



The Mental Health Information Centre of South Africa (MHIC) & the MRC Unit on Anxiety & Stress Disorders: Annual Newsletter



- SA's Mental Health Awareness Initiative
- Brain Awareness Week March 2011
- World Mental Health Congress Cape Town October 2011
- Walk for Mental Health October 2011
- Research at the MHIC / MRC Unit on Anxiety & Stress Disorders
- New staff
- Awards

In this newsletter we aim to give an overview of most of our activities in 2011!

The MHIC: SA's mental health awareness initiative

In 2011, the MHIC has again aimed to address the mental health challenges in South Africa by building sustainable partnerships with mental health experts, service providers, volunteers, students, community organizations and institutional and corporate partners. The MHIC also integrates service to the community with regular website updates (check out our new look on www.mentalhealthsa.org.za) and a Facebook-page. Our website provides details on our various awareness campaigns. It allows a host of service providers (psychologists, psychiatrists, nurses, social workers, general practitioners, etc) to register themselves cost-free on the database which is then available to the public. The website also functions as an online- and email- helpline with a 24 hour turn-around period. The MHIC call centre (**021 9389229**) was also fully operational during 2011.

Several activities such as Brain Awareness Week (March), an awareness project with the Visual Arts Department (May), US Wellness Open Days (July), and the US Community Interaction Symposium (September) were some of the highlights this year. October is mental health awareness month and one of the busiest months at the MHIC. Activities during this period included the Bundu Bash Walk for Mental Health, the World Mental Health Congress held in Cape Town and hosting of an Anxiety Expert forum on Health24.com. (More information on some of these activities follows.) The MHIC also hosted 54 Advanced Psychiatry Nursing students during 2011. **Service providers are invited to register themselves on the website. Comments can also be posted on the website. www.mentalhealthsa.org.za**

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Brain Awareness Week 2011

Brain Awareness Week is an international DANA Alliance campaign dedicated to raise public awareness on brain research. The campaign was held worldwide between 14 and 18 March 2011.

MHIC-staff visited 200 Grade 10 learners from Valhalla Park Secondary, Marion Secondary and Excelsior High School.



The learners were presented with talks on the effects of substance abuse and the brain, the psychological impact of trauma in general and various research projects currently underway at the MRC Unit on Anxiety and Stress Disorders. Each school library received books and brochures distributed by the DANA Alliance. The learners took part in quizzes, that were based on the information that was provided, and a number of prizes were up for grabs! It was a fun-filled way of communicating important information to young adults. The MHIC would like to thank Ms Jennifer Hsieh of UCT for the informative talk on methamphetamine and the brain, and Ms Lindi Martin (MRC Unit) for arranging the activities at the various schools and informing learners about current research projects.

For more information on the DANA Alliance, please visit: www.dana.org

World Mental Health Congress 2011

The eyes of the world were on Cape Town in October 2011 as South Africa hosted the World Mental Health Congress. The theme was '**African Footprint in Global Mental Health**'. Ms Janine Roos, Director of the MHIC presented two posters. The one focused on the MHIC call centre and the other on the MHIC website. Valuable information was shared and congress attendees were invited to leave a large footprint on the landscape of mental health and mental disabilities. The challenge for the future is to continue with consumer and advocacy initiatives



that look to a future where the rights of mental health users are understood and respected and to the scaling up of service delivery to those with mental illness. The next World Mental Health Congress will be held in Buenos Aires, Argentina in August 2013.

Photo from left to right:

Ms Roos Korste (Holland), Ms Rhonda Wilson (Australia), Ms Janine Roos (MHIC SA), Mr Nqobile Moyo (Gauteng), Ms Janine Shamos (SADAG).



Mental Health Awareness Events

Bundu Bash Walk

The Mental Health Awareness Walk in October 2011 was a great way to connect with nature and clear the mind!



The MHIC will again host a Mental Health Awareness Walk in October 2012. Watch the website for details.

US Wellness Days



The aim of the US Wellness Days is to create an opportunity for staff members to gather information on a healthy lifestyle. This is also an opportunity to have blood-pressure, cholesterol and eyes tested, etc.

Photo:

Ms Janine Roos, manning the MHIC table at the US Wellness Day at the Health Sciences Faculty. She distributed MHIC brochures on various mental health topics and discussed the importance of mental wellbeing with attendees.

