geriatric MemoryCare units do not actually have dementia but rather are affected by other mental health challenges such as bereavement, depression, anxiety and/or severe stress. These can all impact memory and even appear to present in a similar way to dementia. In many individuals these conditions can be managed and successfully treated to enable elderly individuals to enjoy an enhanced quality of life”.

“FOR THESE REASONS WE STRONGLY ADVISE FAMILIES TO HAVE THEIR LOVED ONE PROPERLY ASSESSED AND DIAGNOSED BY A TEAM OF HEALTHCARE PRACTITIONERS WHO ARE EXPERIENCED AND SPECIALISED IN SUPPORTING MENTAL HEALTH IN THE ELDERLY,” NOTES DR FULLER.

MENTAL HEALTH PROBLEMS IN THE ELDERLY

Asked what kinds of mental health problems affect the elderly, Dr Fuller said that they tend to be similar to those experienced by any other part of the population, and can include anxiety disorders, post-traumatic stress disorder (PTSD), depression, bipolar depression, personality disorders, sleep disorders, and others.

Dementia, however, which is characterised by memory loss, and a deteriorating ability to perform daily activities due to conditions such as Alzheimer’s disease, occur much more commonly in the elderly, and is considered a particularly important mental health challenge within this particular population.

“Among the many challenges that form part of old age psychiatry in particular, is that existing

psychiatric disorders can be exacerbated by advancing dementia, making it difficult for doctors who are not experienced in geriatric care to reach an accurate diagnosis, and therefore to treat the conditions involved appropriately.”

Dr Mostert says that in addition, elderly people often have to deal with so many changes in the later stages of their lives that a considerable number consequently suffer from severe anxiety or even PTSD.

“Anxiety disorders and PTSD — which may be caused by severe shock, for example, the loss of a loved one — are likely among the foremost undiagnosed mental health conditions in the elderly in South Africa.

“An additional challenge with PTSD is that symptoms can look a lot like other conditions such as personality disorders, making diagnosis exceptionally challenging for those not familiar with it. Anxiety disorders, on the other hand, can express themselves in obsessive-compulsive and hoarding behaviours, as well as phobias,” notes Dr Mostert.

A DECLINE IN KIDNEY FUNCTIONING IN ELDERLY PEOPLE MAY ALSO AFFECT THEIR REACTION TO MEDICINE. IN ADDITION, THOSE WITH MEMORY PROBLEMS MAY NOT BE TAKING THEIR MEDICATION AS PRESCRIBED, WHICH CAN RESULT IN DRUG INTERACTIONS, OVERDOSES AND EVEN DELIRIUM, WHICH MAY SEEM LIKE DEMENTIA.

WHEN TO SEEK HELP

When should caregivers become concerned about the mental health of an elderly individual? Dr Fuller says that the following warning signs could indicate a mental health concern:

- Confusion and disorientation.
- Memory loss, and difficulty in decision-making and in performing daily tasks.
- Depressed mood that lasts more than two weeks, loss of interest in activities that were previously enjoyed.
- Lack of self-care and changes in appearance and in appetite.
- Expressions of feelings of guilt, helplessness, and worthlessness.
- Increasing withdrawal from family and friends.
- Overwhelming feelings of anxiety and fear.
- Problems in coping with a deeply shocking event such as the loss of a loved one.
- Increased fatigue and loss of energy.
- Changes in sleep patterns and problems sleeping.
- Increasing obsessive-compulsive and hoarding behaviours.
- Physical problems such as aches and pains that cannot be medically accounted for.

SUPPORTING MENTAL HEALTH IN SENIORS

Dr Fuller, who underwent specialised training in geriatric psychiatry in London, observes that geriatric mental healthcare can be highly complex. A trusted family doctor is nevertheless a good place to start should you have concerns about an elderly loved one, and they may refer the individual on to a geriatrician, or psychiatrist specialising in elder care.

“IN OUR EXPERIENCE A MULTI-DISCIPLINARY ‘NEEDS-LED’ TEAM APPROACH TO EACH CASE IS IDEAL, AS TREATMENT AND MANAGEMENT MOSTLY DEPENDS ON THE INDIVIDUAL, BUT ALSO THE STRUCTURE AND FUNCTION OF THE FAMILY SYSTEM INVOLVED. THE DEDICATED TEAM CAN OFFER A RANGE OF INTERVENTIONS TO SUPPORT THEIR PARTICULAR CONDITION AND NEEDS.”

These can include individual or group therapies, improving family support, and where necessary using appropriate psychiatric drugs, such as anti-depressants, to assist with depression and anxiety.

In addition to psychiatrists at the MemoryCare units at Akeso Parktown and Akeso Alberton, the teams also include psychologists, general practitioners, social workers and administrative staff, who assist in the development of a detailed care plan for each person.

“With such a comprehensive approach we can successfully manage the mental health of many elderly individuals and meaningfully improve their quality of life,” he concludes.

ABOUT THE AKESO GROUP

Akeso is a group of private in-patient psychiatric hospitals, and is part of the Netcare Group. Akeso provides individual, integrated and family-oriented treatment in specialised in-patient treatment facilities, for a range of psychiatric, psychological and addictive conditions.

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For more information on this media release, contact MNA at the contact details listed below.

Issued by: MNA on behalf of the Akeso Parktown and Akeso Alberton
Contact: Martina Nicholson, Graeme Swinney, Meggan Saville and Estene Lotriet-Vorster
Telephone: (011) 469 3016
Email: martina@mnapr.co.za, graeme@mnapr.co.za, meggan@mnapr.co.za or estene@mnapr.co.za

LAI S:

OLD, CLASSIC, VINTAGE OR VALUABLE?

Lisa Selwood

Professor Dana Niehaus, a psychiatrist at Stikland Hospital recently shared insights around the psychopharmacology of the long acting injectables (LAIs), also known as depot medication. The roadshow was held in four venues across the country (Pretoria, Johannesburg, Cape Town and Durban) and attracted just over 80 delegates from the state sector as well as several doctors from neighbouring countries.

Key treatment targets in schizophrenia include sustained symptomatic and functional remission to prevent relapse. The majority of patients will require long term, continuous treatment with an antipsychotic. Traditionally, guidelines have classed depot medication for patients in the chronic stage of the disease, those who are poorly adherent to their oral medication and those who have had multiple relapses.

HOWEVER, MORE RECENT GUIDELINES HAVE SUGGESTED THAT LAIS SHOULD BE CONSIDERED IN RECENT ONSET SCHIZOPHRENIA. IN CURRENT PRACTICE LESS THAN 10% OF PATIENTS WILL RECEIVE A DEPOT WHEN THEY PRESENT WITH FIRST EPISODE PSYCHOSIS, DESPITE EVIDENCE FOR EARLIER USE.

Prof Niehaus explored factors favouring the use of depots, concentrating specifically on clinician willingness. In a study of United Kingdom psychiatrists, 91% believed LAIs were efficacious, 81% believed they increased adherence and 94% agreed that they prevent relapse.



Prof Dana Niehaus

HOWEVER, 48% OF THE SAME GROUP OF PSYCHIATRISTS ALSO BELIEVED THERE WAS A STIGMA ATTACHED TO THE USE OF THIS MEDICINE FORMULATION, AND 69% BELIEVED IT WOULD BE LESS ACCEPTABLE TO THE PATIENT.

Following this, the doctors were asked to portray depots in a negative light when speaking to the first group of patients, and in a positive light when speaking to a second group of patients. The difference was astounding – when communicated in a negative light, there was a 33% uptake in the use of depots, but when communicated in a positive light, there was a 96% uptake. There are several factors which affect the release and absorption rate of a depot medication.

First and foremost is the injection site, the injection volume and the needle gauge – the average layer of gluteal fat is approximately 3.5 cm but a large proportion of patients, especially women, tend to have a greater layer of gluteal fat, which may result in an intramuscular injection not going directly into the muscle.

THE IMPLICATIONS OF THIS ARE SLOWER RELEASE AND SLOWER ABSORPTION OF THE MEDICINE. OTHER FACTORS TO CONSIDER INCLUDE THE RATE OF BIOCONVERSION FROM A PRO TO A PARENT DRUG, THE ABSORPTION, DISTRIBUTION AND SPREADING OF THE OIL VEHICLE, AND PARTITIONING OF THE DRUG BETWEEN THE OIL AND TISSUE FLUID.

