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## Mental Health for All

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### About the Cover

On the left-hand side is a reconstructed image of the document *Wushier bingfang* (五十二病方) unearthed from the Mawangdui Han Tombs (馬王堆漢墓, 163 BC). Predating *The Yellow Emperor's Canon Internal Medicine* (黃帝內經), this is one of the earliest Chinese references to mental illness. On the right-hand side is a woodblock print of a medicinal herb, day lily (忘憂草), which was adapted from a Ming Dynasty Chinese herbal medical book. On the right lower corner is the Journal logo, in the form of an ancient seal impressed with the word 'Chi' (志), meaning 'record' or 'journal'. The upper constituent also resembles the Greek letter 'Psi', a symbol of psychiatry, while the lower part is the word 'heart', as a heart-shaped stethoscope, representing the caring practice of psychological medicine.

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## **The Hong Kong Mental Morbidity Survey** **K1.1**

**LCW LAM**

*Department of Psychiatry, The Chinese University of Hong Kong, Hong Kong SAR, China*

Psychiatric morbidity is common. It affects productivity and quality of life. Most epidemiologic studies reported that the prevalence of common mental disorders is over 10%. As socio-demographic factors play significant roles in the development and course of mental disorders, it is expected that the rapidly changing population structures and economic atmosphere has created significant impact on the population mental health in Hong Kong. However, a systematic door-to-door survey on prevalence of mental disorders has not been conducted.

In 2010, the Food and Health Bureau of the Government of the Hong Kong SAR commissioned the Hong Kong Mental Morbidity Survey (HKMMS). This is a territory-wide population-based survey on mental morbidity in this city. Five thousand and seven hundred adults will be recruited from random address quarters in Hong Kong. Prevalence of common mental disorders, at-risk mental states, psychosocial and health characteristics are evaluated. The HKMMS aims to determine significant mental morbidity, its modulating factors and service utilisation.

In the preliminary analysis of the first 3500 participants, the unweighted prevalence of common mental disorders (CMDs) was 14.7% (n = 513). Depression, generalised anxiety disorder, mixed anxiety and depressive disorder were the commonest. Participants with CMDs experienced relatively poor occupational functioning, poorer physical health, worse economic conditions, and limited social support. The risks of substance misuse and suicidal ideation were also higher. However, service utilisation due to mental health problems had been low (27%).

HKMMS is still under active data collection at present. It is hoped that the results of this survey will inform the government with data relevant for planning of psychiatric services and implementation of comprehensive mental health policy in the near future.

## **Decision Making by Psychiatrists** **K1.2**

**D BHUGRA**

*Institute of Psychiatry, King's College, University of London, United Kingdom*

Clinical decisions are made using a number of strategies. When a patient appears in front of the clinician, this therapeutic encounter produces expectations and adherence on both sides. Age, gender, education, experience, and other factors play a role in the way the patients present and equally importantly clinicians respond. Various theoretical models are used to understand decision making. In psychiatry clinical decision making has specific issues which relate to which model of aetiology and management is used. The challenge is in understanding whether biological aspects are given preference or whether psychological and social factors are given prominence. Dual processing theory of decision making was hypothesised to be the underlying factor in clinical decision making. In order to carry out an in-depth understanding of the decision making process in psychiatry, we set out to explore similarities

and differences in clinical decision making processes related to ethnicity, age and experience, and other factors that may influence psychiatrists' decisions were studied. A total of 31 psychiatrists were interviewed using a semi-structured interview. The interviews were recorded and these explored their narrative approaches to clinical decision making in psychiatric practice. Using framework analysis, a qualitative understanding of decision making was explored and described in clinical psychiatric settings. Seven main themes emerged in analysis. These included: information gathering, own training in psychiatry, personal intuition and clinical experience, use of evidence base in clinical practice, cognitive reasoning for reaching clinical decisions, other uncontrollable factors, and influence of the members of the multi-disciplinary team members on clinicians style and decision making. Expert clinicians were more likely to rely upon intuition to guide their decisions; conversely novices described a more analytical approach. Not surprisingly there was no single theme to emerge from the analysis. There were several approaches to clinical decision making and various approaches to decision making were strongly influenced by the level of clinical experience and external pressures, such as: time and treatment availability. Findings were consistent with dual processing theory of decision making.

## **Predicting Schizophrenia: Past, Present, and Future** **K1.3**

**PB JONES**

*Department of Psychiatry, University of Cambridge, United Kingdom*

Niels Bohr, the Nobel laureate, said that prediction is difficult, especially about the future. He was sounding a cautionary note to enthusiastic physicists in the early 20th Century but his thoughts were equally applicable to what was then the relatively young discipline of psychiatry; they continue to be relevant today. The prediction of mental illness, especially schizophrenia, has been a focus of much research and has shaped our understanding of concepts of causality in psychiatric illness. Events from the physical and social domain are known to increase the risk of disorder but occur remote from the disorder, often in very early life, whereas schizophrenia becomes manifest most commonly in the second or third decade. Understanding this life course view of causality has led to the view of schizophrenia as having a neurodevelopmental dimension. Coupled with knowledge about genetic effects, many were enthusiastic about the possibility of predicting schizophrenia and the prospect of indicated prevention. The problem is that this illness is relatively rare in the general population and models that give strong relative effects that point towards causes, have little predictive power.

In an effort to circumvent this problem of positive predictive value being reliant on prevalence, attention has turned to clinical samples. The notion of the prodrome, which is a retrospective concept reconstructing the evolution of the disorder, gave rise to the concept of an at-risk mental state (ARM), a term usually used in a clinical context where individuals have passed a threshold of help seeking. In the clinic, the prevalence of later schizophrenia is much more common and any predictive model will have more favourable performance. There have been 7 modern randomised controlled trials over the past decade of interventions in people with ARMs, from antipsychotic drugs, through fish oil

to psychotherapy, with the intention of preventing transition to a full schizophrenia syndrome. These will be reviewed in the presentation, as will the fact that the transition rates in these studies is falling from nearly 50% in the early Australian trial to under 10% in the most recent multi-centre randomised controlled trial in England. The emphasis will be placed on differences in the case-mix included in the studies, and our changing views of schizophrenia as it relates to other psychotic conditions and to psychotic experiences in the healthy population. Finally, the implications for future efforts to predict schizophrenia will be discussed.

## **Reason, Recovery and Resilience: K2.1** **Role of Psychiatrists in Improving Mental Health for Families in Challenging Times**

**S BAILEY**

*President, Royal College of Psychiatrists, United Kingdom*

This paper will address the impact of mental illness on families and the role psychiatrists can and must play in supporting individuals with mental illness in the context of the family against a background of globalisation in an era of austerity. The reality of healthcare is now a 'commodity'. The dilemma for the family of psychiatry, why mental health in families does not receive the attention it deserves, given the lifetime prevalence of mental disorders and suicide being one of the leading causes for death globally at all ages.

Mental disorders in children and young people are increasing and represent a hidden epidemic. One in 10 under 16s has a diagnosable mental health disorder which has a long-term impact on their education, family, and life chances. There are strong links between mental health problems and adverse life circumstances. Early and appropriate intervention minimises the mental health challenges for children and young people and the potential lifelong impact. Early mental health problems have identifiable and, in many cases, preventable risk factors. Much is known about how to mitigate these problems. An increasingly strong body of evidence demonstrates the effectiveness of a range of family-based programmes in preventing problems from occurring at all and in preventing existing problems from persisting or escalating. These programmes are not only effective, but they are also good value for money. This is partly because of their relatively low cost and also partly because of the fact that the scale of potential benefits is so large that even a relatively small improvement in outcomes is sufficient to ensure a high return. In short, early intervention works.

Despite this, the availability of evidence-based interventions still falls short of what is needed and the quality of services is arguably variable. There remains a lack of awareness among policy makers, commissioners, service managers, and frontline staff both of the enormous long-term costs of early behavioural and emotional problems and of the scope for effective intervention.

So what can be done? How, as mental health professionals, can we utilise the lever of parity of esteem between mental and physical illness? How, as psychiatrists, can we work more effectively across the lifespan and across specialties within psychiatry using evidence-based treatments to improve mental health and overall health of young people within the context of families in the real life circumstances of children often having multi-morbidity? Influencing public health by recognition of the pivotal role of public mental

health through early identification and intervention for children with mental disorder is therefore an important piece of work.

In summary, there is a very sizeable gap between the promise of research and the reality of current practice and the effort to transform the life chances of the many thousands of children with early evidence of mental health problems. We know what works in terms of the design and content of effective interventions but we seem to know much less about how to ensure that these programmes are delivered successfully on the ground.

Resilient children who have mental health will ensure the future of family life.

## **Mechanisms and Treatment of K2.2** **Resistant Bipolar I Disorder**

**IN FERRIER**

*Department of Psychiatry, Newcastle University, United Kingdom*

There is a considerable personal, social, and economic burden associated with bipolar disorder. A large, but unquantified, part of why the burden of bipolar disorder is so high is related to the particularly poor outcome experienced by many patients and their relative treatment resistance. There are several forms of treatment resistance / poor outcome in bipolar I disorder. These include severe and / or recurrent depression, persistent and / or recurrent mania, rapid cycling, mixed states as well as persistent and / or non-congruent psychosis, cognitive failure with poor social functioning and the co-existence of additional severe problems, e.g. anxiety, substance abuse, and medical complications. The potential mechanisms underlying patients' poor outcome and prognosis will be outlined.

The talk will focus on some of these poor outcomes and look at the evidence for managing these difficulties. Depression is common in bipolar disorder and can be severe and / or recurrent. The lack of usefulness of selective serotonin reuptake inhibitors will be examined and alternatives for the short-term management of bipolar depression discussed. More focus needs to be made on prevention and long-term treatment which may prevent depression will be presented. Another poor outcome is the development of rapid cycling. The clinical underpinnings of this will be looked at together with the evidence base for the avoidance of antidepressants and the usefulness of more modern treatments, sometimes in combination. Similar analysis will be made for mixed states. Finally, the phenomenon of metabolic disturbance in bipolar disorder will be reviewed and its importance highlighted.

## **Early Intervention in Psychosis in K2.3** **Hong Kong**

**E CHEN**

*Department of Psychiatry, The University of Hong Kong, Hong Kong SAR, China*

Psychotic disorders are a group of highly disabling conditions which present unique challenges in care systems and intervention. Early psychosis programmes have been initiated in many populations internationally. There are, however, specific ethnic and cultural features for psychotic disorder in each location. This talk presents an analysis of

the real-life implementation of early psychosis intervention for the Hong Kong population.

After reviewing the general principles of early psychosis intervention, specific features of the manifestation of psychotic disorders in Hong Kong will be presented with empirical data. This includes considerations of pathway to care and duration of untreated psychosis, public views on psychosis, patients' perspectives towards treatment, relapse, and recovery. This is followed by a description of the care system in generic mental health services. The early psychosis programmes in Hong Kong will be described in different stages of their evolution (EASY, JCEP, EPISO), accompanied by relevant empirical data addressing their effectiveness. Key findings from a set of outcome evaluation and intervention studies carried out over the years will then be discussed. The talk ends with a consideration of opportunities for future developments in youth and adult early psychosis work.

---

## Neuroscience of Ethics

**K3.1**

### G NORTHOFF

*University of Ottawa Institute of Mental Health Research,  
Canada*

Neuroethics is a recently emerging field that deals with predominantly empirical and practical issues of ethics in neuroscience. In contrast, theoretical and methodological considerations have rather been neglected and thus what may be called theoretical neuroethics. The talk focuses

on informed consent and moral judgement as examples of empirical neuroethics and norm-fact circularity and method-based neuroethics as issues of a theoretical neuroethics. It is argued that we need to consider theoretical and methodological issues in order to develop neuroethics as a distinct discipline that as such can be distinguished from both philosophy / ethics and neuroscience.

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## HIV and Neuropathology

**K3.2**

### IP EVERALL

*Department of Psychiatry, The University of Melbourne,  
Australia*

Despite the enormous success of antiretroviral treatment, it is becoming clear that people living with HIV are experiencing high rates of both cognitive impairment, and major depressive disorder (MDD). Added to this the HIV-infected population is ageing and there are concerns that living with chronic HIV infection may exacerbate the risk of other neurodegenerative disorders. In this talk I will summarise the neuropathology that occurs due to HIV infection of the brain and how this relates to the clinical presentation of HIV-associated neurocognitive disorder (HAND). I will outline the approach to the recognition and diagnosis of HAND as well as implications for treatment. This will be followed by a discussion of the emerging field of the neuropathology of MDD in the setting of HIV and our current knowledge about the potential interaction of HIV, ageing, and neurodegenerative diseases.

## SYMPOSIUM 1.1 – Schizophrenia and Related Disorders

### Connecting Neurobiology to Phenomena: Brain Network Connectivity and Psychotic Symptoms

S1.1.1

**GHY WONG, HJ TAO, ZM ZUE, HR ZHANG, HH LIU, CLM HUI, JYM TANG, SKW CHAN, WC CHANG, EHM LEE, ZN LIU, EYH CHEN**

*Department of Psychiatry, The University of Hong Kong, Hong Kong SAR, China*

The biology of complex disorders such as psychoses is likely to be heterogeneous. Single-symptom approach focusing on well-defined phenotypes is needed to advance understanding. The advent of increasingly powerful neuroimaging techniques and analysis methods, including brain connectivity research that flourishes in recent years, has provided new tools with potentials of revealing the underlying neurobiology of common psychotic symptoms. A few examples of this line of research include resting functional connectivity (FC) studies on auditory verbal hallucinations, delusions of reference, and formal thought disorders. Resting FC measures the inter-regional correlations of the time-course of blood-oxygen-level-dependent (BOLD) activity during wakeful rest, and has been employed to identify major functional pathways such as vision, motor, audition, and attention. More specialised networks, such as the semantic network and self-referential network, have been proposed. The meaningful application of brain connectivity studies in understanding psychopathology, however, requires careful characterisation of the symptoms on sound theoretical basis, an area that has remained stagnant compared with technological advancements in the field. Symptom ascertainment using common symptom rating scales that have been developed for pragmatic reasons several decades ago necessarily falls short of the need for refined hypothesis testing, given the lack of updating in their definition, classification, and severity rating in the face of emerging biological and cognitive evidence. Here we discuss the potential use of brain connectivity research in testing differential neurocognitive mechanisms leading to similar symptom presentation, including aberrant salience or spurious signal detection and hyper-vigilance to self-information in delusions of reference, top-down influence and inner speech anomaly in affecting the characteristics of auditory verbal hallucinations. Clinical implication of these investigations, such as personalised medicine, is discussed.

### “Are You Looking at Me?” – Self-relevancy in Schizophrenia

S1.1.2

**KWS CHAN, HYG WONG, LMC HUI, WC CHANG, HME LEE, YHE CHEN**

*Department of Psychiatry, The University of Hong Kong, Hong Kong SAR, China*

**Introduction:** Schizophrenia can be understood as an interpersonal disorder in which problems result from faulty construction of the social information. From both evolutionary and neurobiological perspective, visual signal is essential in social interaction. Perception of other’s gaze is particularly important because it indicates the

focus of attention and specific mental states of others. A self-referential gaze perception, that is a sense of ‘being looked at’, can potentially signify and represent important information with direct implication to an individual. This has also been shown to be the key theme of reference delusion. The current study aimed at exploring the characteristics of self-referential gaze perception in patients with early stage of schizophrenia-spectrum disorder.

**Methods:** Patients with schizophrenia-spectrum disorders based on DSM-IV diagnostic criteria and with delusion of reference (Scale for the Assessment of Positive Symptoms [SAPS] item 14  $\geq 3$ ) and matched healthy subjects were recruited. All participants performed the eye-gazing task programmed with E-prime Professional 2.0. The whole task has 6 blocks and each block contains 30 photographs of one model taken facing straight to camera with different gaze directions (0° and 10°, 15°, 20°, 25°, and 30° to the left and right). The participants were instructed to decide if they had a sense of being looked at after each stimulus. The response accuracy and response time of participants were recorded automatically by the E-prime programme. All patients were assessed with SAPS, Scale for the Assessment of Negative Symptoms, Peters Delusions Inventory (PDI), Ideas of Reference Interview Schedule (IRIS), and Beck Depression Inventory (BDI). Healthy controls were assessed with BDI, IRIS, and PDI. Cognitive function assessments were performed including forward and backward digit span, and digit symbol coding of Wechsler Adult Intelligence Scale-Revised. PDI total number of endorsed items was used for analysis. The IRIS item score signifies the pervasiveness of reference idea whereas total score of self-relevance (SR) discrepancy signifies the severity of the distortion of the idea.

**Results:** Sixteen patients and 10 healthy control participants were recruited. Patients were more likely to report a sense of being looked at than control at gaze directions of 10°, 15°, and 30° with trend differences at 20°, 25°. Self-referential judgement at 15° and 25° of patients were correlated with IRIS item score but not total score of SR or SAPS delusion score. There were no correlations found between self-referential judgement and the cognitive function measurements.

**Conclusions:** Patients with schizophrenia-spectrum disorder are more likely to perceive averted gaze as self-referential compared to healthy control. The self-referential gaze perception appears to be not related with cognitive function. It is likely to be associated with the pervasiveness of self-reference idea but not the severity. Such characteristics suggest the self-referential gaze perception could be a behavioural measurement of self-relevancy process. Future study should focus on determining the trait and state property of this phenomenon and its stability over time.

### Physical Activity in People with Psychosis

S1.1.3

**E LEE**

*Department of Psychiatry, The University of Hong Kong, Hong Kong SAR, China*

Physical inactivity is a major contributor to death and disability from non-communicable diseases including diseases of the heart and vascular system, diabetes mellitus, cancers, and obstructive pulmonary disease. It is also associated with quality of life, cognitive and social functioning in various mental illnesses. People with psychosis are at risk of having obesity, hypertension, hyperlipidaemia, metabolic syndrome,

diabetes mellitus, and cardiovascular diseases. Physical activity and other factors like medication side-effects, dietary intake, and smoking habit are modifiable factors which can reduce the risks of these medical co-morbidities. Jockey Club Early Psychosis (JCEP) project is an early intervention service in Hong Kong tailored for patients aged between 25 and 55 years, who had been diagnosed as having psychotic disorders. The physical activity level of patients in JCEP project will be compared with local and international findings. The association of physical activity with clinical and demographic variables will be reported. The implication for physical activity promotion and exercise intervention will be discussed.

## The Impacts of Yoga and Aerobic Exercise on Neuro-cognitive Functioning in Early Psychosis — a Preliminary Analysis of the Randomised Controlled Clinical Trial S1.1.4

JX LIN<sup>1</sup>, G JOE<sup>2</sup>, MML LAM<sup>1</sup>, KW CHAN<sup>1</sup>, WC CHANG<sup>1</sup>, HM LEE<sup>1</sup>, CPY CHIU<sup>1</sup>, GHY WONG<sup>1</sup>, PL KHONG<sup>3</sup>, WG HONER<sup>4</sup>, W SU<sup>4</sup>, CLW CHAN<sup>5</sup>, KF SO<sup>6</sup>, M TSE<sup>2</sup>, EYH CHEN<sup>1</sup>

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**Background:** Cognitive impairment was detectable in early psychosis, together with a decreased hippocampal volume.<sup>1</sup> These cognitive deficits of attention and memory often result in severe and longstanding functional impairment. Reducing cognitive impairment with pharmacological intervention has not been universally successful.<sup>2</sup> The current study aimed to explore the effects of aerobic exercise and mind-body exercise (yoga) on cognitive functioning and brain structure for female patients in the early phase of psychosis. We further propose to investigate potential differential effects of these 2 forms of exercise.

**Methods:** A total of 73 female patients with early psychosis recruited from 2 hospital / clinic sites completed the 12-week study (26 in yoga group, 23 in aerobic exercise group, and 24 in control group). Both interventions were held 3 times weekly, with each session lasting for an hour. The main outcome measures were structural neuro-imaging and neuro-cognitive tests. All participants were assessed both at the baseline and 12 weeks.

**Results:** There was no significant difference in the demographic data at the baseline among 3 groups. Using repeated ANOVA to compare the changes between the baseline and 12 weeks in 3 groups, both yoga and aerobic exercise groups demonstrated a significant improvement in the verbal encoding ( $p < 0.05$ ), long-term memory ( $p < 0.05$ ), and working memory ( $p < 0.01$ ) compared to the control group. Additionally, yoga group had a significant improvement in the learning ability ( $p < 0.05$ ). Both yoga

and aerobic exercise also had a significant benefit on reducing depression, which was significantly correlated with an increase in the right mid-anterior cingulate cortex in yoga group ( $r = -0.53$ ,  $p < 0.05$ ).

**Discussion:** These preliminary data suggested that both yoga and aerobic exercise could benefit memory and emotional well-being, and yoga had a superior effect on learning ability improvement. Possible increment in the right mid-anterior cingulate cortex after yoga intervention may indicate a novel neural mechanism mediating the effect of yoga in patients with psychosis.

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## SYMPOSIUM 1.2 – Recovery and Rehabilitation in Mental Illness

### Impact of Discrimination and Recovery-oriented Care on Service Engagement, Self-stigma, and Recovery of Mental Health Consumers in Hong Kong S1.2.1

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**Background:** Stigma and service orientation received by people in recovery of mental illness may hamper their recovery process by dampening their active engagement in their recovery and the internalisation of stigma. The present study aimed to investigate the specific and differential pathways through which public and professional stigma impedes recovery while recovery-oriented practice facilitates it.

**Methods:** A total of 387 mental health consumers who were diagnosed with schizophrenia, bipolar disorder, major depression, drug dependence, or alcohol dependence in 7 public specialty outpatient clinics of Hong Kong participated

in a structured interview to examine how discrimination by the general public and mental health professionals and the receipt of recovery-oriented services are associated with self-stigma and service engagement, which then impact on consumers' recovery outcomes. Consumers were asked to rate their experience of discrimination encountered in their daily life and in the healthcare system. They also reported the extent to which they perceived the mental healthcare services they were receiving were recovery-oriented. Symptom severity, self-stigma, and their level of adherence to prescribed medications and treatment regimen were also measured.

**Results:** Structural equation modelling results showed that the model of service engagement and self-stigma as mediators between discrimination experiences, receipt of recovery-oriented service, and recovery outcomes fit the data (CFI = 0.92, TLI = 0.91, RMSEA = 0.06). Results demonstrated that consumers' mental health service engagement and self-stigma mediated how discrimination experiences consumers encountered in their daily life and within the healthcare system hampered their recovery. Specifically, public discrimination impaired consumers' recovery through intensifying their self-stigma. Consumers who experienced more professional discrimination adhered less to their treatment, had greater self-stigma as well as poorer recovery outcomes even after taking into account of their symptom severity. The extent of recovery-oriented services consumers received also predicted their service engagement. The utility of treatment adherence and self-stigma as the mechanism through which public and professional discrimination dampened consumers' recovery outcomes was supported.

**Conclusion:** This study demonstrated the adverse impact of both public and professional discrimination on mental health consumers' recovery. In particular, it indicates how consumers' perceptions of the mental health services received in the medical system, the discrimination they experienced in the medical system and daily life dampened their treatment adherence, intensified their self-stigma, and thereby leading to poorer recovery. This study provides empirical evidence for the importance of public and professional stigma-reduction programme and recovery-oriented care in Hong Kong.

## Putting Recovery into Practice in the Non-West: Developments and Directions

S1.2.2

SSK TSE

*Department of Social Work and Social Administration, The University of Hong Kong, Hong Kong SAR, China*

"Recovery is a process, a way of life, an attitude, and a way of approaching the day's challenges. It is not a perfectly linear process. At times, our course is *erratic and we falter, slide back, regroup, and start again...*" (Deegan, 1988, p.15, *emphasis added*). Models or concepts of recovery are diverse; however, they are not just vague and compassionate ideologies but instead represent sets of values and principles, theories of practice based on accumulated research and debates from over more than 2 decades. Having said that, its cross-cultural application is still in its infancy. The author will use a 3-element framework (acronym = *VIP*) together with specific examples, to illustrate how the 'recovery approach' could be further developed and put into practice in non-western populations. There needs to be due consideration of contextual factors such as history, culture and good practice,

and systemic constraints if the recovery approach is to take root in any ethnic populations.

## System Transformation Toward the Journey of Recovery — Challenges and Experiences

S1.2.3

S YAU

*New Life Psychiatric Rehabilitation Association, Hong Kong SAR, China*

The recovery movement in mental health care is an international development that has been gaining attention and discussion in recent decades. Recovery is the process in which individuals thrive to lead a satisfying and contributing life, and to pursue meaningful personal goals beyond the challenges of mental illness with hope.

New Life Psychiatric Rehabilitation Association has started her system transformation journey since 2009. With the guidance from the Program for Recovery and Community Health, the Alliance for Recovery and Care (ARC) is developed. The Recovery Steering Committee has been formed with 3 Task Groups that include service users and caregivers as members to enhance their participation in the system transformation process.

The presentation will outline the evolution of the ARC in 3 major aspects: agency and staff, persons in recovery (PIR), and families / caregivers. Based on the findings of an initial assessment of recovery knowledge that some misconceptions of the concept of recovery exist among staff, PIR and family caregivers, a series of training workshops on the basic concepts of recovery have been tailor-made and delivered to the 3 parties. Furthermore, PIR and caregivers have been openly recruited to participate in the Task Groups to become a collaborative force with the staff team to work on various initiatives for promoting recovery-oriented practices. They are also involved in training, research, and programme design while the pilot practice of Person-Centered Care Planning (PCP) and Community Navigation are in place. A systematic training programme and hiring of Peer Support Worker is also launched. Concurrent evaluative studies on the outcome of Wellness Recovery Action Plan, PCP and anti-stigma programmes are also in progress.

This presentation will highlight some of the major milestones in New Life, the challenges and achievements faced in the process, as well as the future directions of the ARC. The paper will also cover the findings from a Staff Retreat recently held to reflect and address issues and concerns, as well as disconnections in implementing recovery-oriented practices in the organisation. The topic on how staff prepares themselves as recovery leaders will also be discussed. The presentation will conclude with key issues for reflection and how our new understandings influence our work in recovery.

## Walking Towards Recovery Together

S1.2.4

LH CHAN

*Castle Peak Hospital, Hong Kong SAR, China*

As a peer specialist in community psychiatric service in the New Territories West Cluster, I have the opportunity to provide hope, support, and inspiration to other peers suffering from mental illness through sharing of my life experience.

My aim is to share with them that 'Recovery from mental illness is possible'.

With my personal experience of mental illness, I can genuinely show my understanding of how they feel. This emotional connection is very powerful and meaningful in building up peer supporting relationships. It normalises their experiences, facilitates them to express their personal difficulties and emotional pains.

The journey of recovery begins with accepting the illness, getting treatments, taking personal responsibility, and committing to a holistic recovery. It is a deeply personal and unique process so we each have our own unique pathways of recovery. The reflection of my recovery journey acts as an exemplar to motivate them to overcome their challenges, to show them what lives can be beyond mental illness, and to assist them to discover their own strengths.

Today I play a dual role as a service user and a service provider. I treasure the opportunity of expressing my view on recovery-focused service from the perspective of a service user. At the same time, I endeavour to walk together with the peers towards RECOVERY.

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## SYMPOSIUM 1.3 – Suicide and Self-harm

### Community-based Suicide

S1.3.1

#### Prevention Programmes: Hong Kong Experience

##### PYIP

*Centre for Suicide Research and Prevention, The University of Hong Kong, Hong Kong SAR, China*

People in Hong Kong live under highly stressful situations. People are diligent; nevertheless, their hard work may not pay off due to the astronomical property prices and living costs. People may feel trapped by the seemingly never-ending living expenditures and mortgages. Even the shelter they live in is confined with limited personal space. Exposure to these factors cast a shadow of stress for people in Hong Kong and the mental state of people is at stake. The suicide rate in Hong Kong reached its peak at 18.6 per 100,000 in 2003, the year when the outbreak of the severe acute respiratory syndrome epidemic hit the economy severely across the territory. However, the rate reduced significantly by 27% from 2003 to 2010 which had a suicide rate of 13.6 per 100,000 when the economy gradually recovered. Although the rate seems to have stabilised since 2007 at 13.1, it is yet to return to the level of 12.5 in 1997, the year when the sovereignty of Hong Kong was returned to China from the United Kingdom.

It is challenging to reduce the suicide rate to a lower level. In this talk we would like to provide some information on recent community efforts in suicide prevention, and the initiatives advocated by the Centre for Suicide Research and Prevention in Hong Kong from a public health approach for suicide prevention

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### Correlates of Suicidal Ideation

S1.3.2

#### among Chinese Adolescents in Hong Kong

##### SYCL KWOK

*Department of Applied Social Studies, The City University of Hong Kong, Hong Kong SAR, China*

**Background:** A review of the literature shows that personal

and family factors affect adolescent suicidal ideation. As suicidal ideation would lead to suicidal attempts and suicidal behaviour, it is important to study the correlates of suicidal ideation. With reference to the family ecological model, the relationship among the personal correlates (hopelessness, emotional competence, social problem solving), the family correlates (parent-adolescent communication, family functioning), and suicidal ideation was examined.

**Methods:** A cross-sectional survey using convenience sampling method was conducted. A total of 5557 valid questionnaires were collected from the Form 1 to Form 4 students of 42 secondary schools on Hong Kong Island, in Kowloon, and in the New Territories. There were slightly more males (53.1%) than females (46.9%) in the sample. The participants were quite evenly distributed among different forms. The age of the participants ranged from 11 to 18 years with an overall mean of 13.87 years.

**Results:** After controlling for the socio-demographic correlates including age, jobs, educational levels, marital status of the parents, and monthly family income, hierarchical regression analyses showed that social problem solving and mother-adolescent communication were significant negative predictors of suicidal ideation, whereas hopelessness was significant positive predictor in both the male and female sample. Father-adolescent communication and family functioning were significant negative predictors of female adolescent suicidal ideation. Further analyses showed that father-adolescent communication and mother-adolescent communication were significant moderators on the relationship between hopelessness and male adolescent suicidal ideation. Family functioning was found to be a significant moderator between social problem solving and male adolescent suicidal ideation. Family functioning also buffered the association between hopelessness and female adolescent suicidal ideation.

**Conclusion:** The study underscores the importance of parent-adolescent communication and family functioning in enhancing psychological well-being of Chinese adolescents. Theoretically, it is important to consider hopelessness, social problem solving, parent-adolescent communication, and family functioning as the key building blocks in theoretical models for adolescent suicidal ideation. Practically, cultivating the sense of hope, enhancing social problem-solving skills, increasing parent-adolescent communication, and promoting family functioning are crucial to reduce adolescent suicidal ideation.

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### Suicide and the Internet: an Overview

S1.3.3

##### KW FU

*Journalism and Media Studies Centre, The University of Hong Kong, Hong Kong SAR, China*

The impact of the Internet and social media on suicidal acts has become a public health concern. This talk will give an overview of this research area and identify a number of key research questions. Moreover, I will present the findings of an exploratory study which aims to examine the written responses of a group of Chinese microbloggers who were exposed to a post with a self-harming message and a photo. The pattern of information diffusion via a social network is also investigated.

## The Association of Cerebrovascular Risk Factors with Suicide Attempts in Later Life

S1.3.4

SSM CHAN<sup>1</sup>, HFK CHIU<sup>1</sup>, LCW LAM<sup>1</sup>, J TSOH<sup>1</sup>, CSM WONG<sup>1</sup>, Y CONWELL<sup>2</sup>

<sup>1</sup> Department of Psychiatry, The Chinese University of Hong Kong, Hong Kong SAR, China

<sup>2</sup> Department of Psychiatry, University of Rochester, United States

**Background:** The associations of depressive disorders with subclinical / clinical cerebrovascular disease were reported. This study examined if cerebrovascular risk factors (CVRFs) increase the risk of late-life suicide attempts, given the well-established association between depressive disorders and later-life suicides.

**Methods:** A total of 77 cases of Chinese non-demented adults aged 65 years and over were enrolled to a regional psychogeriatric service to which they had been admitted following a suicide attempt; 99 control subjects were age- / gender-matched purposively sampled non-demented older adults with no lifetime history of suicide. Measures of socio-demographic background, life-events, suicidal behaviour, DSM-IV Axis I psychopathology, personality traits, functional status, physical health, CVRFs, and cognitive functions were administered.

**Results:** Age-adjusted CVRFs (by American Heart Association's criteria) were significantly higher in female cases (mean, 10.56; standard deviation [SD], 5.46) than controls (mean, 7.24; SD, 4.04) [ $t = 3.52$ ,  $p = 0.001$ ;  $df = 99$ ]. Logistic regression showed that age-adjusted CVRFs (Exp(B):1.289,  $p = 0.003$ ), current depressive disorder (Exp(B):348,  $p < 0.001$ ), life events in the past 12 weeks (Exp(B):32.1;  $p < 0.001$ ), and being married (Exp(B):12.2,  $p < 0.048$ ) were the independent predictors for suicide attempt status (Nagelkerke R-squared: 0.847). Association of CVRFs and suicide attempt status was not observed in older men.

**Conclusions:** Risk factors for cerebrovascular diseases may be associated with higher risk of attempted suicide in older women, but not in older men.

## SYMPOSIUM 1.4 – Early Intervention for Psychosis

### Clinical Service for At-risk Mental State — the Singapore Experience

S1.4.1

S VERMA, S RAO, SA TAY, LY POON

Institute of Mental Health / Woodbridge Hospital, Singapore

At-Risk-Mental-State (ARMS) is the period of subtle changes in patients' thinking, behaviour, and emotional states before their first psychotic episode. Research has shown that during this period, intervention could delay, reduce, or even prevent the conversion to psychosis. In April 2008, the Support for Wellness Achievement Programme (SWAP) was launched in Singapore as a clinical programme for the assessment and treatment of patients with ARMS.

Serving a population of 4.8 million in a 710 km<sup>2</sup> area, SWAP takes in help-seeking patients between the ages of 16 and 30 years who fulfil the criteria for ARMS based on Comprehensive Assessment of At-Risk Mental State

(CAARMS) — an assessment tool for ARMS. This group of patients experience significant levels of distress, co-morbid psychiatric disorders and cognitive problems. Hence the management of these individuals with ARMS is done within a multidisciplinary framework with a focus on psychosocial interventions. The source of referral, the importance of networking, and providing training to the gatekeepers to increase awareness of ARMS are crucial and play an important role in our goal of early detection. With this in mind we closely work with the counsellors from the educational institutions as well as the Singapore Armed Forces.

The programme also focuses on research and collects data using various rating scales at regular intervals. This presentation will describe the baseline characteristics of the patients with ARMS with regard to their psychopathology, co-morbid diagnoses, and functioning as well as examine the 2-year outcome of the patients.

### One-year Outcome of a Specialised Early Intervention Treatment for Adult-onset Psychosis (JCEP): a Randomised Controlled Study

S1.4.2

CLM HUI<sup>1</sup>, WWY TAM<sup>1</sup>, DC LAI<sup>1</sup>, GHY WONG<sup>1</sup>, JYM TANG<sup>1</sup>, SKW CHAN<sup>1</sup>, WC CHANG<sup>1</sup>, EHM LEE<sup>1</sup>, FWS LP<sup>2</sup>, KF LEUNG<sup>3</sup>, SM MCGHEE<sup>4</sup>, PC SHAM<sup>1</sup>, EYH CHEN<sup>1</sup>

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Despite advances in treatment of psychotic disorders, functional decline remains a prominent obstacle in the recovery pathway. Early intervention (EI) services worldwide have focused timely treatment on the first few years (i.e. critical period) of the disorder, aiming to achieve the best possible functional and symptomatic outcome in the long run. Although positive outcomes have been reported for many of these programmes, the optimal intervention length remains unknown. In August 2009, the Jockey Club Early Psychosis (JCEP) Project aims to deliver a specialised EI service to adult-onset first-episode psychosis patients aged between 26 and 55 years. On top of the service and public awareness components, a research component has been incorporated in order to evaluate the optimal intervention model as well as the optimal duration of early intervention for early psychosis through conducting a randomised controlled trial. Eligible patients were randomly assigned to receive one of the 3 arms: (1) 4 years of EI treatment, (2) 2 years of EI treatment, or (3) 4 years of standard psychiatric care. The intervention groups received phase-specific case management and community-based group programmes for either 2 or 4 years. All participants were assessed at multiple time points: baseline, 6-month, 1-year, 2-year, 3-year, and 4-year. Assessments included clinical symptoms, cognitive functions, psychosocial well-being, and health economic outcome evaluation. So far, 360 participants with first-episode psychosis have completed their 1-year assessments.

In this presentation, the early outcomes on functioning, clinical symptoms, and cognitive functions will be discussed. **Acknowledgements:** The study was funded by the Hong Kong Jockey Club Charities Trust.

## A Randomised Controlled Trial **S1.4.3** Evaluating One-year Extended Case Management for Patients Presenting with First-episode Psychosis to the EASY Programme

**WC CHANG, GHK CHAN, OTT JIM, GHY WONG, CLM HUI, SKW CHAN, EHM LEE, EYH CHEN**  
*Department of Psychiatry, The University of Hong Kong, Hong Kong SAR, China*

**Background:** Early intervention (EI) for psychosis has become a major focus of mental healthcare development worldwide in the past decade. It is based on the premise that shortening of treatment delay and provision of phase-specific intervention will improve illness outcome. Although the literature showed that patients with EI had better clinical and functional outcomes than those receiving standard care, the optimal duration of EI treatment remains unclear with recent findings suggesting that the beneficial effects could not be sustained after discharge from EI programme. The current study aimed to evaluate the effects of 1-year extended specialised case management on patients who had received 2-year EI for psychosis.

**Methods:** This was a multi-site, open-labelled randomised controlled trial. A total of 160 patients aged 15 to 25 years were recruited from the EASY\* programme upon discharge, and were randomised to either 1-year extended case management (CM) or standard psychiatric care (SC). Clinical and functional outcomes between the 2 treatment groups were compared 1 year after study entry.