RESEARCH in 2011

Posttraumatic stress disorder

Posttraumatic Stress Disorder Among Mortuary Workers and Paramedic Students

Celine Fjeldheim, Keith Ganasen, Soraya Seedat, Marina Basson and Karin Pretorius conducted a comparative trauma study on paramedic students and mortuary workers assessing posttraumatic stress disorder (PTSD) status and the effects of various variables on PTSD outcome. Emergency healthcare workers and trainees are at heightened risk of developing PTSD and depression owing to their daily work-related stressors. 132 paramedic students and 45 mortuary workers were assessed, on direct trauma exposure, PTSD and depression.

The effect of potential aggravating factors such as alcohol abuse, poor physical health and perceived stress was also assessed. 94% of paramedic students had directly experienced trauma, with 15% meeting PTSD criteria, compared with 84% and 4.4% respectively for mortuary workers.

Paramedic students compared to mortuary workers had significantly higher rates of depression, alcohol abuse and chronic perceived stress, and had lower levels of social support. Mortuary workers had significantly poorer chronic self-reported health status and more phobic experiences. Depression significantly mediated the effect of trauma exposure on PTSD status, while social support had some modifying effect.

This study highlights the need for efficient, ongoing screening of depressive and PTSD symptomatology in trauma exposed high risk groups so that early, targeted psychological supportive interventions can be offered. Paramedic students in particular, namely those who are young, unmarried, socially unsupported and show early symptoms and signs of depression, may be in need of preventive psychotherapeutic interventions in the workplace to offset the development of PTSD and other psychiatric sequelae.

For more information, contact Celine Fjeldheim
021 9389018 or celinef@sun.ac.za

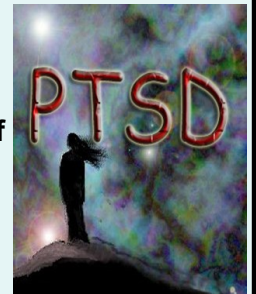


Treatment of PTSD: The Bathuthuzele Youth Clinic

The Bathuthuzele youth clinic provides an assessment and referral service to traumatized youth. One research paper to come out of this work is titled: **“Full and Partial Posttraumatic Stress Disorder in Traumatized Adolescents: Clinical correlates, Differential Symptom Patterns and Gender Differences”** (authors Soraya Seedat, Sharain Suliman, Wendy Rossouw, Tessa Middleton, Dan Stein).

This study examined many aspects of PTSD in adolescents who were exposed to at least one very traumatic event. Participants completed an assessment battery comprising a clinician-administered diagnostic interview and several self-report measures of community violence exposure, childhood abuse, and PTSD severity. Commonest forms of traumas were witnessing serious domestic violence and sexual abuse. Almost half of the sample met criteria for full PTSD while a further 19% met partial symptom criteria. Girls, suffered more severe childhood abuse, community violence and negative life events. These data support the utility of assessing for partial PTSD in traumatised adolescents who despite exhibiting fewer PTSD symptoms may experience significant impairment and distress.

This paper was selected as a poster finalist at the Annual Anxiety Disorders of America conference in New Orleans in March 2011. Well done!



Predictors of PTSD

This study is on-going. 80 participants who had been involved in a motor vehicle accident (MVA) have been recruited in 2011. Preliminary results on the association of sleep and memory disturbances with Acute Stress Disorder have been presented at recent conferences. Although sleep and memory disturbances have been noted in PTSD, few studies have looked at their association with ASD. The aims of this study was to determine if memory and/or sleep were associated with ASD. 38 adult participants (15 with ASD and 23 without) who had experienced an MVA in the previous two weeks were included in the study. Those with ASD scored significantly lower with regards to immediate verbal recall, recall after interference and recall after delay. There were no differences with regards to other aspects of memory. There also were no significant differences in sleep quality between participants with and without ASD. Given that verbal, visual and working memory have been found to be affected in people who have been exposed to trauma and those with PTSD, the finding that only verbal memory was impaired, was surprising. As there may be a window of opportunity in the acute aftermath of trauma when the effects of stress may be reduced or prevented, factors that identify those most at risk may help to provide better health care interventions for such at-risk trauma-exposed individuals.