Finally, Prof Niehaus spoke on the concept of drug forgiveness. This is the ability of a medication to maintain therapeutic activity despite non-compliant dosing behaviour. In a trial by Hughes et al (2008), equivalent doses of risperidone tablets (2mg daily) versus risperidone injection (25mg every two weeks), were compared. There was an above average adherence rate of 79% (presumably due to the clinical trial setting). When the pharmacokinetic coverage of these patients was measured, the patients on the depot were adequately covered 76% of the time, as opposed to the patients in the oral group who only had adequate coverage 35% of the time.

The presentation was informative and practical, and thoroughly enjoyed by all who attended. We hope this educational initiative will be of use to the attendees in their day to day practices.

Lisa Selwood is the Medical Affairs Manager at Lundbeck South Africa (Pty) Limited **Correspondence:** LIEW@lundbeck.com



Lisa Selwood, Prof Dana Niehaus, Julie Howarth, Wendy Cupido



Lundbeck team – Jonathan Tuck, Marelize Bosch, Julie Howarth, Heinrich Boonzaaier, Wendy Cupido, Lisa Selwood, Itzelle Jonker



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A STITCH IN TIME: THE ADVANTAGE OF PLANNING AND SUPPORT IN DEMENTIA CARE

Ivan Oosthuizen

Benjamin Franklin reportedly once said, “If you fail to plan, you are planning to fail”, and although we can’t plan for every eventuality, with the growing incidence of dementia in the world, failing to consider potential care needs is a growing gap in life stage planning. Worldwide there are an estimated 50 million people living with dementia, according to the World Health Organization (WHO), and locally approximately 750 000 individuals have been diagnosed. A local study in 2011 estimated that number to be closer to 2.2 million. Given the existing stigma linked to dementia in some communities, that number is likely to be higher.

DEMENTIA IS PROGRESSIVE IN NATURE, AND THERE IS NO CURE AS OF YET. IT SHOULD NOT BE CONFUSED WITH NORMAL AGE-RELATED DECLINE IN HEALTH AND WELLBEING. DEMENTIA PATIENTS REQUIRE COGNITIVE AND SENSORY STIMULATION AND WELL-COORDINATED PHYSICAL EXERCISE.

There are also more often than not, significant incontinence issues. Dementia patients also require hydration management and regular monitoring of their vital functions. Unlike a typical senior who can maintain a reasonable level of independence, adults living with dementia experience a significant decline in their nutritional and personal hygiene requirements, and they require well managed assistance and support with these important aspects.

From an emotional standpoint, we frequently notice denial. Recently, a family member claimed that their biggest challenge is his father’s persistent reluctance to accept that he is sick. We also see instances of what can be termed as “emotional blackmail” from patients. This often takes the form of bargaining, where a dementia patient asks their family to promise never to put them in a facility. This is driven by fear, and fear fuels panic. So we often see patients, in the early stages, grapple with the acceptance that their care is now in the hands of someone else.

A common occurrence in the specialised dementia care environment is that we notice and aid families who are, in the majority of cases, caught off-guard with an unsuspected diagnosis. Families end up having to piece together financial action plans whilst also trying to deal with the deteriorating life circumstances and living conditions of their loved one and the immense pressure this places on the family structure. Sadly, many families have to make hard decisions and quality of life is often sacrificed in the name of absent finances. Within our capacity and available resources, we strategize with families to craft a care plan and to achieve the best possible outcome.



Ivan Oosthuizen

EARLY DIAGNOSIS IS (FINANCIALLY) TOO LATE

“Early onset dementia” is a diagnosis before the age of 65. While 65 year olds today are generally more physically able and independent than they were a few generations ago, it is also traditionally speaking, the end of a work life, and the end of structured financial planning.

IN THE CONVENTIONAL SENSE, WHEN YOU SIT DOWN WITH YOUR FINANCIAL PLANNER IN YOUR 20S, 30S, OR 40S, MOST INVESTMENT STRATEGIES START BY ASKING WHAT KIND OF LIFE YOU WANT? THIS MIGHT BE RETIRING EARLY, OR RETIRING “AT AGE” BUT WITH THE FUNDS TO TRAVEL AND ENJOY LIFE.

It may be to leave a financial legacy, or to support family members with tertiary studies. With a goal in mind, a financial planner then develops a structured savings and investments plan that should (hopefully) achieve the intended goal. In that moment, few people consider the possibility that they may end up with poor mental health and may not be able to live to see those dreams bear fruit.

DEMENTIA CARE IS DEMANDING, REQUIRES SPECIALLY TRAINED CARERS AND SPECIALISED HEALTH CARE PROVIDERS IN ORDER TO SUPPORT A PATIENT'S PHYSICAL, MENTAL, AND EMOTIONAL NEEDS. MOST PEOPLE UNDERESTIMATE THE ACTUAL FINANCIAL COST INVOLVED. PLAN YOUR RETIREMENT WITH THIS AT THE FOREFRONT OF YOUR THINKING.

We encourage financial planners to earmark funds for this type of care within that retirement and investment plan, and for individuals to make room in their savings and investments for this. At Livewell we have a long-standing relationship with Austen Morris and Associates, an international financial planning and wealth management company, who put the costs of dementia care in the region of R3-7 million, over the average seven years from diagnosis to death.

We often find that families mistakenly believe there is more money than there is. We have dealt with instances where a family, only upon further investigation, realised the family business was basically insolvent, this following months of poor decision making by their loved one, who at the time was living with mid-stage but undiagnosed dementia. By the time they looked into the matter in greater detail they realised they did not have enough funds to move their loved one into our village.

It is at these unfortunate stages, that people realise they actually have very limited care options. There remains a shortage of private care facilities, despite the recent boom in retirement and lifestyle estate development. There are some state-funded nursing homes and mental institutions, but access to them is limited and they offer very basic care services. Home care is by no means less expensive and certainly comes with an additional personal care burden (more below). We have also seen a significant depletion of specialised care workers as many leave South Africa in pursuit of significantly higher earning potential overseas.

LEGAL EXPERTISE

Another important task to complete is to decide on an appropriate decision making strategy. At some point in the course of dementia's development, someone will have to make important decisions on behalf of the person living with dementia. Many people, in error, think that having "power of attorney" is sufficient but this is not true.

IN SOUTH AFRICAN LAW, UNLIKE IN MANY OTHER COUNTRIES, THE POWER OF ATTORNEY AGREEMENT IS NULL AND VOID IF THE PRIMARY INDIVIDUAL IS DECLARED MENTALLY INCOMPETENT -

WHICH IS THE CASE ONCE A PERSON IS DIAGNOSED WITH DEMENTIA.

The better legal option is to appoint a curator. Alternatively, an enduring or conditional power of attorney document may be drawn up and agreed to while the primary individual is still competent. Whichever option is most appropriate to the specific circumstances, it is advisable to seek the services of a suitably qualified and admitted legal professional. The Law Society of South Africa (Issa.org.za) provides a list of the various Provincial Law Societies, as well as their respective sites and contact details. Each has their own database of attorneys in a given area.

THE BURDEN OF CARE

Then there is an additional (often seen as secondary or even insignificant) care issue that we believe does not receive sufficient attention, namely the burden of care on loved ones. A dementia diagnosis is devastating. The first stage post-diagnosis is characterized by shock and uncertainty.

In later stage diagnosis, we see a similar pattern but with the pressure of less time to find suitable care and finance options, all of this understandably leads to a severe intensification of individual and familial stress, including tension between family members and siblings and disagreements on specific issues such as what form of care is appropriate and fair.

Over time and because of constant stress, we see primary carers (usually a spouse or close family member such as a daughter) suffer from burnout or carer fatigue, often leaving them so drained that they simply cannot continue providing the care anymore or that they themselves experience a deterioration in their own health. Families tend to underestimate the extent of their own frustration, anger, reactions and feelings in these difficult circumstances. Often this is accompanied by extensive guilt - or even worse, elder abuse by family members or non-related carers as people in direct contact with the person living with dementia, can no longer contain their exhaustion and feelings of helplessness.

SEEKING HELP

We encourage families to make use of specialists and to seek help from financial planners and lawyers, as specified above. Additionally, there are many interest and advocacy groups who you can also assist. Alzheimer's South Africa is one such resource for support and training (www.alzheimers.org.za). Livewell also launched a closed Facebook Support Group that provides a safe space for individuals and families impacted by Alzheimer's and dementia to connect with each other and occupational therapists experienced in dementia care. To join the group, please request access via www.facebook.com/groups/livewellvillages/

Ivan Oosthuizen is the CEO of Livewell Villages, specialised dementia and memory care facilities in luxurious surroundings, located in Cape Town and Johannesburg. Ivan has been actively involved in senior living, retirement and healthcare as specialized industries and currently serves on the board of directors for SA Care Forum (SACF) as well as on the OPAL Aged Care international advisory panel. **Correspondence:** ivan@livewell.care For more information on the Livewell facilities please visit www.livewell.care ■



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RECOVERY, AND ITS SILHOUETTE OF FEAR

Claudia Campbell

Our family is Swiss and we call my grandmother 'Oma'.