**Results:** There were no significant differences between the 2 groups (CM: n = 79; SC: n = 77) in terms of socio-demographics, premorbid adjustment, duration of untreated psychosis, and baseline symptomatology. Four patients dropped out from the study. At 1-year follow-up, patients in CM group experienced significantly lower levels of negative symptoms (Negative symptom subscale of Positive and Negative Syndrome Scale [PANSS]), general psychopathology (General symptom subscale of PANSS), and depressive symptoms (Calgary Depression Scale) than those in SC group. Patients in CM group also had a better functional outcome when compared with those in SC group as evidenced by achieving significantly higher scores in both Social and Occupational Functioning Assessment Scale and Role Functioning Scale.

**Conclusion:** Our findings indicated that 1-year extended specialised CM was more efficacious than SC in improving both clinical and functional outcomes of patients who had already received 2-year EI service. Further research is required to determine the cost-effectiveness and the longer-term effects of this extended EI service.

\* *Note: EASY stands for Early Assessment Service for Young people with psychosis. This is a territory-wide, government-funded 2-year EI programme for individuals aged 15 to 25 years presenting with first-episode psychosis in Hong Kong.*

## Predictors of Long-term Outcome **S1.4.4**

## in Psychotic Disorders: a 13-Year Prospective Study

**JYM TANG, GHY WONG, CLM HUI, WC CHANG, SKW CHAN, EHM LEE, WS YEUNG, WF CHAN, CK WONG, WN TANG, S TSO, E PANG, R NG, SF HUNG, ELW DUNN, EYH CHEN**

*Department of Psychiatry, The University of Hong Kong, Hong Kong SAR, China*

**Background:** There is a historical interest in studying the longitudinal course and outcome of psychotic disorders originated from the Kraepelinian view of schizophrenia, which was considered as a disease with progressive downhill course. With emerging evidence-based findings suggesting outcome heterogeneity, prospective studies have strived to identify factors influencing the course and outcome. The paucity of prospective long-term studies has prevented us from knowing the enduring impacts of predictors. Using a prospective cohort of 153 patients with psychosis, we aimed to determine the outcome of global functioning, remission, recovery, and functional recovery at 13 years following the first-episode psychosis. Prognostic values of a range of baseline and early-outcome predictors were examined. With reference to past literature, we were specifically interested in evaluating the long-term impact of duration of untreated psychosis (DUP) and baseline neurocognition, and in evaluating how much predictive ability to the explanatory models was contributed by early-outcome predictors.

**Methods:** This study attempted to follow up the 153 patients at 13 years following their first-episode onset of psychosis. Prior investigations collected a comprehensive profile of demographics, illness onset, premorbid adjustment, clinical symptoms, and neurocognition at baseline. Early outcomes at 3 years including remission, relapse, primary outcome, and unemployment were also ascertained. In this current investigation, we attempted to invite all living patients to an interview in order to assess their outcomes of global functioning, remission, functional recovery, and recovery at 13 years. Appropriate regression models were applied to identify predictors of long-term outcomes. Standardised mortality ratios (SMRs) for all-cause mortality and suicide were also determined.

**Results:** Ninety-six patients were successfully interviewed. Their mean score of global functioning was 64.3. Considerable proportions of patients fulfilled criteria for remission (47%), functional recovery (33%), and recovery (16%) at 13 years. Higher level of global functioning was predicted by a married status at study entry and being in remission and employed at 3 years. Remission was predicted by a shorter DUP and better premorbid social adjustment. Functional recovery was predicted by better premorbid social adjustment, better baseline visual memory, and being employed at 3 years. No baseline and early-outcome predictors of recovery could be identified. Addition of early outcome predictors significantly increased the variance explained for global functioning and improved model discrimination between patients who had functional recovery and those who had not. SMRs for all-cause mortality and suicide were 6.07 and 24.80, respectively.

**Discussion:** A prolonged DUP may intensify the progression of negative symptoms and lead to less likelihood of remission. Our study has confirmed the enduring adverse impact of DUP but its reversibility is still in doubt. As the significance of visual memory has not received consistent support from literature, more prospective long-term studies

are in need to re-examine the relationship. Early-outcome predictors appear to be more relevant to functional outcome than clinical outcome.

**Conclusion:** Our study has highlighted and re-iterated the determining role of early characteristics in long-term outcome. In view of the potential malleability of risk factors, our findings support the implementation of specialised early intervention in psychosis.

## SYMPOSIUM 1.5 – Perinatal Mental Health

### An Evaluation of a Postnatal Depression Screening Programme Using the Edinburgh Postnatal Depression Scale: a Randomised Controlled Trial S1.5.1

SSL LEUNG<sup>1</sup>, C LEUNG<sup>2</sup>, TH LAM<sup>3</sup>, SF HUNG<sup>4</sup>, R CHAN<sup>1</sup>, T YEUNG<sup>4</sup>, M MIAO<sup>4</sup>, S CHENG<sup>4</sup>, SH LEUNG<sup>1</sup>, A LAU<sup>1</sup>, DTS LEE<sup>5</sup>

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**Background:** Postnatal depression (PND) is an important public health issue. However, there is a lack of evidence on the effectiveness of PND screening programme in reducing morbidity. In Hong Kong, about 11 to 12% of women suffer from depression within 6 weeks after delivery. The Chinese version of the Edinburgh Postnatal Depression Scale (EPDS) has been validated with 9/10 as the cut-off score for probable cases among Hong Kong women. The aim of this study was to evaluate the effectiveness of a PND screening programme using the EPDS in improving maternal mental health.

**Methods:** Randomised controlled trial design was used. Participants were 462 Chinese mothers with 2-month-old babies visiting Maternal and Child Health Centres in Hong Kong. Participants in the intervention group were screened for PND using the EPDS, whereas those in the control group were assessed clinically by nurses to identify the condition. In both groups, participants identified with PND were offered follow-up management according to the same protocol. Treatment was provided in the same setting by trained primary care professionals or the community psychiatric team, depending on severity of the condition. The primary outcome measure was the participants' EPDS scores at 6 months after delivery using 9/10 as the cut-off score. Analysis was performed on an intention-to-treat basis.

**Results:** Participants in the intervention group had better mental health outcomes, with fewer participants having EPDS scores above the clinical cut-off than the control group at 6 months (risk ratio = 0.59; 95% confidence interval, 0.39-0.89). The number needed to screen was 25.

**Conclusion:** A PND screening programme comprising the use of EPDS as the screening tool and the provision of follow-up care had resulted in better maternal mental health outcome at 6 months.

### Pathway to Care for Postnatal Depression after Implementation of the Comprehensive Child Development Service in a Regional Hospital in Hong Kong S1.5.2

BWM SIU, HMT CHOW, SSP KWOK, OL LI, ML KOO, PW POON

Castle Peak Hospital, Hong Kong SAR, China

**Objectives:** The Comprehensive Child Development Service (CCDS) launched in Hong Kong in 2005 aimed to identify and manage postnatal depression early. Under the CCDS, postnatal women are screened routinely for depression with the Edinburgh Postnatal Depression Scale. The purpose of the present study was to investigate the pathway to care for postnatal depression after the implementation of CCDS.

**Methods:** During the period from July 2008 to December 2008, 114 Chinese women with postnatal depression were recruited from a perinatal outpatient psychiatrist clinic which received referrals from the 'CCDS route' and the 'conventional route'. The participants were interviewed by a semi-structured questionnaire for their pathway to care, including the duration of untreated depression (DUD) and the carers from whom they sought help for postnatal depression. All the participants were assessed by the Beck Depression Inventory (BDI) and the Global Assessment of Functioning (GAF) scale.

**Results:** Sixty-six percent of the participants were referred to the clinic through the 'CCDS route' and 34% through the 'conventional route'. As compared with the CCDS referral group, the conventional group had significantly longer DUD (Mann-Whitney test; U [n = 114] = 446.00, p < 0.001), higher BDI score (U [n = 114] = 393.50, p < 0.001), and lower GAF score (Mann-Whitney test; U [n = 114] = 462.50, p = 0.000).

**Conclusion:** The CCDS was found to be associated with the early intervention of postnatal depression.

### Mother-Toddler Parenting Program (MTPP): a Clinical Attachment-based Intervention for Mothers with Emotion Dysregulation S1.5.3

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Mothers with emotion dysregulation are characterised by their labile mood or mood swings. Their emotion dysregulation can be manifested in the form of angry outbursts, or behaviour outbursts, such as destroying or throwing objects, aggression towards self or others, or threats to kill themselves, in their interactions with young children. This is particularly detrimental to their infants' social emotional development as infants rely very much on their caregivers to learn specific strategies and behaviours to regulate emotion within the context of early attachment relationships. As infants begin to progress from near complete reliance on caregivers to independent emotion regulation, failure to acquire adaptive emotion regulation skills by toddlerhood may lead to adjustment difficulties characterised by acting out or withdrawn behaviours. The present Mother-Toddler Parenting Program was developed from the increasing

clinical needs of parenting problems of toddlers presented at the clinic, in which intergenerational transmission of emotion dysregulation from mothers to their toddlers was noted. Thus early intervention at the emotional quality of mother-toddler relationship deemed necessary. The present programme focused on enhancing mothers' sensitivity and emotional availability, and their reflective capacity on their internal working model of caregiving relationship. In the symposium, we will look into the role of caregiving in the individual differences of child emotion regulation, and also examine the parenting conflicts and challenges of mothers with emotion dysregulation. Clinical cases will be used to illustrate how to intervene into the mother-toddler dyadic relationship at both the behavioural and the representational levels. Recommendations for further research will also be discussed.

## SYMPOSIUM 1.6 – Child and Adolescent Disorders

### A Taxonomy of Antisocial Behaviours: the Subtypes and Their Associated Features

S1.6.1

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**Background:** A body of literature on the developmental pathways of antisocial behaviours suggests that meaningful subtypes exist within them, rendering different implications with respect to their aetiology, causal mechanism, and intervention. This study tested a taxonomy of antisocial behaviours by exploring whether different offending groups can be distinguished from each other by background risks and external correlates. First, 2 broad offending groups, i.e. the early-onset group and the adolescent-onset group, were hypothesised to exist in a clinical sample of adjudicated male adolescents and based upon their ages of onset of symptoms of Conduct Disorder. Furthermore, 2 further subtypes, i.e. antisocial behaviours associated with symptoms of attention deficit hyperactivity disorder (ADHD) or associated with callous-unemotional (CU) traits, were hypothesised to exist within the broad early-onset offending group, based upon recent studies indicating ADHD and CU traits as important, distinct correlates of antisocial behaviours.

**Methods:** Data were collected from 118 adjudicated male adolescents from a centralised probation facility in Hong Kong and from 63 non-delinquent male control subjects from mainstream secondary schools, all aged between 12 and 17 years. Group comparison and multinomial logistic regression were performed to test whether the above hypothesised offending groups could be identified by different background risks and deficits pertaining to cognitive processes, family, parenting and peers, etc.

**Results:** The early-onset offending group could be differentiated from the adolescent-onset offending group by their association with increased adjustment difficulties, heightened background risks, ADHD diagnosis, and CU traits. The 2 early-onset subgroups, namely, ADHD and CU-trait groups, shared similarities of having more severe delinquency and poorer adolescent adjustment, but

demonstrated differences in terms of cognitive process with respect to disinhibition.

**Conclusion:** Different offending groups could be discerned by their distinctive, associated risks and deficits, evincing different developmental pathways to antisocial behaviours. Implications to understanding and intervention of antisocial behaviours were discussed.

### The Applicability of the Developmental, Dimensional and Diagnostic Interview (3di) among Clinic Children in Hong Kong

S1.6.2

KYC LAI

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**Background:** Since the diagnosis of infantile autism was first documented in the 1950s, it is now part of a spectrum disorder. People with the pervasive developmental disorders (PDDs) have a "collection of impairments in social and communication functioning plus variable positive symptoms such as stereotypies and rigidities". Co-morbidities with other commonly occurring child psychiatric problems such as attention deficit hyperactivity disorder (ADHD) and anxiety disorders are increasingly recognised. Autistic-like social skills deficits are reported among children with other psychiatric disorders. The PDD module of the Developmental, Dimensional and Diagnostic Interview (3di) developed by Skuse et al (2004) offers a detailed computerised assessment of the dimensions of autistic behaviours. The original authors found it to have sound psychometric properties and can provide an accurate assessment in both clinic and normal populations.

**Aim:** The aim of this study was to explore the applicability of this interview among Chinese children attending a child psychiatric clinic in Hong Kong.

**Methods:** A total of 160 children referred to the clinic with suspected PDD and / or ADHD problems were recruited. Clinician diagnoses were made based on DSM-IV criteria. The PDD module of the 3di was administered by trained interviewers blinded to the clinical diagnoses.

**Results:** The test-retest and inter-rater reliabilities and concurrent validity (agreement with clinician diagnosis) of the 3di interview will be presented. Its performance according to the diagnostic grouping of PDD, ADHD, and PDD + ADHD will be examined. Cultural considerations when adopting instruments developed in the West will be discussed.

**Conclusions:** The 3di is a user-friendly and comprehensive interview that can be incorporated into routine clinical assessment to provide a dimensional measure of autistic features among child psychiatric patients in Hong Kong.

### Prevalence and Correlates of Mental Health Problems in Children and Adolescents in the Hong Kong Community

S1.6.3

HK CHAN

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**Background:** Data on the prevalence of mental health problems in children and adolescents in large community population in Hong Kong are scarce.

**Objective:** The present study aimed to estimate the percentage of youths at risk of developing mental disorders in a large and representative community sample in Hong Kong. The study also examined the clinical correlates of the severity of impairment in the at-risk populations.

**Methods:** A total of 8968 youths aged 5 to 18 years were recruited from 26 mainstream schools across different geographical areas in Hong Kong. Parents of children in Primary 1 (P1) to P6 and adolescents in Form 1 (F1) to 3 were administered the Strengths and Difficulties Questionnaire (SDQ). At-risk group was defined by the top 15% of the sample with the highest score on the total score plus a total impact score of at least 2 on SDQ.

**Results:** The percentage of individuals at risk of developing any mental disorders ranged from 5.5 to 7.6 among youths in the Hong Kong community. The prevalence rates of anxiety / depressive symptoms that caused significant impairment in daily living increased with age ( $\chi = 2.18, p < 0.05$ ), which were 4.8, 5.3, and 6.3 among youths in P1 to P3, P4 to P6, and F1 to F3, respectively. On the contrary, the prevalence rates of hyperactivity symptoms decreased with age ( $\chi = 2.206, p < 0.05$ ), which were 8.0, 7.2, and 6.3 among youths in P1 to P3, P4 to P6, and F1 to F3, respectively. The prevalence rates of conduct problems among youths in the community also decreased with age ( $\chi = 4.37, p < 0.01$ ), which were 5.7, 5.9, and 3.3 among youths in P1 to P3, P4 to P6, and F1 to F3, respectively. Analysis revealed that the severity of impairment in primary school children at risk of developing mental disorders was significantly correlated with both the internalising ( $r = 0.099, p < 0.05$ ) and externalising symptoms ( $r = 0.121, p < 0.01$ ). Yet, the severity of impairment in the at-risk secondary school adolescents was only significantly correlated with internalising symptoms ( $r = 0.226, p < 0.05$ ), but not the externalising symptoms.

**Conclusions:** The percentage of youths at risk of developing any mental disorders ranged from 5.5 to 7.6 in the Hong Kong community. The prevalence of emotional symptoms increased with age. Emotional symptoms were adversely affecting 5.5% of the youth population. Yet, the prevalence of hyperactivity symptoms / conduct problems decreased with age. These symptoms were affecting approximately 6% of the youths in the community. Both externalising and internalising symptoms were closely associated with the severity of impairment in the at-risk primary school children while only the internalising symptoms were significantly associated with the severity of impairment in the at-risk adolescents. The core intervening strategies for the at-risk primary school children and secondary school adolescents might be different. Whereas a comprehensive approach that targets on both the internalising and externalising symptoms would be more effective for the former group, more emphasis should be put on the management of the anxiety / depressive features in the latter group.

## The Ability to Recognise Facial Emotion in Children with Attention Deficit Hyperactivity Disorder in Hong Kong S1.6.4

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**Background:** Attention deficit hyperactivity disorder (ADHD) is one of the most important psychiatric disorders

in the child and adolescent population. Children with ADHD have been found to have significant social impairment and research findings suggest such impairment may be related to the deficit in facial emotion recognition. However, many studies did not sufficiently control for the effect of the confounding factors including cultural differences. The relation between attention / impulsivity level and facial emotion recognition ability has not been fully addressed.

**Aims:** To evaluate the facial emotion recognition ability in ADHD children and the effect of inattention and impulsivity on such ability.

**Methods:** A total of 45 control subjects and 42 ADHD subjects from Primary 1 to Primary 3 were recruited. They were matched for age, sex, intelligence, and family income. The subjects were shown facial emotion pictures developed by Matsumoto and Ekman (1998) together with emotional story vignettes. Conners' Continuous Performance Test II was used to evaluate the attention / impulsivity level of the ADHD subjects.

**Results:** The difference in performance in facial emotion recognition between ADHD and control subjects was not statistically significant. The correlation between the accuracy of facial emotion recognition and the attention / impulsivity level was also not significant. Intelligence level correlated significantly with the facial emotion recognition ability.

**Conclusion:** The development of facial emotion recognition ability is affected by multiple factors and a single diagnostic label is unlikely to be fully predictive. Further research on effect of co-morbidities and ADHD subtypes difference should be considered. We need to beware of the cultural differences between Asian and Caucasian population when we interpret the results of studies on facial emotion recognition conducted in the West.

## SYMPOSIUM 2.1 – Bipolar Disorders

### Mental Imagery – an Emotional Amplifier for Bipolar Disorder? S2.1.1

RMK NG

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Bipolar disorder is characterised by the presence of both manic and depressive episodes, as well as inter-episode mood instability. It is a severe mental disorder with high morbidity and mortality.<sup>1</sup> As pharmacological interventions are effective for only a proportion of patients and the efficacy of psychological interventions is yet to be established,<sup>2</sup> there is a need to understand more about the psychological processes underlying mood switch in bipolar disorder. Mental imagery has been found to amplify both positive and negative emotions in analogue and clinical studies<sup>3</sup> and may be a promising research area in understanding key psychological disturbances in bipolar disorder.<sup>4</sup>

This presentation will report preliminary evidence collected from 2 studies on bipolar subjects and one on suicidal subjects with bipolar risks, that examine the possible role of mental imagery as an emotional amplifier in bipolar disorder.

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## Sleep-wake Disturbance in Bipolar Disorder **S2.1.2**

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Bipolar disorder is a severe and disabling psychiatric disorder characterised by episodes of extreme mood swings. Individuals with bipolar disorder often endure high relapse rates, impaired functioning, and poor quality of life. Converging evidence suggests that sleep disturbance is relevant in bipolar disorder and contributes to relapse and inter-episode impairment: (a) sleep disturbance is highly prevalent even among euthymic bipolar disorder patients, (b) experimental studies indicate that sleep deprivation can trigger mania, (c) cross-sectional and longitudinal studies suggest that sleep disturbance is associated with greater concurrent and prospective symptom severity as well as poorer quality of life, and (d) sleep disturbance is the most common prodrome preceding the onset of a manic episode. A number of studies have attempted to explain the robust associations from a biopsychosocial perspective. It is possible that dysfunctional sleep and other symptoms and impairments in bipolar disorder may be mutually maintaining, as sleep dysfunction often influences light exposure and social interaction, alters sleep-wake schedule, and disrupts circadian rhythm and mood, which, in turn, may feedback to further destabilise sleep and circadian functioning and exacerbate the shared neurobiological systems that underlie both sleep disturbance and bipolar disorder. Future research should examine whether sleep interventions, in particular those that stabilise sleep-wake schedule and treat insomnia or hypersomnia, can reduce relapse, improve functioning, and enhance quality of life in bipolar disorder patients.

## Abnormal Behaviour of Chinese **S2.1.3**

### Bipolar Disorder Patients During Hypo (Mania)

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A study was made on the results the Hypomania Checklist-32 (HCL-32) of 3 groups of bipolar patients from Hong Kong, Shenzhen, and Shanghai, of a total of around 500, to see which were the common abnormal behaviours of Chinese bipolar patients during their 'excited' state. A comparison was made between the 3 sites to see whether there are significant differences among them and the possible reasons behind. A comparison was also made between bipolar patients attending follow-up at psychiatric and primary care settings in Hong Kong.

## Screening for Bipolar Disorder in a Psychiatric Outpatient Population **S2.1.4**

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**Introduction:** Bipolar spectrum disorders are commonly under-recognised and misdiagnosed in clinical practice. Screening instruments and clinical predictors can improve the recognition. This study aimed to examine and compare the psychometric properties of the Chinese versions of Mood Disorder Questionnaire (MDQ) and Hypomania Checklist-32 (HCL-32) in a general psychiatric outpatient population in Hong Kong. This study also aimed to identify the clinical predictors of bipolar disorder, and to determine the best combination of MDQ, HCL-32 and clinical indicators in screening for previously unrecognised bipolar disorder in this population.

**Methods:** A random sample of 450 subjects was selected from 3534 Chinese adult psychiatric outpatients without previous diagnosis of bipolar disorder at a regional clinic. A total of 340 subjects completed MDQ and HCL-32 during their scheduled visits. Of these subjects, 305 received a telephone-based diagnostic interview using the Structured Clinical Interview for DSM-IV (SCID) within 2 weeks. The 4-week test-retest reliability of MDQ and HCL-32 was also examined in 107 subjects.

**Results:** The Chinese HCL-32 had a higher internal consistency (0.89 vs. 0.75) and test-retest reliability (0.81 vs. 0.74) than the Chinese MDQ. The HCL-32 had a 3-factor structure, while MDQ showed a 2-factor structure. From receiver operating characteristic (ROC) analysis, HCL-32 had better discriminatory capacity and higher sensitivity, but lower specificity than MDQ. For MDQ, the optimal cut-off was a clustering of 4 positive symptoms with omission of the impairment criterion (sensitivity 0.65; specificity 0.77). For HCL-32, the optimal cut-off score was 11 (sensitivity 0.84; specificity 0.70). Multivariable logistic regression found that bipolar family history was the only significant clinical predictor of bipolarity (odds ratio = 4.93). Simultaneous use of bipolar family history with HCL-32 and MDQ provided a sensitivity of 0.97 and specificity of 0.54 in screening for bipolar disorder.

**Conclusions:** The Chinese versions of MDQ and HCL-32 are valid and reliable screening instruments for bipolar disorder in a general psychiatric setting, but their optimal cut-offs are different from the original criteria. HCL-32 is more effective than MDQ in detecting hypomanic conditions. Simultaneous use of HCL-32 and MDQ with bipolar family history further improved the sensitivity compared to either questionnaire alone and it is potentially the most useful screening method for previously unrecognised bipolar disorder in the Chinese general psychiatric outpatient population.

## SYMPOSIUM 2.2 – Substance Misuse and Addiction

### Cognitive Changes in Ketamine Use **S2.2.1**

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**Background:** Both cognitive impairment and depressive symptoms have been reported in ketamine users. No previous study has examined the impact of depressive symptoms on cognitive functions in ketamine users. This study aimed to determine cognitive dysfunctions, depressive symptoms,

and the impact of depressive symptoms on the cognitive performance of young ketamine users in Hong Kong.

**Methods:** A total of 51 current ketamine users, 49 ex-ketamine users, and 100 healthy controls were recruited from counselling and youth centres in Hong Kong in this cross-sectional study. Cognitive assessments included mental and motor speed, working, verbal and visual memory, and executive functions. Depressive symptoms were measured using the Beck Depression Inventory.

**Results:** Cognitive impairment was found only in current ketamine users in the domains of mental and motor speed ( $p < 0.001$ ), visual and verbal memory ( $p < 0.001$ ), and executive functions ( $p < 0.001$ ). Depressive symptoms were also more frequently found in current ketamine users ( $p < 0.001$ ). The correlations between depressive symptoms and certain cognitive scores were significant but modest. After controlling depressive symptoms as a confounder, cognitive impairment remained significant in current ketamine users.

**Conclusions:** Current ketamine use is associated with cognitive impairment largely independent of depressive symptoms. Substance abuse treatment and rehabilitation services should pay attention to cognitive effects of ketamine and to motivate their clients to lower ketamine use or achieve abstinence.

## Pilot Study of Cognitive Screening for Youth Abusing Substances in Hong Kong

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**Objectives:** This is a pilot study to evaluate the psychometric properties of the Hong Kong version of Addenbrooke's Cognitive Examination – Revised (HK-ACE-R), and the Hong Kong version of Montreal Cognitive Assessment (HK-MoCA) in patients with substance abuse in Hong Kong.

**Methods:** Forty-five patients with substance abuse (SA) were recruited in the Substance Abuse Assessment Unit in Kwai Chung Hospital. Patients with a history of head injury, brain tremor, and pre-morbid psychiatric problems were excluded from the study. HK-ACE-R and HK-MoCA were administered. A battery of standardised neuropsychological measurements was also conducted to assess their performances in cognitive domains of verbal memory, visual memory, attention and executive functions. Based on the results of these standardised measures, 29 patients with performance falling below 2 standard deviations from mean in any of these cognitive domains are classified as the group of 'SA patients with cognitive impairments', while the remaining 16 patients are grouped as 'SA control group' for comparison. Validity and classification accuracy of HK-ACE-R and HK-MoCA were examined.

**Results:** Correlation coefficients between cognitive screening tools and the standardised neuropsychological measures revealed satisfactory criterion validity. Based on receiver operating characteristic (ROC) analyses, both HK-ACE-R (area under curve = 0.69,  $p = 0.041$ ) and HK-MoCA (area under curve = 0.81,  $p = 0.001$ ) were effective in differentiating the group of 'SA patients with cognitive impairments' from the 'SA control group'.

**Conclusion:** These findings indicate that HK-ACE-R and HK-MoCA may be time-efficient and resource-conscious screening instruments for use in SA patients in Hong Kong.

## Decision Making, Attention Profile, and Impulsivity in Chronic Ketamine Abusers in Hong Kong

S2.2.3

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**Background:** The recreational drug, ketamine (2-[2-chlorophenyl]-2-[methylamino]-cyclohexanone) is a dissociative anaesthetic. It is a non-competitive N-methyl-D-aspartate (NMDA) receptor antagonist which acts on the glutamate system. Ketamine use is of increasing popularity in Hong Kong in recent 10 years. Regular ketamine use is associated with cognitive dysfunction, mainly memory problems. However, no study has examined the decision-making cognition and the participants recruited in previous studies were dominantly poly-substance users. Our primary aim was to delineate whether ketamine use is associated with impaired neurocognitive functions, including decision making, attention, and impulsivity by comparing a group of relatively 'pure' regular ketamine users to healthy controls. Our secondary aim was to identify, if any, the specific effect of ketamine on neurocognitive functions by comparing the ketamine users with a group of poly-substance users.

**Methods:** We examined decision making (Iowa gambling task), attention profile (Stroop colour word test, trail-making test, digit vigilance test, symbol digit modalities test, and forward/backward digit span test), and impulsivity (Barratt impulsiveness scale [BIS-11]) among 40 regular ketamine users, 40 poly-substance users, and 40 healthy controls.

**Results:** Regular ketamine users and poly-substance users demonstrated poorer performance in neurocognitive tasks concerning decision making, psychomotor speed, working memory and selective attention together with elevated self-reported impulsivity relative to healthy controls. However, ketamine and poly-substance users showed comparable patterns of neurocognitive functions.

**Conclusions:** These findings suggest that regular ketamine use is associated with deficits in decision making, psychomotor speed, working memory and selective attention as well as elevated impulsivity. The specific effect of ketamine on neurocognitive functions remains unclear but at least we can confirm that ketamine is no less harmful than other substances. Drug users, in general, may be at risk of decision-making deficits, impaired attention, and elevated impulsivity. Such behaviours may be the cause or consequence of drug use.

## Ketamine Dependence in Hong Kong: Assessment of Severity and Screening

S2.2.4

CK TUNG

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**Objectives:** Ketamine misuse erupted in the landscape of drug misuse in the era of the 1990s and the rise of ketamine misuse in Hong Kong is unparalleled in other parts of the world. Despite its strong dependence potential, threat of ketamine dependence has been underestimated and there is a clear knowledge gap in medical research. There is a lack of objective and validated instrument to measure the severity of ketamine dependence. This study examined the validity and reliability of a Chinese version of the Severity of Dependence Scale (SDS) with a sample of treatment-seeking

ketamine users in Hong Kong. Utility of SDS as a screening tool of ketamine dependence according to the diagnostic criteria in the Diagnostic and Statistical Manual Version IV (DSM-IV) was also explored.

**Methods:** A sequential sample of 80 treatment-seeking ketamine users was recruited from a substance abuse clinic and 2 community-based counselling centres. The Chinese version of Severity of Dependence Scale for Ketamine (C-SDS-K) was administered to assess their psychological dependence on ketamine in the past 1 month. The presence of current or lifetime diagnosis of ketamine dependence was determined by the Structured Clinical Interview for DSM-IV (SCID). Test-retest reliability of C-SDS-K was examined in 24 participants. Receiver operating characteristic (ROC) analysis was performed to identify the optimal cut-off for screening of ketamine dependence according to DSM-IV criteria.

**Results:** C-SDS-K demonstrated good psychometric properties with a high internal consistency ( $\alpha = 0.74$ ) and an excellent test-retest reliability (ICC = 0.95). All items loaded strongly on a single factor in principal factor analysis. The total score of C-SDS-K also correlated positively with several indicators of severity of dependence, including dose, frequency of use, duration of regular use, and the number of DSM-IV dependence criteria met, indicating its strong concurrent validity. An area under ROC curve of 0.97 reflected C-SDS-K's excellent diagnostic utility in discriminating presence or absence of a current diagnosis of ketamine dependence according to DSM-IV criteria. A cut-off score of 8 was chosen in ROC analysis as it afforded the best trade-off between a sensitivity of 94.4% and a specificity of 88.5%.

**Conclusion:** The findings support that C-SDS-K is a reliable and valid measure of severity of dependence in the treatment-seeking ketamine users. It also allows rapid identification of individuals who are likely to have more problematic use of ketamine.

## SYMPOSIUM 2.3 – Common Mental Disorders

### Functional Gastrointestinal Disorders are Common in Common Mental Disorders – Population Findings in Hong Kong

S2.3.1

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**Background:** Failure to adopt standardised diagnostic criteria for functional gastrointestinal disorders (FGIDs) and mental disorders have limited our understanding of their association. Reliance of findings on clinic-based samples have also made the alleged association open to the effects of referral filter bias. In particular the effect of GI-psychiatric co-morbidity on health care utilisation has not been clearly understood.

**Aim:** To examine the prevalence and psychiatric comorbidity of Rome III irritable bowel syndrome, dyspepsia and

gastroesophageal reflux disease (GERD) [Montreal criteria] and DSM-IV-TR Generalized Anxiety Disorder and Major Depressive Episodes (DSM-IV-TR GAD and MDE).

**Methods:** A series of random population-based telephone survey was done using questionnaires on symptoms of Rome III dyspepsia, GERD (Montreal criteria), irritable bowel syndrome (IBS), DSM-IV-TR GAD and MDE, and effect on healthcare utilisation.

**Results:** In the representative samples drawn (n = 2005 in the IBS study, 2011 in the FD/GERD study), 5.4% suffered from IBS, 8% had dyspepsia, 4.2% had GERD (weekly), 13.9% had GERD (monthly), 4% had GAD, 12.4% reported MDE. GAD was 5 times more common among IBS respondents than non-IBS respondents (odds ratio [OR] = 5.84,  $p < 0.001$ ) whereas IBS was 4.7 times more common among GAD respondents than non-GAD respondents (OR = 6.32,  $p < 0.001$ ). Core depressive symptoms (OR = 6.25,  $p < 0.01$ ) and education level (OR = 5.918,  $p = 0.021$ ) were risk correlates of GAD among IBS respondents. Dyspeptic subjects had a 2-fold increased risk of GAD (OR = 2.03; 95% CI, 1.06 - 3.89;  $p < 0.001$ ) and a 3-fold increased risk of MDE (OR = 3.56; 95% CI, 2.33 - 5.43;  $p < 0.001$ ). GERD (monthly) subjects had a 2-fold risk of GAD (OR = 2.06; 95% CI, 1.16 - 3.68;  $p = 0.01$ ) and a 2.7-fold risk of MDE (OR = 2.71; 95% CI, 1.82 - 3.90;  $p < 0.001$ ). GERD symptom frequency independently predicted MDE in a dose-response manner with similar trend for GAD. Number of psychiatric diagnoses independently predicted GERD. Dyspepsia, MDE, GAD, and female sex independently predicted frequent medical consultations. GAD and GERD independently predicted high investigation expenditure.

**Conclusions:** With stringently adopted Rome III and DSM-IV-TR criteria, strong associations were found between various FGIDs, GAD, and MDE. Both FGIDs and mental disorders had independent and varied effects on healthcare utilisation. Excessive healthcare utilisation should alert clinicians to risk of psychiatric comorbidity.

### Relationship of Cognitions and Symptoms of Agoraphobia in Hong Kong Chinese: a Combined Quantitative and Qualitative Study

S2.3.2

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**Objectives:** The aim of this study was to explore and describe the subjective experiences of agoraphobia in Hong Kong Chinese.

**Methods:** This was a cross-sectional descriptive study, using combined qualitative-quantitative approach. In the qualitative part, 2 focus groups were held, with 9 participants suffering from DSM-IV panic disorder with agoraphobia. The material was transcribed and analysed into 4 main categories and 13 subcategories. One subcategory was identified as a new concept in agoraphobia. In the quantitative part, this subcategory was re-defined and measured by a 2-item self-rated questionnaire in another 35 participants suffering from panic disorder with agoraphobia.

**Results:** Qualitative data showed that the clinical manifestations of agoraphobia were specifically related to the underlying corresponding catastrophic cognitions. Individual's agoraphobic cognitions and symptoms were highly related to the identity of the surrounding people during

panic attacks in agoraphobic situations, which reflected the characteristic structure of Chinese's interpersonal network. Participants preferred reliance on self to cope with the anxiety first, then turned to their family members for help due to higher interpersonal trust. Participants also expressed fear of affecting others due to their illness. A new theme of agoraphobia, 'fear of making others worried and being a burden to others', was extracted from the qualitative data. Its validity was confirmed by the quantitative description of this new theme using the self-rated questionnaire as a methodological triangulation.

**Conclusions:** The central theme emerged from the qualitative data was that agoraphobia is a clinical condition which has a close relationship to Chinese cultural factors. 'Fear of making others worried and being a burden to others' is a new concept in agoraphobia worthwhile for further study.

### Evaluating Probabilistic Reasoning Bias and Attributional Bias amongst Deluded, Depressed and Normal Subjects

S2.3.3

L PAU

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**Objective:** To examine the presence of 'jumping to conclusion' (JTC) probabilistic reasoning bias and attributional bias amongst deluded, depressed, and normal subjects. The distinctiveness of the 2 biases in deluded subjects was also explored.

**Methods:** A total of 44 patients diagnosed with paranoid schizophrenia with delusions attending the outpatient psychiatric clinic of Kowloon Hospital were recruited as cases; 36 matched patients with major depression and 37 matched controls were recruited for comparison. JTC bias was assessed by an experimental probabilistic reasoning task (i.e. bead task) to test how much information each subject requested to reach decision. The attributional bias was assessed by the Internal, Personal and Situational Attributional Questionnaire.

**Results:** Both deluded and depressed subjects were found to have significant JTC bias. However, only the deluded subjects demonstrated significant attributional bias.

**Conclusion:** JTC bias was present in both deluded and depressed subjects implying that it was not a distinctive feature in people with delusion. However, attributional bias preserved its distinctiveness in deluded subjects. Therefore attributional bias was a relatively more distinctive bias than JTC bias in deluded subjects.

### Common Mental Disorders (CMDs) are Associated with Suboptimal Psychosocial and Physical Health Status

S2.3.4

CSM WONG

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**Background:** Mental disorders are highly prevalent health conditions. Common mental disorders (CMDs) such as depressive and anxiety disorders impaired physical and psychosocial functioning. However, the community has limited recognition for their needs. Even the persons

suffering from CMDs may fail to appreciate that their functional limitations are caused by mental health problems. **Methods:** The Hong Kong Mental Morbidity Survey 2010 (HKMMS10) is an ongoing epidemiological study for mental disorders in Hong Kong. It aims to estimate the community prevalence of significant mental health problems and the modulating factors.

**Results:** Interim analysis of the first 3500 participants of the HKMMS revealed that 3.8%, 4.8% and 7.1% suffered from depressive, anxiety, mixed anxiety and depressive disorders (MADD), respectively (unweighted prevalence). Among them, co-morbidities were presented in 15.6% of participants. Social and occupational functioning assessed by the Social and Occupational Functioning Assessment Scale (SOFAS) was found significantly lower in participants with CMDs ( $p < 0.001$ ). Higher proportion of them were unemployed or not working ( $p < 0.001$ ). More severe chronic physical conditions were also reported among participants with CMDs ( $p < 0.001$ ). The poorer social support perceived by these participants ( $p < 0.001$ ) suggested probable difficulty in building relationship with others. Comparing the background of participants in depressive, anxiety disorder and MADD showed no differences in gender ( $p = 0.249$ ) and marital status ( $p = 0.218$ ). Depressive participants were older ( $p < 0.001$ ) and with lower level of education ( $p < 0.01$ ) than the other 2 groups. Background and other socio-demographic variables in participants with anxiety disorders were similar to that of the MADD. Both psychosocial functioning ( $p < 0.001$ ) and physical status ( $p < 0.001$ ) in depressive participants were found to be the worst among the 3 groups while participants with MADD remained with normal functioning (SOFAS: mean = 76.79, standard deviation = 10.17) and better physical health status than the other 2 groups ( $p < 0.001$ ).

**Conclusion:** The preliminary findings suggest that CMDs are associated with suboptimal functioning. Evidence highlights the interactive effects between social and occupation functioning, physical and mental health. People suffering from different CMDs presented with relatively different features and adverse effects on functioning, tailor-made service and planning are therefore essential for individuals in the community.