Anyone involved in an MVA, who is interested in taking part in the study within 2 weeks of the accident, can contact Sharain Suliman for more information: 021 9389020 or sharain@sun.ac.za



Obsessive-compulsive disorder & trichotillomania

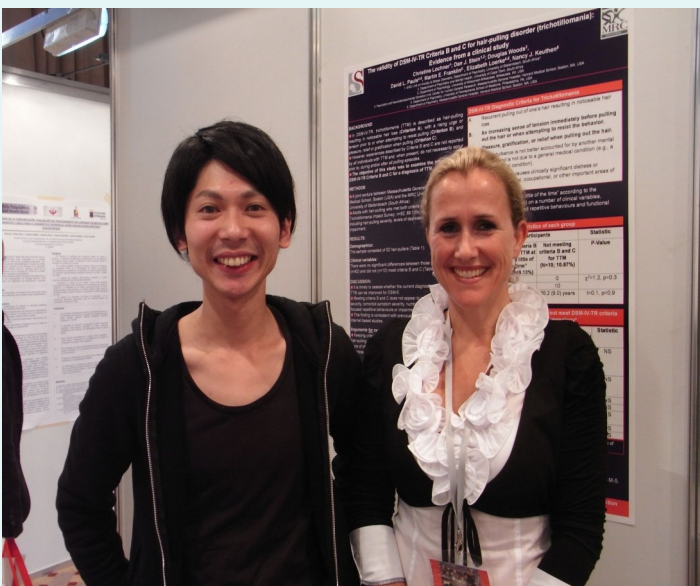
Launching of the international OCD brain imaging consortium (OBIC)

An international OCD brain imaging consortium (OBIC) has now been launched and is lead by Dr Odile van den Heuvel (from the Medical Centre at the Vrije University in the Netherlands), a psychiatrist with a special interest in OCD and OCD related conditions. Profs Dan Stein and Christine Lochner from South Africa, as well as other researchers from all over the globe, including London, Barcelona, Brazil, Argentina and Japan, are consortium members. The aim of this consortium is to combine brain imaging data from patients with OCD from all sites to increase sample size (currently most brain imaging studies are hampered by small sample size). Locally, structural brain imaging analyses of brain scans from OCD patients from all of these countries are done by researchers at CUBIC (Mr JP Fouche, Dr Stefan du Plessis, Dr Annerine Roos) and UCT (Mr Coenie Hattingh).

SAPAP3 in obsessive-compulsive disorder (OCD) and trichotillomania (TTM)

Recently published in Comprehensive Psychiatry is an article investing the role of SAPAP3 (a genetic component) in OCD and TTM in the South African Caucasian population. The causality of both OCD and TTM, based on evidence from twin studies, includes a genetic component. The results of this study provides preliminary evidence to link SAPAP3 (SAP90/PSD95-associated protein 3) variants to the development of OCD.

For more information contact Prof Christine Lochner 021 9389179 or cl2@sun.ac.za



Prof Christine Lochner has recently met Dr Takashi Nakamae from Kyoto University at the annual conference of the World Psychiatric Association in Buenos Aires in Argentina. Dr Nakamae will take the lead on the resting state fMRI data analysis on the OCD project.

A study comparing white matter in specific brain regions between OCD patients and controls

There is evidence to suggest that OCD is associated with structural abnormalities in specific brain circuits, yet the extent of white matter abnormalities is not well established. This study, published in 2011, used a brain imaging technique called diffusion tensor imaging (DTI) to examine white matter integrity in specific brain regions in OCD.

Our findings indicate white matter abnormalities in brain areas connecting striatal and cortical regions of patients with OCD, specifically in the anterior limbs of the internal capsule and the cingulum (Figures 1 and 2). As such, our findings contribute to the limited literature on white matter abnormalities in OCD.

This paper was recently accepted for publication by the Journal of Psychiatry and Neuroscience.

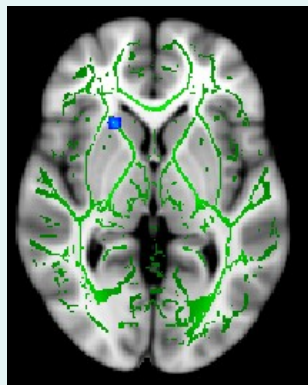
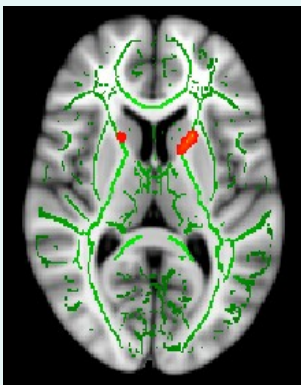


Figure 1: An axial representation of the fractional anisotropy (FA) changes in the anterior limb of internal capsule (ALIC) (OCD vs. controls)*

* The red regions in (A) indicate an increased FA bilaterally in the ALIC of OCD patients compared to controls and the blue region (B) indicates a decreased FA on the right-hand side of the ALIC in OCD patients compared to controls.