Oma is almost 95 and she is wise. Oma never just 'says stuff', rather Oma considers what she says to make sure it's meaningful. "Inspiring" and "legendary" are great words to describe Oma. Oma is elegant, eloquent, engaged with life. Oma loves learning. Oma has some impressive texting skills to keep up with her 14 grandchildren and 17 great-grandchildren in all corners of the earth. Oma is passionate about food, about adventure - be it discovering new countries or exploring the fascinating properties of the plants in her enchanting garden. An atlas is an absolute necessity to Oma. After 70 years of marriage Oma has provided an invaluable example of 'wifhood', of the non-negotiable quality of respect. Raising her voice is not an option, but standing true to values and principles is a requirement. Oma is brave. She moved to South Africa in the 1950s with 3 children under the age of 4. She could speak no English. Oma made the epic journey to the bottom of Africa on her own, to meet my grandfather who had travelled a few months ahead of her. This journey would have seemed arduous and distressing for many in her position - for Oma it was an exhilarating

adventure. Oma is courageous; but never without grace and an enchanting smile.

Psychiatrists know better than most that successfully overcoming a physiological illness does not automatically equal recovery.



Claudia Campbell

One's mind and emotions must be healthy in order for one to be truly recovered from any illness. This year I have really seen the truth in this concept, as I have watched how the tumultuous fear in a patient's mind creates an unnerving silhouette behind other medical treatments. This year I have witnessed gynaecological emergencies, cardiac interventions, embolisms, collapsed lungs, ophthalmic disasters, cancer and more. These were not psychiatric emergencies. Or were they?

THIS ISSUE'S 'PERSPECTIVE' WILL BE OFFERED THROUGH THE 6-WEEK PULMONARY-CARDIAC JOURNEY I TRAVELLED WITH OMA. WITH ALMOST A CENTURY OF EXPERIENCE, I BELIEVE OMA'S OPINION HAS IMMENSE VALUE.

So, when Oma said to me: *'Medical-practitioner-facilitator that's what you should do as a profession Claudia'*, I was given much food for thought – why did she say that?

I have written before about my own experiences of being a hospitalised patient. It's an experience I am familiar with, an experience that does not intimidate me, instil fear in me, make me view doctors as 'gods'. But, my confidence did not come naturally, it followed many, many admissions – the first of which were terrifying. However this year I lived the experience through the eyes Oma. Besides the birth of her children, it was only the second real admission she has ever had. Impressive for a 95-year-old!

SO, ONE MIGHT THINK THAT THIS GRAND LADY WOULD TAKE HOSPITAL IN HER STRIDE. NOT SO MUCH. IT WAS DAUNTING FOR HER. EACH DOCTOR WHO TREATED HER WAS PROFESSIONAL AND KIND. I CANNOT FAULT THEM IN TRULY CARING FOR HER. I MUST SAY, I HAVE A HUNCH THEY WERE QUITE INSPIRED BY OMA. THROUGH THE SKILLS OF THEIR SPECIALTIES, ALL OMA'S DOCTORS DILIGENTLY AND KINDLY TOOK CARE OF HER. THEY DID NOT OVERSTEP THEIR PROFESSIONAL ABILITIES, AND REFERRED TO OTHER SPECIALISTS WHEN NEEDED.

Ultimately, after 3 rounds of frightening and unsuccessful chemical cardioversion in ICU, an ablation was recommended (<https://www.mayoclinic.org/tests-procedures/cardiac-ablation/about/pac-20384993>). The procedure was very successful. Less than 24 hours later we were eating cold meat and cheese on her patio. So at first glance Oma was fine. But if you as a psychiatrist spoke to her, you would see she wasn't really fine.

I have deep respect for the team of doctors who treated my Oma. I can't even fault them for not acknowledging her anxiety – they did. So why then was she so scared? Why did Oma, this courageous woman, hold my hand so tightly and say she felt safe when I was there and spoke to her doctors? Why, when such lovely people were treating her, was Oma so afraid in my absence? It wasn't simply because I am her granddaughter, it was because I was her 'medical-facilitator'.

HOWEVER, ALTHOUGH MY STUDIES AND LIFE HAVE TAUGHT ME MUCH ABOUT HOSPITALS, MEDICAL COMMUNICATION AND MENTAL HEALTH, I AM NOT A DOCTOR – SPECIFICALLY, I AM NOT A PSYCHIATRIST.

Oma's anxiety levels worried me. Oma was not experiencing anxiety that some counselling and healing talk could really address. Sometimes I felt that the most difficult part of what Oma's situation was what she was experiencing in her mind, in distress, apprehension and worry. Anxiety can give everything longer, darker and more sinister shadows. Distress can create haunting echoes in one's thoughts. These things can choke out the reality that one's physical health might actually be improving. Anyhow, clinically speaking the 'real' problem was fluid on her lungs and the arrhythmia in her heart. Right? After all, Oma has never required psychiatric treatment before.

In a way I beg to differ. Although Oma's team of doctors did acknowledge her anxiety and fear – it wasn't enough. From my experience I felt that a brief psychiatric intervention could fundamentally assist Oma during this overwhelming time. My opinion was cemented during a conversation with my own psychiatrist.

DUE TO HOW INFLUENTIAL OMA HAS BEEN IN MY LIFE, OVER THE PAST DECADE, 'OMA' HAS OFTEN BEEN WOVEN THROUGH CONVERSATIONS I HAVE HAD WITH MY PSYCHIATRIST. HE HAS NEVER MET HER, BUT HE SAYS SHE IS AWESOME. I TOLD HIM THE STORY OF WHAT WAS HAPPENING IN A HOSPITAL DOWN THE ROAD. IT WAS AT THE TIME OMA'S ABLATION HAD BEEN RECOMMENDED. BEING TOLD YOU NEED TO HAVE THINGS STUCK IN YOUR HEART AND LITTLE BITS DESTROYED IS QUITE A LOT TO ASSIMILATE – IT'S SCARY. ALTHOUGH, OMA'S DOCTORS HAD ASSURED HER THEY FELT POSITIVE ABOUT THE OUTCOME, SHE WAS STILL REALLY FRIGHTENED.

I explained how Oma's story had unfolded over the previous couple of weeks to my psychiatrist. He took the time to explain to me the effect that Oma's situation could possibly be having on her mental and emotional state – from a clinical perspective.

AN INHERENT SKILL OF A PSYCHIATRIST IS TO TRULY ASSESS A PATIENT HOLISTICALLY, EVALUATING HOW EACH PART OF A PERSON'S MAKEUP COULD AFFECT THEM PSYCHIATRICALY. MY PSYCHIATRIST EXPLAINED THE POTENTIAL POSITIVE EFFECTS THE ABLATION COULD HAVE, NOT JUST ON OMA'S BODY BUT ALSO HER MIND.

He explained what the experience of heart failure can feel like emotionally. He explained the reality of an aged body – but one that still has vitality and belongs to a person with an amazing mind. Of course, he had not sat at Oma's bedside, and he did not have her patient file with him. However, I passed the insights he gave on to Oma. Although Oma's fear didn't disappear it was somewhat soothed.

Ultimately Oma agreed to the ablation. My psychiatrist's explanations offered Oma some perspective regarding her anxiety and knowledge of what physical deterioration of the heart can do to one's mind. Whether or not everything applied to Oma's particular situation did not matter much. What mattered was that her thoughts and feelings, her 'psychiatry' were as important to a doctor as her heart and lungs. I know there are not enough psychiatrists to fulfil my wish – but I really feel that very ill, frightened patients should be given the opportunity to have their terror and emotional uncertainty treated with the same medical seriousness as the various other parts of their body.

I WONDERED IF THIS IS WHERE CONSULTATION LIAISON PSYCHIATRY COULD POSSIBLY HAVE BEEN INTRODUCED BY OMA'S MEDICAL TEAM. HOWEVER, OMA DOES NOT HAVE A HISTORY OF MENTAL DISORDERS. OMA HAS FULL MENTAL CAPACITY AND COULD CONSENT TO TREATMENT. OMA HAD MEDICALLY EXPLAINABLE PHYSICAL SYMPTOMS. OMA WAS NOT SUICIDAL OR AT RISK OF SELF-HARM. THEREFORE, I IMAGINE TO OMA'S MEDICAL TEAM IT WOULD SEEM THERE WAS NO REASON TO REQUEST A PSYCHIATRIC CONSULTATION. OR WAS THERE?