## SYMPOSIUM 2.4 – Elderly Mental Health

### Non-pharmacological Interventions for Mild Cognitive Impairment

S2.4.1

LCW LAM

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Population ageing is a global issue and Hong Kong is of no exception. Advanced age is associated with a high risk of cognitive impairments. Dementia, the commonest neurodegenerative disorders, is reaching an epidemic in most developed and developing cities.

Despite major advances in research on the basic pathological mechanisms of brain degeneration, breakthroughs in treatment are limited. Pharmacological treatments are modest in effect sizes, and there has been no intervention with proven effects that prevents the development of dementia.

Taking considerations from the complex influences of environment stimulation on cognitive reserve, non-pharmacological interventions may play a role to optimise neuroplastic responses and preserve cognitive function. Large-scale epidemiologic studies and clinical trials have demonstrated that physical activities offer positive benefits for cognitive and brain health. Cognitive activities are also considered to be helpful in maintaining better abilities in healthy older adults and in people with mild cognitive impairments (MCI).

In a study of mind body exercise on MCI, completers of Tai Chi intervention showed slower rate of dementia progression at 1 year. In another local study of activity intervention, older adults showed an improved cognitive function with physical exercise, cognitive activity, and social intervention.

Despite an apparently promising scene, there are important areas requiring further exploration. The optimal modality and intensity of intervention, the personal characteristics that fit the intervention, strategies that improve long-term adherence, and the neural mechanisms underlying intervention are targets for further research in this area.

## Preliminary Findings of a Randomised Controlled Trial to Enhance Positive Gains and Reduce Burden by Alzheimer Caregivers

S2.4.2

ST CHENG

*Department of Psychological Studies, Hong Kong Institute of Education, Hong Kong SAR, China*

**Introduction:** Caregivers of relatives with Alzheimer's disease are highly stressed and at risk for physical and psychiatric conditions. Interventions are usually focused on providing caregivers with knowledge of dementia, skills, and / or support, to help them cope with the stress. What is missing in this approach is the lack of attention to the promotion of uplifts and gains from the caregiving experience, such as a sense of purpose and personal growth.

**Methods:** Two randomised controlled trials to enhance benefit-finding in order to reduce caregiver stress were conducted. They were essentially the same except that Trial 1 was a cluster trial (i.e. randomisation based on groups of participants) whereas in Trial 2, randomisation was based on individuals. Participants were randomised into 3 groups — benefit-finding, psychoeducation, and simplified psychoeducation. Participants in each group received a total of approximately 12 hours of training either in group or individually at home. Outcome measures were obtained at pretest, posttest (2 months), and 6, 12, 18 and 30 months. This paper presents the results for selected outcomes (caregiver burden and depression) at posttest.

**Results:** Results showed that the benefit-finding group reported lower burden and depression than the other 2 groups.

**Conclusion:** The emphasis on benefits rather than losses and difficulties provides a new dimension to the way interventions for caregivers can be conceptualised and delivered. By focusing on the positive, caregivers may be empowered to sustain caregiving efforts in the long term despite the day-to-day challenges.

## Pathway to Psychiatric Care for Older Persons in Hong Kong

S2.4.3

WC CHAN

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**Background:** Early intervention effectively improves quality of life, clinical outcomes, and social functioning of older persons with mental disorders. It is therefore important to identify the obstacles that delay their acquisition of psychiatric care.

**Objectives:** This is the first territory-wide study to examine the pathway to care taken by the local older adults with mental health problems, and elucidate the factors that delay or speed up help-seeking behaviours.

**Methods:** A total of 128 participants who presented for the first time to psychiatric service units in 5 clusters of the Hospital Authority during the study period were recruited. Their pathway to care was evaluated using WHO Encounter Form. In addition, they were assessed using Health of the Nation Outcome Scale, Cumulative Illness Rating Scale, and Social Support Rating Scale. Their socio-demographic data and psychiatric diagnosis were also recorded.

**Results:** On average, participants consulted  $1.3 \pm 0.5$  professional carers before reaching specialist psychiatric service. Hospital doctors (44.0%) and general practitioners (29.5%) were the major carers involved. The median duration between onset of symptoms and contact with first carer was 6.0 weeks whereas that between onset and consulting mental health professionals was 44.0 weeks. A number of socio-demographic, clinical, and pathway factors were associated with prolonged delays to mental health services.

**Conclusions:** The present study identified 2 major pathways to mental health care in Hong Kong, and factors influencing duration taken to reach psychiatric services. Understanding these factors assists us to develop a combination of strategies including public awareness programmes and training courses for healthcare professionals that may shorten the delay in receiving psychiatric assessment and care.

## Analysis of Cerebrospinal Fluid Biomarkers in Alzheimer's Disease, Dementia with Lewy bodies and General Paresis of the Insane

S2.4.4

YP NING, XM ZHONG, XN LUO, L HOU, HS SHI, Y TAN, D ZHENG, YF ZHANG, XR CHEN, N MU, JP CHEN, HB HE

*Guangzhou Psychiatric Hospital, China*

**Objective:** The prevalence of dementia keeps increasing along with the extended lifespan of Chinese population. Alzheimer's disease (AD) and dementia with Lewy bodies (DLB) are the 2 most common forms of neurodegenerative dementia. General paresis of the insane (GPI), which was shown to usually present with atrophy of the medial temporal lobe and AD-like cognitive impairment, is increasing in clinical practice. There is frequent overlap, both clinically and pathologically, among AD, DLB, and GPI. A $\beta$  and tau protein as biomarkers of Alzheimer-type (AD-associated) pathological changes in the brain and  $\alpha$ -synuclein as biomarker of synuclein-type pathological change, are important in differentiating subtypes of dementia. Visinin-

like protein-1 (VILIP-1) as biomarker of brain injury and cystatin C as a protective factor involved in the development of AD have been demonstrated recently. Our study aimed to systematically characterise the changes of the established AD and DLB biomarkers (t-tau, p-tau181, A $\beta$ 1-42, A $\beta$ 1-40, and  $\alpha$ -synuclein) and the potential biomarkers for dementia (VILIP-1 and cystatin C) in the cerebrospinal fluid (CSF) of patients with AD, DLB, and GPI.

**Methods:** A total of 120 patients (53 AD, 27 DLB, 40 GPI) were consecutively recruited along with 36 normal controls (NC). All subjects underwent lumbar puncture. ELISA was used to measure the levels of CSF t-tau (Innogenetics®, Belgium), p-tau181 (Innogenetics®, Belgium), A $\beta$ 1-40 (Innogenetics®, Belgium), A $\beta$ 1-42 (Innogenetics®, Belgium),  $\alpha$ -synuclein (Invitrogen®, USA), and VILIP-1 (BioVendor®, CZE). The levels of cystatin C were measured by a latex immunoturbidimetric assay using cystatin C reagents (Dako, Denmark). The statistical analysis was performed with the SPSS 18.0 statistical software. Data were analysed by one-way ANOVA with a post-hoc comparison using the LSD test.

**Results:** Compared to DLB, GPI and NC, AD group had significantly higher levels of CSF t-tau, p-tau181 and VILIP-1 (all  $p < 0.001$ ). On the other hand, AD, DLB and GPI groups had significantly decreased levels of A $\beta$ 1-40 and A $\beta$ 1-42 compared with NC (all  $p < 0.01$ ). The levels of A $\beta$ 1-40 and A $\beta$ 1-42 were similar among AD, DLB, and GPI. CSF  $\alpha$ -synuclein levels were significantly decreased in DLB in comparison to AD, GPI, and NC ( $p < 0.05$ ,  $p < 0.05$ , and  $p < 0.001$ , respectively). With respect to CSF cystatin C levels, no differences were found among AD, DLB and GPI, but all 3 dementia groups exhibited significantly lower CSF levels than those in NC (all  $p < 0.001$ ).

**Conclusion:** Our study confirmed CSF AD biomarker profile in patients with AD. As DLB group had decreased level of CSF  $\alpha$ -synuclein compared to AD, GPI and NC, CSF  $\alpha$ -synuclein might be a suitable biomarker for DLB. Decreased levels of CSFA $\beta$ 1-40 and A $\beta$ 1-42 possibly reflected the AD-like amyloid pathology in both DLB and GPI. However, VILIP-1 levels were found to be increased only in AD, not in DLB and GPI, which were also characterised with neuronal cell death and cell injury. It indicated that change of CSF VILIP-1 might be a specific feature of AD and VILIP-1 was more than just a brain injury biomarker. Decreased levels of CSF cystatin C might be a common feature in AD and in dementia with AD-like amyloid pathology.

## SYMPOSIUM 2.5 – Psychological Interventions

### Psychodynamic Psychotherapy: the Way Forward in Psychiatric Training in Hong Kong

S2.5.1

PKL CHAN

*Department of Psychiatry, Queen Mary Hospital, Hong Kong SAR, China*

The Hong Kong College of Psychiatrists has been trying to develop its psychotherapy training for psychiatric trainee doctors in Hong Kong.

A number of specialists have undergone an intensive 2-year course training before they could be endorsed as the first batch of foundation psychotherapy trainers in Hong

Kong and they help further develop the curriculum on psychotherapy training.

Psychodynamic psychotherapy is one of the major psychotherapy module recognised by the Hong Kong College of Psychiatrists and the Royal College of Psychiatrists.

The speaker is going to talk on the development of psychodynamic psychotherapy training in Hong Kong and how it is getting its momentum by being more structured in its curriculum, training, and examination. She will discuss the difficulties currently we are facing in Hong Kong and the way forward.

### Competency-based Training in Cognitive Behaviour Therapy

S2.5.2

CW WONG

*Private Psychologist, Hong Kong SAR, China*

This presentation summarises the evolution of cognitive behaviour therapy (CBT) teaching approaches in Mainland China during the past 12 years. It started off with didactic input of the “why’s” of CBT and the importance of evidence-based practices, followed by disorder-specific treatment approaches and the recommended algorithm. It soon transpired that the teachings need to be augmented by case examples, skills illustrations, role plays, and clinical demonstrations. Homework assignments in the form of discussion essays, formulation charts, and case studies were found to be useful in assessing the assimilation of knowledge and understanding of CBT principles. To ensure systematic acquisition of knowledge and skills, we followed the competency structure model of the Improving Access to Psychological Therapies (IAPT) programme, streaming competencies into generic, specific and meta skills. We also used the Cognitive Therapy Rating Scale (Young & Beck, 1980) as a basis of assessing competency in clinical practice when trainees were asked to do simulated clinical interviews. Finally, another hurdle is to assess the trainees’ abilities in dealing with resistance and roadblocks. As a start, we have just begun a trial of live case demonstrations of difficult patients presented to the trainers ‘cold’, followed by class discussion of the various strategies, principles and skills deployed. We hold the philosophy that competency-based training in CBT is a continuous and on-going process, and should not stop at any end-point once the specified competencies were reached.

### Mindfulness-based Psychological Intervention

S2.5.3

CSL LO

*Castle Peak Hospital, Hong Kong SAR, China*

Mindfulness has enjoyed a tremendous surge in popularity in the past decade, both in the popular press and in the psychology literature. Owing largely to the success of Mindfulness-Based Stress Reduction program (MBSR) and the Mindfulness-based Cognitive Therapy (MBCT) for depression, mindfulness has moved from a largely Buddhist concept to a mainstream psychological construct. Mindfulness is defined as a moment-to-moment awareness of one’s experience without judgement (Kabat-Zinn, 1990). Bishop et al (2004) distinguished 2 components of mindfulness: one that involves self-regulation of attention and one that involves an orientation towards the present

moment characterised by curiosity, openness, and acceptance. The present presentation will discuss the empirical evidence of mindfulness-based psychological intervention, with particular reference to MBSR and MBCT. Besides, recent research has focused on exploring the potential mechanisms underlying the mindfulness-based intervention and how the positive effects of mindfulness could be optimised. These recent findings will be examined critically and their implications on treatment will be highlighted. Furthermore, local experience in clinical research and application of mindfulness will be shared. The presentation will conclude with a discussion on future challenges in the application of mindfulness in various clinical settings.

## Relationship between Posttraumatic Stress and Growth

S2.5.4

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Very few research has been undertaken to investigate posttraumatic growth in relation to posttraumatic stress disorder (PTSD) symptoms. Posttraumatic growth and PTSD symptoms for 1045 survivors of motor vehicle crash (MVC) were examined by self-report measures, i.e. Chinese versions of the Posttraumatic Growth Inventory (PTGI) and Impact of Event Scale-Revised (IES-R), 1 week after MVC. Exploratory and confirmatory factor analyses were used to examine the factor structure of PTGI with 2 split-half samples. Results revealed a factor structure different from the original English-language version of the PTGI and the Chinese version of PTGI for cancer survivors. Factors extracted included: (1) Life and Self Appreciation; (2) Investment in New Directions and Existing Commitments; (3) Enlightenment; and (4) Relating to Others. They represented the 4 sub-dimensions of posttraumatic growth.

Specific relations between PTGI factors and PTSD symptoms were found on top of demographic and post-MVC variables. There were different predictors for different PTGI factors, stressing the value of studying them separately. PTSD symptoms had positive correlation with posttraumatic growth sub-dimensions of Enlightenment and Investment in New Directions and Existing Commitments, but negative correlation with Life and Self Appreciation. They had no correlation with Relating to Others. Demographic and post-MVC variables also had varied correlation with different posttraumatic growth sub-dimensions. Theoretical significance, clinical implications, and limitations of this study will be discussed.

## SYMPOSIUM 2.6 – Psychosocial Interventions for Severe Mental Illness

### Occupational Therapy for People with Psychiatric Disabilities in Taiwan

S2.6.1

SJ LU

*Taoyuan Mental Hospital, Taiwan*

Compared with people with other disabilities, people with psychiatric disabilities encounter more obstacles in finding jobs, housing, and resources due to the stigma and discrimination against mental illness. This population therefore needs more support and assistance to live in the community successfully. Currently, there are around 114,000 people with psychiatric disabilities in Taiwan and various mental health services have been provided for them.

In the hospital settings, acute wards and chronic wards are available for people suffering from psychiatric symptoms. When people are getting more stable, they may be referred to a day care ward where they can gradually develop the routine and interests as well as improve social skills and increase their interactions with society.

In the community settings, halfway houses and community rehabilitation centres are 2 main services for people with psychiatric disabilities. Halfway houses are residential programmes with minimal professional support. Community rehabilitation centres are day programmes which provide various activities and vocational training. People with psychiatric disabilities who manage symptoms appropriately can attend these programmes and learn to live independently.

As for people who have chronic conditions and cannot live independently, psychiatric nursing homes provide more residential support and care. People living in psychiatric nursing homes need assistance in doing activities of daily living and have limited ability to take care of themselves.

In addition to these regular mental health programs, several unique interventions are conducted for this population in Taiwan. Since poor cognitive function of people with psychiatric disabilities limits their ability and hinders them from integrating into the community, some experimental computer-assisted cognition rehabilitation programmes have been provided and aim to improve their cognitive function as well as job competitiveness. Moreover, the prominent recovery concept is gradually adopted. The Illness Management and Recovery (IMR) programme from the U.S. have been translated into Chinese and been implemented for several years.

### Life Coaching for Adult-onset First-episode Psychosis

S2.6.2

DC LAI<sup>1</sup>, IHH CHAN<sup>1</sup>, WWY TAM<sup>1</sup>, CLM HUI<sup>1</sup>, EYH CHEN<sup>1</sup>, WC CHANG<sup>1</sup>, SKW CHAN<sup>1</sup>, EHM LEE<sup>1</sup>, KF LEUNG<sup>2</sup>

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Functional deterioration is often noticed prior or subsequent to the onset of psychosis due to the illness or psychosocial factors. It is essential to reduce the impact of positive psychotic symptoms through the pharmacological treatment and it also appears to be equally important to address the need of early functional recovery. Life coaching is a collaborative, systematic, and solution-focused psychological interventional approach, in which the coach facilitates the enhancement of life experience and goal attainment in the personal life of the coachee. Despite the growing recognition of life coaching in the field of self-development, it has not yet been widely adopted to improve functional recovery in patients with early psychosis. The

Jockey Club Early Psychosis (JCEP) Project focuses on improving one's functional recovery on top of symptom management. JCEP attempts to develop a group-based life coaching programme that targets to build up participants' personal strength and motivates patients to get involved in an active and intensive change process through goal attainment in various life domains, for example, leisure, social, homemaking, work life, etc. It aims to coach the patients to achieve an optimal lifestyle after recovering from their acute episodes. To evaluate the effectiveness of JCEP life coaching programme for adult-onset first-episode psychosis patients, a randomised controlled clinical trial was carried out. It is hypothesised that the 6-month life coaching treatment would improve patients' social and occupational functioning, as well as life satisfaction and psychological well-being. Furthermore, changes of participants' self-perception after the coaching process will be investigated through the focus group interview and the repertory grid analysis.

In this presentation, details of the life coaching programme will be introduced. Preliminary outcome data will also be discussed.

## Neurocognition, Social Cognition, Perceived Social Discomfort, and Vocational Outcomes in Schizophrenia **S2.6.3**

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**Background:** Social cognition is regarded as the cognitive capacity for processing social information, such as affect recognition, theory of mind, and understanding the gist of social conversations and social reasoning. It has been suggested to be an important mediating variable in the relationship between neurocognition and functional outcome. The present study tested this model in relation to work rehabilitation outcome and added self-reported social discomfort as a possible mediator.

**Methods:** A total of 151 participants with schizophrenia or schizoaffective disorder participated in a 26-week work therapy programme (experimental condition: work therapy plus neurocognitive enhancement therapy; comparison condition: work therapy only). They were in treatment at the VA Connecticut Healthcare System, West Haven, or at the Connecticut Mental Health Center. Neurocognition was constructed as a latent construct comprising selected variables from our intake test battery representing executive functioning, verbal memory, attention and working memory, processing speed, and thought disorder. Social cognition at intake was the other latent construct comprising variables representing affect recognition, theory of mind, self-reported egocentricity, and ratings of rapport. The 2 latent constructs received support from confirmatory factor analysis. Social discomfort on the job was based on their self-report on a weekly questionnaire. In addition, we constructed a composite rehabilitation outcome that was based on how many hours they worked, how well they worked, and how complex was the job that they were doing.

**Results:** Path analysis showed direct effects of neurocognition on rehabilitation outcome and indirect effects mediated by social cognition and social discomfort. This model proved

to be a good fit to the data ( $\chi^2=2.128$ ,  $df=2$ ,  $p=0.345$ ; CFI=1.00 [saturated model], 0.998 [default model]; and RMSEA=0.021) and far superior to another model where only social cognition was the mediating variable between neurocognition and rehabilitation outcome ( $\chi^2 = 6.961$ ,  $df = 1$ ,  $p = 0.008$ ; CFI = 1.00 [saturated model], 0.868 [default model]; and RMSEA = 0.199). Findings suggest that neurocognition affects social cognition and that poorer social cognition leads to social discomfort on the job, which in turn leads to poorer rehabilitation outcomes.

**Conclusion:** The final model suggests that social cognition and social discomfort on the job may both be relevant targets for intervention. Implications for rehabilitation interventions are discussed.

## Exercises in Schizophrenia

**S2.6.4**

FLW TANG

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Schizophrenia is one of the most chronic and potentially disabling conditions in mental illness. Clinical evidence suggests that pharmacological management is effective in the management of schizophrenia, though with the possible side-effects of dyskinesia, obesity and risk of metabolic diseases, posing compliance issues. There is increasing literature supporting the effectiveness of exercise therapy as a well-received adjunct treatment in alleviating clinical symptoms in patients with schizophrenia. The types and dosimetry of exercise therapy in schizophrenia are discussed in this paper.

## SYMPOSIUM 3.1 – Forensic Psychiatry

### Psychological Evaluation and Treatment Programmes for Sex Offenders **S3.1.1**

JSH HUI

Correctional Services Department, Hong Kong SAR, China

Sex offence often brings grave harm to victims. In view of this and the public concern, the Hong Kong Correctional Services Department has long been committed to providing comprehensive rehabilitation services to sex offenders. With reference to the successful experience in North America and many European countries, active development in risk management and treatment programmes for sex offenders has been emerging in Hong Kong in last decade. The present symposium introduces the latest development of treatment programmes delivered in a specially designed Sex Offender Evaluation and Treatment Unit (ETU) for the incarcerated sex offenders in Hong Kong. ETU, being one of the first residential treatment programmes in Asia, was first set up in 1998. The rationale behind the latest programme development will be introduced. The programmes include systematic risks and needs assessment process and treatment programmes with content and intensity matched with participants' individual risk and need profile. The treatment programmes focus on criminogenic needs that have been found to be related to sex offending behaviour. The use of skill practice and therapeutic atmosphere created in the therapeutic unit have facilitated participants' in changing their offending behaviour.

Apart from treatment programmes, other local strategies for risk management of sex offenders including pre-

sentencing forensic evaluation of sex offenders, pre-release risk assessment and supervision after release will also be presented. It discusses ways to enhance risk management.

## Direction in Developing a New Community Treatment Order in Hong Kong

S3.1.2

SK LIEM

*Kwai Chung Hospital, Hong Kong SAR, China*

Hong Kong has followed other developed countries in moving towards community-based treatment for our mental patients. However, a number of tragic incidents in recent years have drawn attention from the public on how to improve our mental health service, especially for high-risk patients. An updated Mental Health Ordinance with inclusion of community treatment order may help to fill some of our current service gaps and facilitate the delivery of psychiatric service to mental patients in a less restrictive community setting.

A community treatment order (CTO) is a legal provision by which a doctor requires a person with mental illness who meets specific criteria to follow a course of treatment while living in the community. Two basic CTO models include a diversionary and a preventive one. It is difficult to apply randomised controlled trial in assessing effectiveness of CTO and there are variable findings in the literature. It is expected as different studies may use different forms of CTO with different criteria, recruit different types of patients, and use different outcome measures. Reduced hospitalisation was usually studied but it may not be a good outcome measure as some patients may actually benefit from spending more time in hospital. Generally, it has been consistently shown that patients on CTO were more likely to follow-up with mental health services and the improvement persisted even after CTO was discontinued. However, there has not been discernible reduction in overall rates of homicides by mental patients in countries like Canada, Australia, or New Zealand as a result of CTO, which have been in place for some years.

Currently, 3 sections in our Mental Health Ordinance deal with delivery of psychiatric treatment in the community, namely Conditional Discharge, Guardianship, and Supervision and Treatment Order. They all have limitations. For example, Conditional Discharge can only be applied to mental patients with a history of criminal violence or disposition to commit such violence, who are already under compulsory treatment in mental hospital. The patients can be recalled back to mental hospital only if they fail to comply with any of the specified conditions.

## A Study in Violence and Mental Illness

S3.1.3

ACY LIU

*Castle Peak Hospital, Hong Kong SAR, China*

**Introduction:** Studies on violence could better inform psychiatrists on risk assessment and prevention of violence. Previous local literature on the topic of violence in mental patients was sparse. A local study can provide valid and locally specific data to improve psychiatric service.

**Objectives:** This study aimed at investigating the correlates of pre-admission violence, and risk factors for inpatient violence in a general adult psychiatric hospital in Hong Kong.

**Methods:** A total of 165 subjects who were consecutively admitted to Castle Peak Hospital were recruited. All subjects were interviewed with standardised instruments (Structured Clinical Interview for DSM-IV [SCID], Brief Psychiatric Rating Scale [BPRS], Schedule of Imagined Violence, Defense Style Questionnaire) and author-designed retrieval form to record data concerning socio-demographic factors, historic factors, clinical management factors, psychiatric diagnosis, and symptom profiles. Data were verified with clinical documents and collateral information. Inpatient violent events were recorded by Staff Observation Aggression Scale – Revised. Univariate and multivariate logistic regressions were applied to identify significant correlates and risk factors for violence. The cut-off value of the risk factor which best predicted inpatient violence was found with a receiver operating characteristic curve.

**Results:** Multivariate analysis yielded 8 correlates of pre-admission violence. Positive correlates included compulsory admission status, past history of violence, BPRS-unusual thought score, BPRS-distractibility score, and delayed developmental milestones; negative correlates included diagnosis of major depression, BPRS-emotional withdrawal score, and attending subspecialty outpatient clinic. Risk factors for inpatient violence obtained from multivariate analysis were 2 BPRS scores — hostility and total manic score. A cut-off value of 10 in the combined BPRS hostility and total manic score (BPRS-hostility + total manic score) was found to predict a substantial proportion of inpatient violence. This cut-off value also has a high negative predictive value.

**Conclusion:** Local and setting-specific correlates and risk factors are useful to psychiatrists in assessing violence risk of mental patients. The findings also help to rethink the current psychiatric service provision. BPRS-hostility and total manic score could be a potentially convenient and valid assessment tools for violence in the future, suitable for use in daily inpatient psychiatric setting.

## Evaluation of a Model of Violence

S3.1.4

### Risk Assessment (HCR-20) among Adult Patients Discharged from a Gazetted Psychiatric Hospital in Hong Kong

RMY HO

*Castle Peak Hospital, Hong Kong SAR, China*

**Background:** The community has become increasingly interested in violent risk assessment and strategies in Hong Kong after several homicides were allegedly committed by mentally ill patients in recent years. An unstructured clinical model of violence risk assessment, the Priority Follow-up (PFU) system is employed in Hong Kong. However, internationally, structured professional judgement (SPJ) method has been considered as a more useful approach. The Historical/Clinical/Risk Management–20 items (HCR-20) is the SPJ instrument that most research has been published on. This has not been validated previously in a predominately Chinese population.

**Aims:** To test the inter-rater reliability and predictive validity of the HCR-20, and also compare the predictive validity between HCR-20 and PFU system.

**Methods:** This was a prospective cohort study. HCR-20 assessment was completed by trained raters for 110 discharged patients with a PFU status from general adult or forensic psychiatric teams in Castle Peak Hospital and also

for the same number of demographically matched controls. Violence, as defined by the HCR-20 manual, was determined from case notes at 6 and 12 months after the HCR-20 rating. **Results:** HCR-20 was found to have acceptable inter-rater reliability. The predictive validity of the structured final risk judgement was significant, yielding moderate-to-large effect sizes, for majority of violent outcomes at 6 months. It also had significantly better predictive ability for violence against property when compared with the PFU system.

**Conclusions:** The findings supported that the HCR-20 can be used reliably for assessment of post-discharge violence in both general adult and forensic psychiatric patients in Hong Kong. HCR-20, an evidence-based risk assessment tool, should be considered for introduction into Hong Kong to improve the current practice of violent risk assessment and management.

## SYMPOSIUM 3.2 – Learning Disability

### Intellectual Developmental Disorders: Adopting a New Name, Definition and Classification in ICD-11 S3.2.1

HWM KWOK

*Specialist in Psychiatry, Hong Kong SAR, China*

The terminology for the condition of mental retardation tends to change over time. In recent years, various names have been proposed or used to replace the term of mental retardation. At the same time, there is also a debate about whether it should be considered as a health condition or a functional problem in terms of disability. With the planned revision of ICD-10 to ICD-11, the World Health Organization appointed an international expert working group to review and resolve these issues. A new name “Intellectual Developmental Disorders” (IDD) is developed and its definition is refined. The current classification of clinical severity in form of mild, moderate, severe, and profound will remain unchanged but the current 4th-character subdivisions in ICD-10 to identify the extent of impairment of behaviours will be removed from the core structure. Problem behaviours will be considered as associated features rather than a subcategory of IDD.

### Analysing the Attributes of Long-term Residential Care for Persons with Profound Intellectual and Multiple Disabilities (PIMD) in Hong Kong S3.2.2

JSL CHAN, S TSO

*Siu Lam Hospital, Hong Kong SAR, China*

**Background:** In Hong Kong, 500 adults, aged 16 years or above, with severe-to-profound intellectual and multiple disabilities are under the custody of Hospital Authority for long-term residential care in 2 hospitals. Monthly clinical data have been collected for service development and staff deployment. In 2003, the attributes of residents were studied and compiled in a report. It showed that physical disability and communication problem were prominent among residents when compared with community counterparts. As a follow-up study, this report analysed the data of July 2009 and December 2011 to compare the findings with 2003.<sup>1</sup>

**Aims & Methods:** The aims of the study were to identify the characteristics of people with profound intellectual and

multiple disabilities (PIMD) for long-term residential care in Hong Kong and to compare the data in different timeline. A cross-sectional research design was adopted. Descriptive statistics were run to check the frequency distribution of demographic data and accuracy of data entry e.g. any missing data. Since most of the collected data were categorical, chi-square test was employed for analysis to reveal gender difference on specific issues and different caring nature of the residential setting.

**Results:** Descriptive statistics showed that the mean age of 495 residents was 43.17 years, ranging from 19 to 72 years. Majority fell on the ranges from 40 to 49 years, accounting for 37% of the sample. As compared the data obtained in the year 2003 (mean age = 36.2 years), the lifespan was increasing in this population group. The gender was evenly distributed, consisting of 49% female and 51% male. Over 53% had challenging behaviours, 60% had epilepsy, over 56% had physical deformity, over 77% were chair-bound and bedridden, only 28% could feed themselves independently, others (72%) required assisted feeding to naso-gastric or percutaneous endoscopic gastrostomy feeding; 78% were incontinent and no one could bathe oneself independently. From the profile, most residents required personal assistance in daily living activities.

**Conclusion:** The general characteristics of the studied subjects were similar to the previous study in 2003 based on descriptive statistics. If complex health needs are our goals to review and evaluate for service development, more nursing performance indicators should be considered in data collection. Recommendations for improving data accuracy are addressed, like a designated person to check and explore the reason of outlying or missing data. Some important intellectual disability characteristics should be included, e.g. number of residents having regular medication, taking antipsychotic drugs, and on behavioural programme.

#### Reference:

1. Hospital Authority Mental Handicap Infirmiry Service. Survey on mental handicap infirmiry clients, Siu Lam Hospital, Mental Handicap Unit of Tuen Mun Hospital and central waiting list. Hong Kong: HAHO; 2003.

### Prevalence, Topography and Function of Challenging Behaviour among People with Severe Intellectual Disability Living in an Infirmiry in Hong Kong S3.2.3

S TSO

*Siu Lam Hospital, Hong Kong SAR, China*

**Introduction:** Challenging behaviour is common in people with severe intellectual disability. There is virtually no local study on its prevalence, topography, and function. The aim of this study was to determine the prevalence, topography, and function of challenging behaviour in people with severe intellectual disability living in Siu Lam Hospital, a severe intellectual disability infirmiry.

**Methods:** All patients of Siu Lam Hospital who had severe intellectual disability and lived in the hospital for more than 6 months were included in the study. The Behavior Problem Inventory (BPI-01) was used to identify the presence, frequency, and severity of 3 forms of challenging behaviours: self-injurious, stereotyped, and aggressive / destructive behaviour. The primary function of each topography

identified by the BPI-01 was determined by Questions About Behavioral Function (QABF).

**Results:** The study was conducted from December 2010 to May 2011. Among the 350 patients of Siu Lam Hospital, 302 (86.3%) were eligible to enter the study. Of them, 106 (51.0%) had one form of challenging behaviour (either self-injurious, stereotyped, or aggressive behaviour); 66 (31.7%) of them had 2 forms; and 36 (17.31%) had three forms. The prevalence of at least one form of challenging behaviour regardless of severity was 68.9%. Among the 52 behaviour topographies in the BPI-01, 51 distinct topographical forms were identified. There were altogether 696 behaviours recorded – 215 (30.9%) were self-injurious, 308 (44.3%) were stereotyped, and 173 (24.9%) were aggressive behaviours. None of the subjects were reported to have ‘sniffing own body’ under the stereotyped behaviour category. The most frequently reported behaviours were ‘self-scratching’ under the self-injurious behaviour category, ‘yelling and screaming’ under the stereotyped behaviour category, and ‘destroying things’ under the aggression behaviour category. Of 302 patients, 81 exhibited challenging behaviour in a very frequent manner (daily or hourly basis), at a very severe level (self-injurious behaviour causing extensive tissue damage; stereotypes occurred more than 10 minutes per episode or aggression causing injury or require more than one staff to subdue the patient), or both. Among these patients with severe challenging behaviour, 67 (82.7%) had one form, 8 (9.9%) had 2 forms, and 6 (7.4%) had 3 forms of challenging behaviour. The prevalence of severe challenging behaviour requiring intensive intervention was 26.8%. As for the function of these challenging behaviour typographies, majority (62.4%) was maintained by non-social (sensory) reinforcement regardless of the form of challenging behaviour (63.7% for self-injurious, 68.5% for stereotyped, and 49.7% for aggressive behaviours).

**Conclusion:** The prevalence of severe challenging behaviour of Siu Lam Hospital was higher than the figures from overseas studies. A tailor-made challenging behaviour programme is needed to manage this group of highly specialised patients with severe intellectual disability.

### **Technology for People with Intellectual and Multiple Disabilities: an Overview**

**S3.2.4**

**EWC TAM**

*Interdisciplinary Division of Biomedical Engineering, The Hong Kong Polytechnic University, Hong Kong SAR, Hong Kong*

Assistive technologies have been applied to help individuals with intellectual and multiple disabilities to augment their functional limitations and improve independence, facilitate communication, learning and participation in other daily activities. In this presentation, we provide an overview on how assistive technology can help people with intellectual disabilities to overcome barriers. In addition, some of the important considerations before applying technology to individual end-users will be discussed.

### **SYMPOSIUM 3.3 – Psychiatry and Primary Care**

### **Partnering with Family Doctors to Study Depression in the Community: a Primary Care Research Network in Action**

**S3.3.1**

**WY CHIN**

*Department of Family Medicine & Primary Care and Institute of Medical and Health Sciences Education, The University of Hong Kong, Hong Kong SAR, China*

The primary care setting is the point of entry for most people into the health system and primary care clinicians are well placed to serve as the central healthcare provider for patients with depressive disorders. The choice and effectiveness of treatments or interventions by primary care doctors can have a profound effect on the quality of life of patients and the demand for other health care services. Unfortunately, despite the availability of effective treatments, many barriers prevent the optimal detection and management of patients with depressive disorders, and long-term outcomes are far from clear.

Examination of complex clinical interactions, such as those involved in diagnosing and providing care related to mental health, is difficult to study. One way is to use an observational study design to collect information from healthcare providers and patients at the point of care. This requires partnership with frontline clinicians who can help by providing information on what they think and do for their patients. In order for this information to be generalisable and meaningful for policymakers, one needs the collaboration of a large network of clinicians who are willing to participate in this type of research and who can remain committed to the project.

This presentation will describe how a practice-based primary care research network was established, involving 60 family physicians across Hong Kong, in order to examine the epidemiology and 12-month outcomes of depressive disorders in primary care.

### **Innovative Interventions for Anxiety and Chronic Stress in Primary Care**

**S3.3.2**

**SYS WONG**

*Division of Family Medicine and Primary Healthcare, School of Public Health and Primary Care, The Chinese University of Hong Kong, Hong Kong SAR, China*

Mental health problems are common in the primary care settings and treating them can be a challenging task for family doctors who have limited resources, time, and training to deal with these problems. As a result, innovative interventions or approaches that help family doctors deal with these common mental health problems in the community are important and research with rigorous design that evaluates mental health interventions in the primary care setting is needed to advance our knowledge in this field.

In this presentation, findings from randomised controlled trials that were carried out in primary care settings in Hong Kong that evaluated the effectiveness of group mental health interventions among patients and people affected with anxiety problems and chronic stress will be introduced and discussed. In addition, other mental health interventions that are used overseas for both prevention and treatment of common mental health problems in primary care will also be presented and discussed.

## Improving Mental Health Care through Collaborative Approach in Primary Care

S3.3.3

J LIANG

*Department of Family Medicine & Primary Health Care, New Territories West Cluster, Hospital Authority, Hong Kong SAR, China*

Depression is increasingly prevalent and will become the top 2 morbidities by 2030. This ever-growing service need has already exceeded the service capacity of psychiatric service at secondary care level. On the other hand, under-diagnosis, under-treatment, and under-support have long been criticised for mishandling mental health problems in primary care. What should be the possible way forward to ensure managing the service needs (quantity) and at the same time improving the treatment outcomes (quality) in primary care?

The IMPACT model appears to shed some light on the answer and give us promising results on managing elderly depression at community level through a collaborative team approach. IMPACT stands for Improving Mood Promoting Access to Collaborative Treatment. It emphasises the collaboration between multiple disciplines including primary care doctor, depression care manager, and psychiatrist at community level. The programme is characterised by (i) early identification of case by screening using Patient Health Questionnaire (PHQ-9) questionnaire; (ii) risk stratification followed by targeted intervention according to severity; (iii) the role of depression care manager on patient empowerment, engagement, behavioural activation, and problem solving therapy, and (iv) proactive tracking on treatment progress, regular team meeting for management review, and relapse prevention.

The model was adopted from the University of Washington from the United States with local modification. In June 2009, the POH IMPACT programme (悦满计划) is piloted at Family Medicine Specialist Clinic through collaboration with Wai Hung Well Elderly Clinic, and 1 year later extend to Community Rehabilitation Network (CRN) to enhance the preventive and patient empowerment component of the programme.

Over the past 3 years (June 2009 to May 2012), a total of 3680 elderly were screened and 174 elderly (4.7%) were identified as positive cases and recruited into the programme. Age ranged from 60 to 91 years with a mean of 71 years. Female (64%) had a higher prevalence than male (36%). 80% of the cases had 6 to 8 co-morbidities. Among those positive cases, 67% were suffering from mild depression, 25% were moderate, and 7.6% were severe. At 6-month follow-up, 77% cases showed improvement on PHQ-9 score and 46% cases showed improvement on PHQ-9 score by 50%. 44% were closed cases and 7.6% of cases needed psychiatric referral. Clinical outcomes of chronic disease such as HBA1c and blood pressure were shown to have improved.

The 3-year result of POH IMPACT programme suggested that this model worked well in our local community for management of depression through early detection, early intervention and better support to primary care doctors through collaborative approach. There was also evidence on improved depression treatment outcomes and chronic disease control.