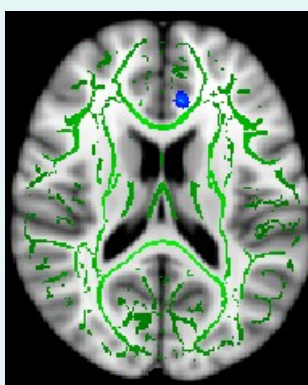
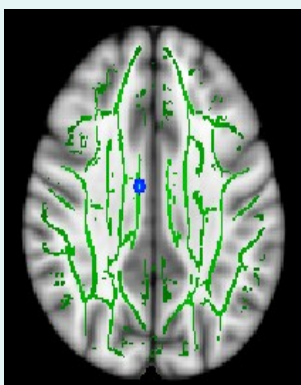


Figure 2: An axial representation of mean diffusivity (MD) changes in the cingulum of OCD patients*

*The blue regions indicate a decreased MD in the OCD patients compared to controls for the (A) right cingulum body region and (B) left anterior cingulum.

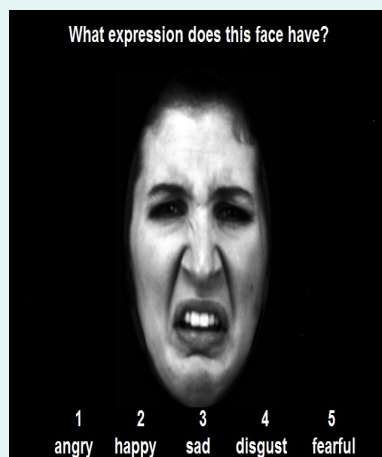
The effect of escitalopram on disgust processing in OCD

In this study published in 2011, we compared 20 persons with OCD to 20 matched controls (healthy people) to determine whether OCD is associated with deficits in the recognition of disgust, and if so, whether the once-off administration of the selective serotonin reuptake inhibitor (SSRI) escitalopram would result in the normalization of such deficits.

This was measured by subjecting participants to a morphing task where a neutral face would morph (through 9 stages of intensity) into 5 other emotional expressions; anger, disgust, fear, happiness, or sadness. After comparing accuracy and sensitivity to disgust stimuli between the 2 groups we found that, on placebo (i.e. the non-active pill), the accuracy of, and sensitivity to, disgust stimuli were similar across groups.

OCD patients had more accurate and more sensitive recognition of disgust after escitalopram than after placebo, while controls had less accurate recognition and less sensitive recognition of disgust after escitalopram than after placebo.

It was thus concluded that the use of a dynamic facial recognition task demonstrated altered responses to disgust in OCD patients compared to healthy controls after a pharmacological challenge with escitalopram. These findings also suggest that the serotonergic system plays a role in disgust recognition.



One of the morphing task trials:

An example of how a neutral facial expression morphs into a expression of disgust.

For more information contact Prof Christine Lochner 021 9389179 or cl2@sun.ac.za.

Trichotillomania



White matter integrity in trichotillomania

This project has investigated white matter integrity in hair-pulling disorder (trichotillomania, TTM) using MRI, in 16 TTM patients and 17 healthy controls. Data were also gathered on demographic variables, TTM duration, TTM severity, subclinical depressive and anxiety symptoms.

The main findings were of widespread alterations in white matter integrity in TTM patients compared to controls, which was associated with TTM duration and severity. The molecular basis of these putative white matter tract abnormalities in TTM deserves further exploration. These analyses have now been completed and will be submitted for publication in a peer-reviewed scientific journal shortly.

For more information contact Dr Annerine Roos 021 9389756 or aroos@sun.ac.za.

New study

Brain imaging in infants

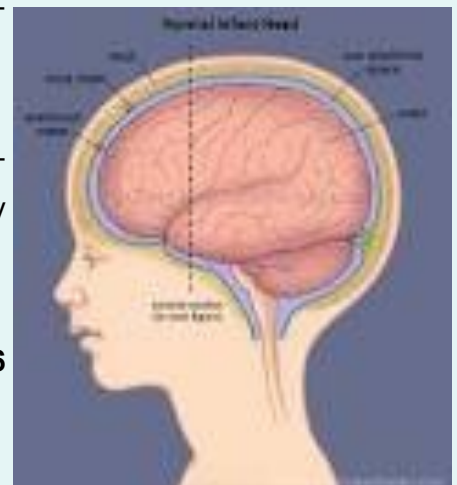
There is growing evidence from both basic and clinical studies that maternal stressors (e.g. exposure to interpersonal violence) are associated with adverse early life behavioral outcomes in offspring.

Although various neurotransmitter systems (e.g. glutamate system) have been implicated, the underlying mechanisms accounting for these associations remain poorly understood.

Advances in brain imaging techniques, such as magnetic resonance spectroscopy, allow for assessment of the integrity of neuronal function, as well as brain glutamate/glutamine concentrations, in early life.