My perspective (because that's why you're reading this): yes there was. Oma may not have a chronic mental health disorder and hence not require long-term psychiatric care. However, to me, Oma seemed to be experiencing acute psychiatric symptoms during the 6 weeks of her cardiac-pulmonary ordeal.

I FEEL OMA COULD HAVE BENEFITTED IMMENSELY FROM SOMETHING MORE THAN THE SIMPLE PRESCRIPTION HER GP HAD GIVEN HER AGES AGO FOR MILD WORRY.

Beyond psychiatric medicine prescriptions, having a psychiatrist explain the medical links between what she felt, procedures prescribed, and her physical diagnosis would have been really helpful. More so would the assistance of a psychiatrist liaising with the larger medical team in order to help Oma understand better, and I believe help the team understand Oma better. I would hope that medical specialists from all spheres would view more inherent inclusion of psychiatrists into medical teams as strengthening to overall patient treatment and recovery – to patient care. But, when a person is not an obvious psychiatric risk, who decides if they could benefit from psychiatric care? Whose responsibility is it to broaden the reach of Consultation Liaison Psychiatry? Does that responsibility belong to psychiatrists, to the greater medical profession, or perhaps to policy? I don't know.

I DO, HOWEVER, HAVE A FEAR ABOUT THIS 'PERSPECTIVE'. IT'S THAT HAVING A PSYCHIATRIST INCLUDED IN ONE'S MEDICAL TEAM, TO MANY, MIGHT SEND A MESSAGE OF MENTAL ILLNESS, THAT 'YOU'VE LOST YOUR MIND'. TO MANY PEOPLE (INCLUDING DOCTORS), PSYCHIATRY IS STILL SYNONYMOUS WITH 'MADNESS'. I WISH IT WAS DIFFERENT, SO THAT PATIENTS COULD INCREASINGLY FEEL THAT THEIR MENTAL AND EMOTIONAL STATE ARE AS IMPORTANT AS THEIR PHYSICAL STATE – WITHOUT FEELING ACCUSED OF BEING 'CRAZY'. NOT ONLY THE PATIENTS BUT THOSE WHO SUPPORT THEM WOULD BENEFIT FROM THIS. I BELIEVE IT IS NATURAL TO TAKE ON AND FEEL THE DISTRESS OF A PERSON YOU LOVE DEEPLY GOING THROUGH SCARY MEDICAL INTERVENTIONS.

I would have slept more easily knowing a doctor was specifically caring for Oma's mental health. So this article is not about berating the kindness and care of doctors, it's about advocating for the minds and hearts of patients – of people. And, along the way it's about advocating for the profession of psychiatry.

Note: I asked Oma "If you could give doctors one piece of advice based on your experience this year, what would it be?" Oma's texted back: "Smile and enhance the positive in the situation".

Claudia Campbell Claudia Campbell holds a post-graduate degree in psychology and has 10 years experience in the field of corporate transformation strategy. Claudia works in a voluntary capacity as a psychosocial facilitator, public speaker, and consultant. Due to various health challenges, Claudia's personal life includes many experiences from the patient's side of the consultation room.

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
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

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
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David Swingler

The wine travel bug isn't only foreign; there's much to explore back home, with no less allure.

I've organized a long line of culinary weekend getaways over the years, a heritage of 'Great Weekends Away' that spans from Hermanus, Franschhoek and Riebeeck-Kasteel in the early days to Bot River, Greyton and Hemel-en-Aarde more recently. But we've not, in thirty years, been to Wellington, just an hour from Cape Town's CBD. Too hot? Possibly. Unsexy? Certainly.

MUCH RESEARCH WAS REQUIRED, INCLUDING RECONNAISSANCE AT THE ANNUAL *TUIN VAN DIGTERS*, WHEN POETS, LINGUISTS AND WORDSMITHS FROM ALL OVER THE COUNTRY – AS WELL AS INTERNATIONAL VISITORS OF DUTCH AND FLEMISH PERSUASION – DESCEND ON WELLINGTON FOR AN ANNUAL CARNIVAL OF CREATIVITY THAT ALSO CELEBRATED HOME-BOY BREYTEN BREYTENBACH'S 80TH BIRTHDAY THIS YEAR.

But first, Friday saw us drop our bags at **Diemersfontein Wine & Country Estate** where most of the party were staying, shake off the dust and slip out of urban stress to meet at the **Aan Tafel Restaurant** on the Estate. Owner David Sonnenberg was on hand

to welcome us with reflections on the empowerment vision of Diemersfontein before Tasting Room Manager Johann Olivier offered a theatrical introduction to Diemersfontein Wines.



David Swingler

Then Celeste Potgieter's team, managers of Aan Tafel, served a four-course dinner to show-case Diemersfontein's wines.

Oven roasted glazed beet ravive, smoked aubergine caviar and toasted nuts

Diemersfontein Sauvignon Blanc

Snoek and patat samoosa with tropical fruit chutney

Diemersfontein Chenin Blanc

Beef cheeks tarte-tatin with caramelized onions with pecorino rocket salad

Thokozani SMV

Rooibos semi freda with gooseberry compote and cinnamon palmiers

Sweet Sue

Saturday morning saw us visit a trio of interesting agri-producers. We kicked off at **Welgegend**, founded in 1777 but recently refreshed, where Sales & Marketing Manager Emy Mathews welcomed us on the lawns of the beautiful Manor House and winemaker Friedrich Kuhne shows us their wares – the new-wave duo of lighter styled but still powerful Cinsault and Grenache Noir will win many friends.



Welgegund

We crossed the Horseshoe Road to **Hildenbrand Wine and Olive Estate** where the inimitable septuagenarian Reni Hildenbrand, author of the seminal *Olives & Oils in South Africa*, was on usual contrarian song, treating us to a tasting of her olive and wine products amidst tales of her recent exploits judging olives in Peru.

RENI CAN TALK A BIT, SO IT WAS A DASH ACROSS TOWN TO OUR NEXT ADVENTURE, THE MOST IMPORTANT VINE NURSERY IN THE COUNTRY, **BOSMAN FAMILY VINEYARDS**.



Bosman Family Vineyards

Now in the 8th generation, Hermanus Bosman put his goods down here in 1798. After a hiatus of 50 years during which the work concentrated on stokkie production, winemaking recommenced in 2007 and more recently expanded to De Bos in the Hemel-en-Aarde valley (there's a fabulous tasting room on Die Karwyderskraal Road).

Sales Manager Angela Jordaan gave a Masterclass, leading an extensive tasting with vigour and arranging a grafting demo; the punters left with the gift of a newly grafted sauvignon blanc, and groaning car boots.

We were hungry though, so it was down the road to **Val du Charron**. Winemaker Juhan Hunlun introduced the property with a brief tasting before **The Grillroom's** F&B maestro Bernhardt Bieler and team produced a Comparative Steak Tasting Lunch - grass - versus grain-fed beef illustrated in different cuts served with Bearnaise Sauce, Hand-Cut Chips

and Salad. *The Theatre of Wine* duo Four White Legs and Black Countess were accompaniments.

Guests needed to take the afternoon break to wander, explore, exercise or indeed, even nap, because they needed to bring their A-game to **Die Breytenbach Sentrum** for our **Gala Evening** that evening.

"Die Breytenbach Sentrum in Burgerstraat 14 in Wellington is 'n multidissiplinêre kultuursentrum vir opleiding in, en omgang met, beeldende kunste, musiek, drama en skryfkuns. Kom deel in gesprekke, idees, bekendstellings, opleiding en werksinkels en beleef kuns, musiek, drama en die mense wat dit skep, waardeer en beleef."

Seat of the Breytenbach family from 1953 until 1974, these premises are where famous poet Breyten grew up. Older brothers Cloete and Jan lived independently but visited often.



Die Tuin van Digtters

Welcomed with a glass of Upland *Methodie Ancestrale* Chenin Blanc bubbly, we browsed the two galleries, paused in **Die Tuin van Digtters**, and perused the wares of the two shops.