## Impact of Integrated Mental

S3.3.4

## Health Programme at Primary Care Level – Avoidance of Psychiatric Specialist Referrals

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**Introduction:** Depression and anxiety disorders are 2 of the most common mental health problems encountered in our community. According to our cluster questionnaire survey in 2008, prevalence of depressive and anxiety symptoms, according to Hospital Anxiety and Depression score, in adults was 20 to 30%. Yet, management of these patients in our clinic setting depends on individual doctor's experience and many patients refuse treatment and referral to psychiatrists due to fear of stigmatisation. In order to help tackle the growing problem, integrated mental health programme (IMHP) was established in Fanling Family Medicine Centre (FLFMC) since 1 October 2010, providing mental health care to patients at primary care level by key workers and family medicine (FM) specialists. As the programme is funded by the Hong Kong SAR Government, the IMHP service has further extended to other FM clinics in New Territories East Cluster. Regular liaison meetings with local psychiatrist were also held for discussion on difficult cases. The programme aims to raise mental health awareness in frontline staff, offer management in primary care setting, and reduce psychiatric referral rates.

**Objective:** This was a retrospective study to review the effect of IMHP on current management of depression and anxiety and referral rates to psychiatric specialist clinic (PSC).

**Methods:** Mood scales, Patient Health Questionnaire (PHQ-9), and Generalised Anxiety Disorder Assessment (GAD-7) were used to assess the severity (mild, moderate, severe) of depressive and anxiety symptoms, respectively. Pre- and post-mood scales of patients attending IMHP between 1 October 2010 and 31 December 2011 were compared by t-test. In North District, number of referrals from FLFMC to PSC, North District Hospital, in the year before IMHP had commenced and that during the year of IMHP were recorded and compared by chi-square test. Denominator of referral rates were the number of patients with International Classification of Primary Care (ICPC) codes under "P" system, which refers to psychiatric symptoms and diseases. A p value of <0.05 was used to determine significance.

**Results:** A total of 1215 patients attended IMHP in FLFMC, with 543 patients discharged from key workers and 95 from doctors; 848 (70%) were female. Comparing pre- and post-intervention mood scores, the PHQ-9 scores reduced by 29% (14 to 10) and 36% (22 to 14) in moderate and severe risk groups respectively (p < 0.01). The GAD-7 score reduced by 25% (12 to 9) and 33% (18 to 12) in moderate and severe risk groups respectively (p < 0.01). In total, 1791 patients attended FLFMC for psychiatric symptoms in the year before IMHP had commenced and 164 (9.2%) were referred to PSC. In the year during IMHP, 2970 patients attended

FLFMC for psychiatric symptoms and 112 (3.8%) patients were referred. The reduction in referrals was clinically significant with  $p < 0.01$ .

**Conclusion:** IMHP demonstrated collaborative care for mental health patients at primary care level was effective and could reduce burden to PSC.

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## **SYMPOSIUM 3.4 – Neuroscience and Psychiatry**

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### **Neuroscience and Psychiatry**

**S3.4.1**

#### **G NORTHOFF**

*University of Ottawa Institute of Mental Health Research, Canada*

Recent studies in major depressive disorder demonstrated changes in predominantly the midline regions of the brain. Interestingly, these changes were observed in both subcortical and cortical regions as well as in humans and animal models of depression. However, the exact relationship of this set of anatomically closely subcortical-cortical midline system to the symptoms and its neurochemical modulation remains unclear. The symposium brings together major proponents in the research of midline alterations in subcortical-cortical midline regions and they all will present new data as continuation and extension of their previous data.

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### **Neural Mechanism of Decision-making and Addiction**

**S3.4.2**

#### **SWH WONG**

*Department of Psychological Studies, Hong Kong Institute of Education, Hong Kong SAR, China*

In this symposium, we will examine the recent neuroimaging findings on the neural mechanism of decision-making and their implications for understanding addictive behaviours. In particular, our discussion will focus on the interplay among the amygdala-striatum network, the prefrontal network, and the insular cortex. The amygdala-striatum network is a dopamine-dependent system well-known for its role in motivation and reward-seeking behaviour. The dopaminergic activity in the ventral striatum reinforces the repetition of behaviour and supports the encoding and processing of proximal stimuli associated with rewarding experiences. This activity is the key mechanism in generating the “wanting” component to seek reward. The amygdala-striatum network is therefore called the “impulsive system” because it motivates behaviour based on a reward-seeking perspective. On the other hand, the prefrontal cortex acts as the “executive control” or the “reflective” neural system. It restricts impulsive behaviour by considering potential consequences and delays gratification for better long-term goals. Besides, the insular cortex receives and integrates interoceptive signals from the body. Interoceptive signals provide important information about the body’s status which is translated by the insular cortex into what one subjectively experiences as a feeling of desire, anticipation, or urge and affecting the process of decision-making. We propose that addictive behaviours can be understood as the result of the imbalance between the prefrontal reflective system and the dopaminergic impulsive system. The enhanced bottom-up emotional and motivational processing from

the impulsive system would result in hypersensitivity to rewards while the less-effective top-down modulation from the reflective system would cause hyposensitivity to long-term consequences. Also, the activity of the reflective and impulsive system is modulated by the insular cortex which receives and integrates the body signals. We will compare the response of these networks in alcohol and marijuana users using functional magnetic resonance imaging.

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### **Revealing Brain Network**

**S3.4.3**

#### **Alterations in Patients with Psychiatric Disorders**

##### **S LIN**

*Department of Imaging and Interventional Radiology, The Chinese University of Hong Kong, Hong Kong SAR, China*

Network approaches offer new opportunities to study neural structural and functional characteristics of the brain in healthy or pathological conditions. In this talk, I will introduce 4 of the most popular types of brain networks that can be derived from neuroimages, namely default mode network, white matter architectural network, functional network, and cortical network. In particular, I will use our clinical research projects as examples to illustrate the application of these analysis techniques, including detecting default mode network alterations in patients with dementia, white matter network analysis in patients with ischaemic stroke, functional network analysis in demented patients, and cortical network analysis in patients with idiopathic scoliosis.

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### **Resting-state Brain Networks in Schizophrenia**

**S3.4.4**

##### **WD PU, ZN LIU**

*Second Xiangya Hospital, China*

Schizophrenia is a disorder often characterised by positive, negative, and cognitive symptoms, which may have different neurobiological bases. Over the past few decades, numerous neurological studies have revealed widely distributed abnormal neural circuitry in schizophrenia, although with little understanding about their roles in the pathology of this illness. A basic fact that the brain operates as a co-ordinated system composed of few brain networks suggests that it may have potential possibility to explore the roles of these affected neuronal circuitry in a brain-network framework. In recent years, 3 core brain networks have drawn most attention in neuroimaging studies, such as the Central Executive Network (CEN), Default Mode Network (DMN), and Salience Network (SN). The CEN mainly consists of the dorsal prefrontal cortex and the posterior parietal cortex. It has been suggested that the CEN dysfunction is involved in the neuropathology of cognitive symptoms such as working memory and attention deficit in schizophrenia. The DMN is mainly composed of the medial prefrontal cortex, the posterior cingulate cortex, and the precuneus. The neurobiological deficits of DMN have been suggested to correlate with self-relevant abnormalities that may contribute to the positive and negative symptoms of schizophrenia. The SN mainly includes the fronto-insular cortex and the anterior cingulate cortex, which has been suggested to be important in the salience attribution in the cortex. The SN deficits may lead to aberrant salience which is responsible for the hallucinations

and delusions in schizophrenia. Although these findings of brain networks provide a potential way to further understand which neural deficits contributes to the schizophrenia symptoms, we still have many challenging questions in the future. For example, schizophrenia is a highly heritable neuro-psychiatric disorder, one may question whether these brain network deficits have a genetic predisposition; the human brain is organised in a co-ordinated fashion, one may also ask whether interactive abnormalities between these brain networks contribute to schizophrenia pathology. Furthermore, for the distributed abnormal circuitry in the brain network, is there any specific role of certain circuitry on specific symptoms in schizophrenia? Here, we reviewed our recent neuroimaging studies, hoping to provide a clue to deepen our insights on these questions.

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## **SYMPOSIUM 3.5 – Sexual Diversity and Mental Health Issues**

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### **Sexual Diversity and Mental Health Issues – the UK Perspective** **S3.5.1**

**D BHUGRA**

*Institute of Psychiatry, King's College, University of London, United Kingdom*

Cultures influence definitions of normality and deviance which then becomes a legal matter. Once the culture has decided what is abnormal then legal templates can be used to make the behaviour illegal so that the behaviour gets managed in legal system rather than medical system. Legal status of a behaviour will also determine whether individuals seek help from medical sources or not, or whether treatment is given compulsorily. Cultures have also been divided into sex-positive and sex-negative cultures. In the former sexual function is largely for pleasure, whereas in latter settings it is largely for procreative purposes. Thus it is inevitable that cultures will determine attitudes to sexuality and sexual dysfunction and variation. Paraphilias are strongly influenced by cultures and acculturative processes. Thus nature of sexual variation is related to what has been seen as deviant or variant desires. These include various conditions some of which are simple variations whereas others are pathological extremes. These include various types of fetishism, exhibitionism, voyeurism, transvestism, pedophilia, and bestiality among others. These present to clinicians either through the legal system for assessment or for treatment, especially if these are causing major distress to individuals and their partners. There have been many theories explaining the presence of these conditions. Clinicians need to be aware of these broad areas of sexual variation from theoretical and clinical perspectives and should be willing to explore these with their patients when necessary. With the rapid movement of people and resources, and the acculturation as a result of exposure to social media, important issues for assessment and management are raised. Attitudes towards sexual activity and procreation will also influence acknowledgement and help-seeking. Role of sexual culture bound syndromes will be explored.

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### **Sex, Gender and ICD-11: Preliminary Recommendations of the WHO Working Group on Sexual Disorders and** **S3.5.2**

## **Sexual Health in Regard to Blocks F64-66**

**S WINTER**

*Division of Policy and Social Studies, Faculty of Education, The University of Hong Kong, Hong Kong SAR, China*

The WHO ICD revision process is well underway. Over the last year an 11-member Working Group on Sexual Disorders and Sexual Health, one of the many groups set up as part of the ICD revision process, has been working to determine what need there is for reform (and what reforms are needed, if any) in regard to the many diagnoses in ICD-10's Blocks F64 ('gender identity disorders'), F65 ('disorders of sexual preference'), and F66 ('psychological and behavioural disorders associated with sexual development and orientation'). The Group has developed and drafted preliminary proposals, which (as I write this abstract) are undergoing review by clinicians. The proposals are due to be uploaded soon onto the WHO ICD site for public comment. Indeed, they may already be made public by the time of the conference. The presenter, a member of the Working Group, will share the major recommendations for these 3 blocks of diagnoses and invite feedback. Conference attendees will find that the reforms proposed for all 3 blocks are major.

**Note:** The Group has also examined Block F52 (sexual dysfunctions) which will not be the subject of presentation today.

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### **Review of Therapies for Changing Sexual Orientation** **S3.5.3**

**PT HO**

*Kwai Chung Hospital, Hong Kong SAR, China*

Homosexuality refers to the enduring emotional, romantic, sexual, and affectional arousal and desire for people of the same sex. In the west, there was a shift from religious to scientific perspectives in understanding homosexuality since the middle of the 19th century. Homosexuality was viewed as a medical problem which originated from arrested psychological development or organic pathology till the mid 20th century, when research in non-clinical samples showed evidence to the contrary. In the 1950-70s, Sexual Orientation Change Efforts (SOCE) for converting homosexuality into heterosexuality was advocated, though its applications declined after homosexuality was removed from the DSM-II in 1973. However, there was a recent resurgence in SOCE endorsed by conservative religious organisations.

The American Psychological Association conducted a systematic review of peer-reviewed papers on SOCE published between 1960 and 2007. A total of 83 studies were identified but only 7 met the minimal scientific standard for evaluation of efficacy and safety. Most studies adopted weak research designs with no control groups. Convenience sampling, high attrition rates, reliance on retrospective recall of feelings, beliefs and behaviour before and after interventions, inaccurate measures of sexual orientation and outcome variables all invalidated claims on usefulness of SOCE.

For thousands of years, Confucianism influenced how Chinese people expressed their sexuality. In comparison with the West, homosexuality was better tolerated in China. It was not until the early 20th century when western pathological views on homosexuality were imported. Despite removal of homosexuality from the Chinese Classification of Mental

Disorders in 2001, SOCE have not waned in China.

A systematic review of researches on SOCE published in Chinese between 1980 and 2011 was performed by searching databases like “中国期刊全文数据库” and “万方数据” using terms “同性恋” and “性变态”. Twenty-seven studies were identified, of which 19 studies were case reports with 3 subjects or less. Only one large scale study included 328 subjects. Most studies adopted prospective designs, but none included control groups. Convenience sampling by self-referrals was used in 21 studies, only one study recruited subjects from the court. Diagnosis was predominantly based on clinical impression, formal classification criteria were explicitly followed only in 5 studies. Only one study utilised the Kinsey Scale in measuring sexual orientation. Treatment modalities encompassed cognitive and aversive therapies, psychoanalysis, hypnosis and qigong, which lasted from 1 week to 1 year. Follow-up periods spanned 1 month to 10 years. Dropout rate was 0 in 23 small-size studies, only one study reported 90% dropout rate. No validated measures of outcome variables were adopted, except in one study in which penile circumference was measured. In 23 studies, self-reports of decrease in same-sex, or increase in other-sex, attractions or behaviour were documented. Only 4 studies described subjects’ distress during treatment.

Serious methodological flaws were evident in SOCE researches conducted in western and Chinese populations. There is currently no scientific evidence to support efficacy of SOCE in reducing same-sex attractions or increasing other-sex attractions, while potential harm should not be overlooked. Therapists should not misrepresent promise of SOCE to clients who seek for them.

### **Legal and Medical Issues Relating to Transsexuals in Hong Kong as Highlighted in the Case of W v Registrar of Marriages**

**ETM CHEUNG**

*Faculty of Law, The University of Hong Kong, Hong Kong SAR, China*

The case of W v Registrar of Marriages concerned the right of a postoperative transsexual woman to marry her male partner. The Registrar of Marriages refused to register the marriage on the grounds that W’s proposed union did not qualify as one between a man and a woman as required under the Marriage Ordinance. W’s application for judicial review was rejected both by the Court of First Instance and the Court of Appeal, but her appeal is now pending the final determination by the Court of Final Appeal.

However, as commented by A Cheung J in the postscript of his judgement, “...the Court is acutely conscious of the suffering and plight of those who suffer from transsexualism, and the prejudice and discrimination they face as a minority group in our society, even though there are signs that people are becoming more sympathetic and accepting in attitude generally... it is certainly hoped that the Government would not view the result of this litigation as simply a victory, particularly not as a victory over those who have the misfortune to be suffering from transsexualism. Rather, it is hoped that this case would serve as a catalyst for the Government to conduct general public consultation on gender identity, sexual orientation and the specific problems and difficulties faced by transsexual people, including their

right to marry.”

The speaker will examine the court’s judgements and seek to highlight the legal and medical issues involved.

## **SYMPOSIUM 3.6 – Traditional Chinese Medicine and Psychiatry**

### **An Epidemiological Study of Concomitant Use of Chinese Medicine and Antipsychotics in Schizophrenic Patients: Implication for Herb-drug Interaction**

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**Background:** Herb-drug interactions are an important issue in drug safety and clinical practice. The aim of this epidemiological study was to characterise associations of clinical outcomes with concomitant herbal and antipsychotic use in patients with schizophrenia.

**Methods and Results:** In this retrospective cross-sectional study, 1795 patients with schizophrenia who were randomly selected from 17 psychiatric hospitals in China were interviewed face-to-face using a structured questionnaire. Association analyses were conducted to examine correlates between Chinese medicine (CM) use and demographic, clinical variables, antipsychotic medication mode, and clinical outcomes. The prevalence of concomitant CM and antipsychotic treatment was 36.4% (95% confidence interval [CI], 34.2-38.6%). Patients using concomitant CM had a significantly greater chance of improved outcomes than non-CM use (61.1% vs. 34.3%; odds ratio [OR] = 3.44; 95% CI, 2.80-4.24). However, a small but significant number of patients treated concomitantly with CM had a greater risk of developing worse outcomes (7.2% vs. 4.4%; OR = 2.06; 95% CI, 2.06-4.83). Significant predictors for concomitant CM treatment-associated outcomes were residence in urban areas, paranoid psychosis, and exceeding 3 months of CM use. Herbal medicine regimens containing Radix Bupleuri, Fructus Gardenia, Fructus Schisandrae, Radix Rehmanniae, Akebia Caulis, and Semen Plantaginis in concomitant use with quetiapine, clozapine, and olanzapine were associated with nearly 60% risk of adverse outcomes.

**Conclusions:** Concomitant herbal and antipsychotic treatment could produce either beneficial or adverse clinical effects in schizophrenic population. Potential herb-drug pharmacokinetic interactions need to be further evaluated.

## Treatment of Insomnia Using Acupuncture and Chinese Herbal Medicine **S3.6.2**

**KF CHUNG, WF YEUNG, MMK POON, FYY HO**  
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Insomnia is the most common sleep disorder. Effective pharmacological treatments for insomnia are available. However, their uses are limited due to concerns about long-term efficacy and potential for dependence, abuse, and adverse effects. Although psychological and behavioural therapies have empirical evidence for insomnia, they have remained underused because of the time-intensive nature and treatment non-adherence. Since the currently available treatments have their limitation, traditional Chinese medicine (TCM) treatments are being sought. Despite the long history of TCM, scientific data on TCM treatments for insomnia are very limited.

To investigate the effectiveness of TCM treatments for insomnia, we have performed 3 systematic reviews on the randomised controlled trials (RCTs) of (1) needle acupuncture, (2) Chinese herbal medicine, and (3) acupressure, reflexology, and auricular acupressure. Our systematic reviews showed that TCM treatments were more effective than placebo, western medication, psychotherapy, and non-treated controls in main outcome measures. However, most of the RCTs were poor in methodological quality; hence, the current evidence was not rigorous enough to make a valid conclusion. Higher-quality studies are necessary to better define the role of TCM treatments for insomnia.

We have conducted 2 RCTs on the efficacy of electroacupuncture for insomnia. The first RCT was on the short-term efficacy of electroacupuncture in primary insomnia, using non-invasive placebo needles as a control. We showed that electroacupuncture was more effective than treatment using placebo needles for improving sleep efficiency (percentage of time in bed spent sleeping) as measured by sleep diaries and actigraphy in 60 subjects with primary insomnia at 1-week post-treatment. The other RCT compared the efficacy of electroacupuncture, minimal acupuncture (a non-specific superficial needling at non-acupoints), and treatment using placebo needles for residual insomnia in 78 patients with major depressive disorder. We found that electroacupuncture and minimal acupuncture were significantly more effective than placebo acupuncture for treating insomnia symptoms. Compared with placebo acupuncture, electroacupuncture and minimal acupuncture resulted in greater improvement in subjective sleep measures at 1-week and 4-week post-treatment. No significant difference was found between electroacupuncture and minimal acupuncture, suggesting that the observed benefits of acupuncture could be due to non-specific effects of needling. Both electroacupuncture and minimal acupuncture were safe with minimal side-effects.

Using non-invasive placebo control, standardised screening procedure, and subjective and objective outcome measures, we found that electroacupuncture was a beneficial and well-tolerated treatment for primary insomnia and residual insomnia in major depressive disorder. Further studies are warranted to verify the effectiveness of other acupuncture techniques and other TCM treatments for insomnia.

## Energy Therapies: Traditional Chinese Medicine in New Bottles? **S3.6.3**

**EKM SHEN**  
*Centre on Behavioural Health, The University of Hong Kong, Hong Kong SAR, China*

In recent decades, energy therapies have gained wider acceptance in parts of the world such as Germany and North and South America. These therapies draw on concepts from quantum physics and from the meridian system in Chinese medicine and are able to offer rapid relief of emotional distress. The concepts in energy therapies focus on the energetic aspects of our being, both in wellness and in illness, and constitute a language that bridges our body and our mind. Although packaged in different ways, this language bears similarity to how traditional Chinese medicine has always talked about holistic health and the interplay between emotions and illness. Through energy therapies, the thinking of traditional Chinese medicine can be more readily applied to the treatment of emotional and psychiatric disorders. Hopefully, this new form of treatment would enhance public's accessibility and utilisation intent of mental health service in Chinese communities.

## A Comparison between Chinese Medicine Stagnation ('yu') Syndrome and Depression **S3.6.4**

**SM NG**  
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Depression was translated into Chinese as 'yiyu', with reference to the stagnation ('yu') syndrome in traditional Chinese medicine (TCM). The 2 disorders are, however, rather different in many aspects. Literally 'yu' means not flowing, entangled or clogged, which underscores the distinct conceptualisation of stagnation syndrome. Repression of emotions, especially anger, is often the first step in the aetiology of stagnation syndrome. According to the Five Elements Theory of mind / body connection in TCM, repression of anger will lead to a cluster of symptoms associated with the liver and spleen meridians. The characterising symptoms include obstruction-like feelings at head, throat, heart, stomach, and intestine. Despite an aetiology closely related to emotions, the clinical presentations are mostly somatic, and thus stagnation syndrome is generally seen at general TCM practice. Since stagnation syndrome is regarded as a bodily rather than mental disorder, it is a socially legitimate health concept for seeking attention.

My earlier study has operationalised stagnation as a construct useful to all mental health practitioners.<sup>1</sup> Exploratory factor analysis showed that stagnation comprised 3 components, namely (1) body-mind obstruction, (2) affect-posture inhibition, and (3) overattachment. A 12-item self-report scale with good psychometric properties was produced for screening for and assessing stagnation. Subsequently confirmatory factor analysis was performed with a different sample, supporting the robustness of the 3-factor structure.<sup>2,3</sup> The 3 revealed factors of stagnation have significant clinical implications. Most stagnation patients present with somatic, obstruction-like symptoms, which are the entry point for

working with these patients. When a trustful working relationship is in place, psychobehavioural interventions may be offered to deal with affect-posture inhibition. Last but not the least, if the patient is ready, interventions addressing overattachment may be offered, which is arguably the most challenging because it is in the spirituality domain.

My previous studies have revealed stagnation syndrome as having a demographic pattern different from depression. Stagnation showed no gender difference and was more common in adults who were younger, single, better educated, and occupying managerial / professional positions. In the subsequent study of a random community sample of 755 adults recruited by cluster sampling in Hong Kong, 6.2% of participants appraised themselves to be suffering from stagnation syndrome to a degree of an illness, of which 1.9% intended to seek treatment.<sup>2,3</sup> Stagnation showed positive correlations with multiple somatic symptoms, depression,

and anxiety ( $r = 0.59-0.76, p < 0.01$ ). To conclude, stagnation is a fairly common condition associated with treatment-seeking behaviours.

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## FREE PAPER 1.1 – Severe Mental Illness

### Neurobiology of Subjective Tolerability to Antipsychotic Medications – Towards a New Synthesis **F1.1.1**

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Soon after the introduction of the first antipsychotic chlorpromazine, some patients complained about unpleasant subjective responses that led to their dislike towards medications, and frequently led to poor compliance. In the 1970s, more clinical and research attention resulted from the documented impact of such dysphoric responses on compliance behaviour, quality of life, and clinical outcomes. Though there have always been the general notions that “neuroleptic induced dysphoria” has something to do with dopamine, such a relationship was not clearly understood nor was it possible at that time to elucidate its neurobiological basis. The advent of neuro-imaging in the 1990s opened a new research vista that allowed us to probe the subjective and behavioural consequences of manipulation of striatal dopamine in schizophrenia. Using dopamine depletion strategy to mimic the dopamine blocking effects of various antipsychotics, we were able to characterise the neurobiological basis of such phenomena, as well as define boundaries using alpha-methyl-p-tyrosine (AMPT), a catecholamine-depleting agent as a chemical probe to induce dysphoria. Our single-photon emission computed tomography / magnetic resonance imaging scans and subsequent subjective and behavioural observations over 48 hours demonstrated the link between low striatal dopamine binding ratios and the emergence of dysphoric responses. Furthermore, our studies have demonstrated that such subjective responses, which play a major role in subjective tolerability to medications, are more complex than just a change in affective state. In addition, such responses include cognitive and psychomotor components, but with the subjective responses being the earliest behavioural change in the cascade of events that follows the dopamine depletion. In essence, such subjective changes are the earliest experiences that follow the ingestion of antipsychotics.

A review of the studies over the past 40 years which culminated recently in the elucidation of the genesis of subjective tolerability to antipsychotics will be presented in this presentation, including our new recent neuroimaging data.

### Association of Thought Disorder with Cognitive Dysfunctions in Schizophrenia: a Cross-sectional Study Done in a Tertiary Centre in Kolkata, India **F1.1.2**

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**Objective:** Thought disorder is a cardinal feature of schizophrenia but there are debates about whether it is due

to poor neurocognitive functioning or directly related to language dysfunction. Few studies have explored the relation between thought and other cognitive functions especially in India. Our objective was to compare the functioning of 6 cognitive domains of patients of chronic schizophrenia with an age-, sex-, and education-matched control group and to assess the relation of thought disorder with those cognitive functions.

**Methods:** Nine different neurocognitive tests were administered to 47 chronic patients and 29 healthy controls. Thought disorder was assessed by thought disturbance score derived from the Positive and Negative Syndrome Scale. Statcalc version 5.0 was used for statistical analysis. The neurocognitive function of patients and controls was compared by using t test. Pearson’s correlation was carried out between thought disorder and other neurocognitive functions.

**Results:** Patients with schizophrenia performed poorly in the areas of processing speed, verbal learning, verbal working memory, visual working memory, and executive function. Thought disorder was correlated inversely with phonemic fluency. Thought disorder was not associated with other areas of cognitive function. Age, education, income, or duration of the disease was not associated with thought disorder. Regression analysis showed that phonemic fluency can predict thought disorder.

**Conclusion:** Phonemic fluency is a function of frontal lobe. A particular role of frontal lobe in producing thought disorder has been proposed by many authors. However, a detailed assessment of language and other frontal lobe function is needed before giving any comment.

### The Relationships between Theory of Mind, Hostility Bias, and Aggression in Patients with Psychotic Disorders **F1.1.3**

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**Objective:** The aim of this study was to investigate whether the demonstration of aggression in psychotic patients was associated with theory of mind (ToM) deficiency and the presence of hostility bias.

**Methods:** Thirty individuals, aged 19 to 51 years, with a DSM-IV-TR diagnosis of psychotic disorder were recruited from the outpatient clinics of Queen Mary Hospital and Pamela Youde Nethersole Eastern Hospital. Individuals who had known mental retardation, co-morbid substance use disorders, and psychotic symptoms due to organic brain disorders were excluded. The Faux Pas Recognition Test was used to assess participants’ ToM and the Ambiguous Intentions Hostility Questionnaire was used to examine the presence of hostility bias. Finally, the Conflict Tactic Scale was used to measure the frequency of demonstration of aggressive behaviour in the past year.

**Results:** One-way ANOVA was conducted to explore the group differences (paranoid vs. non-paranoid symptoms) on performance on the 3 measures. Results revealed significant differences in the performance on ToM ( $F(1, 28) = 82.95, p < 0.001$ ), hostility bias ( $F(1, 28) = 60.60, p < 0.001$ ), and aggression ( $F(1, 28) = 10.50, p < 0.01$ ) between

the paranoid and non-paranoid groups, suggesting that patients with predominately paranoid symptoms were more susceptible to ToM anomalies and hostility bias, and had a higher frequency of aggressive behaviour relative to their non-paranoid counterparts. Correlational analysis revealed significant associations between ToM and hostility bias ( $r = -0.80, p < 0.001$ ), between ToM and aggression ( $r = -0.36, p < 0.05$ ), and between hostility bias and aggression ( $r = 0.42, p < 0.05$ ). Nonetheless, multiple regression analyses showed that hostility bias was neither a mediator nor a moderator in the relationship between ToM and aggression.

**Conclusion:** The present study provided preliminary evidence that social cognition (i.e., ToM) and social-cognitive attributional styles (i.e., hostility bias) are related to the demonstration of aggression.

### A Pilot Therapeutic Photography Programme for People with Mental Illness **F1.1.4**

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**Background:** Using photography as a therapeutic tool has been employed in western countries for some time. Yet, in Hong Kong, this is a relatively new intervention for people with chronic mental illness. This is the first study in Hong Kong to evaluate its effectiveness for people with mental illness. This study aimed to (1) develop a therapeutic photography programme, (2) examine the changes in participants before and after the programme in symptomatology and self-efficacy, and (3) understand the impact of photography as a therapy to participants.

**Methods:** A single-group pre-and-post-programme open design was adopted. Subjects were (1) those with chronic mental illness and attending Psychiatric Day Hospital, (2) aged between 15 and 65 years, and (3) able to understand Cantonese. Quantitative data including Brief Psychiatric Rating Scale (BPRS), Chinese General Self-efficacy Scale (CGSS), Client Satisfaction Questionnaire were collected before, upon completion of, and 1 month after the programme. Qualitative methods including dual moderator focus group and semi-structured interviews were also used as outcome measures. Interview content was transcribed and analysed using a thematic analysis approach.

**Results:** A 13-session group programme was designed. A total of 25 participants (11 male and 14 female) were recruited and 22 (88%) completed the programme. Reduction in BPRS by 20% (mean BPRS at baseline: 27.6, mean BPRS after therapy: 20.8,  $p < 0.05$ ) and improvement in CGSS by 13% (mean CGSS at baseline: 24.2, mean CGSS after therapy: 26.6,  $p < 0.05$ ) were noted. Participants reported that the programme helped them in terms of better awareness on their strengths and weaknesses, as well as their insight towards their illness. Furthermore, the programme also enhanced their interpersonal relationships, increased their sense of hope, led to their better resilience, and developed an interest in photography.

**Conclusion:** This is the first pilot study using photography as

therapeutic tool with promising feedback from participants. Therapeutic photography may become an important component of the treatment programmes for patients with chronic mental illness in the future. Further large-scale studies for its effectiveness are recommended.

**Declaration of interest:** The Project was developed jointly by Shatin Hospital Occupational Therapy Department and The Mental Health Association of Hong Kong from January to July 2012. The equipment was sponsored by the Digital Solidarity Fund of The Mental Health Association of Hong Kong.

### The Effectiveness of Short-term Psychoeducational Programme for Patients Suffering from Schizophrenia and Related Disorders **F1.1.5**

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**Objective:** To assess the effectiveness of short-term psychoeducational programme for patients suffering from schizophrenia.

**Methods:** A prospective comparative non-randomised study of the effectiveness of an 8-session psychoeducational programme for patients with schizophrenia was conducted in Republic Mental Health Center (Minsk, Belarus). Patient outcome measures were knowledge about disease, insight, medication compliance, social functioning, quality of life, and readmissions to hospital. Patients admitted to the hospital were recruited into the study. The participants were divided into 2 groups: the experimental group received pharmacotherapy and a psychoeducational programme, and the other (control) group received pharmacotherapy alone (standard therapy). The evaluation was conducted at baseline, at post-intervention for psychoeducational group, and at 2-year follow-up.

**Results:** Statistically significant increases in the knowledge of schizophrenia and insight were demonstrated at post-intervention in the psychoeducational group, but not in the control group. Statistically significant increases in medication compliance, social functioning, and quality of life were also demonstrated at post-intervention in both groups.. The statistically significant benefit of the psychoeducational programme in terms of increased knowledge about disease and enhanced insight at post-treatment and at 2-year follow-up time points was noted. The risk of readmissions (relative risk or odds ratio) was significantly lower during the 2-years period and the survival time was also significantly longer in the psychoeducational group.

**Conclusions:** A short-term psychoeducational programme seems to be able to influence knowledge, insight, and social functioning of patients with schizophrenia at post-intervention and at 2-year follow-up. This programme demonstrated a benefit in terms of risk of readmission and time-to-readmission during 2 years in comparison with standard treatment.

### The Birth of Peer Support Worker in a Regional Psychiatric Unit in Hong Kong **F1.1.6**

N PANG, SY LIU, YW PANG, CS CHANG

**Objectives:** In the past 2 decades, the recovery movement in the western countries has been established to empower the service users to have hope and meaningful life in face of limitations imposed by their mental illness. In order to put the recovery concept into practice in a psychiatric unit in Hong Kong, peer support workers are recruited as members of the healthcare team.

**Methods:** After the establishment of a clubhouse in the department, a typical recovery-based service, the positive changes of the service users have been experienced by the clubhouse staff. Strategies are therefore adopted to further pilot-test recovery-focused services in the department. Firstly, it was the formation of a service users' group known as the SHINE group. Within the group, service users are facilitated to take up an active role in their own recovery journey. The open, trusting, and warm culture in the SHINE group enhances the mutual support among the members. Second, another pilot programme on recovery-based service was then rolled out in the rehabilitation team with the involvement of the service users from SHINE. In this programme, the SHINE helps to 'nourish' the service users while the clubhouse provides the environment for their practice of peer support worker's principles.

**Results:** A task force group was established for the planning, monitoring, and evaluation of the peer support worker service. Two expert users were recruited as peer support workers. However, the preparation of the hospital staff in changing from the traditional care model to recovery-based model and accepting the peer workers as equal healthcare team members share the same challenges as preparing the service users to become peer support workers.

**Conclusion:** As the recovery movement is still in its infancy stage in Hong Kong, the recruitment and implementation of peer support worker service is crucial. In peer support worker service, the emphasis of service users as experts of real life experience is important. The promotion of social inclusion can indeed be a fast track to the implementation of the recovery-based service. The feedback from peer support workers are encouraging. Studies on the role and evaluation of the peer support workers are necessary for further development of this peer support worker service.

## Mental Health Recovery for Psychiatric In-patient Services — Perceived Importance of the Elements of Recovery

F1.1.7

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**Objectives:** "Mental Health Recovery" has been incorporated into the national policies and guiding principles for the transformation of mental health systems in overseas countries. In order to catch up with the global trend of mental healthcare reform, there is an urge to explore whether the local mental health services should become 'recovery-oriented'.

In the initial phase of considering a service transformation to be recovery-oriented, it is essential to explore the relevance and importance of the elements of recovery. An assessment tool that measures the perceived importance of the elements of mental health recovery is in need. This study aimed to develop a questionnaire for measuring the perceived importance of the elements of mental health recovery by psychiatric inpatients in Hong Kong and to test for the psychometric properties of the questionnaire.

**Methods:** Thematic content analysis of identified literature on mental health recovery was performed to identify the elements related to recovery. A questionnaire was developed to assess the perceived importance of the identified elements. An expert panel was set up to evaluate the content validity and patient focus groups were held for evaluation of its face validity. Participants were recruited from the medium-stay and rehabilitation wards of Castle Peak Hospital.

**Results:** A total of 101 psychiatric inpatients completed the questionnaire and the majority of them suffered from schizophrenia (75.2%). "Having meaning in life" was rated by 91.1% of the participants as an important element of recovery, followed by "Hope" (86.1%) and "General health and wellness" (85.1%). Cronbach's alpha for internal consistency was 0.908. Moreover, exploratory factor analysis yielded 7 factors and intraclass correlation coefficients revealed fair-to-good test-retest reliabilities between the items.

**Conclusion:** The results support the psychometric properties of the questionnaire for the measurement of mental health recovery and serve as a basis for the future development of recovery-oriented services in psychiatric inpatient settings in this locality.

## Attitude Towards Recovery in Chinese Mental Health Professionals

F1.1.8

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**Objective:** "Mental health recovery" has been implemented in the non-Chinese populations in different overseas countries which have adopted the concept of recovery-oriented care as either their national policies or guiding principles of mental health service reform. The traditional healthcare service delivery model in the Chinese population emphasises medical paternalism and the healthcare professionals tend to decide the treatment plans for the patients. Before the implementation of recovery-oriented services, staff training on the concept and elements of recovery needed to be firstly addressed. Before the rollout of staff recovery training programmes, it is essential to assess the staff's attitudes towards and their concept on recovery. This study aimed to explore the attitudes of Chinese mental health professionals towards recovery.

**Methods:** A convenient sample of Chinese mental health professionals of different disciplines including psychiatrists, psychiatric nurses, occupational therapists, clinical psychologists, and social workers in Castle Peak Hospital were recruited in the period July 2011 to October 2011. They were asked to fill in the Recovery Attitude Questionnaire-16 (RAQ-16). Their acceptance of recovery was explored.

**Results:** A total of 206 Chinese mental health professionals completed the RAQ-16. Among the healthcare professionals, we found that occupational therapists have the highest

acceptance of recovery whereas psychiatrists have a relatively lower acceptance of recovery as compared with the other healthcare professionals. In general, the healthcare professionals had high acceptance of recovery. Almost all the healthcare professionals strongly agreed or agreed that a good understanding of one's mental illness helps in recovery (96.6%) and that the recovery process requires hope (95.6%). About 70% (68.9%) strongly agreed or agreed that all people with serious mental illnesses can strive for recovery.

**Conclusion:** Chinese mental health professionals have positive attitudes and high acceptance of recovery and their mental readiness for the implementation of recovery is supported.

## Discriminate Schizophrenia from Bipolar Disorder Using Dynamic Causal Modeling **F1.1.9**

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**Objective:** Schizophrenia (SCZ) and bipolar disorder (BD) share most of cognitive deficiencies that make the distinction of the 2 illnesses difficult. In spite of the insufficient discriminatory power of the measurements of cognitive functions and inconsistent findings of neuroimaging studies about the 2 illnesses, changes of the posterior cingulate cortex (PCC) and the medial prefrontal cortex (MPFC) were still often reported. We aimed to discriminate SCZ from BD by using functional magnetic resonance imaging via dynamic causal modelling (DCM) analysis in this study.

**Methods:** Twelve patients with BD, 26 with SCZ, and 24 healthy control subjects (HC) were recruited to complete the 2-back task. Their task performances were then compared. DCM analysis was also applied to compare the effective connectivity between the 2 brain areas among the 3 groups.

**Results:** The regions of interest were MPFC (0, 50, 37) and PCC (-9, -61, 13) that showed decreased activation during task completion. Both patient groups had remarkably poorer task performances than HC but had no significant difference between one another. The model for BD was unidirectional connectivity from the MPFC to the PCC, with the 2-back task acting as the stimuli acting on the MPFC. On the other hand, the models for both SCZ and HC were bidirectional connectivity between the MPFC and the PCC, with the 2-back task acting on the MPFC and the PCC respectively.