This study aims to assess the effects of maternal stressors on infant neuronal integrity and glutamatergic function, as assessed by magnetic resonance spectroscopy.

For more information contact Dr Annerine Roos 021 9389756 or aroos@sun.ac.za.



Social Anxiety Disorder

This study, conducted by Coenie Hattingh, Supriya Syal, Christine Lochner, and Dan Stein, aims to investigate the neurobiological basis of social anxiety disorder (also known as social phobia).

This condition is a common and distressing condition in which people experience intense fear and anxiety in situations that garner social interaction. These include speaking in public, eating in public, participating in small groups, using public bathroom facilities, etc. The disorder often manifests in early adolescence and is protracted, worsening with age.



The main tool the study utilizes to conduct clinical, genetics and brain imaging investigations is the high field strength 3 Tesla MRI scanner located at the Cape Universities Brain Imaging Centre (CUBIC) at Tygerberg Faculty of Health Sciences. However, other methods are also used during this study to gain an even broader understanding of this disabling condition.

For more information contact Coenie Hattingh 021 404 5482 or hypothalamus1@gmail.com

DSM-5-trials

The on-going revision of APA's Diagnostic and Statistical Manual of Mental Disorders (DSM) began in 1999 and the 5th edition (DSM-5) has a projected completion date of 2013. We are now taking the lead in a multi-site field survey to examine the DSM-IV-TR criteria, the proposed DSM-5 diagnostic criteria, as well as a number of possible additional criteria, in patients with hair-pulling disorder (trichotillomania or TTM), in order to incorporate the increasing body of knowledge about TTM in the latest edition of DSM and to encourage more accurate and precise identification of this condition.

Five sites (here and in the USA) are involved in the field survey. Another 2-site field survey-to examine the DSM-IV-TR criteria, the proposed DSM-5 diagnostic criteria, as well as a number of possible additional criteria, in patients with skin-picking disorder- also took place in 2011 and was lead by researchers from the MRC Unit. Subjects older than 10 years of age, male or female, with a diagnosis of trichotillomania or serious skin-picking, with or without psychiatric co-morbidity, were included.

Anyone with these symptoms who have not been interviewed for this survey and who would still like to participate, can **contact Prof Christine Lochner or Ms Bronwynè Coetzee for more information 021 9389179 / 021 938 9762 or cl2@sun.ac.za/bronwyne@sun.ac.za**



CONGRATULATIONS!

- ⇒ Prof Christine Lochner was selected as one of the Founding Members of the South African Young Academy of Science (SAYAS).
- ⇒ Prof Christine Lochner was also selected as one of the Young Affiliates for the Academy of Sciences for the Developing World (TWAS) from the Sub-Saharan Africa region for the period 2011 – 2015 by the TWAS Regional Office for Sub-Saharan Africa. Prof Lochner was the only one selected from 11 nominations submitted by Stellenbosch University.
- ⇒ Sharain Suliman and Lindi Martin each received a Hendrik Vrouwes Research Award for their studies.

The Faculty of Health Sciences Annual Academic Year Day gives researchers the opportunity to showcase their research findings and expose students and staff to all the various aspects of health sciences. The following members of the MRC/MHIC team received prizes for their poster-presentations:

- ⇒ Celine Fjeldheim: first prize, Neuroscience category
- ⇒ Annerine Roos: second prize, Neuroscience category
- ⇒ MHIC (Janine Roos) : first prize, Interdisciplinary Health Sciences

Newcomers to the MHIC/MRC Team



Ms Linsay Blows was appointed by the MRC Unit and CUBIC as a research assistant. She will assist with fMRI analyses for a number of ongoing brain imaging studies and is based at CUBIC. Linsay has a degree in BSc Mathematical and Statistical Sciences from the University of the Western Cape as well as an Honours degree in BSc Mathematics, majoring in Biomathematics, which was obtained jointly through Stellenbosch University and AIMS (African Institute for Mathematical Science).



Ms Katryn van Niekerk, under supervision of Dr Sian Hemmings (Department Biomedical Science, Division of Molecular Biology and Human Genetics) and Prof Christine Lochner, has focused her BSc Honours project on the investigation of childhood trauma and telomere shortening in OCD.



Ms Bronwynè Coetzee joined the MRC Unit in January 2011 and is a research assistant to Professor Lochner. Bronwyne assists Prof Lochner on the OCD and TTM imaging study, amongst others. Her academic record consists of a BSc degree in Human Life Science, a BSc Honours degree in Psychology as well as an MSc in Psychology, all obtained from Stellenbosch University.