Canapes offered by **Slippery Spoon Kitchen** included:

Waitrons roaming with white linen gloves, carving knives and game biltong carving thin slivers of the biltong for guests on request

Steamed Boerewors Har-Gow with spring onion drizzled with caramelized onion essence

Westcoast smoked snoek, fresh mango, spring onion, coriander Vietnamese summer rolls served with an apricot noac chum sauce

Traditional Roosterkoek prepared on open fires served as small crostini with traditional makataan, Swartland olive oil and samphire

THEN, IN THE SETTING SUN, RENOWNED WORDSMITH JOHANN NEL - EDITOR OF THE POEM IS THE MEANING OF THE POEM - READ WORKS OF BREYTEN BREYTENBACH IN BOTH ORIGINAL AND THE ENGLISH TRANSLATIONS OF CELEBRATED LITERARY CRITIC AND ACADEMIC AMPIE COETZEE.

Suitably rooted in the cultural context, we repaired to **Die Bordienghuis** for a once-off pop-up meal. Wellington-based **Slippery Spoon Kitchen** is the brainchild of celebrity chefs Johnny Hamman and Marius Uys who met on the set of *Kokkedoor* (which Johnny won in 2014) and now offer 'a trendy, up-market food service that pushes boundaries with creative menus and unexpected catering solutions'.



They produced a sensational four course meal, which I paired with **Wellington Wines**:

First Course

Fresh Wellington guavas, thin and crisp west coast Bokkom, Swartland coastal foraged ocean leaves, pickled Saldanha bay mussels, with hot and crispy toasted sunflowers seeds
Duke White Pinotage 2019

Second Course

A "tinned" Swartland foraged fauna and flora ensemble with braised oxtail torchon and confit purple stem spinach
La Cave Cabernet Sauvignon 2016

Third Course

Fermented pumpkin pampoenkoekie "doughnut" with a burnt butter "icing", thinly sliced homesmoked Swartland wild boar, smoked golden syrup drizzle, steeped guavas and lush micro sorrel - waitrons pour a miso broth around the doughnut at the table
La Cave Chenin Blanc 2017

Fourth Course

Milk tart ice cream served with hot and freshly baked cinnamon spiced palmier, whipped coconut cream and a dash of kumquat jam
Frizzante Blanc NV



Johann Nel reading *Breytenbach*



Foraged coastal Swartland starter



Oxtail torchon & confit purple stem spinach



Pop-up dining in *Die Bordienghuis*



But that's not all! After savouring the meal, local muso **Muldene Holloway** sang a 40-minute set of after-dinner **Jazz Standards** - this was a theatre we were dining in, after all.

SUNDAYS' 10AM RENDEZVOUS WAS AT UPLAND ORGANIC ESTATE ON THE BLOUVLEI ROAD. WAY AHEAD OF THEIR TIME, VET-BY-TRAINING EDMUND AND ELSIE OETTLE HAVE BEEN GCS CERTIFIED FOR YEARS.

Edmund makes ancestral method bubbly, wine and ports and is the master distiller many call upon - his brandies and grappa are highly sought after and fellow winemakers entrust their distilling to him. All the fascinating wine and spirit products he showed us are vegan with no added sulphur. Elsie is famous for her **Hands Africa Cards**, which were cleared out in brisk trade!



Upland's finest distillates



Elsie's hand made cards

Then, one last leg across the valley again to the smallest registered wine estate in the country: **Jacaranda Wine Estate**. Rene and Birgit Reiser came to Wellington by way of Shanghai and, since 2009 have been creating and living their dream of operating a wine farm and guest house just up the Old Hermon Road. A hands-on place, they enthralled us with their compact range of wines, served on the veranda along with *Wineland Tapas* by Heidi Ahrens of **Creative Kwizeen**.

Replete, deeply satisfied, and ever more respectful of the ways of Wellington, we wended our way home. Roll on Ceres in 2021!

David Swingler is a writer and taster for *Platter's South African Wine Guide* over 21 years to date. Dave Swingler has over the years consulted to restaurants, game lodges and convention centres, taught wine courses and contributed to radio, print and other media. A psychiatrist by day, he's intrigued by language in general, and its application to wine in particular.
Correspondence: swingler@telkomsa.net ■



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NEUROPSYCHIATRY
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headline

November 2019



OFFICIAL NEWSLETTER OF THE SOUTH AFRICAN SOCIETY OF PSYCHIATRISTS (SASOP)

SASOP: THE ALTERNATIVE SOLUTION

EDITORIAL

Dear Colleagues,

The November 2019 SASOP HEADLINE covers a spectrum of events and developments, from the SASOP President's meeting with Parliamentary Portfolio Committee on Health to a brief report on progress of the PsychMG/Public Private Partnership ("PPP") task team's research project on new business models of practice in South Africa. This edition also reports on the proposed 2019/2020 activities of the SASOP Spirituality and Psychiatry Special Interest Group, as envisaged by the new SIG Committee Chairs Dr Judy Ludwick and Dr Kobus van der Walt. We report on the continuation of the SASOP Human Rights Program on Human Rights for People with Mental Illness, which started last year in Gauteng and Kwazulu-Natal, which this year moved to Western Cape in Stellenbosch and Cape Town, as well as to Port Elizabeth in the Eastern Cape. Dr Corrie Schumann coordinated events in the Western Cape, consisting of the DGPPN and SASOP poster exhibition, as well as presentations, while Prof Stoffel Grobler coordinated events in Port Elizabeth. The exhibition will make its last move back to Johannesburg in November, where it will be exhibited for the last time in the Johannesburg Holocaust Center. This will also mark the actual termination of the *German Association for Psychiatry, Psychotherapy and Psychosomatics (DGPPN)*'s travelling exhibition "*Registered, Persecuted, Annihilated - The Sick and*

the Disabled under National Socialism" (<https://www.dgppn.de/en/Core-areas/psychiatry-in-time-of-National-Socialism/travelling-exhibition.html>) which, since 2014, has been travelling to several countries on different continents. Lastly this edition ends with some news from the Subgroups, as well as the most recent SASOP media communication.



Prof Bernard Janse van Rensburg

While we are bracing for the final, hectic end of the current 2019 academic and clinical work year, all the best wishes for the soon to be started brand new next year and decade.

Best regards

Bernard
SASOP HEADLINE EDITOR



Prof Bernard J van Rensburg
MBChB MMed FCPsych(SA) PhD

SASOP Immediate Past-President
ADASA Chair
Associate Professor

Department of Psychiatry

School of Clinical Medicine, Faculty of Health Sciences

University of the Witwatersrand

Head of Unit Helen Joseph Hospital, Gauteng Department of Health

1. SASOP PRESIDENT MEETING WITH PARLIAMENTARY PORTFOLIO COMMITTEE ON HEALTHS

The SASOP President, Prof Bonga Chiliza and Public Sector Executive Committee Chair, Dr Kagisho Maagonye met with the Chair of the Parliament's Portfolio Committee on Health, Dr Sibongiseni Dhlomo on Wednesday 02 October. Bonga and Kagisho highlighted the importance of mental health care in our country. They stressed that the South African government is not paying enough attention to mental health care.

IN LINE WITH ENVISAGED UNIVERSAL HEALTH COVERAGE VIA THE NATIONAL HEALTH INSURANCE, DR DHLOMO WAS REMINDED OF SASOP'S POSITION THAT MORE EMPHASIS IS NEEDED ON IMPROVING COMMUNITY MENTAL HEALTH CARE AS WELL AS DISTRICT MENTAL HEALTH SERVICES. SASOP HAS PREVIOUSLY RELEASED STATEMENTS AND PUT FORWARD A MODEL FOR DISTRICT MENTAL HEALTH SERVICES.

Dr Dhlomo was pleasantly surprised by this emphasis and agreed that it is very much in line with government's vision of improving public health. He then invited SASOP to make a formal presentation to the Portfolio Committee on Health. SASOP will continue to advocate for improvement in mental health care with all role players in the South African government.



SASOP President Prof Bonga Chiliza, Chair of the Parliament's Portfolio Committee on Health, Dr Sibongiseni Dhlomo and SASOP Public Sector Executive Committee Chair, Dr Kagisho Maaroganye

2. SASOP/PSYCHMG PUBLIC PRIVATE PARTNERSHIP (PPP) TASK TEAM RESEARCH PROJECT – PROF RITA THOM (CHAIR PPP TT)

The SASOP Public Sector Executive Committee and PsychMG Board have been meeting regularly over the past year. The aim of these meetings has been to improve relationships between public and private sector psychiatrists in SASOP, and to identify projects of mutual interest. The task team has been examining the various processes related to the proposed National Health Insurance and reflecting on the likely impact on psychiatry and psychiatric services.