**Conclusion:** Three distinctive models standing for different groups could discriminate each other well. The altered effective connectivity between the MPFC and the PCC in the 2 patient groups may suggest an intermediate phenotype of cognitive function.

## FREE PAPER 1.2 – Child and Adolescent Psychiatry

### Pathological Internet Use in Indian High School Students and Its Association with Depression, Stress, and Anxiety **F1.2.1**

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**Background:** Internet addiction is an upcoming and less researched entity in psychiatry. There is a dearth of studies on internet addiction in school students in India. This is an effort to study internet addiction among school students of class 11th and 12th and to find its association with socio-educational characteristics, internet use patterns, and psychological variables, namely depression, stress, and anxiety.

**Methods:** Four hundred students of 4 English medium schools of Ahmedabad participated in the study, of which 328 (82 %) completed the questionnaires. Young's Internet Addiction Test was used to establish internet addiction. Depression Anxiety and Stress Scale (DASS 21) was used to assess depression, stress, and anxiety.

**Results:** Forty-one participants (12.5%) had internet addiction, of which 27 (65.9%) were males. Their ages ranged from 15 to 18 years. Internet usage among those with internet addiction included social networking sites (75.6%), chatting (48.8%), information searching (34.1%), gaming (31.7%), web surfing (21.9%), online shopping (19.5%), cyber relationships (12.2%), and cybersex (0.3%). Internet addiction was significantly associated with depression ( $p < 0.0001$ ), anxiety ( $p < 0.0001$ ) and stress ( $p < 0.0001$ ), as well as with hours spent per day online ( $p < 0.0001$ ). Usage of social networking sites ( $p = 0.0015$ ), chat rooms ( $p = 0.006$ ), cyber relationships ( $p < 0.0001$ ), and online shopping ( $p < 0.0001$ ) was higher in students with internet addiction. No significant association was found between internet addiction and socio educational variables.

**Conclusions:** Internet addiction is clearly associated with depression, stress, and anxiety in school students. This disorder needs to be defined more clearly. Parents, teachers and students should be made more aware of it.

### Application of Systemic Therapies in Child and Adolescent Psychiatry and Psychiatry of Intellectual Disabilities **F1.2.2**

TW FAN

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Systemic therapies may refer to: firstly a therapy modality such as family therapy, secondly a treatment content or focus on the systems surrounding the involved individuals, and thirdly a paradigm shift from the linear and intrapsychic causality to nonlinear dynamics in conceptualising psychopathology and psychotherapy.

While the underlying systemic thinking emphasises that the individuals must be considered within their social context as a whole, they are also seen as elements to dynamic systems with consistent context and rules governing the interrelationships among the elements around them, with different hierarchies and boundaries in their organisation of the systems and subsystems, with homeostatic mechanisms such as positive and negative feedback loops in controlling and maintaining the organisation.

Psychopathology and subsequent psychotherapy focus on the structures and functions of these systems and subsystems with the following assumptions: multiple viewpoints exist regarding what constitutes reality and change; multiple causalities account for most events; the entire system should

be the unit of attention and intervention; the therapist should be searching for systemic connections.

Such systemic thinking and systemic therapy should be included in the training and clinical practice of all mental health professionals working in Child Psychiatry and Psychiatry of Intellectual Disabilities because the presenting clients are inevitably subject to various carer systems which often include the immediate and extended families, school and rehabilitation organisations, the larger neighbourhood and community. Their mental health problems, emotional and behavioural disturbances are often presentations of the systemic misalignments.

Case materials will be presented to illustrate the application of systemic therapies in these clinical settings, highlighting on the psychopathologies and subsequent therapeutic intervention by mental health professionals.

## A Comparative Study of Prevalence of ADHD Spectrum Disorder among 6-8-Year-old School Children in India

F1.2.3

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**Objective:** Attention deficit hyperactivity disorder (ADHD) is a common but underdiagnosed disorder in India. The purpose of the study was to find out the prevalence of ADHD in 6 to 8 years old school children in Ludhiana city.

**Methods:** The study comprised 2224 school children taken from 3 different socio-economic strata of the society. Each child was screened by the SNAP-IV scale (teacher rating) for ADHD and oppositional defiant disorder (ODD). A total of 78 children who were positive on this scale were called to the hospital for detailed assessment.

**Results:** A considerably high prevalence of ADHD was found in school children, more in males than in females. The most common subtype was the combined type followed by inattentive and hyperactive / impulsive type. Male sex and younger age predispose to predominantly hyperactive / impulsive type of disorder while female sex and older age predispose to predominantly inattentive type of disorder. ODD as a co-morbidity to ADHD was more common in males with an increase in its prevalence with increasing age. Prevalence of ADHD was more common in first-born child (especially the only child) while other socio-demographic factors did not seem to have a significant influence on the prevalence of ADHD. However exposure to stress either due to the type of family or perinatal factors appeared to have some effect on the prevalence of ADHD.

**Conclusion:** ADHD is one of the most common problems affecting school children. The impact of this disorder on society is enormous in terms of the financial cost, stress, and the child's self-esteem. It is important to enhance the awareness of the caregivers about this debilitating disorder and formulation of effective management strategies.

## Sensitivity and Specificity of 15-Point Hypomanic Scale in Diagnosis of Bipolar II Disorder

F1.2.4

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**Objectives:** Many patients with major depressive disorders (MDD) were actually found to be suffering from bipolar II disorders (BP-II), when these patients were assessed by trained psychiatrists with systematic interviews targeting past hypomanic symptoms. A 15-point hypomania scale (15-HMS) was developed to help identify BP-II from MDD patients.<sup>1</sup> We applied this scale in a group of patients with mood disorder to determine its sensitivity and specificity in the diagnosis of BP-II.

**Methods:** A total of 622 consecutive patients including both outpatients and inpatients presenting with major depressive episode in Guangzhou Psychiatric Hospital were systematically interviewed with both SCID-I/P and 15-HMS. Patients screened positive for 8 or more symptoms in the 15-HMS were defined as being cases.

**Results:** Of 622 patients, 115 (18.5%) was diagnosed as BP-I; 156 (25.1%) was diagnosed as BP-II according to DSM IV criteria. Sensitivities of 15-HMS were 0.78 for the detection of BP-II and were 0.46 for the detection of BP-I. Specificity of 15-HMS was as high as 0.93.

**Conclusions:** The 15-HMS was fairly sensitive and highly specific for BP-II diagnosis, but not for BP-I diagnosis. Furthermore, some items in the symptom list of 15-HMS need to be further modified according to the Chinese culture. Potentially, 15-HMS could be a useful tool in clinical practice to help screen BP-II out from patients with MDD and to avoid misdiagnosis.

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## Service Disengagement in Schizophrenia Spectrum Disorders: a Qualitative-quantitative Mixed Study

F1.2.5

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**Objectives:** Disengagement from mental health services by patients with schizophrenia spectrum disorders is an important issue. An assessment tool was developed based on an in-depth understanding of patients' subjective experiences of disengagement. It may capture crucial factors other than demographic or clinical characteristics. A mixed research method was employed and 3 independent studies with distinctive research aims were carried out.

**Methods:** The first study was a qualitative study which explored reasons and factors that patients perceived to be influential in their decisions of disengagement. In-depth semi-structured interview was also conducted among 6 ever-disengaged male patients with schizophrenia spectrum disorder. A thematic analysis of the data yielded 7 themes which then grouped into 3 domains: service, patient, and medication. A 16-item self-administered questionnaire, the Patient's Perception of Psychiatric Service (PPPS)

questionnaire, was developed to measure patients' subjective perception about the service. The construction of PPPS was based entirely on the themes identified from the first study. Validation of the PPPS questionnaire was then conducted in the second study by recruiting 50 patients with psychosis of a psychiatric outpatient clinic. Results demonstrated that the PPPS questionnaire has good internal consistency, good test-retest reliability, and good convergent validity. The third study explored the relationships between disengagement and patients' perception of service using PPPS, level of engagement, satisfaction with service, and other factors including clinical characteristics and service utilisation. A total of 150 patients with schizophrenia spectrum disorder were recruited from 2 specialised outpatient clinics for this third study.

**Results:** Results suggested that PPPS and length of service predict service disengagement.

**Conclusions:** Measuring patients' perception of service, by using PPPS, can effectively identify patients with severe disengagement history. PPPS can therefore be used in clinical settings to enhance the understanding of a patient's appraisal of the service. Proactive measures can thus be taken to reduce service disengagement.

## Trajectories of Chinese High School Students' Academic Stress and Depressive Symptoms

F1.2.6

YY LIU

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**Background:** Using an initial sample of 567 Chinese high school students, the present study examined the developmental time-dependent links between Chinese high school students' academic stress and their depressive symptoms.

**Methods:** An academic stress scale and a shortened version of the Children's Depressive Inventory were used to measure Chinese high school students' academic stress and their depressive symptoms respectively. A multi-occasion 1-year longitudinal design method was adopted in the present study.

**Results:** Structural equation model indicated that the initial levels of academic stress from both poor school performance and too much homework were associated with the initial levels of Chinese high school students' depressive symptoms. Furthermore, the change rates of the academic stress resulting from school performance significantly predicted the changes in Chinese high school students' depressive symptoms.

**Conclusion:** The findings suggested that the associations between academic stress and depression were not static but dynamic in nature. Academic stress was therefore a strong predictor of Chinese high school students' depressive symptoms.

## Children of Families with a Mental Illness — Let Us Draw, Paint, Sing, Write, and Clap Some More

F1.2.7

A LO

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**Objectives:** The aim of the presentation was to highlight the

various issues that are faced by children and young people where someone in their family has a mental illness. It will also illustrate some of the current interventions that are in motion in Australia, both at the policy and grass-root levels. There will be discussion about the OurSpace programme in the Metro South Health area of Queensland, as well as the pilot research project on the use of creative arts as a tool to reduce psychopathological symptoms for this at-risk population.

**Methods:** This presentation provides preliminary findings of an exploratory, proof-of-concept pilot research project, which explores the effectiveness of the use of creative arts to reduce psychopathological symptoms in children of families with a mental illness. The project involved the delivery of a creative arts group which runs for 10 weeks, 2 hours per week, with pre- and post-group measurements obtained using the Beck Youth Inventories, the 14-Item Resilience Scale and the Impact of Event Scale – Revised.

**Results:** The preliminary results from the project will be presented at the conference, as the pilot group is currently in progress.

**Conclusions:** It is anticipated that (1) creative arts can be used as an effective tool to reduce psychopathological symptoms in children of families with a mental illness, and (2) areas for further research will be identified.

## Invention of Our Own Family Scale: the Needs and the Importance

F1.2.8

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**Introduction:** Research in the field of family study in Malaysia and Asia is facing a setback as there is no validated instrument to explore the family environment. The intensifying social problems such as illegal racing, substance misuse, conduct disorder, physical and sexual abuse, indicate that exploration of family environment is essential. The idea of inventing a new scale on family environment was triggered by poor outcomes of a previous research project "Translation and Validation of the Family Environment Scale (FES) Questionnaire". The results of this project showed that direct translation and adoption of a western questionnaire was not always feasible as Asian family values were different.

**Objectives:** To invent and validate a new family scale that is reliable and valid for the Asian population.

**Methods:** The development of the questionnaire can be divided into 6 stages: (1) identifying the domains of harmonious family and disharmonious families, (2) identifying the items for each domain, (3) having a language experts-led review, (4) conducting a pre-test on the final version, (5) running a pilot study with a small number of subjects, and (6) conducting a final validation of the questionnaire on a total of 600 subjects recruited from various ethnic groups, ages and levels of education.

**Results:** In a total of 588 participants, 86% were Malays, 14% Chinese, and 9.5% other races. Of these participants, 59% were females and 43% obtained secondary education. Exploratory factor analysis revealed that, from 43 items, 67% had good factor loading (>0.4). On further analysis, we decided to omit 13 items with lower factor loading values and leaving behind 6 items in each 5 domains. The

5 identified domains are namely: Togetherness/Harmony (factor 1), Expression (factor 2), Relationship & Family dynamic (factor 3), Conflict (factor 4), and Religiosity & Traditional Practice (factor 5). Overall Cronbach's alpha of 0.90 (very good) was obtained. Furthermore, the Cronbach's alphas of the 5 domain factors were 0.67, 0.81, 0.71, 0.74 and 0.77, respectively.

**Conclusion:** The new scale has good psychometric properties and it is a valid family scale for Malaysian population. The authors propose to extend the use of this scale for further psychometric studies in other Asian countries.

## Validation Study of Chinese Version of Disruptive Behaviour Stress Inventory in Caregivers of Patients with Attention Deficit Hyperactivity Disorder in Hong Kong

F1.2.9

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**Objectives:** To validate the Chinese version of the Disruptive Behaviour Stress Inventory (C-DBSI) and examine the local prevalence and the profile of caregiver stress in families having children with attention deficit hyperactivity disorder (ADHD).

**Methods:** The C-DBSI was developed. Ninety-six patients with ADHD and their caregivers were recruited from a child psychiatric outpatient clinic. The C-DBSI and the Parenting Stress Index/Short-form (PSI/SF) were administered for measuring the construct of caregiver stress. The Alabama Parenting Questionnaire and the Child Behaviour Checklist (CBCL) – Parent version for measuring parenting style and severity of ADHD symptoms respectively were administered. The validity and reliability of C-DBSI were examined, and the prevalence of caregiver stress was estimated by the PSI/SF.

**Results:** Content and face validity of C-DBSI satisfied the expert panel. Concurrent validity was significant, with a moderate correlation strength between the Stress Experience ( $r_s = 0.59$ ,  $p < 0.01$ ) and the Stress Degree ( $r_s = 0.58$ ,  $p < 0.01$ ) scales of the C-DBSI and the PSI/SF. Construct validity was significant, with a moderate-high correlation strength between the Stress Experience ( $r_s = 0.66$ ,  $p < 0.01$ ) and the Stress Degree ( $r_s = 0.71$ ,  $p < 0.01$ ) scales of the C-DBSI and the CBCL. The C-DBSI had high internal consistency for the Stress Experience ( $r_s = 0.95$ ,  $p < 0.01$ ) and the Stress Degree ( $r_s = 0.97$ ,  $p < 0.01$ ) scales, and had a satisfactory test-retest reliability. In this study, the group with more severe ADHD symptoms was associated with higher caregiver stress.

**Conclusion:** The C-DBSI is a reliable and valid instrument to measure caregiver stress in ADHD in local clinical setting. In this study, caregiver stress is high in families with children of ADHD, and it is significantly and positively correlated with severity of ADHD symptoms.

## Verbal Information Disclosure / Non-disclosure in Psychosis and Their Full Siblings

F1.2.10

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**Introduction:** Language disturbances, in a milder form, have also been found in the non-schizophrenic relatives of patients. One ongoing project has found that the patients with schizophrenia are less tactical in controlling verbal information compared with healthy subjects.<sup>1</sup> The current study thus aimed to investigate the capacity of disclosing verbal information among both schizophrenic patients and their non-schizophrenic full siblings.

**Methods:** A total of 40 subjects will be recruited in each group. As thus far, a total of 10 patients with psychosis (6 males, mean age  $26.20 \pm 5.16$  years, mean education  $15.20 \pm 2.74$  years), 10 of their matched full siblings (4 males, mean age  $26.30 \pm 7.97$  years, mean education  $14.50 \pm 2.76$  years), and 10 matched healthy controls (5 males, mean age  $23.50 \pm 5.13$  years, mean education  $15.20 \pm 3.05$  years) were assessed. The Conversation Analysis Paradigm was developed to elicit a conversation between individual participants and the experimenter under competitive (aim to withhold information) or cooperative (aim to communicate) conditions. The amount of information disclosure by the subjects (rated as high, middle, or low value) communicated in each unit of discourse was recorded. We calculated a flexibility score for all subjects (the discrepancy between the means of information value disclosed under 2 conditions). One-way ANOVA analysis was used to evaluate the group differences (patients, their full siblings, and controls).

**Results:** The preliminary data analysis showed a significant difference of the flexibility scores among the 3 experimental groups ( $F = 3.82$ ,  $df = 2$ ,  $p = 0.035$ ). Post-hoc test showed that patients were significantly more inflexible in disclosing verbal information under different conditions when compared with their siblings ( $p = 0.047$ ). No significant difference was found between control and sibling groups and there was only a trend showing healthy subjects as being more flexible than the patient group.

**Conclusion:** Patients with psychosis were less capable of controlling their verbal information than their full siblings while their siblings did as well as the healthy controls. Further investigation is needed with a larger sample size.

### Reference:

1. Xu JQ. Verbal information disclosure/non-disclosure in psychosis: a preliminary result. Presented at the International Conference in Early Psychosis in Asia, Hong Kong. 13-14 Jan 2012.

## FREE PAPER 2.1 – Common Mental Disorders

### Anxiety Disorders and Coping Styles: a Comparative Study between Psychiatric Nurses and Medical Nurses

F2.1.1

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**Objectives:** To determine the prevalence of anxiety disorders among nurses working in a public mental hospital compared to nurses working in a general medical unit, as well as to identify the coping styles associated with the illness.

**Methods:** In this comparative cross-sectional study, socio-demographic characteristics were gathered. Anxiety disorders were diagnosed using the Mini Neuropsychiatric Interview. Coping Inventory for Stressful Situations was used to assess the coping styles utilised. The study population comprised all the nurses working in a public mental hospital ( $n = 100$ ) and nurses working in a general medical unit (general hospital) [ $n = 88$ ]. Sample collection was performed using a criterion sampling, with sample size calculated for an unmatched case-control study of 1:1 ratio. Data were analysed using SPSS version 18.0.

**Results:** The prevalence of psychiatric illness among the nurses who participated ( $n = 188$ ) was 21.3%, with 16% suffering from anxiety disorders. Although nurses from the psychiatric wards had a higher prevalence of anxiety disorders compared to those from the medical wards (17.0% vs. 15.0%), the difference was not statistically significant ( $p = 0.70$ ). Anxiety level among the psychiatric nurses was significantly associated with an age of more than 50 years old ( $p = 0.019$ ; odds ratio [OR] = 5.019; 95% confidence interval [CI], 1.305-19.309;  $r = 0.21$ ) and higher levels of stress ( $p = 0.004$ ; OR = 8.625; 95% CI, 1.978-37.609;  $r = 0.37$ ). Whereas, for the nurses of the general medical unit, they were more likely to suffer from anxiety disorders if they were also medically ill ( $p = 0.006$ ; OR = 5.019; 95% CI, 1.305-19.309;  $r = 0.29$ ). Emotion-oriented coping style was found to have largest association with anxiety disorder among the nurses ( $\zeta = -2.470$ ,  $p = 0.014$ ), especially of those working in the medical unit ( $\zeta = -0.84$ ,  $p = 0.037$ ,  $r = 0.23$ ).

**Conclusion:** The factors that were associated with anxiety disorders among the psychiatric nurses were age (of more than 50 years) and stress, whereas among the medical nurses, being medically ill was associated with anxiety. Anxiety disorders were associated with emotion-oriented coping in both populations of nurses. From the study, it was found that certain factors were unique to the different populations of nurses. Further support should be given to the nurses, and helping them to cope with future difficulties is important, as nurses are frontline staff of the healthcare system in Malaysia.

## Optimising Maternal Functioning in Postpartum Depression **F2.1.2**

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**Objectives:** This study aimed to (1) examine the prevalence of postnatal depression in an obstetric outpatient sample; (2) examine the maternal outcomes of early intervention of postnatal depression; and (3) explore mother-infant bonding difficulties in women with severe postpartum mental illness

**Methods:** This prospective study of postpartum obstetric outpatient attendees used the Edinburgh Postnatal Depression Scale (EPDS) to identify probable cases of postnatal depression. Probable cases (defined as EPDS  $\geq 13$  from previous validation study) were offered psychiatric intervention and baseline assessment included EPDS for

symptom severity, Global Assessment of Functioning (GAF) scale for functional status, and Euroqol questionnaire (EQ-5D) for health-related quality of life. These outcome measures were repeated at 6 months, or upon discharge if earlier, and patient satisfaction was also assessed.

**Results:** A total of 8139 women were eligible for the programme, and 6424 (79%) gave informed consent for participation. Of these patients, 6.9% (441) of the participants scored  $\geq 13$  on the EPDS, whilst 6.3% (406) scores between 10-12; 38% (168) of the probable cases accepted psychiatric intervention, and the majority (92%) were seen within 2 weeks. Improvement in outcome measures were seen across all domains: 77% had  $>20\%$  reduction in EPDS symptom scores, 84% had improvement of GAF functioning scores, 91% had improvement in health quality EQ-5D scores. Majority of women (92%) were satisfied with the care provided. In a small group of depressed mothers with associated mother-infant bonding difficulties, interventions included supportive counselling that aimed at addressing the impaired maternal-infant dyad. Preliminary findings suggest a benefit of these interventions. For women who declined psychiatric intervention, supportive counselling by trained perinatal mental health case managers also provided an alternative pathway of care.

**Conclusion:** Early detection and intervention of postpartum depression can improve outcomes in symptom manifestation, functioning level, and health-related quality of life. Mother-infant relational difficulties can also benefit from such intervention.

## Profiles of Neuroendocrine Systems and Cytokines in First-episode Depressive Patients Before and After Antidepressant Treatment **F2.1.3**

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**Objective:** To explore the profiles of neuroendocrine systems and cytokines in Chinese first-episode depressive patients before and after treatments.

**Methods:** A total of 35 Chinese first-episode depressive patients and 35 normal controls matched for age, sex, and education were recruited in the study. The clinical and social demographic data were collected from all subjects. Symptom severity was rated with the Hamilton Depression Rating Scale-17 (HAMD-17) for depressive subjects. The serum levels of triiodothyronine (T3), thyroxine, free triiodothyronine (FT3), free thyroxine (FT4), thyroid-stimulating hormone (TSH), adrenocorticotropin at 8 am (8am-ACTH), and corticosterone (CORT) in depressive subjects before and after 6-week treatments and in normal controls were measured by chemiluminescence immunoassay, while serum levels of interleukin-6 (IL-6), IL-8 and tumour necrosis factor- $\alpha$  (TNF- $\alpha$ ) were measured by enzyme-linked immunosorbent assay.

**Results:** (1) The pre-treatment levels of T3, FT3, TSH were significantly lower in the patients than in controls (T3:  $1.52 \pm 0.30$  pmol/l vs.  $1.72 \pm 0.36$  pmol/l,  $p = 0.012$ ; FT3:  $4.29 \pm 0.48$  pmol/l vs.  $4.62 \pm 0.44$  pmol/l,  $p = 0.004$ ; and TSH:  $1.04 \pm 1.33$   $\mu$ IU/ml vs.  $1.90 \pm 1.52$   $\mu$ IU/ml,  $p = 0.002$ ). The pre-treatment levels of FT4 was significantly higher in the

patients than in controls ( $11.53 \pm 1.96$  pmol/l vs.  $10.31 \pm 1.24$  pmol/l,  $p = 0.03$ ). The levels of T3 and FT3 in the patients elevated significantly after 6-week treatments (T3:  $1.81 \pm 0.47$  pmol/l vs.  $1.52 \pm 0.30$  pmol/l,  $p = 0.000$ ; and FT3:  $4.70 \pm 0.73$  pmol/l vs.  $4.29 \pm 0.48$  pmol/l,  $p = 0.004$ ). (2) The pre-treatment levels of 8am-ACTH were significantly higher in the patients than in controls ( $7.77 \pm 4.26$  mmol/l vs.  $5.80 \pm 3.84$  mmol/l,  $p = 0.047$ ) and were elevated significantly after treatments ( $8.79 \pm 4.90$  pmol/l vs.  $7.77 \pm 4.26$  pmol/l,  $p = 0.025$ ). The level of 8am-CORT in the patients also decreased significantly after treatments ( $389.20 \pm 153.5$  pmol/l vs.  $405.70 \pm 114.4$  pmol/l,  $p = 0.009$ ). (3) The pre-treatment levels of IL-6 and TNF- $\alpha$  were significantly higher in the patients than in controls (IL-6:  $29.23 \pm 15.57$  pg/ml vs.  $10.49 \pm 5.14$  pg/ml,  $p = 0.000$ , and TNF- $\alpha$ :  $17.31 \pm 4.44$  pg/ml vs.  $16.83 \pm 4.54$  pg/ml,  $p = 0.010$ ) and decreased significantly after treatments (IL-6:  $28.31 \pm 16.03$  pg/ml vs.  $29.23 \pm 15.57$  pg/ml,  $p = 0.017$ , and TNF- $\alpha$ :  $16.83 \pm 4.54$  pg/ml vs.  $17.31 \pm 4.44$  pg/ml,  $p = 0.010$ ). It was also the same case for the levels of IL-8 ( $24.22 \pm 8.13$  pg/ml post-treatment vs.  $27.74 \pm 7.67$  pg/ml pre-treatment,  $p = 0.008$ ).

**Conclusion:** The results suggest that there are some characteristic profiles of neuroendocrine systems and cytokines in first-episode depressive patients.

## Using Media to Encourage Help-seeking in Depression F2.1.4

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**Objectives:** Clinical depression is increasingly prevalent in a fast-changing city like Hong Kong. However, many people are found reluctant to seek help when they encounter depression. This study is the initial stage of a 2-year research that aims at building up a systematic and theory-driven model to explain how personal, social, and cultural factors affect individual's help-seeking incentive. This model would then help to build a media campaign with a more effective media message in later stages of the research.

**Methods:** Semi-structured in-depth interviews were done on 18 participants. The interview questions were based on the McGill Illness Narrative Interview (MINI) and the Theory of Planned Behaviour model, which allow the participants to produce their own explanatory models and help to identify culturally relevant contextual factors in the play.

**Results:** With the diverse results we gathered from the interviews, a behavioural model was built to present how various factors worked together to influence one's help-seeking intention and behaviour for depression. This model is currently being validated through a quantitative questionnaire in the second stage of the research. In this stage, participants seem to have a limited view on treatment options and have a diverse view on symptoms of depression which affect their help-seeking incentive. For example, one who believes that depression is just a temporary emotional state is less likely to consider the help-seeking behaviour as necessary.

**Conclusions:** Interventions and campaigns could target these factors to encourage help-seeking behaviours systematically. However, high help-seeking incentive cannot directly infer help-seeking behaviour, due to the unstable physical effects depression could bring along. Support and awareness by the family members and friends might then be a solution

to encourage help-seeking behaviour through network support. Also, it is essential to advocate holistic approach of mental health public education in order to increase universal awareness and increase mental health literacy so to increase help-seeking incentive.

## Depressive and Anxiety Disorders among Family Caregivers of Breast Cancer Patients Receiving Oncologic Treatment in Kuala Lumpur Hospital F2.1.5

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**Introduction:** Caring for a family member diagnosed with cancer can be highly stressful thus rendering the caregivers vulnerable to psychological morbidities. This study aimed to determine the rates of depressive and anxiety disorders as well as the predictive factors of these outcomes among the caregivers of breast cancer patients who were undergoing oncologic treatment.

**Methods:** A total of 130 caregiver-patient dyads attending the oncology centre for breast cancer treatment participated in this cross-sectional study. Data on the patients' socio-demographic and illness characteristics were obtained from their medical records while the caregivers completed 3 self-report measures: (1) socio-demography and the caregiving factor questionnaire, (2) Multi-dimensional Perceived Social Support (MSPSS), and (3) Depression, Anxiety and Stress Scale (DASS-21). Subsequently, those who met the cut-off points in DASS-21 were interviewed using the Mini-International Neuropsychiatric Interview (MINI) to diagnose depressive and anxiety disorders.

**Results:** Of 49.2% ( $n = 64$ ) caregivers who scored positively in DASS-21, 17.7% ( $n = 23$ ) of the 130 caregivers were diagnosed to have depressive disorders, while 11.5% ( $n = 15$ ) had anxiety disorders. Factors associated with these outcomes include ethnicity, duration of caregiving, the patients' functional status, caregivers' education level, shared caregiving, and patient's treatment type. Logistic regression analysis showed that the patients' functional status ( $p < 0.05$ ; odds ratio [OR] = 12.78; confidence interval [CI] = 3.76-83.49) and the caregivers' education level ( $p < 0.05$ ; OR = 9.30; CI = 1.82-47.57) significantly predicted depressive disorders while shared caregiving ( $p < 0.05$ ; OR = 6.29; CI = 1.91-20.77) and patient's treatment type ( $p < 0.05$ ; OR = 4.55; CI = 1.12-18.44) significantly predicted anxiety disorders in the caregivers of breast cancer patients on oncology treatment in this study.

**Conclusions:** A significant proportion of family caregivers were psychologically affected while caring for their breast cancer patient relatives. The predictive factors for depressive and anxiety disorders found in this study may guide in the identification and prevention of these conditions among this population.

## Evaluating the Effectiveness of F2.1.6

## Mental Health First Aid Program for Chinese General Public in Hong Kong

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**Background:** Mental Health First Aid (MHFA) is a public education programme originated in Australia, which aims at helping the general public to provide initial help to people with a mental health problem. The Standard MHFA Course covers a 12-hour training programme and is delivered by certified instructors. In the course, participants learn about the prevalence of and potential risk factors for various mental disorders, including depression, anxiety, psychosis, and substance misuse; 5 action plans to help people going through a mental health crisis; and resources available to help someone with a mental health problem (Kitchener & Jorm, 2002a). In Hong Kong, the Mental Health Association of Hong Kong introduced and developed MHFA in local Chinese communities since 2004. As there is little evidence on the effectiveness of MHFA in Chinese populations, this study is the first attempt to evaluate MHFA among the Chinese in Hong Kong.

**Objectives:** The study aimed to (1) evaluate the effectiveness of MHFA in improving Chinese participants' mental health literacy; (2) reduce social stigma towards mental illness; and (3) enhance participants' confidence in providing help and support to people with a mental health problem.

**Methods:** A time series experimental and control group design was adopted. Participants were Chinese general public aged 18 years or above with an ability to understand Chinese. The experimental group consisted of participants who had joined the 12-hour standard MHFA course. Participants in the control group attended public seminars on stress management or general health only. Participants were asked to fill out a questionnaire at pre-test, post-test, and at 6-month follow-up. The questionnaire consisted of Mental Health Literacy Scale (Jorm, 1997), Perceptions of the Causation of Mental Illness (Nakane et al, 2005), Personal Attributes Scale (Angermeyer & Matschinger, 2003), and Social Distance Scale (Link, 1987). A total of 277 participants were recruited: 138 were in the experimental group and 139 were in the control group.

**Results / Conclusion:** Compared to the control group, MHFA was found to enhance Chinese participants' ability to recognise depression and schizophrenia, and increased their beliefs about the helpfulness of certain professionals in treating persons with depression and schizophrenia. The programme was also able to reduce Chinese participants' stigmatising attitudes towards mental illness: the participants in the experimental group were able to perceive people with schizophrenia as being less dangerous, to attribute more biological and psychological causes to mental illness, and to have a decrease in social distance from people with mental illness. In addition, MHFA increased Chinese participants' confidence in offering help and support to people with mental health problems. Lastly, most of these effects were sustained at 6-month follow-up.

## Making Sense of Common Mental Disorders in the Community — a

## Hermeneutic Critique

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**Objective:** To distinguish common daily life experience from illness experience.

**Methods:** This paper examined the nature of the diagnosis of common mental disorders from the perspectives of philosophy of psychiatry and hermeneutics which are relevant to the expression of experience by patients and the decision making by clinicians in the process of psychiatric diagnosis.

**Results:** A comprehensive assessment of patients' illness experience involves consideration of the unique combination of various factors (biological, psychological, social, ethnic, linguistic, cultural, and religious) that affects how a particular individual expresses his or her experience.

**Conclusion:** A diagnostic process that involves the hermeneutic interplay between explanation and understanding in both patients and clinicians facilitate diagnosis of common mental disorders in the community.

## Study of Behavioural Pattern During Pre-menstrual Phase in Female Inmates of Central Prison, Bengaluru

F2.1.8

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**Background:** There has long been an interest in female criminality with a plethora of theories proposed to explain why some women commit antisocial acts. Semonides, a Greek philosopher, had warned of the moody nature of women in his literature. One of the parents of modern criminology, Lombroso (and Ferrero), contributed to this biological deterministic theory of female criminality in an 1894 study. They found that among 80 women arrested for 'resistance to public officials', 71 were menstruating (Abplanalp, 1985).

**Objectives:** The objectives were (1) to study the behavioural pattern of females during pre-menstrual phase, (2) to explore a link between crime and pre-menstrual phase, and (3) find out the suicidal tendencies in females during pre-menstrual phase.

**Methods:** We studied 82 female inmates (Convicts and Under Trial Prisoners) of Central Prison, Bengaluru with a normal control group matching in age and education, after getting the ethical clearance from the Bangalore Medical College and Research Institute, Bengaluru. The education status, socio-economic background, nature of crime, mental status at the time of menstruation, menstrual phase at the time of alleged crime committed, and other criteria have been dealt with in detail during the study period of 35 days.

**Results:** Of the 82 female inmates of the central prison, Bengaluru, 13 female inmates were in their pre-menstrual phase when they committed or were alleged of committing their offences, 7 members had death wishes and 13 had a history of suicidal attempts during their pre-menstrual phase. Five members had a history of inflicting physical abuse to

others.

**Conclusion:** In the present study involving female inmates of central jail, Bengaluru, it is observed that 15.8% of female inmates showed an association between pre-menstrual phase and the crime committed.

## The Prevalence of Psychiatric Disorders among Adult Male Remand Prisoners in Johor Bahru Prison

F2.1.9

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**Objective:** The primary objective was to determine the prevalence of psychiatric disorders among adult male remand prisoners in Johor Bahru Prison.

**Methods:** A cross-sectional study of the adult male remand prisoners was conducted between July and November 2010 in Johor Bahru Prison. A total of 289 participants consented and interviewed using Mini International Neuropsychiatric Interview for psychiatric disorders. The demographic data and criminal variables were recorded using a questionnaire developed by the research team.

**Results:** The prevalence rate of psychiatric disorders among the adult male remand prisoners was 75.4%. Substance-related disorders had the highest prevalence at 65.4%, followed by anxiety disorders at 25.6% and major depressive disorder at 9.3%. Psychiatric disorders were found to have a significant relationship with prisoners who were single (odds ratio [95% confidence interval]: 2.714 [1.506-4.891]) and who had a history of recidivism (odds ratio [95% confidence interval]: 4.011 [2.138-7.523]).

**Conclusion:** There is a very high prevalence rate of psychiatric disorders among the remand prisoner population in Johor Bahru Prison, particularly substance-related disorders. This study highlights the need for better assessment and intervention among this particular group in order to reduce the crime rate.

## FREE PAPER 2.2 – Elderly Mental Health

### Multimodal Stimulation and Movement (MSM) Programme – an Innovative Non-pharmacological Programme for Elderly with Dementia Living in Old-aged Homes

F2.2.1

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**Background:** The psychogeriatric outreach service in New Territories East Cluster commenced a newly developed programme, Multimodal Stimulation and Movement (MSM)

programme, for elderly with mild-to-severe dementia in private old-aged homes. Multimodal stimulation refers to different types of stimulations including music, reminiscence therapy, reality orientation, and percussion of acupuncture points, whereas movement refers to dance and exercise.

**Objectives:** To evaluate whether the programme could enhance physical well-being of elderly with dementia by means of improving cognitive function, mood and behavioural problem, activity of daily living, and balance stability.

**Methods:** Elderly under psychogeriatric service diagnosed with dementia were recruited. An outreach physiotherapist provided weekly group programmes to 7 public old-aged homes from September 2011 to July 2012. The outcome measures were Mini-Mental State Examination (MMSE), Neuropsychiatric Inventory (NPI), Cornell Scale for Depression in Dementia (CSDD), Elderly Mobility Scale (EMS), Modified Barthel Index (MBI), and Berg Balance Scale (BBS). Pre- and Post-assessment data were analysed using SPSS Version 19.0.

**Results:** Fifty-one patients were recruited for data analysis. Significant improvements in MMSE, NPI, CSDD, EMS, and MBI were found (Wilcoxon signed rank test,  $p < 0.05$ ). Nearly 80% of the participants had an increase or no decline in MMSE. About 60% of the participants had an improvement in NPI or CSDD scores. Of the sub-scores in NPI, significant improvements in agitation and night-time behaviour were also noted (Wilcoxon signed rank test,  $p < 0.05$ ). Almost all of the elderly had improved or had no decline in EMS and about 60% had improvement in MBI scores. There were some improvements in BBS scores which were nevertheless statistically insignificant.

**Conclusions:** Results supported that this programme had resulted in enhanced cognitive ability, mood and behaviour, physical mobility and basic activities of daily living in the elderly with dementia living in old-aged homes. This clinical programme had well demonstrated its feasibility and clinical benefits to the participants after a 3-month weekly training.

### A Follow-up Study on Plasma and Cerebrospinal Fluid Levels of $\beta$ Amyloid and Tau Proteins in Patients with Alzheimer Disease

F2.2.2

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**Objectives:** The study aimed to examine plasma and cerebrospinal fluid (CSF) levels of amyloid  $\beta$  peptide 1-40 ( $A\beta_{1-40}$ ) and 1-42 ( $A\beta_{1-42}$ ), total tau protein (T-tau), and phosphorylated tau at threonine 231 (P-tau<sub>231</sub>) in patients with probable Alzheimer's disease (AD) and vascular dementia (VD), and to observe the differences and variances of those biomarkers along with progression of disease.

**Methods:** There were 21 patients with AD and 7 patients with VD according to the criteria of Diagnostic Statistical Manual 4th edition (DSM-IV) at baseline, and 7 patients with AD and 6 patients with VD participated in a 6-month follow-up. Mini-Mental State Examination (MMSE) scores for cognitive function and global deteriorate scale (GDS)

scores for severity of disease were assessed and the levels of plasma and CSF  $A\beta_{1-40}$ ,  $A\beta_{1-42}$ , T-tau, P-tau<sub>231</sub> were measured from all subjects by means of a sandwich enzyme-linked immunosorbent assay.