The task team has embarked on a research project, entitled "Mapping of psychiatrists and psychiatric facilities to address national mental health care needs", which has been approved by the Wits University Human Research Ethics Committee (Medical). The aim of this project is to map the number and distribution of psychiatrists and psychiatric facilities in South Africa against the population to identify areas of need.

IN ADDITION, A SURVEY OF SASOP MEMBERS WILL BE UNDERTAKEN TO DETERMINE THEIR OPINIONS ON HOW PSYCHIATRISTS COULD BEST BE UTILIZED IN SOUTH AFRICA IN THE LIGHT OF PENDING NATIONAL HEALTH INSURANCE IMPLEMENTATION.

From this research the PPP task team hopes to develop proposals on the effective utilization of scarce psychiatric resources and to identify the basis for new business models.

3. THE SASOP SPIRITUALITY IN PSYCHIATRY SPECIAL INTEREST GROUP – DR KOBUS VAN DER WALT (CO-CHAIR SASOP S&P SIG)

The Spirituality in Psychiatry Special Interest Group (SIG) met for their Annual General Meeting on 21 September 2019 during the Biological Psychiatry Conference in Cape Town. During the meeting Dr Judy Ludwick gave feedback on progress made with various activities undertaken by group members, such as Dr Lennart Eriksson's educational outreach to medical schools, and establishing a communication platform to support communication among group members. The AGM elected Drs Judy Ludwick and Kobus van der Walt as co-conveners for the period 2019/2020. During the 2019/2020 period the SIG will focus on 4 areas of work: (1) preparing for a Symposium on Spirituality in Psychiatry during the 2020 SASOP congress, (2) support communication among group members and advocacy for the appropriate inclusion of spirituality in the practice of psychiatry, (3) educational outreach to assess and improve under- and post-graduate training of students in psychiatry, and (4) organizational development of the SIG.

SASOP S&P SIG members and other interested SASOP members are invited to contact Drs Judy Ludwick (judy@ludwick.co.za) and Van der Walt (kobusvanderwalt@gmail.com) if they are interested in contributing. The next AGM of the SIG will take place following the Symposium on Spirituality in Psychiatry during the 2020 SASOP congress.

4. SASOP HUMAN RIGHTS EVENTS

4.1 SASOP HUMAN RIGHTS EVENTS IN CAPE TOWN – DR CORRIE SCHUMANN (SASOP WESTERN CAPE SUBGROUP)

In September the SASOP Western Cape Subgroup hosted two lecture evenings on Human Rights for people with Mental Illness and Intellectual Disability, at Stellenbosch University and the University of Cape Town respectively. This formed part of the German Society of Psychiatry, Psychotherapy and Psychosomatics (DGPPN) travelling exhibition entitled: 'Registered, persecuted, annihilated' - the sick and the disabled under national socialism.

THE MAIN THEME OF THESE LECTURE EVENINGS WAS TO EXPLORE THE ROLE OF PROFESSIONAL SOCIETIES AND INDIVIDUAL CLINICIANS TO UPHOLD AND PROTECT THE RIGHTS OF PEOPLE WITH MENTAL ILLNESS AND INTELLECTUAL DISABILITY.

Speakers were from various backgrounds, mostly from Disability studies (Prof Theresa Lorenzo and Ass Prof Judith Mackenzie), Intellectual Disability care (Valerie Sinason and Dr Charlotte Capri), Mental Health Care (Dr John Parker) and a person living with mental illness (Jak Erasmus) The variety of speakers was refreshing and lead to some interesting discussions, particularly after the Stellenbosch talk.

THE TRAVELING EXHIBITION FORMED A SOMBER BACKDROP TO THE TALKS. ITS ORDERLY, HISTORICAL ACCOUNT OF HOW PEOPLE WITH MENTAL ILLNESS AND INTELLECTUAL DISABILITY (ID) UNDER GERMAN NATIONAL SOCIALISM WERE SYSTEMATICALLY CLASSIFIED AND EVENTUALLY EXECUTED IS INTERWOVEN WITH PERSONAL STORIES AND PHOTOS OF THE PEOPLE AFFECTED- RESULTING IN A HEART WRENCHING EXPERIENCE FOR THE VIEWER.

Various themes emerged on the two nights, including:

- the Life Esidimeni tragedy, seemingly quickly forgotten and with the hoped for changes in care not yet forthcoming. The binary way this tragedy was 'measured' in deaths—with a glaring lack of comment on the people who survived the neglect and abuse perpetrated.
- the ongoing struggle for inclusion for people living with ID and the competing ethics of care that is in some ways juxtaposed to a rights-based approach.
- the prevailing stigma around having mental illness and how this stigma leads to sufferers 'being in the closet'. It proved very difficult to find a person living with a mental illness who was willing to speak about this on a public forum.

In recounting his personal illness journey, Mr Jak Erasmus made it clear why many people living with mental illness choose secrecy, especially in their workplace. Valerie Sinason, a guest speaker from the UK, brought poignant narratives from her work in the field of Intellectual Disability, including some of her experiences at the Lesbos refugee camp in Greece. The universality of these struggles for human rights for these two groups were evident. Despite the heavy themes discussed, the atmosphere remained resolute, and sometimes hopeful.



From left to right : Valerie Sinason, Prof Dan Stein, Dr Charlotte Capri, Dr Corrie Schumann, Dr John Parker, Jak Erasmus

4.2 PORT ELIZABETH – PROF CHRISTOFFEL GROBLER (SASOP EASTERN CAPE SUBGROUP)

Prof Raj Naidoo, Emeritus professor and former dean of the Health Sciences Faculty at the Nelson Mandela University was the guest speaker at the opening night of the exhibition.

The topic of his address was **Re-awakening our Sense of Humanity in Health Care.**

He started by relating his experiences and impressions of how psychiatry was practiced, his first exposure to a psychiatric unit as a young pharmacy student and how vulnerable the mental health care users seemed in hospital.

He went on to say how important he thought it was to bring this exhibition to South Africa for people to see as after seeing it for the first time, he left with cold shivers, describing it as a bold exhibition, prompting him to ask himself if there was a good reason to bring this exhibition here to South Africa, to be reminded of what happened in the 1930s and 1940s during the Second World War, to which his answer was a resounding 'Yes!'. This needs to be made known across the world.

HE THOUGHT IT WOULD ESPECIALLY VALUABLE IF THE YOUNGER GENERATION OF NEW SCIENTISTS, THE CENTENNIAL GENERATION, COULD SEE THIS EXHIBITION AS HE BELIEVES THEY HAVE A GREATER DEGREE OF SOCIAL CONSCIOUSNESS.

Expressing his thanks to the SASOP and their German partners for bringing out this exhibition and making the community aware of these issues, he said that we cannot treat our patients as human if we are not humans ourselves.

HE REFLECTED BRIEFLY ON MAN'S INHUMANITY TO MAN, ASKING THE QUESTION 'WHERE ARE WE TODAY?', AND 'ARE WE ANY DIFFERENT TODAY?', REFERRING TO THE WARS AND ATROCITIES AND MURDERS BOTH LOCALLY AND ABROAD HE ALSO ASKED WHETHER WE ARE ACTUALLY LIVING OUR BEAUTIFUL CONSTITUTION, WITH PARTICULAR REFERENCE TO HUMAN RIGHTS.

He lamented the fact that aspects of healthcare have become commodities and, in the process, we as health care providers may be losing a bit of our humanity.

REFERRING TO SOCRATES WHO SAID, "MEN ARE FOOLISH TO THINK THAT ONE CAN TREAT THE BODY WITHOUT TREATING THE SOUL"; WE HAVE BECOME TECHNOCRATS IN HEALTHCARE, WHICH BEGS THE QUESTION 'HOW DO YOU TEACH COMPASSION TO YOUNG STUDENTS?'

He ended his address with a warning: Considering the fast pace of modern day life and advances in the field of medicine, we must be vigilant not to become robotons, and make an effort to not only look after the mental health of our patients, but also to look after our own mental health.



Photo from left: Nika Oberholster, Stoffel Grobler, Raj Naidoo

5. FROM THE SUBGROUPS

5.1 LIMPOPO – DR MATSHELE KEWANA, CHAIR SASOP LIMPOPO SUBGROUP

Dr Kewana reports that:

- We held our 4th mini symposium on the 31st August which was a great success.
- With the help of sponsorship from different pharmaceutical companies, we are able to hold our monthly meetings.
- We sponsored registration for the 2019 Biological Congress for one of our registrars.
- We were visited by the Ministerial Advisory Committee (MAC) and had a meeting between PubSec and MAC officials.

5.2 SOUTHERN GAUTENG – DR PEVASHNEE NAICKER, CHAIR SASOP S-GP SUBGROUP

The S-GP Subgroup hosted a Neuropsychiatry Seminar on Saturday, 2 November 2019, 08:00 - 12:30; Block 18, Fancourt Office Park, cnr Northumberland Avenue & Felstead Road, North Riding, Randburg. Speakers presented on the following topics:

Clinical differential diagnosis and bedside testing in adults with neurocognitive disorders	Dr Stanley Lipschitz, Geriatrician
Psychosocial treatment of patients with major neurocognitive disorder	Mr Hylton Marks, Social Worker; Ms Riette du Preez, Clinical Psychologist
Psychopharmacology in patients with dementia	Dr Ryan Fuller, Geriatric Psychiatrist
The challenges and opportunities for dementia prevention and the impact of lifestyle factors on brain health	Dr Kiri Ranchod, Neurologist & Senior Atlantic Fellow for Equity in Brain Health

5.3 NORTHERN GAUTENG – DR KOBUS ROUX

Dr Kobus Roux reported on the development of an app – "In-nutshell" – applicable in the first instance to Northern Gauteng activities, and how this app may also be extended to the rest of SASOP areas and function. This was discussed at the SASOP Communication Committee meeting during the 2019 Biological Congress in Cape Town in September. Jigsaw, SASOP's media consulting service provider, are also looking into the creation of a You-Tube channel to house videos on the press releases SASOP is sending out to the media. Once completed, the new website, the new app, as well as the use of any social media discussing mental health topics will be linked.

The SASOP Northern Subgroup will also be organising the 2020 Biennial National Congress, that will be held at Champagne Sports Resort Hotel in the Drakensburg during October 2020.

6. SASOP MEDIA STATEMENTS

WORLD MENTAL HEALTH DAY (10/10/2019): SUICIDE RISK NEEDS TO BE BETTER MANAGED IN SA – DR KOBUS ROUX SASOP BOARD DIRECTOR: PRIVATE SECTOR PSYCHIATRY

Death by suicide has a lasting impact on families, workplaces and communities, and the South African Society of Psychiatrists (SASOP) is urging healthcare providers to better manage follow-up care for those at risk of suicide, rather than focusing only on once off interventions at a crisis point.

SOUTH AFRICA'S ESTIMATED SUICIDE RATE OF 13.4 PEOPLE PER 100 000 IS APPROXIMATELY FOUR TIMES THE GLOBAL RATE OF 3.6 PER 100 000, BUT "IF STRATEGIES ARE IN PLACE TO IDENTIFY AND MANAGE THE RISK IN THE EARLY STAGES, MOST OF THESE DEATHS COULD BE AVERTED", SAYS DR KOBUS ROUX, A PSYCHIATRIST AND SASOP MEMBER.

Suicide prevention is the focus of this year's *World Mental Health Day* on 10 October, with the World Health Organisation estimating that one person in the world dies by suicide every 40 seconds, a tragic statistic that has led to their campaign for "40 seconds of action" to prevent suicide.

Health sectors failing at-risk patients. In South Africa, Dr Roux said, the private and public healthcare sectors "grossly fail" their users by not providing follow-ups and ongoing treatment for high-risk patients who have attempted or threatened suicide, although this phase of treatment is considered critical in most healthcare systems for reducing suicide rates.

"Ongoing therapeutic contact with high risk patients is a very important strategy in suicide prevention. It needs to be implemented into the South African healthcare system and the proposals for National Health Insurance," Dr Roux said.

He highlighted Denmark and South Australia as regions that had achieved significant reductions in suicide rates by implementing strategies that included continuing outpatient treatment after episodes of suicidal behaviour.

"People who have had a previous episode of serious suicidal ideation or behaviour are at greater

risk of the events recurring, and they need follow-up and management for an extended period after the threat of suicide has been averted, but it is exactly that part which is neglected in South Africa," Dr Roux said.

NHI. Even more concerning, he said, was that the proposed National Health Insurance (NHI) doesn't make provision for outpatient psychiatric care – psychiatric services are included only for inpatient care for chronic and severe mental disorders like mania or psychotic disorders. He said that the first phase of suicide prevention and treatment was "defusing and preventing acute suicidal behaviour" and this was managed effectively by the healthcare system and volunteer organisations such as the SA Depression & Anxiety Group (SADAG) and LifeLine.

"THE SECOND PHASE OF FOLLOW-UP OF PEOPLE WITH SUICIDAL BEHAVIOUR AND DEPRESSION – WHICH IS THE LEADING CAUSE OF SUICIDE – IS WHERE OUR SYSTEM FAILS".

"Depression and suicidality are not included on the chronic disease list in private healthcare, and only acute treatment at the point of crisis in averting a suicide, is covered by medical aids. Ongoing outpatient treatment is not supported by most medical schemes.

IN THE PUBLIC SECTOR, ONCE THE SUICIDAL CRISIS IS AVERTED, THERE IS NOWHERE TO REFER A PATIENT FOR FOLLOW-UP CARE. PUBLIC SECTOR PSYCHIATRIC SERVICES HAVE CAPACITY TO TREAT ONLY THOSE PATIENTS WITH CHRONIC SERIOUS MENTAL DISORDERS, SUCH AS PSYCHOTIC DISORDERS, OR AFTER ACUTE SUICIDE ATTEMPTS," DR ROUX SAID.

The third phase of managing suicide risks is for healthcare providers to be more vigilant in looking for signs of depression in patients with other long-standing chronic illnesses, both physical and mental, as there is a widely confirmed link between chronic illness and depression, and these patients are at higher risk of suicidal thoughts and behaviour.

"SASOP urges healthcare administrators and providers to exert an effort to manage suicide risk and promote suicide prevention in their patients in all three of these distinct phases of risk, and particularly in urgently finding ways to provide ongoing care after a suicidal episode to prevent re-occurrence," Dr Roux said ■

INSTRUCTIONSTO AUTHORS

South African Psychiatry publishes original contributions that relate to South African Psychiatry. The aim of the publication is to inform the discipline about the discipline and in so doing, connect and promote cohesion.

The following types of content are published, noting that the list is not prescriptive or limited and potential contributors are welcome to submit content that they think might be relevant but does not broadly conform to the categories noted:

LETTERS TO THE EDITOR

- * Novel experiences
- * Response to published content
- * Issues

FEATURES

- * Related to a specific area of interest
- * Related to service development
- * Related to a specific project
- * A detailed opinion piece

REPORTS

- * Related to events e.g. conferences, symposia, workshops

PERSPECTIVES

- * Personal opinions written by non-medical contributors

NEWS

- * Departments of Psychiatry e.g. graduations, promotions, appointments, events, publications

ANNOUNCEMENTS

- * Congresses, symposia, workshops
- * Publications, especially books

The format of the abovementioned contributions does not need to conform to typical scientific papers. Contributors are encouraged to write in a style that is best suited to the content. There is no required word count and authors are not restricted, but content will be subject to editing for publication. Referencing - if included - should conform to the Vancouver style i.e. superscript numeral in text (outside the full stop with the following illustration for the reference section: *Other AN, Person CD. Title of article. Name of Journal, Year of publication; Volume (Issue): page number/s. doi number (if available)*). **Where referencing is not included, it will be noted that references will be available from the author/authors.** All content should be accompanied by a relevant photo (preferably high resolution - to ensure quality reproduction) of the author/authors as well as the event or with the necessary graphic content. A brief biography of the author/authors should accompany content, including discipline, current position, notable/relevant interests and an email address. Contributions are encouraged and welcome from the broader mental health professional community i.e. all related professionals, including industry. All submitted content will be subject to review by the editor-in-chief, and where necessary the advisory board.

REVIEW / ORIGINAL ARTICLES

Such content will specifically comprise the literature review or data of the final version of a research report towards the MMed - or equivalent degree - as a 5000 word article

- * A 300 word abstract that succinctly summarizes the content will be required.
- * Referencing should preferably conform to the Vancouver style i.e. superscript numeral in text (outside the full stop with the following illustration for the reference section: *Other AN, Person CD. Title of article. Name of Journal, Year of publication; Volume (Issue): page number/s. doi number (if available)*); Harvard style or variations of either will also be acceptable
- * The submission should be accompanied by the University/Faculty letter noting successful completion of the research report.