**Results:** At baseline, there were significant differences in mean levels of CSF T-tau ( $t = 2.580$ ,  $p = 0.016$ ), CSF P-tau<sub>231</sub> ( $t = 4.014$ ,  $p = 0.000$ ), and CSF  $A\beta_{1-40}$  ( $t = 2.766$ ,  $p = 0.010$ ) between the 2 groups. At 6-month follow-up, plasma  $A\beta_{1-40}$  levels had significantly increased from the baseline in the AD group ( $t = -2.735$ ,  $p = 0.041$ ). CSF P-tau<sub>231</sub> levels were negatively correlated with duration ( $r = -0.485$ ,  $p = 0.026$ ) and GDS scores ( $r = -0.482$ ,  $p = 0.027$ ) in AD group; CSF  $A\beta_{1-42}$  levels were positively correlated to MMSE scores ( $r = 0.565$ ,  $p = 0.008$ ) and inversely correlated with duration ( $r = -0.565$ ,  $p = 0.008$ ) and GDS scores ( $r = -0.634$ ,  $p = 0.002$ ) in AD group.

**Conclusions:** The levels of CSF T-tau, CSF P-tau<sub>231</sub>, and CSF  $A\beta_{1-40}$  were significantly higher in the AD group than the VD group. Plasma  $A\beta_{1-40}$  levels increased significantly in AD group after the 6-month follow-up. CSF P-tau<sub>231</sub> and CSF  $A\beta_{1-42}$  levels showed an association with severity of dementia and cognitive impairment.

### Association between Vascular Risk Factors and Incident Significant Cognitive Impairment in Chinese Older People in Hong Kong in a Six-year Study **F2.2.3**

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**Objective:** This study aimed to examine the association between vascular risk factors, namely hypertension, diabetes mellitus and hypercholesterolemia, and incident significant cognitive impairment in community-dwelling Chinese older people in Hong Kong.

**Methods:** Community-dwelling Chinese older people aged 65 years and above who attended Nam Shan Elderly Health Centre in 2005 with no history of dementia or stroke constituted the baseline sample. Retrospective data retrieval for the presence of vascular risk factors at baseline was conducted. Annual clinical assessment on cognition was offered in the 6-year study period. Significant cognitive impairment was defined by presence of dementia in accordance with DSM-IV-TR, scoring below the cut-off point on the Cantonese version of the Mini-Mental State Examination, and / or a global Clinical Dementia Rating score of 1-3.

**Results:** A total of 1925 subjects were recruited into our study; 161 (8.4%) subjects developed significant cognitive impairment in the 6-year study period. Subjects with incident significant cognitive impairment was older (75 vs. 73 years; Mann-Whitney  $U$  test,  $p < 0.001$ ) with lower education attainment (30.4% vs. 23.9% of illiteracy;  $\chi^2$  test,  $p = 0.06$ ).

However, there was no statistically significant difference in the point prevalence of pre-existing hypertension ( $\chi^2$  test,  $p = 0.68$ ), diabetes mellitus ( $\chi^2$  test,  $p = 0.21$ ), and hypercholesterolemia ( $\chi^2$  test,  $p = 0.31$ ) between subjects who developed significant cognitive impairment and those who remained cognitively stable. Interestingly, baseline pulse pressure, but not systolic or diastolic blood pressure, was found to be higher among subjects with incident significant cognitive impairment (70 mm Hg vs. 66 mm Hg; Mann-Whitney  $U$  test,  $p = 0.03$ ).

**Conclusions:** This study did not have evidence to show that hypertension, diabetes mellitus, and hypercholesterolemia were associated with incident significant cognitive impairment in the Chinese older people in Hong Kong. Further studies are needed to examine the role of pulse pressure in contributing to cognitive decline in late life.

### An Open Trial of a Transdiagnostic Group Treatment for Mood-related Disorders in a Chinese Community Centre **F2.2.4**

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**Objective:** There has been an increasing interest in transdiagnostic cognitive-behavioural therapy for mood-related disorders. This effectiveness study is an open clinical trial of a pilot transdiagnostic group treatment for mood-related disorders in a Chinese community centre.

**Methods:** Twenty Chinese female participants with mood-related disorders were recruited from the Integrated Community Centers of Mental Wellness in Hong Kong to participate in a transdiagnostic group treatment for mood-related disorders, which was divided into Part A (7 sessions) and Part B (7 sessions) with a break of 1 to 2 months in-between, during which an individual session was offered to each participant. Assessments using Beck Depression Inventory-II, Beck Anxiety Inventory, Positive and Negative Affect Scale, Penn State Worry Questionnaire, and Work and Social Adjustment Scale were administered at 3 time-points, which were pre-treatment, post-Part A treatment, and post-Part B treatment.

**Results:** Valid data were obtained from 18 participants; 6 of them completed Part A treatment, while 12 completed both Part A and B treatments. The results showed a significant improvement and large effect sizes with respect to depressive and anxiety symptoms, positive affect, as well as work and social functioning. Half of the participants no longer met clinically significant levels of depressive and anxiety symptoms.

**Conclusions:** This pilot study on the effectiveness of group transdiagnostic treatment for mood-related disorders in the Chinese community is promising. It contributes empirically and theoretically to current research on the transdiagnostic treatment.

### A Multidisciplinary Intervention Aimed at Reducing Inappropriate Antipsychotic Prescribing **F2.2.5**

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**Objective:** To determine the prevalence of inappropriate antipsychotic prescribing and to reduce the baseline level of inappropriate antipsychotic prescribing

**Methods:** A cross-sectional before and after study involving a multidisciplinary intervention was conducted for 143 nursing home patients living in South London. The multidisciplinary intervention involved pharmacist medication review and case discussions with general practitioners (GPs) to improve patients' pharmacotherapy. The GPs then made relevant changes to prescriptions. Effectiveness of the intervention was assessed by comparing post-intervention with baseline scores. Baseline and post-intervention antipsychotic prescribing were determined and scored using evidence-based criteria, such as the prescribing of: (1) tricyclic antidepressants with dementia (risk of worsening cognitive impairment), (2) long-term neuroleptics as long-term hypnotics (risk of confusion, extra-pyramidal side-effects, falls), (3) prolonged use of first-generation antihistamines, i.e. diphenhydramine and promethazine (risk of sedation and anticholinergic side-effects), and (4) drugs such as benzodiazepines and opiates that adversely affect those prone to falls. Statistical analyses were performed using Stata.

**Results:** About half of the patient population (49.6%) had dementia while 38.5% were depressed and 23.1% had schizophrenia. The Poisson GEE regression model revealed the predictive factors and the effect of intervention on antipsychotic prescribing after adjusting for age, gender, numbers of medication, and co-morbidities. The multidisciplinary intervention reduced inappropriate antipsychotic prescribing (risk ratio reduced significantly).

**Conclusion:** There may be a role for the routine application of similar evidence-based criteria by pharmacist and physicians to target unnecessary antipsychotic prescribing for institutionalised older people.

**Declaration of interest:** A Majeed is a GP Principal in a general practice that provides NHS services to residents of 2 care homes.

## The Outcome and Risk Factors for Conversion in Patients with Mild Cognitive Impairment

F2.2.6

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**Objective:** To explore the outcome and risk factors for conversion in patients with mild cognitive impairment (MCI).

**Methods:** The Mini-Mental State Examination, Montreal Cognitive Assessment (MoCA), Auditory Verbal Learning Test, Clinical Dementia Rating, Geriatric Depression Scale, Functional Assessment Questionnaire, Center for

Epidemiologic Studies Depression scale, and R-Hachinski were used as Assessment tools. Subjects were derived from the prevalence investigation of MCI in Guangzhou in 2009. A total of 299 cases of MCI (MCI group) and 1122 normal elders (normal group) were included. Their outcome and risk factors for conversion were analysed by logistic regression.

**Results:** The mean follow-up period was 1.81 years. Forty-four cases converted to Alzheimer's disease (AD) and 13 cases converted to vascular dementia (VD) in MCI group, with their annual conversion rate of dementia, AD and VD being 13.70%, 10.57% and 3.13%, respectively. Twenty-two elders developed AD and 6 elders developed VD in normal group, with the annual conversion rate of dementia, AD and VD being 1.88%, 1.47% and 0.41%, respectively. In other words, the relative risk of progression to dementia, AD and VD in MCI were 7 folds, 7 folds, and 7 folds higher than the normal group, respectively. There was no significant difference in conversion rates between those living in rural and urban areas. The mortality rate was 6.65% in the MCI group and was 3.30% in the normal group, with the relative risk of mortality of MCI being about 2 folds that of the normal group (odds ratio = 2.08; 95% confidence interval, 1.28-3.36;  $p < 0.01$ ). 63.50% of MCI continued to maintain MCI diagnosis and yet 11.70% of MCI reversed to normal. The study also showed that MCI patients with low scores of MoCA or cerebral vascular disease at baseline was a risk factor for conversion to dementia. The effects of gender, age, education, hypertension, and diabetes on conversion of MCI were not significant.

**Conclusion:** The rates of conversion and mortality MCI were higher than in the normal group. It is hopeful to delay the progression of MCI by early intervention, and gain a high quality of life.

## The Trajectory of Cognitive Change in Patients with Mild Cognitive Impairment (MCI) and Normal Elders: a Case-control Study

F2.2.7

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**Objective:** To study the trajectory of cognitive change in patients with mild cognitive impairment (MCI) and normal elders in the community.

**Methods:** The Mini-Mental State Examination (MMSE), Montreal Cognitive Assessment (MoCA), Auditory Verbal Learning Test (AVLT), Clinical Dementia Rating, Geriatric Depression Scale, Functional Assessment Questionnaire, Center for Epidemiologic Studies Depression scale, and R-Hachinski were used as assessment tools. Subjects were recruited from the prevalence study of MCI in Guangzhou in 2009. A total of 299 cases of MCI (MCI group) and 598 normal controls (1 patient was matched with 2 normal controls by gender, age, years of education, and residential region) were recruited.

**Results:** (1) The mean follow-up period was 1.81 years. No significant difference was found in the dropout rate and general demographic information between the 2 groups. (2) The MMSE, MoCA, and AVLT at follow-up decreased significantly ( $-5.77 \pm 5.21$ ,  $-2.85 \pm 3.25$ , and  $-0.96 \pm 1.57$ , respectively) when compared with the baseline variables in the MCI group who progressed to dementia. The MMSE,

MoCA, and AVLT at follow-up were higher ( $0.69 \pm 4.13$ ,  $0.51 \pm 4.61$ , and  $0.53 \pm 1.94$ , respectively) than the baseline variables in the MCI group who remained as MCI in clinical status, though the differences were not significantly different. (3) The MMSE, MoCA, and AVLT at follow-up decreased significantly ( $-5.54 \pm 4.31$ ,  $-5.57 \pm 4.43$ , and  $-1.80 \pm 2.29$ , respectively) when compared with the baseline variables in the normal control group who progressed to dementia. The MMSE, MoCA and AVLT at follow-up decreased significantly ( $-3.41 \pm 3.56$ ,  $-3.44 \pm 4.56$ , and  $-1.76 \pm 2.18$ , respectively) when compared with the baseline variables in the normal control group who progressed to MCI. The MMSE, MoCA, and AVLT at follow-up were higher ( $0.09 \pm 3.57$ ,  $0.68 \pm 4.30$ , and  $0.47 \pm 2.17$ , respectively) than the baseline ones in the normal control group who remained clinically normal, though the differences were not statistically significant.

**Conclusion:** The speed of cognitive decline was significantly accelerated when the elderly departed from normal ageing and progressed to MCI and dementia.

## Age, Education, and Cognitive Decline — a Prospective Study of Cognitive Function in Community-dwelling Chinese Older Adults in Hong Kong

F2.2.8

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**Background:** This study aimed to investigate the changes in cognitive profiles and the effect of age and education on such changes in an older community cohort over a 5-year period.

**Methods:** A random sample of 787 non-demented Chinese elders in Hong Kong was assessed with a comprehensive neuropsychological battery at baseline, in the 2nd and 5th year.

**Results:** A total of 454 subjects were assessed at the 5th year. For subjects with normal cognitive function at baseline, 186 (56.9%) remained cognitively normal, 115 (35.2%) had mild cognitive impairment (MCI), and 26 (7.9%) became demented. For subjects with MCI at baseline, 28 (22%) reverted to normal, 59 (46.5%) remained as MCI, 40 (31.5%) became demented. The decline in scores of Cantonese Mini-Mental State Examination was significant over the years, with the rate of decline being greater after the 2nd year. Using logistic regression, age and education had significant predictive effects on the progression to dementia, but the protective effect of education was lost if the subjects were already suffering from MCI at the baseline. Age was a significant factor affecting the cognitive function over time, while the effect of education was lost in the baseline MCI subjects.

**Conclusions:** A decline in cognitive profile took place before the clinical diagnosis of dementia. The protective effect of education on cognitive function appeared to have lost when the person started to have MCI.

## Cerebrospinal Fluid Cystatin C Levels are Decreased in Alzheimer's Disease

F2.2.9

## and Dementia with Lewy Bodies

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**Objective:** Amyloid plaque is a neuropathological hallmark of Alzheimer's disease (AD), and it is also present in the majority of patients with dementia with Lewy bodies (DLB). Recently, cystatin C (CysC) has been shown to bind soluble amyloid- $\beta$  ( $A\beta$ ) peptides and inhibit its aggregation in a concentration-dependent manner in vitro. It suggests that CysC levels may be altered both in AD and DLB. Studies of CysC levels in cerebrospinal fluid (CSF) in relation to AD are conflicting and the relation between CysC and DLB is unknown. The present study aimed to evaluate the CysC levels in both AD and DLB and to explore the potential links between the quantified CSF levels of CysC and the established AD biomarkers ( $A\beta$  and tau).

**Methods:** A total of 99 subjects (43 AD, 26 DLB, and 30 normal controls) were recruited. Serum and CSF CysC concentrations were quantitatively measured by a latex immuno-turbidimetric assay using CysC reagents (Dako, Denmark) with an auto-analyser. Levels of  $A\beta_{42}$ , total tau, and phosphorylated tau at threonine 181 (p-tau181) in CSF were quantified with enzyme-linked immunosorbent method (Innogenetics, Belgium).

**Results:** Our results showed that mean serum CysC levels were similar among the 3 groups. CSF CysC levels were significantly lower in patients with AD ( $3.57 \pm 1.23$  mg/l,  $p < 0.001$ ) and DLB ( $3.31 \pm 0.73$  mg/l,  $p < 0.001$ ) than in normal controls ( $5.09 \pm 1.36$  mg/l). CSF CysC levels were positively correlated with CSF p-tau181 and  $A\beta_{42}$  levels in AD (p-tau181:  $r = 0.408$ ,  $p = 0.007$ ;  $A\beta_{42}$ :  $r = 0.324$ ,  $p = 0.034$ ), normal controls (p-tau181:  $r = 0.575$ ,  $p = 0.001$ ;  $A\beta_{42}$ :  $r = 0.507$ ,  $p = 0.004$ ) and the total sample (p-tau181:  $r = 0.240$ ,  $p = 0.017$ ;  $A\beta_{42}$ :  $r = 0.595$ ,  $p < 0.001$ ), but not in DLB (p-tau181:  $r = 0.245$ ,  $p = 0.227$ ;  $A\beta_{42}$ :  $r = 0.037$ ,  $p = 0.859$ ).

**Conclusions:** CSF CysC levels were decreased in both AD and DLB, but there might be some other pathological events in DLB that interfered with the interaction between CysC,  $A\beta$ , and tau.

## FREE PAPER 3.1 – Neuroscience and Mental Health

### Directions for Community Psychiatry in the United States: a Pilot Qualitative Study

F3.1.1

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**Background:** Community psychiatry is at a crossroads in the U.S.. This crisis can be characterised, in part, by the discipline's relationship to: tension between social and biological psychiatry, and the Recovery Movement. Confronted with the strong presence of biological psychiatry, with social conditions that often are not a core focus of their training, and with a strong push from patients, advocates, and some policy makers to create recovery-oriented care

that, often, seems to minimise the importance of psychiatry and psychiatrists, the question — “What is community psychiatry in the U.S.?” — must be posed.

**Methods:** This research, conducted at Yale University with IRB approval, involved 12 in-depth qualitative interviews with community psychiatrists at a public mental health centre. Well-accepted qualitative research methods, by which approximately 8 or more interviews typically allow for ‘saturation’, were utilised. The main interview question — “What is a psychiatrist?” — was followed by questions involving the themes noted above.

**Results:** For the psychiatrists interviewed, psychiatry seems deeply embedded in medicine. While the biological model has been able to improve some parts of psychiatric practice and its users’ quality of life, many psychiatrists clearly identify the limits of this model and feel frustrated about its tendency to marginalise their roles into one of medication management.

**Conclusion:** Regarding this lack of knowledge and understanding of mental illnesses, regarding the crises that consumers and the health system are undergoing, it seems necessary to go above a simple definition of a psychiatrist as someone with skills for treating mental illness. The current question arising in our research is: How and with which skills can psychiatrists improve the symptoms, the life context that contributes to patients’ symptoms, and the mental health delivery system that often misses people’s needs? Or going further, how can psychiatrists best advocate for their clients whom they are there to serve?

### Reaching for Eudaemonia: What does It Mean to be Virtuous? Chinese vs. Western Prototypes of Virtue

F3.1.2

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**Objectives:** Having a virtuous character has been seen as intrinsic to the achievement of eudaemonia since Aristotelean times. But what does it mean to be virtuous? Culture may influence clients’ concepts of virtue, and thus their perceptions of well-being. We empirically examined concepts of character virtues in Beijing and Hong Kong, and compared them to past results in North America.

**Methods:** Using a prototype approach to empirically define ‘excellent moral character’, university students in Beijing and Hong Kong were given open-ended descriptions of character virtues (Study 1, n = 454), and they were asked to rate the importance of the most commonly mentioned virtues (Study 2, n = 403). The top 55 virtues were used to rate a peer (Study 3, n = 579) and then factor analysed. Finally, the utility of Chinese and Western virtues for differentiating between immoral and moral people was compared (Study 4, n = 162).

**Results:** In Study 3, factors of being Honest/Upright, Principled/Idealistic, and Broad-minded/Tolerant emerged in both Hong Kong and Beijing data. Additionally, a factor of being Compassionate/Kind emerged in both samples; in Beijing this was characterised by being filial, while Hong Kong participants emphasised sympathy towards others in general. Finally, in Hong Kong a unique factor emerged that focused on being courteous, responsible, and modest. Three factors in the Chinese data were similar to previous western

findings (Walker & Pitts, 1998): Honest/Upright, Principled/Idealistic and Compassionate/Kind. However, among our Chinese participants, Chinese virtues differentiated between moral and immoral people better than western virtues did (Study 4).

**Conclusions:** In addition to universally held concepts of moral character (honest, kind, and principled), Hong Kong and Mainland Chinese have concepts of virtue that may reflect Buddhist and Confucian influences, such as being tolerant, filial, and courteous. Counselling of clients should take into account potential cultural influences on personal goals for well-being.

**Declaration of interest:** No conflicts of interest; project funded by an internal research grant from the Hong Kong Institute of Education.

### Glucose as a Mediator of Self-control Performances in Patients with Schizophrenia: a Randomised Controlled Study

F3.1.3

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**Objectives:** Past studies on healthy individuals have demonstrated that exerting self-control consumes a certain amount of resources, leading to the failure of subsequent self-control. Restoring the availability of blood glucose may eliminate this impairment. Patients with schizophrenia are found to have self-regulatory dysfunctions such as impulse control. The current study aimed to explore the possibility that blood glucose is also relevant to the impaired self-control in schizophrenia. We also compared and contrasted the self-control depleting and glucose effects between the schizophrenia group and the normal control group.

**Methods:** Forty patients with functional non-affective psychosis and 40 normal controls were recruited. This was a 2-solution drinks (glucose vs. placebo) x 2 depleting phases (self-control depleted vs. non-depleted) between-groups design. Participants and the experimenter were blinded to the solution conditions. We examined the blood glucose levels before and after the self-control depletion phase and the subsequent performances in 3 self-control tasks (handgrip, figure tracing, and Stroop) after the solution condition. Taste preference, mood, self-control traits, impulsivity, positive symptoms, cognitive and social functioning were also evaluated.

**Results:** The 4 groups (depleting x glucose, depleting x placebo, non-depleting x glucose, and non-depleting x placebo) of both patients and normal controls were in general comparable regarding symptoms, cognition, and social functioning. The change in blood glucose level in the depleting group was significantly different from those in the non-depleting group. A 2 x 2 between-subjects ANOVA was carried out to test the performances in the handgrip, figure tracing, and Stroop task. Significant differences among the 4 groups were found in both patients and normal controls.

**Conclusions:** The self-control depleting effect and glucose replenishment observed in healthy individuals were partly replicated in psychotic patients. We observed a relationship between blood glucose and self-control efforts in both groups. Clinical implications and potential interventions would be discussed.

## Regional Homogeneity of Resting-state Brain Abnormalities in Bipolar and Unipolar Depression **F3.1.4**

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**Objective:** Bipolar disorder patients experiencing a depressive episode (BD-dep) without an observed history of mania are often misdiagnosed and are consequently treated as having unipolar depression (UD), leading to inadequate treatment and poor outcomes. An essential solution to this problem is to identify objective biological markers that distinguish BD-dep and UD patients at an early stage. With whole-brain regional homogeneity analysis and region-of-interest-based receiver operating characteristic (ROC) analysis, we explored resting-state brain activity abnormality differences between BD-dep and UD patients, and further examined whether the differences between the 2 patient groups were attributable to the brain abnormality caused by DB-dep, UD, or both.

**Methods:** Twenty-one bipolar and 21 unipolar depressed patients, as well as 26 healthy subjects matched for gender, age, and educational levels participated in the study. We compared the differences in the regional homogeneity (ReHo) of the 3 groups. In the regions showing differences between the BD-dep and UD groups, we conducted further receptive operation characteristic (ROC) analyses.

**Results:** We observed ReHo differences between the BD-dep and UD groups in the right ventrolateral middle frontal gyrus (r-MFG), right dorsal anterior insular (r-dAI), right ventral anterior insular, right cerebellum posterior gyrus (r-CG), right post cingulate cortex (r-PCC), right parahippocampal gyrus (r-PG), and left cerebellum anterior gyrus. Further regions of interest (ROI) comparisons and ROC analysis on these ROIs showed that the r-PG reflected abnormality in the BD-dep group, while the r-MFG, the r-dAI, the r-CG, and the r-PCC showed abnormality in the UD group.

**Conclusions:** We found brain regions showing ReHo differences in resting-state and examined their sensitivity and specificity, suggesting a potential neuroimaging biomarker to distinguish between BD-dep and UD patients. We further clarified the pathophysiological abnormality of these regions for each of the 2 patient populations.

## TNF-alpha in Patients with Depression: Effect of Yoga as Add-on Therapy to Antidepressants **F3.1.5**

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**Objectives:** Immunological abnormalities in depression have been well documented, and Yoga has been shown to reduce depression scores and inflammatory parameters

independently. We aimed to study immunological abnormalities in patients with depression in comparison to healthy controls, the effects of antidepressants on these abnormalities, and the role of Yoga as an add-on therapy in reduction of this inflammatory parameter.

**Methods:** A total of 54 depressed patients and 26 healthy comparison subjects were recruited for the study after informed consent. All patients received antidepressants (serotonin-specific reuptake inhibitors and tricyclic antidepressants), and those who consented received Yoga therapy. Depression was measured using Hamilton Depression Rating Scale (HDRS) at baseline and at 3rd month of follow-up. Tumour necrosis factor (TNF)-alpha in serum was measured at both points in patients and once in healthy subjects. After a 3-month period, 24 patients were available for follow-up, of whom 9 had undergone Yoga therapy. The principal investigator was blinded to the patient's treatment status.

**Results:** At baseline, mean HDRS scores were 16.9 (standard deviation [SD], 5.7). Following treatment, HDRS scores were significantly reduced (mean post score 8.5; SD, 5.8;  $p = 0.000$ ). TNF-alpha levels were also significantly reduced in patients following treatment (Wilcoxon signed rank test: Negative Ranks 16, Positive Rank-7, Ties-1;  $p = 0.042$ ). There was a steeper reduction in HDRS scores and TNF-alpha values in those who practised Yoga regularly ( $n = 5$ ) when compared to those who did not ( $n = 4$ ).

**Conclusion:** Baseline TNF-alpha levels were higher in patients with depression than healthy subjects. Depression scores and TNF-alpha levels dropped significantly with antidepressant treatment, with a steeper reduction in both in those who practised Yoga regularly. A larger sample size might help to shed more light on this preliminary finding.

## Patients' Relation Strategy: a New Holistic Approach for Complaints and Praises Management **F3.1.6**

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**Background:** With the ever-increasing demands and expectations from the general population from Hong Kong, there is a steady increase in the number of complaints lodged against both the private and public hospitals. The complaints are variable and range from the very mild to the very serious ones, demanding compensations in many forms, including monetary payments of millions of dollars.

**Objectives:** To build up a model for managing a successful Patient' Relations' Unit with proper actions and guidelines to match the need of the market and aspirations of the public. The model can ensure more effective deployment of resources in the hospitals by defusing unpleasant complaints before they are blown out of proportions. A proper complaints handling procedure will increase the satisfaction of the service users, boost the morale of the staff, and enhance the reputation of the hospitals.

**Methods:** A strategic management review of the Complaint Management Centres will be conducted. The researcher will interview the staff concerned from receptionists, patient relation officers, to senior managers. With the staff consent, records will be reviewed and any difficulties identified. A questionnaire will be designed for interviews and for data

collection purpose. A SWOT analysis will be conducted to evaluate the effectiveness and merits of the centres in order to develop a strategic planning for a sustainable system. Based on the research findings, a set of performance indicators will be developed. The assessment of key problems associated with the system will also be identified to strengthen the Complaints Management Centres. The whole research will keep matters under strict confidentiality. The hospitals will not be named. The identity of staff and patents will not be revealed.

**Results:** A provisional model will materialise as a result of the research and will highlight the importance of various aspects, including training, time management, and complaint management.

**Conclusion:** The Model represented many aspects of management of psychiatric patients and their families. It is only by focusing on these that any progress can be made to improve complaint management in psychiatric hospitals.

## Neuroimaging of Complex Psychological Attributes

F3.1.7

MTH WONG

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**Objective:** To review how well neuroimaging assesses complex psychological attributes.

**Methods:** Studies on complex psychological attributes were identified via PubMed using “complex psychological attributes and brain” as the search item. Those publications that focus primarily on neuroimaging were selected and reviewed in regard to their relevance to the study of complex psychological attributes in the process of human cognition.

**Results:** Eleven papers were identified and 5 focused on neuroimaging and brain localisation. Variables identified as of relevance to complex psychological attributes include emotional regulation, social decision-making, value relativism, reflection, understanding, and coping with uncertainty. The neural correlates most commonly reported in these papers are lateral pre-frontal cortex and the neural circuit implied in reward. This review argues that brain localisation to these 2 neural correlates is necessary but not sufficient for representing the complexity of human cognition. The quality of neuroimaging correlates is determined by how sophisticated variables of complex psychological attributes are in representing the objective (explanation) and subjective (understanding) aspects of human cognition.

**Conclusion:** A paradigm that accounts for the interplay between explanation and understanding in human cognition is required for good outcome in neuroimaging complex psychological attributes.

## FREE PAPER 3.2 – Substance Misuse and Psychosomatic Problems

### Co-morbid Substance Abuse in Schizophrenia – Revisiting the Self-Medication Hypothesis

F3.2.1

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Surveys have documented the high prevalence of co-morbid substance abuse in schizophrenia with estimates ranging between 10% and 70%. Though the genesis of co-morbid substance abuse in schizophrenia is likely multifactorial in origin, the recent elucidation of the neurobiology of addictive states has assigned a central role for dopamine in the development and maintenance of co-morbid addictive states. One of the prominent hypotheses advanced in the 1990s has proposed that patients with schizophrenia take to drug abuse as a direct consequence of dealing with various aspects of their illness experience in order to alleviate some of the inconveniencing side-effects, such as dysphoria or extra pyramidal symptoms. In support of such a hypothesis, we demonstrated that patients with schizophrenia who experienced dysphoric responses to antipsychotics have a higher likelihood to develop co-morbid abuse, compared with non-dysphoric patient (odds ratio = 4.08, chi-square = 21.8,  $p > 0.0001$ ). In a recent single-photon emission computed tomography / magnetic resonance imaging striatal dopamine depletion study, we reported the link between dysphoric responses to antipsychotics and the low striatal dopamine binding functions. More recently, extensive experimental and clinical data have demonstrated that low striatal D2 dopamine receptor binding is a predisposing factor in cocaine use in the development of addictive states.

Overall speaking, such data point to a significant role of dopamine in the genesis of addictive states. This also revives the interest in the self-medication hypothesis, integrating information from different perspectives.

### Patterns and Correlates of Tobacco Use among Psychiatric Outpatients from Western India

F3.2.2

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**Background:** While studies from the developed nations suggested a high prevalence of tobacco use among psychiatric patients, there is a paucity of research from developing countries. To address the issue, we aimed to find out the socio-demographic and illness-related correlates of tobacco use and nicotine dependence in psychiatric outpatients.

**Methods:** Consecutive patients ( $n = 365$ ) attending the outpatient department of a tertiary care teaching hospital in Gujarat, India participated in the study. Current tobacco use patterns were assessed using a semi-structured interview. Fagerstrom Test for Nicotine Dependence for smoked and smokeless tobacco were also applied accordingly.

**Results:** A total of 197 (54%) patients reported current tobacco use and 120 (61%) of the users were dependent on nicotine. Tobacco was most commonly being consumed in the smokeless form. On logistic regression analysis, the significant predictors of tobacco use and nicotine dependence were male gender, belonging to rural background and lower socioeconomic strata, and with primary or high school education. While a diagnosis of schizophrenia or related psychoses predicted tobacco use, a diagnosis of bipolar disorder more significantly predicted nicotine dependence.

**Conclusions:** This study provides the first data on patterns

and correlates of tobacco use and nicotine dependence in psychiatric outpatients from Western India. Tobacco use and dependence among psychiatric patients is fairly common. The cultural context of these findings needs to be considered and appropriate strategies need to be chalked up to deal with this enormous problem.

### Common and Unique Factors **F3.2.3** Associated with Desire for Hastened Death and Suicidal Thoughts among Advanced Cancer Patients

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Canada*

**Objectives:** The desire for hastened death (DHD) is a complex construct that does not necessarily reflect the literal wish to die. The aim of this study was to identify the association between DHD and suicidality and the common and unique factors associated with them in advanced cancer.

**Methods:** Patients (n = 705) with metastatic gastrointestinal or lung cancer completed measures of physical distress, self-esteem, attachment security, spiritual well-being, social support, religiosity, hopelessness, and depression. DHD was assessed by the Schedule of Attitudes toward Hastened Death, with the cut-off of  $\geq 7$  indicating elevated DHD. Suicidality was assessed by a single item in the Beck Depression Inventory-II, with the rating of  $\geq 1$  indicating the presence of any suicidal thought. Patients were categorised into 4 groups: (a) DHD only, (b) suicidality only, (c) both DHD and suicidality, and (d) neither. Bivariate analysis and multinomial logistic regression were conducted to examine correlates of DHD and suicidality.

**Results:** Of 705 patients, 2.2% (n = 16) endorsed DHD only, 6.4% (n = 45) endorsed suicidality only, 2.6% (n = 18) endorsed both, and 88.8% (n = 626) reported neither. When compared to the neither group, depressive symptoms (p = 0.004) and being single (p = 0.018) were significantly related to suicidality only. Less religiosity (p = 0.012), greater hopelessness (p = 0.022), and higher self-esteem (p = 0.027) were significantly related to having both DHD and suicidality.

**Conclusions:** Suicidality is almost 3 times more common than DHD in patients with advanced disease, although more than half of those with DHD also endorsed suicidality. The wish to die in this context may be more likely to emerge in those with less reliance on personal belief systems and less social relatedness. The paradoxical association of both suicidality and DHD to greater self-esteem requires further investigation, but could be related to the desire to restore the sense of personal control and fears about the loss of dignity.

### Psychiatric Co-morbidities among **F3.2.4** Cancer Patients Presented with Insomnia in the Psycho-oncology Clinic of a Local Tertiary Hospital

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Kong SAR, China*

**Objectives:** Psychiatric co-morbidities have been said to be common among cancer patients. The psycho-oncology clinic in the New Territories West Cluster was started in November 2011. Cancer patients with suspected psychiatric co-morbidity could be referred to this clinic for further psychiatric care. The psychiatric co-morbidities among those patients were assessed. Insomnia is one of the common presentations among cancer patients. The study aimed to evaluate whether it is related to other psychopathologies or psychiatric morbidities.

**Methods:** Psychiatric assessment was made by a specialist psychiatrist in the clinic. Patient's depressive and anxiety symptoms were assessed by the Hospital Anxiety and Depression Scale upon the first attendance.

**Results:** Forty new cases were seen in the psycho-oncology clinic from November 2011 till April 2012. Of these patients, 26.2% were referred for insomnia. Among these 11 patients who were referred for insomnia, 7 of them were diagnosed to have psychiatric co-morbidities, namely moderate depressive episode (18.2%), adjustment disorder (18.2%), generalised anxiety disorder (18.2%), and panic disorder (9.1%). The mean anxiety score among those patients presented with insomnia was 8.1 (standard deviation [SD], 3.69) and the mean depressive score was 8.0 (SD, 3.28) which were both above the cut-off for psychiatric cases in a previous local validation study among inpatients in a local tertiary hospital.

**Conclusions:** Cancer patients presented with insomnia could have underlying psychiatric co-morbidities. Further psychiatric assessment is warranted. Future study using the Hospital Anxiety and Depression Scale as a screening tool among this group of patients should be considered.

### Diabetes and Psychiatry: a **F3.2.5** Growing Concern

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**Background:** Established links between mental disorders and type 1 diabetes mellitus (T1DM) date back hundreds of years, but have only come to prominence as a clinical concern in recent years. There is emerging evidence of a bidirectional relationship, with mental illnesses implicated in many aspects of the disease process.

**Objectives:** To review the associations between diabetes and psychiatric co-morbidities associated with T1DM, including distress, depression, anxiety, and eating disorders; illustrate the growing evidence for bidirectionality; and discuss related education, training, and service capacity requirements.

**Results:** Under-recognition and under-treatment of mental disorders in T1DM is common; some countries have responded by developing guidelines for psychological care in diabetes. Paralleling other chronic medical conditions, mental illness co-morbidity with T1DM is highly prevalent, and has significant negative effects on glycaemic control, quality of life, and diabetes complications, as well as being associated with increased mortality. Behavioural and pharmacological treatments for psychiatric and psychological illnesses are effective in patients with diabetes. These interventions have been less effective in improving glycaemic control.

**Conclusions:** High rates of poor glycaemic control in patients with both diabetes and psychiatric illness suggest a need to keep psychiatric diagnoses in mind when a patient presents with unexplained poor glycaemic control. Collaborative

care with endocrinologists and general practitioners, and education about diabetes-specific screening tools to assist in identification of patients with mental illnesses are indicated. Identifying evidence-based strategies targeted at improving glycaemic control would be of benefit in any future research. Clinical practice guidelines should be developed more broadly to raise awareness of co-morbidity and disseminate knowledge to clinicians. This could guide future research directions by identifying further gaps in the evidence base.

### Psychiatric Morbidity in Chinese Adult Burn Survivors in a Tertiary Burns Clinic **F3.2.6**

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**Objectives:** To identify the prevalence and associated factors of psychiatric morbidity in Chinese adult burn survivors, and to examine the effectiveness of the Hospital Anxiety and Depression Scale (HADS) and Impact of Event Scale-Revised (IES-R) as screening instruments for psychiatric disorders in this population.

**Methods:** This cross-sectional study was conducted at a local Burns Clinic from November 2010 to June 2011. All Chinese adult burn survivors who had burn injury within 1 year were recruited. Psychiatric diagnoses were made according to the Structured Clinical Interview for DSM-IV Axis I disorders (SCID-I). Socio-demographic and clinical variables were compared between subjects with and without psychiatric disorders. The HADS and IES-R were administered and their scores were compared against psychiatric diagnoses made according to SCID-I.

**Results:** Among 147 subjects, 50% suffered from current psychiatric disorders. Major depressive disorders (MDD) and post-traumatic stress disorders (PTSD) were the most frequently diagnosed conditions, with a point prevalence of 24% and 18%, respectively. The presence of hypertrophic scar, greater severity of burn, problems with social relationships, and loss of gainful employment after burn were independently associated with current psychiatric morbidity. The HADS was effective in screening for depressive and anxiety disorders with an optimal cut-off at 12/13 (sensitivity 72%, specificity 80%). The IES-R was effective in screening for PTSD with an optimal cut-off at 35/36 (sensitivity 81%, specificity 87%).

**Conclusion:** Psychiatric disorders, in particular MDD and PTSD, are common in Chinese adult burn survivors. Identification of the independent associated factors can assist surgeons in the early detection of these disorders so that appropriate intervention can be made. The HADS and IES-R can be used as effective screening instruments for psychiatric disorders in this population.

### Cognitive Impairment in Chronic Ketamine Users **F3.2.7**

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**Objective:** The study aimed to explore the impairment of cognitive function in chronic ketamine users.

**Methods:** A total of 103 chronic ketamine users and 72 controls were assessed with Logical Memory and Visual Reproduction subtests from Wechsler Memory Scale – Revised, Stroop Test, Wisconsin Card Sorting Test (WCST), Continuous Performance Test (CPT), which were used as measures of memory, attention, and executive function respectively.

**Results:** Despite a period of abstinence from ketamine use (median, 7 days; range, 1-37 days), the ketamine group showed a significant impairment in the performance of the tests on delayed logical memory, immediate and delayed visual reproduction, Stroop test (colour reading points, colour interference named points, interference points), WCST (number of categories, number of total response, total errors, sustained response numbers, first categories response, number of perseverative errors, percentage of conceptualisation level, total time) ( $p < 0.05$ ), but not in CPT ( $p > 0.05$ ), when compared with controls.

**Conclusion:** Chronic ketamine users might have persistent cognitive impairment, such as memory, attention and executive functions even after a period of abstinence.

## POSTER A. Schizophrenia and Psychotic Disorders

### The Concurrent and Predictive Validity of Symptomatic Remission Criteria on Psychopathology, Functioning, and Quality of Life in Schizophrenic Patients

A01

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**Background:** Since the introduction of consensus criteria for symptomatic remission in 2005, most first-episode studies focused on cross-sectional relationships between remission status and functional outcome. Predictive validity of the proposed remission definition was understudied. Relationship of remission with quality of life was inadequately addressed with inconsistent findings being observed.

**Methods:** A total of 104 Hong Kong Chinese aged 18 to 55 years presenting with first-episode schizophrenia-spectrum disorder were studied. Socio-demographics, baseline clinical and functioning profiles were obtained. Psychopathological and functional reassessments were conducted at 6, 12, and 24 months. Quality of life was measured at 12 and 24 months. Symptomatic remission was operationally defined according to the consensus criteria developed by the Remission in Schizophrenia Working Group (RSWG), comprising both symptom-severity and 6-month duration components.

**Results:** At 12 months, 59.6% of patients achieved symptomatic remission. Remitted patients had significantly lower symptom severity, more favourable psychosocial functioning and better quality of life at 12 months than non-remitted counterparts. Attainment of remission at 12 months was significantly associated with fewer positive, negative, depressive and disorganisation symptoms, higher levels of functioning and subjective quality of life at 24 months. Linear regression analysis indicated that remission status independently predicted functional outcome even when the effects of educational level, baseline functioning and negative symptom scores were controlled for.

**Conclusion:** The operationally defined symptomatic remission formulated by the RSWG represented a clinically valid construct closely related to both concurrent and longitudinal outcomes on psychopathology, functioning, and quality of life in the early stage of schizophrenia.

### Prediction of Sustained Symptomatic Remission in First-episode Psychosis: a Prospective Three-year Follow-up Study

A02

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**Objective:** Remission is the necessary and intermediate step for functional recovery in schizophrenia. Although many studies have examined the predictors of symptomatic remission, few focused on its relationship with cognitive

function, a core deficit of schizophrenia. Also, previous studies rarely adopted prospective design and follow-up duration was mostly up to 1 year only. In this study, we aimed at examining prospective factors associated with sustained remission in first-episode schizophrenia over 3 years encompassing clinical, cognitive, and premorbid characteristics.

**Methods:** A total of 93 Hong Kong Chinese aged 18 to 55 years presenting with first-episode schizophrenia-spectrum disorder were studied. Premorbid adjustment, socio-demographics, and baseline clinical and cognitive profiles were obtained. Psychopathological, functional, cognitive, and vocational assessments were re-evaluated at clinical stabilisation, 12, 24, and 36 months. The operational criteria for sustained remission were based on modified Andreasen's criteria incorporating both symptom (Positive and Negative Syndrome Scale [PANSS] and HEN\*) and duration components (12 months).

**Results:** Forty-one (44.6%) patients achieved sustained remission at the end of 3-year follow-up. Remitted patients had better premorbid and baseline vocational functioning than non-remitted patients. The remitted group had significantly fewer negative symptoms, and better performance in logical memory, and fewer perseverative errors as measured by Modified Wisconsin Card Sorting Test (MWCST) than non-remitted group at 12 months. At 3 years, the remitted group had significantly better cognitive functions (logical memory, visual reproduction, and MWCST), global functional and vocational outcomes than non-remitted group. Logistic regression indicated that premorbid adjustment, negative symptoms, and logical memory measure at 12 months predicted sustained symptomatic remission at the end of 3-year follow-up.

**Conclusions:** Patients with sustained symptomatic remission achieved better functional and cognitive outcomes cross-sectionally. Cognitive function, particularly verbal learning function, negative symptoms and premorbid adjustment independently predicted sustained remission

\* Psychoticism and disorganisation dimensions were derived from ratings of PANSS following Andreasen's criteria. Negative symptom dimension was based on ratings on 4 of 6 subscales in HEN (Chang et al, 2011; Mortimer et al, 1989). The symptom scores should be rated as mild or lower to fulfill symptomatic remission definition.

### Quality of Life and Its Determinants in Adult-onset First-episode Psychosis

A03

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**Objective:** Although quality of life (QoL) has been an important topic in first-episode psychosis patients, the determinants of QoL are still unclear. Understanding its determinants can contribute to a better intervention design and improve patients' QoL. We aimed to explore the predictors for QoL in a group of adult-onset psychosis patients.

**Methods:** A total of 360 first-episode psychosis patients aged between 26 and 55 years were recruited into the Jockey Club Early Psychosis Project. Patients' basic demographics,

duration of untreated psychosis, symptoms, and functioning were assessed at study entry. QoL was assessed at 6 months following the first episode using the SF-12 Health Survey.

**Results:** Correlation and Mann-Whitney analyses suggested that duration of untreated psychosis, depressive symptoms, and living with children were predictive of QoL. However, positive symptoms, negative symptoms, functioning, insight, and age of onset did not associate with QoL at 6 months.

**Conclusion:** Data suggested that reducing patients' duration of untreated psychosis may improve their QoL. Early intervention and psycho-education may be implicated. Further research is needed to investigate the relationship between household structure and QoL among the Chinese population.

**Declaration of interest:** The project was funded by the Hong Kong Jockey Club Charities Trust.

## Specialised Early Psychosis A04 Casework: Case Formulation from Early Intervention Perspective — a Case Study

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Jockey Club Early Psychosis Project provides specialised case management intervention service to the first-episode psychosis adult patients. In order to determine a comprehensive care plan for each patient, we use an eclectic case formulation approach to get a provisional explanation or hypothesis of how the onset of his / her present disorder was developed and maintained. The case formulation would be revised from time to time with the ongoing assessment of patient's status, e.g. the response to the intervention, life events, or relapse of symptoms, etc.

Case formulation is a basic skill for many mental health professionals. Some defined case formulation as "a hypothesis about the causes, precipitants, and maintaining influences of a person's psychological, interpersonal and behavioural problems" (Eells, 2007). Some defined case formulation from the perspective of specific theories. For our adult-onset psychosis patients, our eclectic case formulation approach makes use of the biopsychosocial information to explore the premorbid, predisposing, precipitating, perpetuating, and protective factors for a specific patient. Specific tools would be used to understand the contribution of life events and specific presentation of symptoms, e.g. timeline approach linking one's life stresses and vulnerability and identifying early signs of relapse. The care plan would be made in relation to the formulation.

A case study will be presented, demonstrating the use of case formulation.

## The Role of Prospective Memory A05 in the Ability to Manage Medications in Patients with Schizophrenia

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**Objectives:** Schizophrenia patients exhibit impairment in

prospective memory (PM), which is considered crucial for medication management. This study aimed at examining the relationship between PM and the ability to manage medications in patients with schizophrenia, and how this translated further into real-life medication-taking behaviour.

**Methods:** A total of 82 schizophrenia patients were recruited. The Medication Management Ability Assessment (MMAA), with a computer-based PM assessment and other neurocognitive tests, were administered. Possible factors for poor adherence such as insight were measured. A questionnaire on self-report PM complaints was administered. Of the participants, 80 were followed up after 3 months and their medication adherence rates were measured. Factors that predicted MMAA scores and non-adherence were examined.

**Results:** PM was a robust predictor of medication management ability. Time- and event-based PM together accounted for a significant proportion of the variance (72%) in MMAA score, far beyond the effect of all other traditional neurocognitive variables, clinical and demographic factors. At 3 months, using 80% of adherence rate as cut-off, 25 out of the 80 participants were regarded as non-adherent. Time- and event-based PM was associated with, but failed to predict non-adherence. Only poorer insight at baseline and recruitment in inpatient setting predicted non-adherence. Self-report PM complaints did not correlate with objective PM measurement, MMAA, or the final adherence rate.

**Conclusions:** These findings support the hypothesis that PM captures a unique aspect of cognition that is essential for optimal medication management. The relationship between PM and insight is complex, and both are likely to contribute to good treatment adherence. Healthcare professionals should have high vigilance regarding PM impairments since schizophrenia patients are likely to misperceive their actual PM abilities. Simple techniques such as the use of external cues may be helpful in compensating for the effect of PM deficits and should form part of the educational package.

## Access to Care and Treatment A06 Delay of Young People Presenting with First- episode Psychosis to EASY Programme: an Audit Review for a Period from 2001 to 2006

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**Background:** Substantial evidence indicated that early intervention (EI) for psychosis improved illness outcome. In 2001, EI service, namely Early Assessment Service for Young people with psychosis (EASY) has been established in Hong Kong. EASY is a territory-wide, government-funded specialised programme aiming to shorten treatment delay and provide 2-year phase-specific case management to individuals of 15 to 25 years having first-episode psychosis. This is an audit review focusing on pathway to care and duration of untreated psychosis (DUP) of individuals enrolled in the first 5 years of EASY programme.

**Methods:** Service data of EASY from 2001 to 2006 were retrieved covering demographics, diagnosis, and information concerning access to the programme for each year including distribution of various sources of referrals and DUP.

**Results:** From 2001 to 2006, there were 2915 patients admitted to the EASY programme. The mean age of the whole cohort was 20 years and 51% were males. Median DUP was 3 months (mean, 8 months; SD, 16 months). Service statistics indicated no obvious decreasing trend of DUP across 5 years. The major sources of referral were from both psychiatric inpatient (23.4%) and outpatient (27.9%) units. Schools (11%) and family members (17%) accounted for the majority of source of referrals from the community. Similar distribution of referral sources were noted throughout the 5 years progressive decline in number of referrals from hospital settings.

**Conclusion:** Although local findings indicted better 3-year clinical and functional outcomes in patients with EI than those in standard care (Chen et al, 2011), service statistics showed no progressive improvement in treatment delay and distribution of referral sources throughout the initial 5-year period after establishment of EASY programme in 2001. Our findings thus highlighted the need to investigate further the obstacle to improve an early detection component of the recently implemented EASY extension programme.

## Psychosis Proneness in Chinese Early Adults and Its Relation to Perceived Social Standing and Prosocial Tendency

A07

TW LAU

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**Objectives:** Symptoms of psychotic disorders such as schizophrenia have been observed in general population at an attenuated level known as psychotic-like experience (Ple), which is not well studied in the Chinese population. The aim of the present study was to investigate the prevalence of Ple in Hong Kong Chinese early adults. Since social cognition is impaired in psychotic patients, the study also examined whether Ple is associated with perceived social standing and prosocial tendency in the general public.

**Methods:** A total of 121 Hong Kong Chinese, aged 18 to 30 years, completed a set of questionnaire online anonymously, including measures of Ple and their induced distress, perceived social standing, and prosocial tendency across situations.

**Results:** Prevalence of Ple in Hong Kong was similar to overseas general population. More experiences along the negative and depressive symptoms dimension were reported than experiences along the positive symptoms dimension. It was found that a sense of inferiority and social isolation was associated with more negative and depressive Ple, but not positive Ple. Emotional and anonymous prosocial tendency was positively associated with depressive Ple and negative Ple respectively.

**Conclusions:** As Ple reflects psychosis proneness, the present study has revealed an additional risk of psychosis for individuals with lower perceived social standing and social isolation. In contrast to the general stereotyping of psychotic patients as violent or dangerous, individuals with higher psychosis proneness are more willing to offer help in anonymous or emotional situations.

## Duration of Untreated Psychosis and Its Determinants in Chinese Adults with First-episode Psychosis

A08

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**Objective:** Major studies on first-episode schizophrenia reported that poorer outcomes are associated with longer treatment delay. Understanding duration of untreated psychosis (DUP) and its determinants is therefore important as it may improve the design of intervention in shortening the treatment delay. As majority of former studies on DUP and its related variables are conducted in western countries, this study focused on Chinese adults with first-episode psychosis.

**Methods:** First-episode psychosis patients (n = 360) aged 18 and 55 years were recruited from the Jockey Club Early Psychosis Project. All participants were assessed at study entry with regard to their basic demographics, DUP, premorbid functioning, and symptoms.

**Results:** The median DUP of this population was 93 days (interquartile range, 20-382 days). Multiple regression analyses revealed that DUP had independent association with age at onset, hospitalisation during first-episode illness, a diagnosis of schizophrenia, mode of onset and insight. Living alone, premorbid adjustment, family involvement in help-seeking, and the level of symptom severity had no association with DUP.

**Conclusion:** The findings highlight that both clinical and social variables influence the length of DUP in Chinese culture. These results are important to mental health services in choosing the types of strategies that are likely to tackle the problem of longer treatment delay.

## Stigma on Mental Illness: Common and Differential Predictors of Social Distance to Individuals with Depression and Schizophrenia

A09

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**Objective:** Despite recent evidence showing that the public holds different perceptions towards different mental illnesses, most stigma-reduction programmes discuss mental illnesses at large. Studies that explore illness-specific stigmatisation factors are lacking. The current study aimed to examine the common and differential predictors of social distance (i.e. willingness to engage in social interactions) to individuals with depression and schizophrenia.

**Methods:** Data were provided by 247 Chinese who participated in an anti-stigma programme in Hong Kong. Participants were presented with 2 vignettes depicting one individual suffering from schizophrenia and another suffering from major depressive disorder. To each vignette, participants rated on 3 stigmatisation measures: personal attributes (e.g. danger, dependent on others), emotional reactions (e.g. fear, empathy, irritation), and social distance (e.g. recommend for a job, introduce to a friend).

**Results:** Hierarchical regressions revealed that — after controlling for gender, age and education — fear was a significant predictor of social distance for both schizophrenia ( $\beta = -0.30$ ,  $p = 0.00$ ) and depression ( $\beta = -0.22$ ,  $p < 0.05$ ).

Distinctively, perceived dangerousness ( $\beta = -0.34, p < 0.05$ ) significantly predicted social distance for schizophrenia, while perceived dependency ( $\beta = -0.17, p < 0.01$ ) and pity ( $\beta = 0.17, p < 0.01$ ) significantly predicted social distance for depression.

**Conclusion:** Our findings indicated both common and distinct predictors of social distance towards people with different mental disorders. While lowering fear would improve ones' willingness to engage in social interactions with people suffering from both kinds of mental illnesses, illness-specific anti-stigma components should also be considered. Education which corrects misconceptions of dangerousness would be particularly effective to facilitate social acceptance for people with schizophrenia, whereas, clarifying misconceptions of dependency and developing empathetic emotion would be particularly important when it comes to depression.

## Implication between Transtheoretical Model and Exercise in Patients with Psychosis

A10

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Regular physical exercise has protective effects against several major chronic diseases. Patients with psychosis are generally sedentary, physically inactive, and poor in physical fitness. Recent researches suggest physical exercise can improve cognitive and functioning, cardio-respiratory fitness, social interaction, energy, aggression control, psychological well-being, and reduce the symptoms of depression and hallucinations in patients with psychosis. There is a growing interest in promoting healthy physical exercise, but the lack of motivation is one of the major obstacles. Transtheoretical Model has been widely used in promoting behavioural change, like physical exercise, in clinical and normal populations. It measures one's readiness to change to a particular behaviour and individuals attempt to change their exercise behaviour through a series of stages. A number of publications stated that stage-matched intervention programme had better outcomes in terms of stage progression such as motivating individual towards a higher stage and also change one's exercise behaviour than those in stage-mismatched intervention programme. This paper reviews the literature concerning the characteristics of Transtheoretical Model and its application in promotion of physical exercise, and discusses its potential application in people with psychosis. The findings of this review indicate that Transtheoretical Model is a useful model to promote physical exercise. From a theoretical point of view, it is possible to identify some elements that may help to promote physical exercise in people with psychosis. There remains a striking paucity of information on the use of Transtheoretical Model in psychiatric population and it warrants future research in this area.

## The Self-stigma Scale: Development of a Standardised Measure of the Stigma of First-episode Psychosis Patients

A11

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**Objectives:** Self-stigma is the negative evaluation towards oneself as stained or discredited on the basis of attributes such as being a mentally ill patient. They feel uncertain of how others view them and if others will accept them. They thus feel constantly embarrassed about themselves. Such self-discrimination has substantial negative psychological consequences for patients with psychosis, especially when they are encountering their first episode. Such self-stigma plays a negative role in their future recovery pathway. The existing research evidence shows an incompatible relationship between stigma and mental health, ranging from non-significant to strong correlations. While some researchers propose that depending on the stage of diagnosis in which the patient belongs, stigma may differ in certain degrees. Furthermore, assessment tools for measuring and data on the self-stigma of first-episode psychotic patients are lacking. The aim of the study was to develop a standardised instrument to measure self-stigma that is consistent in this conceptualisation and operationalisation.

**Methods:** We used qualitative data from interviews aged 18 to 65 years with first-episode psychotic patients to develop a pilot scale. Then first-episode psychotic patients were recruited to standardise the scale. Items with a test-retest reliability kappa coefficient of 0.4 or greater were retained and subjected to factor analysis.

**Results:** Preliminary results will be released for discussion. Final data and results will be published in August 2013.

**Conclusions:** This self-report questionnaire measuring self-stigma in first-episode psychotic patients helped us understand more about the role of self-stigma of psychiatric illness in research and clinical settings.

## Sexual Dysfunction in Chinese Patients with First-episode Psychosis: Prevalence, Clinical Correlates, and Functioning

A12

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**Objective:** Western studies have indicated that 16 to 96% of patients with antipsychotics treatment experienced sexual dysfunction. However, there are no similar studies to explore this phenomenon in Chinese society. This study aimed at investigating the prevalence of sexual dysfunction in Chinese patients with psychosis, together with its clinical correlates and associations with functioning.

**Methods:** A total of 343 patients were recruited from a specialised early intervention service for adult-onset psychosis (Jockey Club Early Psychosis Project) in Hong Kong. Demographics and clinical information such as age, gender, monthly income, marital status, duration of untreated psychosis (DUP), diagnosis, and medication were collected. Symptoms, functioning, and medication side-effects (including sexual dysfunction) were also assessed.

**Results:** Among the participants, 13.4% ( $n = 46$ ) of them had one or more complaints of sexual dysfunction. In logistic

regression, higher monthly income ( $\beta = 1.2$ , 95% confidence interval [CI] = 1.1-1.4,  $p = 0.004$ ), higher Udvalg for Kliniske Undersøgelser side-effect overall mean value (except sexual dysfunction items) [ $\beta = 10.0$ , 95% CI = 1.5-68.0,  $p = 0.018$ ], being married ( $\beta = 5.4$ , 95% CI = 2.5-11.4,  $p < 0.001$ ), and lower Role Functioning Scale mean total score ( $\beta = 0.9$ , 95% CI = 0.8-1.0,  $p = 0.024$ ) were significantly related to sexual dysfunction. However, negative symptoms did not have any significant associations with sexual dysfunction ( $\beta = 1.0$ , 95% CI = 1.0-1.0,  $p = 0.710$ ).

**Conclusions:** The prevalence rate of sexual dysfunction among Chinese patients with psychosis is slightly lower than that in western societies. As sexual dysfunction is related to lower functioning, clinicians should pay special attention to this problem and offer suitable treatments whenever appropriate.

**Declaration of interest:** EHM Lee sat on a scientific advisory board for AstraZeneca and Eli Lilly. EYH Chen sat on a scientific advisory board for Otsuka, received educational grant support from Janssen-Cilag, and research funding from AstraZeneca, Janssen-Cilag, Pfizer, Eli Lilly, Sanofi-Aventis, and Otsuka. All other authors declare that they do not have any conflicts of interest.

## A Literature Review on Nursing for Recovery of Persons with Schizophrenia in Japan A13

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**Objective:** The purpose of this study was to clarify the future challenges of recovery research from the point of view of nursing science through reviewing Japanese literature of persons with schizophrenia over the past 20 years.

**Methods:** The following key words were used to search domestic literature from the Japana Centra Revuo Medicina database from 1993 to 2012: "schizophrenia", "recovery", and "nursing". As a result, 181 pieces of literature were extracted. Excluding review literature and unformed research articles, 22 studies on persons with schizophrenia were analysed.

**Results:** Awareness of desire and confidence lead to the maintenance of social skills, while acknowledging feelings of dullness leads to recovering one's self-esteem. Furthermore, modifying negative self-image and relaxation are useful for recovery of one's self-esteem. Self-determination also leads to independent recovery. Fundamental to recovering self-esteem is a personal view that "I think that I am good". Stimulating self-insight and confronting reality has a positive effect on maintaining an active social life. In addition, the degree of recovery in patients who experienced peer support was better. Mutual beneficial activities of patients is necessary for recovery. In particular, persons with schizophrenia who had the will to build connections to be active in society again had better recovery. There were also nursing practices that enhance recovery, such as telling a patient that he or she is becoming well, as well as constant feedback by the nurses. Some studies have also reported on the importance of assessment of attitudes towards illness and medications, the contribution of physical care to recovery,

and re-acknowledging the nurse's identity as a role model for patients.

**Conclusion:** There were many nursing research studies for recovery using the key words "confidence", "self-esteem", "self-efficacy", and "self-insight". Mutual help and connection to society, as well as avoiding isolated settings, appeared to be essential for recovery.

## A Review of Default Situation and Its Predictors in Adults with First-episode Psychosis A14

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**Objective:** Patients with consistent response rates are of vital significance in obtaining accurate clinical research outcomes. This paper aimed to provide an overview of non-responses and dropouts in adults with first-episode psychosis (FEP) and the risks this may create in a longitudinal study. Potential predictors of the trajectory to patients' default situations in outpatient department (OPD) attendance 6 months after their FEP were identified, which provide insights for corresponding measures to minimise these disengagements.

**Methods:** Patients aged 26 to 55 years with FEP ( $n = 360$ ) were recruited from the Jockey Club Early Psychosis Project. Observational and clinically relevant data were collected from clinical interviews with patients and medical case notes.

**Results:** The default rate of OPD attendance 6 months after patients' FEP was 5.83%. Logistic regression analysis suggested that patients with more avolition (as measured by Scale for the Assessment of Negative Symptoms), more overall depressive symptoms (as measured by Calgary Depression Scale), and poorer attitude towards medication (as measured by Drug Attitude Inventory) were more predictive of defaults in OPD attendance.

**Conclusions:** These results accentuate the need of intervention services to focus more on patients with default predictors in order to maintain a consistently high and unbiased response rate to OPD attendance and research assessments. Effective measures to reduce number of defaults include a positive alteration of research staffs' mindset and a good rapport establishment that emphasise respondent enjoyment. Further discussion should be warranted in regard to subsequent actions for additional rapport enhancement.

## Review of Cognitive Mechanisms of Auditory Verbal Hallucinations: is Escaped Inner Speech the Culprit? A15

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**Objectives:** Auditory hallucinations are present in about 60% of patients diagnosed with schizophrenia and many patients have persistent auditory hallucinations despite medications. Auditory hallucinations are of paramount importance as these adversely affect the quality of life of

patients by causing anxiety and depression, lowering self-esteem, and increasing suicidal attempts. However, the cognitive mechanisms underlying auditory hallucinations are still not clear. Therefore, we would like to explore on this novel area and hope that it can improve our current knowledge regarding auditory verbal hallucinations and help develop therapeutic interventions.

**Methods:** Literature search was performed in 2 databases, PubMed and PsychINFO, including all English journal articles published up to September 2012 with the search terms “auditory hallucinations” and / or “hearing voices”, and “cognitive mechanisms”. All levels of evidence were considered including reviews and randomised controlled trials. The main theories in cognitive mechanisms of auditory verbal hallucinations published in the past few decades were summarised.

**Results:** A total of 128 articles were identified in the literature search and 72 were included in the review. A number of cognitive mechanisms have been proposed for auditory verbal hallucinations. Among all there are 2 prominent models: (1) increased top-down processing, and (2) failure of monitoring inner speech. Despite the presence of many proposed theories about the cognitive mechanisms of auditory verbal hallucinations, there is no clinical study to delineate the phenomenological mapping, which may relate to the 2 main cognitive mechanisms aforementioned.

**Conclusions:** This comprehensive review on the cognitive mechanisms of auditory verbal hallucinations has summarised the major cognitive models and enables us to further hypothesise that inner speech is the major cognitive mechanism causing auditory verbal hallucinations. This review also provides a direction for future research on intervention of auditory hallucinations.

## Public Attitudes Towards

A16

### Psychosis in Hong Kong: Misconception and Stigmatisation

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**Objectives:** The present study is the first territory-wide telephone survey to examine public knowledge and attitudes towards psychosis in Hong Kong. It serves as baseline data for a 5-year public awareness programme, in which exhibitions, talks, workshops, and media activities will be organised by the Jockey Club Early Psychosis Project. It is expected that data obtained would generate implications for developing future public awareness programme in Hong Kong.

**Methods:** The questionnaire covers knowledge, attitudes, and exposure on psychosis information. It was designed by Department of Psychiatry, The University of Hong Kong (HKU). The Public Opinion Programme (POP) HKU was commissioned to carry out the survey. This telephone interviews were carried out in April 2009, with stratified randomisation according to age and sex. A total of 1016 local adult residents were interviewed.

**Results:** Regarding knowledge on psychosis, 70.7% of the respondents thought that psychosis referred to split or multiple personalities, and 59.6% thought that patients often yell or self-mutter; 53.1% thought they tended to behave

strangely or in annoying ways and 42.7% thought anxiety was a key symptom of psychosis. Regarding attitudes towards psychosis, 87.1% of the respondents felt that employers tended to disregard job applications from patients; 75.9% felt that they were dangerous or unpredictable and 71.6% would treat patients with less respect. Regarding exposure to information on psychosis, 30.0% of the respondents had never come across any information. For those who had previous exposure to such information, 78.0% indicated that reports in newspapers and TV were their main sources of information. Comparing with people who had no exposure to negative news reports, those who had such exposure held significantly more stigmatising attitudes and behaviours towards psychosis ( $p < 0.001$ ).

**Conclusion:** The results revealed a lack of knowledge and presence of stigmatisation towards people with psychosis in Hong Kong.

## Biased Facial Emotion

A17

### Categorisation in Early Stage of Schizophrenia under Different Social Contexts: a Cross-sectional Case-control Study

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**Objectives:** The primary objective was to examine the difference in the facial emotion categorisation (FEC) performances between patients with schizophrenia and the healthy controls in a happy-angry emotion continuum. The secondary objective was to investigate whether different social contexts (praise, blame, and neutral) would influence the FEC performances of the participants in this happy-angry emotion continuum.

**Methods:** A total of 36 schizophrenia outpatients in their early stage of illness and 43 healthy controls were recruited for evaluation of their social and clinical characteristics, neurocognitive profiles, and the FEC assessment using a computer-based programme. Social context was presented in the form of a preceding question simulating the conditions of being praised, blamed, or neutral. The FEC was judged on the face of respondent who was one of the 5 facial images in a linear emotion continuum ranging from happy to angry. Data would be fitted into the logistic function model with subsequent analysis by repeated measures ANOVA on the shift point and slope as outcome measures.

**Results:** Patients with schizophrenia were found to perceive ambiguous facial expression as happy than angry in the happy-angry continuum, when compared with the control group, in all 3 social contexts. Interaction effect between the group and context on the FEC performance was not significant.

**Conclusion:** Patients with schizophrenia were shown to have biased perception of facial emotion categories. This could help understand their social cognitive deficits and treatment strategies should be targeted in this area for their recovery.

## The Subjective Experience of

A18

### Recovery from Psychosis: a Case Study

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The first 3 to 5 years following the onset of psychosis is regarded as the critical period since it determines the long-term outcome of the illness. In light with this, it is important to understand the factors that promote recovery during this period of time. As recovery from psychosis may be contributed by different variables, case studies can better understand the complex content of the interlocking personal, cultural, social, economic, and pharmacological effects in deciding the improvement and recovery. This study examined factors that promote recovery from the subjective experience of patients with first-episode psychosis.

The participant has been receiving the case management service of Jockey Club Early Psychosis (JCEP) Project for more than 1 year. JCEP is a pioneer project in Hong Kong which provides case intervention to the patients with adult-onset first-episode psychosis.

Semi-structured interviews are conducted at a time and place that is convenient to the patient. Interviews are audiotaped and transcribed verbatim. Thematic analysis is used to examine the important factors promoting recovery identified by the patient.

Results will be presented later.

## Predicting Early Disengagement from an Early Intervention Service for Adult-onset Psychosis Patients (JCEP) A19

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**Objective:** Non-engagement in community psychiatric services has long been a concern for mental health service providers. For most of the time the focus falls on attendance of outpatient clinic appointments and medication adherence. One of the aims to implement early intervention (EI) programmes is to reduce disengagement and improve medication adherence. Yet it then comes to concern that non-engagement also occurs in EI services. Therefore the current study aimed to explore the rate and predictors of disengagement from an EI service for early psychosis in Hong Kong.

**Methods:** In this study, data from the first 240 adult-onset psychosis patients consecutively recruited into the Jockey Club Early Psychosis (JCEP) Project were analysed. All participants received phase-specific case management service as offered by the JCEP intervention officers. They were assessed at illness onset with regard to their basic demographics, duration of untreated psychosis, positive and negative symptoms, as well as functioning level. Disengagement from JCEP intervention was recorded after a 6-month follow-up. Logistic regression analyses were applied to examine the potential predictors for early disengagement.

**Results:** In general, patients who disengaged from EI services did not differ from their counterparts in terms of age, gender, years of education. We found early disengagement were related to premorbid functioning, age of arriving in

Hong Kong among the immigrants, functioning level, and baseline positive and negative symptoms at study entry.

**Conclusion:** In this presentation, disengagement rate and factors related to service disengagement will be discussed.

## Analysis of Length of Stay and Interval between Re-admissions of the Revolving-door Patients with Schizophrenia A20

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**Objective:** Schizophrenia is a common and severe mental illness with unknown aetiology. It is characterised by a long-time course, high relapse rate, and accompanied disabilities. Research in western countries has suggested that there is about 40% to 50% of patients with schizophrenia who had been hospitalised would be re-admitted in 12 months after discharge. Patients who have 4 or more consecutive admissions within 2.5 years are defined as 'revolving-door patients'. In mainland China, few studies have investigated the features of this group of clientele. The aim of the current study was to examine the relationships among the readmission rate, the length of stay during hospitalisation, and the interval in between readmissions of this group of patients. This may help to explore the risk factors for readmission of patients with schizophrenia in future studies.

**Methods:** We have retrospectively summarised the clinical data of 170 patients with schizophrenia, who were discharged from 1 April 2010 to 31 March 2012 in Guangzhou Psychiatric Hospital. They had been re-hospitalised for at least 4 times before the last discharge in the said period. Their readmission rate, length of stay, and the average interval between re-admissions to hospital were used for statistical analyses.

**Results:** This group of revolving-door patients had been hospitalised from 4 to 18 times with an average of 5.3 times. The average length of stay was 69 (40,102) days (skewed data, presented with median of 25 and 75 percentile, same for the next). The average interval between re-admissions was 347 (146, 781) days. With the increasing number of re-admission, the length of stay increased from 69 days for the first admission to 76 days for the 4th one, while the average interval between re-admission decreased from 499 days to 68 days. The differences between the length of stay and the intervals between re-admissions in relation to the admission rate were statistically significant ( $p < 0.05$ ).

**Conclusion:** With the increased numbers of re-admissions, patients had longer length of stay and shorter interval for next admission. It is suggested that number of re-admission could be a useful indicator to predict the prognosis of patients with schizophrenia.

## POSTER B. Affective Disorders

### Can Melatonin Help Stabilise Bipolar Disorders? B01

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**Objectives:** Circadian rhythm sleep disorders are a central feature in bipolar disorders. The melatonin hormone secreted from the pineal gland is a main synchroniser of the sleep wake cycle. The aim of this study was to assess the effectiveness of melatonin in bipolar disorders treatment.

**Methods:** This was a prospective naturalistic study comparing sleep quality and symptoms severity of bipolar patients before and after adjunctive treatment with melatonin. Fourteen euthymic patients having met DSM-IV diagnostic criteria of bipolar disorders and / or schizoaffective disorders before were included. Melatonin at 3 to 6 mg daily was prescribed to patients on top of their stable treatment regimen. Patients' sleep quality and quantity, illness severity, and side-effect of treatment were measured and compared before and after melatonin treatment. Time for improvement was recorded as well, if there was any.

**Results:** According to the Oviedo Sleep Questionnaire, all patients experienced improvement in both sleep quantity and quality with melatonin treatment. The adjunctive treatment also lessened symptoms severity, as shown by the significantly improved scores in Chinese Polarity Inventory as well as both subscales of depression and mania in Clinical Global Impressions Scale for Bipolar Illness. There was observed improvement in the scores of the Numeric Evaluation Scale as well. Regarding side-effects, only one patient complained of daytime sleepiness.

**Conclusion:** The results of this pilot clinical study suggest melatonin adjunctive therapy may be effective in treating sleep disturbances in bipolar disorders and at the same time beneficial in improving illness severity.

## A Single Case Study in Treating a Consumer with Diagnosis of Depression Effectively by a Home Resettlement Programme with Family Intervention B02

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**Objectives:** This study aimed (1) to facilitate a patient with diagnosis of depression to channelise the feeling by using individual psychotherapy, (2) to shape her communication pattern with her daughter by joint sessions, and (3) to support her in adjusting previous life-style by home resettlement programme.

**Methods:** A 41-year-old widow suffered from a severe depressive episode. She had mental illness since 1994. Due to poor symptoms control, repeated admissions were recorded. She wanted to be discharged back home with her daughter but her plan was unreachable during past 5 months with conventional rehabilitation. Hence, a home resettlement programme with family intervention was provided to help her to achieve her aspiration. Her depressed mood was sustained because of her unfinished business with her husband (passed away for 10 years) and fair relationship with her (teenage) daughter. Firstly, the technique of empty chair was arranged to let her to express her deep-down feeling towards her husband. Her complicated grief was settled gradually. Secondly, individual psychotherapy was conducted to enhance her positive cognition so as to empower her to take up her roles. Thirdly, some joint sessions were given accordingly to strengthen her interpersonal skills. A congruent communication pattern with key elements

of open-minded, non-judgemental and consensus-based conversation introduced. Both of them were mutually agreed to transform their family rules into an enlightened guideline. Home programme was used to improve her parenting skills and structure her time meaningfully.

**Results:** There were 8 individual psychotherapy, 5 community programme, 3 family sessions, and 3-week day training programme. Then, she was successfully discharged back home after 3 months of rehabilitation.

**Conclusions:** Case occupational therapist reviewed her root problem under her mood symptom, she solved the problem by her own solution finally. She was able to live with her daughter peacefully (4 years) and had higher rating in World Health Organization – Quality of Life.

## Attempted Suicide by Drug Overdose in Hong Kong: What are the Differences Between Impulsive and Non-impulsive Suicide Attempters? B03

**HF CHEUNG**

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**Objectives:** This study aimed (1) to identify socio-demographic data, clinical variables, poisoning characteristics, and clinical outcomes of Hong Kong Chinese people who attempted suicide by drug overdose, and (2) to uncover differences in socio-demographic data, clinical variables, poisoning characteristics, and clinical outcomes between impulsive and non-impulsive suicide attempters.

**Methods:** A retrospective observational study was conducted in a regional acute hospital. The 2-year (2008 and 2009) psychiatric consultation notes of those eligible local Chinese patients with suicide attempt by drug overdose were retrieved.

**Results:** There were 234 impulsive and 79 non-impulsive suicide attempters. Non-impulsive attempters were significantly older. There was no statistically significant difference between the 2 groups on all clinical variables. Concerning poisoning characteristics, the top precipitating causes of suicide for impulsive and non-impulsive groups were 'strained love affairs' and 'physical illness'. Compared to the impulsive attempters, the non-impulsive attempters had a stronger determination together with planning prior to the suicide attempt. They also tended to take precautions to prevent discovery, were less likely to seek help after overdosing, and had longer delay before attending emergency care. In both groups, the most frequently used agents were sleeping pills, paracetamol, antidepressants, and anxiolytics. For clinical outcomes, a higher proportion of non-impulsive attempters was given a psychiatric diagnosis (especially depression) and received more interventions (especially psychiatric medication and psychotherapy). A significantly larger proportion of them showed no remorse and expressed a wish to repeat suicide, leading to a higher rate of psychiatric admission.

**Conclusion:** This study has uncovered the differences between the impulsive and non-impulsive suicide attempters with drug overdose in local Chinese community. It could bring insight and direction to tailor-made prevention strategies for at-risk groups.

## Depression in Non-psychiatric Geriatric Outpatients B04

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**Objectives:** The present study was conducted to find the socio-demographic profile and prevalence of depression among non-psychiatric geriatric outpatients and correlates of depression (if any).

**Methods:** One hundred patients aged more than 60 years attending various outpatient departments (OPDs), excluding Psychiatry OPD, were interviewed after taking informed written consent. Patients currently having psychiatric illness or past history of psychiatric illness, unconscious and delirious patients, and patients not giving consent were excluded. Socio-demographic performa was applied to assess socio-demographic variables. Geriatric Depression Scale (GDS) was used to diagnose depression. The GDS, developed by TL Brink et al, is a 30-item self-rated scale used to evaluate depression in the elderly. The GDS has been reported to be a useful screen for depression in elderly populations.

**Results:** A total of 64% of the patients have one co-morbid illness and 36% of the patients have more than one co-morbid illness; 21% patients had mild depression and another 21% patients were severely depressed; 23% patients had a history of substance abuse / dependence. Widow / widower patients had significantly more depressive symptom as compared to patients having living spouse (76.67% vs. 27.13%). Patients with multiple co-morbid illnesses had more depressive symptoms as compared to the patients with single co-morbid illness (66.67% vs. 28.13%) and the difference was statistically significant.

**Conclusions:** In our study, 42% of the non-psychiatric geriatric patients were found to have depression which went undiagnosed and untreated. Depression was more common in patients who were widow / widower or had more than one co-morbid illness. For early diagnosis and treatment of patients aged 60 years and more, scales like GDS should be used which take much less time and are easy to administer.