Acceptance of submitted material will be subject to editorial discretion

All submitted content will be subject to review by the editor-in-chief, and where necessary the advisory board. All content should be forwarded to the editor-in-chief, Christopher P. Szabo - Christopher.szabo@wiits.ac.za

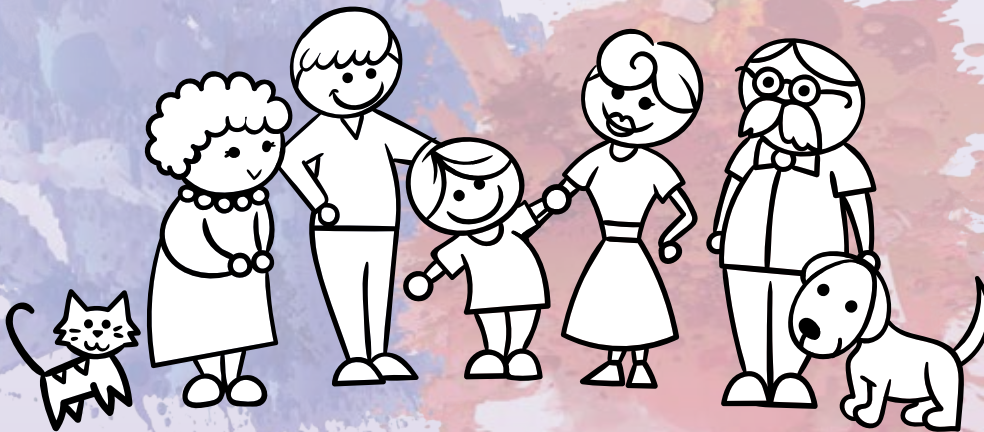


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Affordable²



*Not actual size

References: 1. Coghill D, Seth S. Osmotic, controlled-release methylphenidate for the treatment of ADHD. *Expert Opinion Pharmacotherapy* 2006;7(15):2119-2138. 2. Data on File.

NEUCON[®] OROS[®] 18 mg, 27 mg, 36 mg or 54 mg extended-release tablets containing 18 mg, 27 mg, 36 mg, 54 mg of methylphenidate hydrochloride, respectively. Reg. No's.: 46/1.2/0380; 46/1.2/0381; 46/1.2/0382; 46/1.2/0383.

For full prescribing information, refer to the package insert April 2018.

LICENCE HOLDER: Janssen Pharmaceutica, Reg. No.: 1980/011122/07, No. 2, Medical Street, Halfway House, Midrand, 1685. Tel: (011) 518 7000. www.janssen.co.za
Marketed by sanofi-aventis south africa (pty) ltd, reg. no.: 1996/010381/07, 2 Bond Street, Grand Central Ext. 1, Midrand, 1685, South Africa. Tel: (011) 256 3700.
Fax: (011) 256 3707. www.sanofi.com. CP-97720

SANOFI

Janssen
PHARMACEUTICAL COMPANIES
OF Johnson & Johnson

generics
unit

**7/10 PEOPLE STRUGGLE
TO MAINTAIN SLEEP, AND
NEED **MORE REST**'**



**SLEEP FAST.
STAY FAST ASLEEP.**

Stilnox® MR 12,5 vs placebo showed²:

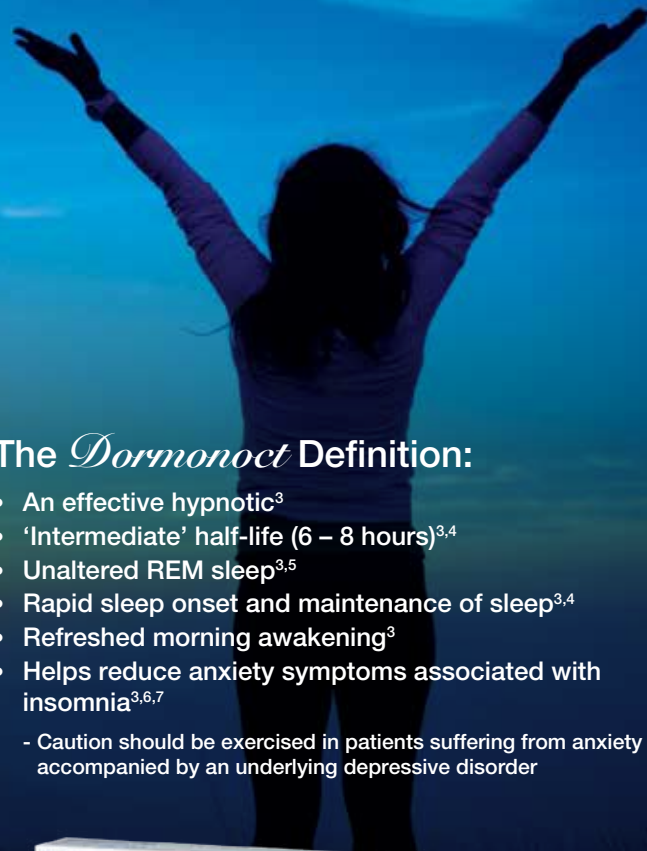
 **MORE RAPID** acceleration of sleep onset²

 **MORE REST** through sustained delivery of sleep maintenance, duration and quality²

 **MORE REFRESHED** days as no performance deficits occur the next morning²

STILNOX® MR
ZOLPIDEM TARTRATE 12.5 mg

Restored Sleep



The *Dormonoct* Definition:

- An effective hypnotic³
 - 'Intermediate' half-life (6 – 8 hours)^{3,4}
 - Unaltered REM sleep^{3,5}
 - Rapid sleep onset and maintenance of sleep^{3,4}
 - Refreshed morning awakening³
 - Helps reduce anxiety symptoms associated with insomnia^{3,6,7}
- Caution should be exercised in patients suffering from anxiety accompanied by an underlying depressive disorder



References: 1. Neubauer DN. New approaches in managing chronic insomnia. *CNS Spectr* 2006;11:1-16. 2. Roth T, Soubrane C, Titeux L, et al. Efficacy and safety of zolpidem-MR: a double-blind, placebo-controlled study in adults with primary insomnia. *Sleep Med* 2006;7:397-406. 3. Clark BG, Jue SG, Dawson GW, et al. Loprazolam - A Preliminary Review of its Pharmacodynamic Properties and Therapeutic Efficacy in Insomnia. *Drugs* 1986;31(6):500-516. 4. Approved Dormonoct® 2 mg package insert. 04 October 1983. 5. Salkind MR, Silverstone T. The Clinical and Psychometric Evaluation of a new Hypnotic Drug, Loprazolam, in General Practice. *Curr Med Res Opin* 1983;8(5):368-374. 6. McInnes GT, Bunting EA, Ings RMJ, et al. Pharmacokinetics and Pharmacodynamics Following Single and Repeated Nightly Administrations of Loprazolam, a new Benzodiazepine Hypnotic. *Br J Clin Pharmacol* 1985;19:649-656. 7. Botter PA. A comparative Double-blind Study of Loprazolam, 1 mg and 2 mg, Versus Placebo in Anxiety-induced Insomnia. *Curr Med Res Opin* 1983;8(9):626-630.

For full prescribing information refer to the professional information approved by the Regulatory Authority.

SCHEDULING STATUS: [S5] **PROPRIETARY NAME (AND DOSAGE FORM):** STILNOX® MR 12,5 (Modified Release Tablet). **COMPOSITION:** STILNOX® MR 12,5: Each tablet contains zolpidem tartrate 12,5 mg. **PHARMACOLOGICAL CLASSIFICATION:** A 2.2. Sedatives, hypnotics. **REGISTRATION NUMBER:** STILNOX® MR 12,5: A40/2.2/0441.

SCHEDULING STATUS: [S5] **PROPRIETARY NAME (AND DOSAGE FORM):** DORMONOCOT® 2 mg Tablets. **COMPOSITION:** Each tablet contains 2,49 mg loprazolam mesylate, equivalent to 2 mg loprazolam. **PHARMACOLOGICAL CLASSIFICATION:** A 2.2. Sedatives, hypnotics. **REGISTRATION NUMBER:** Q/2.2/355. **NAME AND ADDRESS OF THE HOLDER OF THE CERTIFICATE OF REGISTRATION:** sanofi-aventis south africa (pty) ltd., Reg. No. 1996/010381/07, 2 Bond Street, MIDRAND, 1685, South Africa. Tel + 27 (0)11 256 3700, Fax +27 (0)11 256 3707. www.sanofi-aventis.com. SAZA.ZOL.17.11.0824a. SAZA.LOME.16.11.0952

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