## Influence of IL1RN Intron 2

B05

### Variable Number of Tandem Repeats (VNTR) in Bipolar Disorder

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**Background/Aims:** Several lines of evidence point to the role of neurobiological mechanisms and genetic background in bipolar disorder (BD). The interleukin-1 receptor antagonist (IL-1Ra) is the principal regulator of IL-1 $\alpha$  and IL-1 $\beta$  bioactivities. This study aimed to investigate the potential role of the variable number of tandem repeats

(VNTR) polymorphisms of the IL-1Ra gene (*IL1RN*) in conferring susceptibility to BD.

**Methods:** A total of 217 patients meeting DSM-IV-TR criteria for BD and 212 controls were recruited for the study. Genotyping of *IL1RN* were determined by polymerase chain reaction amplification of VNTR of 86 base pairs in intron 2 of *IL1RN*.

**Results:** Genotype distribution of *IL1RN* polymorphism was significantly different between BD patients and controls. *IL1RN*\*1/2 genotype was more prevalent in BD patients than controls (44.2% vs. 30.2%,  $p = 0.003$ ). Multiple logistic regression analysis demonstrated that *IL1RN*\*1/2 heterozygotes had a significantly higher risk for BD (odds ratio = 1.83; 95% confidence interval, 1.22-2.74;  $p = 0.003$ ). Further stratification of the BD patients into *IL1RN*\*2 allele carrier and non-carrier subgroups revealed a strong association between *IL1RN*\*2 carriage and prolongation of the disease ( $p = 0.02$ ).

**Conclusions:** These findings suggest a positive association between VNTR polymorphism in *IL1RN* and BD. Additional studies, particularly with prospective approach, are necessary to elucidate the effect of VNTR polymorphism on different phases of the disease.

## Low-frequency Fluctuation Study for Depressed Patients with Suicide Idea or Suicide Attempt

B06

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**Objective:** This study evaluated the amplitude of low-frequency fluctuation (ALFF) and fractional amplitude of low-frequency fluctuation (fALFF) in patients with suicide attempt or suicide idea by magnetic resonance imaging (MRI). This study aimed to (1) explore the character of LFF in patients, and (2) find the correlation between LFF and clinical variable.

**Methods:** A total of 38 patients with major depressive disorder and 36 healthy controls were recruited. Mental examination were conducted by SCID-I/P and K-SADS-PL. The Columbia–Suicide Severity Rating Scale (C-SSRS), Hamilton Depression and Hamilton Anxiety Rating Scales, Beck Depression Rating Scale, and Barratt Impulsiveness Scale were used to assess patients. Neuroimaging data were acquired by a 3.0 Tesla scanner for all subjects in resting state. Whole-brain analysed method was used to get the data of resting-state MRI and make the correlation analysis between variables of MRI and scales.

**Results:** (1) Using whole-brain analysed method, we found that the value of ALFF in left cingulate gyrus in depressed patients with suicide attempt was obviously higher than that in depressed patients with suicide idea. (2) Using whole-brain analysed method, positive correlation was found between some items of C-SSRS and value of fALFF in depressed patients with suicide attempt and / or suicide idea: “Actual lethality of most recent attempt” was related to the value of fALFF in grey matter of right middle occipital gyrus and left cerebellum anterior lobe. “Actual lethality of initial/first attempt” was related to the value of fALFF in grey matter

of left postcentral gyrus and caudate. "Potential lethality of most lethal attempt" was related to the value of fALFF in grey matter of left superior temporal gyrus.

**Conclusion:** (1) Suicide people had characteristic changes in brain, and these changes were related with suicide. (2) Dysfunction of regional brain areas contributes to the risk of suicide. (3) Changes of regional fALFF may be used to differentiate people at high risk of suicide.

## Effectiveness of Culturally Sensitive Collaborative Treatment of Depressed Chinese in General Medical Care in Taiwan

B07

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**Background and Aims:** Depression is a prevalent high-impact illness in primary care. However, there has been no data for efficacy of collaborative care in Taiwan. A comprehensive approach using the Culturally Sensitive Collaborative Treatment (CSCT) was designed for treating depressed patients in primary care. This study was a randomised controlled trial to test whether CSCT would improve the outcome of depressed patients visiting primary care in Taiwan.

**Methods:** The subjects were recruited via a 2-stage interview for screening depression in non-psychiatric clinics. During January 2009 to May 2011, 21,661 subjects completed depression screening and 2252 who screened positive received assessment of the Hamilton Rating Scale for Depression (HAM-D-17) were interviewed with the Schedule for Clinical Assessment in Neuropsychiatry diagnostic interviews. Finally, 442 subjects were diagnosed as having major depressive disorder (MDD). Of 280 MDD eligible subjects, 32 subjects were withdrawn from the study, 248 received CSCT (n = 115) or usual care (n = 133). Patients in both groups were assessed by a blinded interviewer with phone calls every month for 6 months after enrolment. The interviewer assessed the outcome, including HAM-D-17, the Clinical Global Impression–Severity and Clinical Global Impression–Improvement, and the Quality of Life Enjoyment and Satisfaction Questionnaire, adherence to treatment, and medication side-effects.

**Results:** There were no significant differences among the 2 groups in terms of demographic characteristics at baseline. Women predominated (85.4%), the mean age were 47.9 (standard deviation, 16.6) years, and the mean educational level were senior high school. Most of them were married and had full-time job. The results of adherence of treatment and medication, severity of depression, and quality of life among CSCT group were all significantly better than the usual care group.

**Conclusion:** The findings indicate that CSCT can significantly improve the outcome of depressed patient in primary care.

## Epidemiology, Clinical Characteristics, and Outcome of Clients Referred to the Prince of Wales Hospital Postnatal Depression Clinic

B08

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**Objectives:** This is an observational study of the epidemiology and the clinical characteristics of the clients referred to the Prince of Wales Hospital (PWH) Postnatal Depression Clinic (PND) for the period from 1 January 2008 till 31 August 2009.

**Methods:** Women delivering at the PWH were given the Chinese version of the Edinburgh Postnatal Depression Scale (EPDS), which were to be completed 4 to 6 weeks after delivery and mailed back to the PWH. They were referred to the PND clinic if they scored above the cut-off. The case records of the subjects of the study period were traced for data collection. The client's demographic data including age, educational background, and employment status were reported. The timing in the postnatal period when they first presented to our clinic was reported. Diagnosis was made using the Chinese version of the SCID. The Chinese version of the Beck Depression Inventory (BDI) was used to monitor outcome. Their clinical diagnoses, depression questionnaire scores, treatment given, and outcome were also reported.

**Results:** Of the 184 clients referred to the clinic in the study period, data of 166 were available. Their mean age is 30.59 years; 84.3% were married; 72.0% had higher secondary education. Regarding the employment status, 44.6% were housewives, 21.7% had clerical employment, 15.7% had professional jobs, and 12.0% worked in the service sector. Two-thirds (66.7%) were born in Hong Kong. Their mean postal EPDS score was 16.84. The mean EPDS score and BDI score at first attendance were 16.51 and 22.87, respectively. The most common DSM-IV diagnosis were minor depressive disorder (33.1%), adjustment disorder (30.1%), and major depressive disorder (21.9%). Antidepressants were prescribed to 80% of the subjects suffering from major depressive disorder. Only 10% of the women with major depressive disorder remitted 12 months after delivery, and 50% had defaulted treatment.

**Conclusion:** Significant psychiatric morbidity was seen in the perinatal period. The identification and early treatment of this population may improve outcome in both the mother and the baby. Compliance of treatment and outcome are poor in this population.

## Predictors of Depressive Symptomatology of Family Caregivers of Chinese Stroke Patients in Hong Kong

B09

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**Objective:** The aim of this cross-sectional study was to determine the socio-demographic and clinical factors associated with depressive symptoms in the family caregivers of Hong Kong Chinese stroke patients.

**Methods:** A total of 123 patients at a stroke clinic and their family caregivers formed the study sample. The depressive symptoms of both the patients and their family caregivers were rated with the Chinese version of the 15-item Geriatric Depression Scale (GDS). Participants' socio-demographic data and clinical characteristics served as the independent variables in relation to the caregivers' GDS scores. Patients' and caregivers' somatic and psychological conditions were measured with 10 scales.

**Results:** In univariate analysis, caregivers' GDS scores were significantly correlated with certain characteristics of themselves (Modified Life Event Scale [MLES], Cumulative Illness Rating Scale [CIRS], and Lubben Social Network Scale [LSNS] scores, sex, and being a housewife) and those of the patients (GDS score and being a housewife). Multiple regression analysis showed caregivers' MLES and CIRS scores and patients' GDS scores were independent correlates of caregivers' GDS scores.

**Conclusions:** Adverse events encountered by caregivers in the past 6 months, their current health problems, and patients' depressive symptoms were found to be the principal factors associated with caregivers' depressive symptoms.

## Prevalence and Associations of Major Depression in Haemodialysis Patients: a Study from China

B10

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**Objective:** There is an increasing concern about the prevalence of major depression among patients undergoing haemodialysis. However the relationship between depressive symptoms and symptoms of end-stage renal disease requires examination to understanding this potential co-morbidity. This study sought to examine the prevalence and correlates of major depression in haemodialysis patients in China.

**Methods:** A total of 260 patients undergoing haemodialysis were screened with the 9-item Patient Health Questionnaire. Depressive symptom severity was assessed with Hamilton Rating Scale for Depression. The formal diagnosis of major depression was further established using Diagnostic and Statistical Manual of Mental Disorders, 4th edition criteria. Finally patients meeting diagnostic criteria were compared with those who did not on demographic and clinical characteristics using t tests and chi-square test and the risk factors were tested using multiple logistic regression model.

**Results:** The prevalence of major depression was 10% in this study. However no patients received any antidepressant medications or formal psychotherapy for depression. Using multiple logistic regression, we found age (odds ratio [OR]

= 2.382, p = 0.031) and cardiac co-morbidity (OR = 3.645, p = 0.036) were significantly associated with major depression while duration of haemodialysis (OR = 0.391, p = 0.005), blood urea nitrogen (OR = 0.913, p = 0.016), and economic status (OR = 0.251; p = 0.006) were associated with a reduced likelihood of depression.

**Conclusions:** Depression is substantially more frequent in this sample of patients undergoing haemodialysis than in the general population in China. Research is needed to study the effective treatment of depression in patients with end-stage renal disease undergoing haemodialysis.

## Abnormal Functional Connectivity of Default Mode Network in Patients with Bipolar I Disorder

B11

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**Objective:** To explore whether the default mode network (DMN) in patients with bipolar I disorder exhibits abnormal functional connectivity and helps to explain the neural mechanism of work memory impairment in these patients.

**Methods:** Fourteen patients with bipolar I disorder and 20 matched healthy subjects underwent clinical assessments which included the n-back task, and functional magnetic resonance imaging scan. Connectivity analysis was used to identify the DMN and compare study groups in functional connectivity of DMN.

**Results:** The patient group scored significantly lower in cognitive tests than the control group. Analysis of imaging data identified the DMN well in both the patient and control groups, consistent with prior literature. The patients with bipolar I disorder exhibited significantly stronger deactivation (p < 0.001, cluster > 40) than the healthy subjects in bilateral precuneus (PrC) and left posterior cingulate cortex (PCC).

**Conclusion:** The present study is the first to investigate n-back task DMN in bipolar I disorder. Abnormalities in DMN connectivity with the PrC / PCC may be a biological trait of bipolar disorder and may be associated with work memory impairment.

## POSTER C. Elderly Mental Health Problems

### Association of the Plasma Levels of Homocysteine and Vitamin B12 with the Cognitive Dysfunction in the Elderly

C01

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**Objective:** To investigate the association of the plasma levels of homocysteine (Hcy) and vitamin B12 (VitB<sub>12</sub>) with the cognitive dysfunction in the elderly.

**Methods:** All subjects were randomly sampled from the communities in Shanghai. According to the relevant standards, the subjects were diagnosed and classified into 3 groups: Alzheimer's disease (AD), amnesic mild cognitive impairment (aMCI), or normal ageing (NA). Neuropsychological tests including mini-mental state

examination, Montreal cognitive assessment (MoCA), and neuropsychological test battery for elderly were administered to 288 subjects. The plasma levels of Hcy and VitB<sub>12</sub> were also collected.

**Results:** (1) The 3 groups differed in cognition significantly. The cognition of NA subjects was the best while that of AD subjects was the worst ( $p < 0.01$ ). (2) There was significant difference in measured plasma Hcy of the 3 groups (AD:  $20.41 \pm 5.650 \mu\text{mol/l}$ ; aMCI:  $19.82 \pm 13.678 \mu\text{mol/l}$ ; NA:  $17.37 \pm 5.653 \mu\text{mol/l}$ ;  $p < 0.01$ ), but analysis by General Linear Model showed that the difference made no sense (AD:  $18.94 \mu\text{mol/l}$ ; aMCI:  $19.37 \mu\text{mol/l}$ ; NA:  $17.69 \mu\text{mol/l}$ ;  $p > 0.05$ ). There was no significant difference in plasma VitB<sub>12</sub> of the 3 groups. (3) Plasma Hcy and VitB<sub>12</sub> levels negatively correlated and the correlation coefficient was  $-0.208$  ( $p < 0.01$ ). Linear stepwise regression analysis showed that sex ( $\beta = -0.320$ ,  $p < 0.01$ ) and the score of visuospatial function in MoCA ( $\beta = -0.263$ ,  $p < 0.01$ ) were associated with plasma Hcy, while sex ( $\beta = 0.164$ ,  $p < 0.05$ ) was associated with plasma VitB<sub>12</sub>.

**Conclusions:** Hyperhomocysteinaemia might be associated with visuospatial dysfunction. Plasma VitB<sub>12</sub> was insignificantly related to the cognitive dysfunction in elder people, but might affect the cognition by lowering the plasma Hcy.

**Declaration of interest:** This study was supported by grant from China Ministry of Science and Technology (Grant No.2009BAI77B03).

## Impact of Heat Shock Protein 70 and $\beta$ Amyloids on Alzheimer's Disease and Vascular Dementia: a Case-control Study

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**Objective:** Conflicting results have reported on the levels of plasma amyloid  $\beta$  peptide 1-40 ( $A\beta_{1-40}$ ) and 1-42 ( $A\beta_{1-42}$ ) in Alzheimer's disease (AD). The objective of this study was to explore the relationship between levels of plasma  $A\beta_{1-40}$ ,  $A\beta_{1-42}$  and heat shock protein 70 (HSP70) in patients with AD, vascular dementia (VD), and elderly non-demented controls.

**Methods:** The subjects were divided into 3 groups — 20 controls, 23 patients with AD, and 21 patients with VD, who fulfilled the diagnosis of AD and VD according to the criteria of Diagnostic Statistical Manual 4th edition (DSM-IV). Mini-Mental State Examination (MMSE) scores for cognitive status and activity of daily living (ADL) scores for daily life function were assessed and the levels of plasma  $A\beta_{1-40}$ ,  $A\beta_{1-42}$ , and HSP70 were measured by sandwich enzyme-linked immunosorbent assay.

**Results:** The levels of plasma  $A\beta_{1-40}$ ,  $A\beta_{1-42}$ , and  $A\beta_{1-40}/A\beta_{1-42}$  did not show statistically significant differences among 3 groups, but there were significant differences with levels of plasma HSP70 among 3 groups ( $F = 6.464$ ,  $p = 0.003$ ), the levels of plasma HSP70 in patients with VD were higher than those in patients with AD and controls (HSP70: VD  $3.19$  vs. AD  $1.91$  ng/ml;  $p = 0.000$ ; VD  $3.19$  vs. control  $1.43$  ng/ml;  $p = 0.000$ ). The MMSE scores were inversely correlated with

ADL scores ( $r = -0.617$ ,  $p = 0.002$ ) and levels of plasma HSP70 ( $r = -0.437$ ,  $p = 0.037$ ) in the AD group, the levels of plasma HSP70 were positively correlated with age ( $r = 0.616$ ,  $p = 0.002$ ) and plasma  $A\beta_{1-40}$  ( $r = 0.497$ ,  $p = 0.016$ ) in the AD group. Meanwhile, the levels of plasma HSP70 were also positively correlated with plasma  $A\beta_{1-40}$  ( $r = 0.436$ ,  $p = 0.048$ ) in the VD group.

**Conclusions:** The levels of plasma HSP70 increased significantly in patients with VD. There were positive relationship between the levels of plasma HSP70 and  $A\beta_{1-40}$  in patients with AD and VD. Cognitive performance was inversely associated with plasma HSP70 levels in AD patients. Our findings provide further evidence that high plasma HSP70 levels may play a role in the diagnosis and differential diagnosis of AD.

## Re-evaluation of Psychometric Properties of Cantonese Mini-Mental State Examination (C-MMSE) in Hong Kong Chinese

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**Background:** The Cantonese Mini-Mental State Examination (C-MMSE) has been validated locally as the standard measure to screen for dementia for 2 decades. However, the results might not be generalised to persons with mild cognitive impairment (MCI) or mild dementia because the study sample consisted only of moderate-to-severe dementia and normal controls (Chiu et al, 1994). Besides, the cut-off scores for different education levels were arbitrarily set due to insufficient number of subjects for analysis. This study aimed to examine the psychometric properties of C-MMSE in detecting MCI and mild dementia in older population.

**Methods:** A total of 147 subjects were examined and divided into 3 groups: dementia ( $n = 54$ ), MCI ( $n = 50$ ), and normal controls (NC,  $n = 43$ ). C-MMSE was validated against an expert diagnosis according to DSM-IV criteria for dementia and Petersen's criteria for MCI. Statistical analysis was performed using the receiver operating characteristic method and regression analyses.

**Results:** The mean scores of C-MMSE of dementia group was 16.4, MCI group was 21.6, and NC was 27.3. The optimal cut-off scores to differentiate dementia and MCI from NC were 25/26 and 26/27, respectively. The area under curve (AUC) for C-MMSE to detect dementia from NC was 0.97 (unadjusted) and 0.99 (adjusted for education level), giving a sensitivity of 0.96 and a specificity of 0.88; AUC to identify MCI was 0.85 (unadjusted) and 0.63 (adjusted for education level), giving a sensitivity of 0.76 and a specificity of 0.81. The AUC for C-MMSE in differentiation between MCI and NC was significantly impaired after adjustment of education ( $p = 0.00$ ).

**Conclusion:** The C-MMSE is a valid tool to detect dementia but not MCI after adjustment of education level in people aged 60 years or above. In contrary to the findings by Chiu et al (cut-off score = 19/20), a higher cut-off score at 25/26 is suggested as an indication for further evaluation of cognitive impairment.

## Benefits of Sitting Tai Chi on Depressed Elderly at Psychogeriatric Day Hospital

C04

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**Introduction:** Reduced mood and declined physical functioning were the major symptoms in geriatric depression impacting on quality of life. The physical benefits of Tai Chi was reported but few studies have examined the effects of sitting Tai Chi on depressed elderly.

**Objective:** To examine the effects of sitting Tai Chi programme on mood, sitting balance, physical functioning, and quality of life on depressed elderly at Psychogeriatric Day Hospital.

**Methods:** A quasi-experimental study with one-group pretest-posttest design was conducted to investigate the effects. Fifteen elderly diagnosed with depressive disorders participated in a 60-minute weekly sitting Tai Chi class for 12 weeks. Elderly Mobility Score (EMS) and the forward reach in sitting test were used as outcome indicators for physical functioning and Geriatric Depression Scale (GDS) and General Happiness Scale (GHS) for mental health index. Personal Well Being Index (PWI) was used to reflect the quality of life. Post-programme questionnaire on perceived impact, exercise habit, and programme evaluation was also conducted.

**Results:** Ten females and 5 males with a mean age of  $77.93 \pm 7.40$  years completed the programme. Statistically significant improvements were found in both physical and mental domains. EMS increased from  $12.60 \pm 5.36$  to  $13.27 \pm 5.90$  ( $p < 0.05$ ) and the forward reach in sitting test increased from  $9.67 \pm 3.48$  to  $11.93 \pm 3.61$  ( $p < 0.005$ ). GDS reduced from  $12.53 \pm 7.27$  to  $10.73 \pm 6.69$  ( $p < 0.005$ ) while GHS increased from  $4.08 \pm 1.14$  to  $4.81 \pm 0.99$  ( $p < 0.005$ ). PWI improved from  $47.80 \pm 10.32$  to  $54.3 \pm 12.33$  ( $p < 0.005$ ). The feedback from the post-programme questionnaire was highly matched with the results. Moreover, exercise habit demonstrated improvement from  $1.43 \pm 1.40$  to  $3.36 \pm 1.15$  ( $p < 0.005$ ) sessions per week.

**Conclusion:** Sitting Tai Chi was inexpensive and simple to be learned. It was suitable for people with impaired standing balance or tolerance. The positive results suggested it as an option for depressed elderly to improve mood, sitting balance, physical functioning, and quality of life.

## Metal Concentrations in Cerebrospinal Fluid and Serum of DLB and AD Patients

C05

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**Objective:** To investigate the changes of calcium, magnesium, iron, copper, zinc, manganese, lead concentrations in cerebrospinal fluid and serum of patients with dementia with Lewy Bodies (DLB) and Alzheimer's disease (AD).

**Methods:** Concentrations of metals were determined in cerebrospinal fluid (CSF) and serum by inductively coupled

plasma mass spectrometry in 20 patients with DLB, 40 patients with AD, and 18 healthy controls.

**Results:** (1) The serum zinc levels of DLB and AD patients were significantly lower than controls (all  $p < 0.05$ ). (2) The CSF calcium levels of AD and DLB patients were significantly higher than those of controls ( $p < 0.01-0.05$ ). (3) The CSF iron levels of AD patients were significantly higher than those in DLB patients and controls (all  $p < 0.05$ ).

**Conclusion:** The change in levels of zinc, calcium, iron in serum or CSF between AD and DLB patients and controls indicated the dementia patients had metal dyshomeostasis in vivo and brain, and the findings have potential application in revealing damage caused by oxygen stress involved in the mechanism of dementia diseases.

## Sleep Apnoea Disorder in Dementia with Lewy Bodies and Alzheimer's Disease

C06

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**Objective:** Understanding the relationship between sleep apnoea syndrome (SAS), dementia with Lewy bodies (DLB), and Alzheimer's disease (AD) can serve as a basis for identifying the true DLB and AD. We aimed to study the SAS in patients with DLB and AD.

**Methods:** Thirteen cases of patients with DLB, 21 cases of patients with AD, and 20 randomly chosen healthy elders were enrolled in this study. The sleep apnoea disorder of the 3 groups were examined by polysomnography from 20:00 at night till 6:00 the next day.

**Results:** Among the 3 groups, the time of apnoea, the total time of apnoea, apnoea/hypopnoea index (AHI), the longest apnoea time, and the lowest oxygen desaturation were significantly different ( $p < 0.05$ ). In the DLB and control groups, the lowest oxygen desaturation reached statistical significance ( $p < 0.05$ ). In the AD and control groups, apnoea index, the time of apnoea, the total time of apnoea, the time of apnoea-hypopnoea, AHI, the longest apnoea time, and the longest hypopnoea time reached statistical significance ( $p < 0.05$ ). In the DLB and AD groups, the time of apnoea, the total time of hypopnoea, and the lowest oxygen desaturation reached statistical significance ( $p < 0.05$ ). There were 2, 9, and 2 cases with SAS in the DLB, AD, and control groups, respectively.

**Conclusion:** Different degrees of sleep apnoea disorder were displayed in patients with DLB and AD. The apnoea and hypopnoea in sleep can trigger low oxygen level in brain and may lead to a higher chance of dementia.

## Efficacy of the Combination of Escitalopram and Trazodone in Patients with Alzheimer-type Dementia and Behavioural Disorders: with Regard to a Descriptive Study of Six Cases

C07

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**Introduction:** In patients with Alzheimer's disease (AD), depression is related to aggressive behaviour. Behavioural disorders such as irritability, the tendency to the complaint, demand for care or reliance would have the same meaning as the mood changes. Moreover, it has been demonstrated the involvement of both the serotonergic system and the noradrenergic system in alpha-2 receptors, both related to behavioural symptoms, have seen a significant decrease of neurons in the raphe nuclei serotonergic and noradrenergic locus coeruleus and the substantia nigra. There are studies that demonstrate the efficacy of selective serotonin reuptake inhibitors (SSRIs) in patients with dementia and behavioural disorders.

**Objectives:** To evaluate the positive response and scarcity of side-effects with SSRI use in patients with dementia and behavioural disorders.

**Methods:** Six cases of patients diagnosed with AD and presented with conduct disorder were selected. Escitalopram was used at doses of 15 mg/day and trazodone 50 mg/day. Monitoring and assessment of patients was performed at 1, 2, and 3 months by interviewing family members of the patients.

**Results:** In all 6 cases, there was a significant remission of the aggressive symptomatology and the behavioural alteration, showing a good tolerance to both drugs. Somnolence was the most common side-effect.

**Conclusions:** Despite the limitations that involve descriptive studies and the consequent decrease in the same statistical rigour (no double-blind and control groups) as well as the limitations of sample size, preliminary results of this study showed that in the 6 cases reported, the combined use of escitalopram at medium doses and trazodone at low doses in patients with Alzheimer-type dementia and behavioural disorders was effective in improving symptom without significant side-effects. A more thorough study from the methodological point of view and with a larger population is warranted.

## POSTER D. Child and Adolescent Mental Health Problems

### Determinants of Quality of Life D01 Outcomes on Weights of Chinese Young Children

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**Objective:** This study aimed to explore the associations between quality of life, parenting stress, and socio-demographics on young children's weight outcomes.

**Methods:** Quantitative and qualitative tools were utilised. This was a cross-sectional study of 336 Chinese parents of young children aged 2 to 7 years along with 10 in-depth interviews in 31 Hong Kong preschool settings. The Pediatric Quality of Life Inventory 4.0 together with demographic characteristics were collected. One-way ANOVA, Tukey's HSD post-hoc test, *t*-tests of paired samples, Pearson correlations, and multiple regressions were used for data analysis. The qualitative data were analysed according to a multi-level framework that established linkages between the

mothers, teachers, and the child.

**Results:** The children's body mass index ranged from 11.3 to 28.0 kg/m<sup>2</sup>, of which 4 types of weight statuses were identified by the International Obesity Task Force. The findings indicated that normal-weight children had the highest level of quality of life than the obese children in Social Functioning (mean difference = 9.30, *p* < 0.05), Physical Functioning (mean difference = 14.19, *p* < 0.01), and School Functioning (mean difference = 10.57, *p* < 0.01); than the underweight children in Physical Functioning (mean difference = 8.28, *p* < 0.05) and School Functioning (mean difference = 7.71, *p* < 0.05); and than the overweight children in School Functioning (mean difference = 10.15, *p* < 0.01). Moreover, the relationship between children's quality of life and parenting stress was inversely proportional (*r* = -0.351). We found that child age, mother's education level, and father's education level were significant predictors of Psychosocial Health Summary Score. The case studies further indicated that a child's well-being on weight conditions might be affected by childcare practice and familial circumstances.

**Conclusions:** These findings suggest the interrelationship between socio-demographics, parenting stress, and quality of life on children's weight outcomes.

### Is Working Memory Impaired in D02 ADHD Children? A Report from CANTAB and WICS-IV

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**Objective:** Working memory is regarded as an important part in cognitive process. It is known that children with attention deficit and hyperactivity disorder (ADHD) suffer from executive function impairment, in which interference inhibition shows a large effect size while working memory shows a small effect size.

**Methods:** A total of 143 children (124 boys and 19 girls) with ADHD and 32 healthy children (27 boys and 5 girls) completed a battery assessment. Wechsler Intelligence Scale for Children (WISC), Cambridge Neuropsychological Test Automated Battery (CANTAB), and Conner's rating scale were used. All children with ADHD were divided into 3 groups: 50 in attention deficit disorder (ADD) group, 8 in hyperactivity/impulsivity (H/I) group, and 85 in the mixed group.

**Results:** Performance of working memory in ADHD children were related to total intelligence quotient (IQ) level and performance IQ level (*p* < 0.05), rather than the severity level in symptom. ADD group got a lower score in total IQ (*t* = -2.021, *p* = 0.045), but longer digit span backwards (*t* = 2.284, *p* = 0.024) and higher spatial span (*t* = 2.569, *p* = 0.011) than the mixed group. After age, gender, and total IQ level were matched with healthy children (*n* = 32), ADHD children showed more mistakes in spatial working memory (*t* = 2.569, *p* = 0.016).

**Discussion:** ADHD children suffered from working memory impairment. Girls and boys shared similar working memory. However, mixed type performed worse than ADD children, and the difference was independent from IQ performance. After age, gender, and IQ were controlled, children with

ADHD still performed worse.

**Conclusion:** Working memory in ADHD children is worse than healthy children, which is consistent with former study. The mixed-type ADHD children perform worse than ADD, but our study was limited by a small sample, especially the girls.

## Psychological Intervention for a Child Exposed to Murder D03

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**Objectives:** In developing countries like India, poverty and domestic violence are 2 of the most deep-rooted social evils. With murder as an extreme form of domestic violence, the present study described the process of psychotherapy for a 7-year-old boy who witnessed the gruesome murder of his mother by the father, and developed adjustment disorder with mixed disturbance of emotion and conduct.

**Methods:** Informed consent was obtained from the legal guardian of the child. Along with medication, the boy underwent psychotherapy. Conventional psychotherapy methods relying on talk were not suited for the child as he had difficulty expressing himself verbally due to an expressive speech delay and the shock following the trauma. Expressive therapy techniques incorporating play, art work, and story telling were used creatively and flexibly to help the child emote and heal. These techniques are evidence-based for helping abused children. Therapy was undertaken for 3 months. A longitudinal design was used, tracking the improvement of the child for the next 1.5 years. Weekly follow-ups were held, subsequently tapered to bimonthly contacts. His improvement was assessed in terms of the quality of his drawings which were characterised by the use of colour and detailing, and his functionality (regularity in attendance to school and quality of interpersonal relationships).

**Results:** Improvement was noted in the child's mood and conduct symptoms. His verbal reports suggested that he was better able to process the loss and develop healthy ways to cope with grief. Although some behaviour problems persisted in view of his difficult temperament, gains from therapy generalised to helping the child deal with challenges of real life, such as a constantly lurking fear of the father returning from prison.

**Conclusion:** Though clients from disadvantaged backgrounds are deemed as poorer responders to therapy due to practical difficulties, significant gains can be achieved by continuous long-term follow-ups with dedicated mental health professionals.

## Evaluation of a Structured Volunteering Programme as an Intervention for Enhancing Resilience Level of Parents of People with Learning Disabilities D04

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**Background:** Stresses have consistently been found to be higher in parents of people with learning disabilities (LD). However, some parents are able to be more resilient and better adapted in the face of these challenges. It is known that volunteering experience is able to increase one's resilient protector factors. This study was an initial attempt to evaluate how a structured volunteering programme enhances the resilience level of parents of people with LD. The programme lasted for 6 months and the parent volunteers paid home visits regularly to elderly who were living alone and were invited to attend the debriefing sessions after every visit.

**Objectives:** The researchers examined the effectiveness of the structured volunteering programme in enhancing the resilience level of parents of people with LD, and to identify the specific resilience domains that are correlating with the programme.

**Methods:** A pretest-posttest design was adopted, with the intervention of a 6-month structured volunteering programme. The researchers developed a 24-item scale which extracted from the Resilience Scale – Chinese Version (Chen, 2007; the original scale was developed by Friborg et al. in 2006) and the Purpose in Life Test – Chinese Version (Song, 1992; the original test was developed by Crumbaugh & Maholic in 1964). The scale achieved good reliability ( $\alpha = 0.935$ ). Data on 36 participants' measures of 4 resilience domains, namely, self-competence, social skills, social resources, and meaning of life, were analysed.

**Results:** Statistically significant positive changes in the resilience domains of social resources ( $p = 0.05$ ) and meaning of life ( $p = 0.04$ ) were found, the domain of social skills also showed positive change.

**Conclusion:** The results suggest the effectiveness of the structured volunteering programme for parents of LD in resilience enhancement. The programme design would be discussed.

## Psychiatric Disorders in Adolescent Boys in Detention: a Preliminary Prevalence and Case-control Study in Two Chinese Provinces D05

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**Objective:** To investigate the prevalence of mental health problems in juvenile offenders in 2 provinces of China.

**Methods:** We investigated the mental health of 232 consecutive receptions of juvenile boys aged 15 to 17 years in Youth Detention Centers of 2 Chinese provinces, and compared with juveniles in community settings. Interviews

were conducted by psychiatrists using the Kiddy Schedule for Affective Diseases and Schizophrenia (K-SADS-PL) to diagnose DSM-IV psychiatric disorders.

**Results:** Of the 232 boys in detention, 188 (81.0%) met criteria for any psychiatric disorder, with 186 (80.2%) having a disruptive behaviour disorder and 52 (22.4%) having a substance use disorder. High levels of co-morbidity were observed with 38.8% being diagnosed with at least 2 disorders.

**Conclusions:** The high absolute and relative risks of psychiatric disorders and substance use disorders suggest that the identification and treatment of such disorders in juvenile detention is a priority for service development. The findings for service development are discussed, in particular the need for improved detection and management of substance use disorders.

## POSTER E. Anxiety, Psychosomatic and Related Disorders

### Neuroprotective Effect of Postconditioning on Embolic Model of Cerebral Ischaemia in Rats

E01

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**Objective:** It has been reported that ischaemic postconditioning, conducted by a series of brief occlusion and release of the bilateral common carotid arteries, confers neuroprotection in permanent or transient models of stroke. However, effects of postconditioning on embolic stroke have not been yet investigated.

**Methods:** In the present study, rats were subjected to embolic stroke (n = 30) or sham stroke (n = 5). Stroke animals were divided into control (n = 10) or 3 different patterns of postconditioning treatments (n = 20). In pattern 1 of postconditioning (PC10, n = 10), the common carotid arteries were occluded and reopened 10 and 30 s, respectively for 5 cycles. Both occluding and releasing times in pattern 2 (PC30, n = 5) and 3 (PC60, n = 5) of postconditionings were 5 cycles of 30 or 60 s, respectively. Postconditioning was induced at 30 mins after stroke. Cerebral blood flow was measured from 5 mins before to 60 mins after stroke induction. Infarct size, brain oedema, and neurological deficits were measured 2 days later.

**Results:** While PC10 (p < 0.001), PC30, and PC60 (p < 0.05) significantly decreased infarct volume, only PC10 decreased brain oedema and neurological deficit (p < 0.05). Also PC10 prevented the hyperaemia of brain at 35, 40, 50 and 60 mins after the embolic stroke (p < 0.005).

**Conclusion:** Based on our data, ischaemic postconditioning reduces infarct volume and brain oedema, decreases hyperaemia after injury insult, and improves neurological function at 30 mins after the embolic model of stroke.

### Temperamental and Personality Characteristics of Sexual Dysfunction Patients: a Hospital-based Study

E02

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**Background:** It is reasonable to assume that personality factors will influence sexual development and establishment of sexual intimacy. Neuroticism was regarded as relevant to sexuality in earlier studies but results were not consistent (Copper, 1968; Eysenck, 1976; Slater, 1945). Costa et al (1992) found neuroticism to be correlated with lower sexual satisfaction and extroversion with sexual drive.

**Objective:** To see the personality characteristics of the patients presenting with sexual dysfunction and how it associated with the pathology.

**Methods:** Personality evaluation of 50 (both married and unmarried) patients diagnosed with sexual dysfunction presenting to Psychiatry outpatient department was done using Cattell's 16 Personality Factor (PF) questionnaire. Patients with hypertension, diabetes, head injury, and comorbid substance abuse were excluded from the study.

**Results:** The 16 PF profile of these patients reflect that they were more prone to decide impulsively rather than using their intellectual ability or reasoning. They have low frustration tolerance and were easily upset and frustrated by smaller things. These types of emotional status lead to premature ejaculation and erectile dysfunction since patients get distracted by other things. These patients have apprehensive tendencies which in turn lead to depressive cognition, which is again a known factor for sexual inadequacy.

### Sociocultural Influence on Body Dissatisfaction: a Case Study in Hong Kong

E03

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In recent decades, body dissatisfaction or the desire for thinness has been prevalent among Asian countries. One of the reasons is that societies place a high value on thinness and appearance. Images of thin models are excessively used in the mass media, which gives some individual a misconception that thinness is related to attractiveness and sense of wellbeing. A strong correlation between body satisfaction and personal happiness has been determined; some believe that individuals who achieve the 'beauty standard' are more likely to be reinforced by social acceptance and job opportunities.

It was found that Hong Kong females had higher level of body dissatisfaction and greater pressure to diet than males, while most of this population was within normal weight range. Overvalue of thinness does not only affect one's self-esteem and body image, but also lead to unhealthy weight control behaviours such as excessive exercise, restriction, binging and purging, and misuse of diet pills. These attitudes and behaviours are more common than the full syndrome.

The current study examined this phenomenon by means of 3 qualitative case studies. Attitude and behaviour towards being thin and its link to happiness were conducted and applied to the Theory of Planned Behaviours.

Three one-on-one semi-structure qualitative interviews were conducted with 3 young Hong Kong local female residents who had experience of living in a western country. It was pointed out that the Asian culture places unrealistically high expectations on women's weight and body shape, which has been identified as the major factor associated with the

subjects' attitude and behaviour regarding their appearances. Another highlighted sociocultural factor in the present study was the impact of peer pressure. It was noted that judgement from peer was another main source of stress that led the subject to the behaviour of restriction.

## Severe Memory Impairment Mimicking Obsessive-compulsive Disorder in a Patient with Dandy-Walker Syndrome: Evaluation with Three Tesla MRI

E04

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**Objective:** Obsessive-compulsive disorder is a common psychiatric disorder with a 2.5% lifetime prevalence rate. Memory impairment is regarded as the responsible mechanism for obsessive-compulsive disorder. Dandy Walker syndrome is a congenital disorder presenting with hydrocephaly which is caused by impaired cerebrospinal fluid hydrodynamics. We present a Dandy-Walker syndrome case with severe memory deficit that mimics obsessive-compulsive disorder.

**Methods:** The patient was referred to the consultation liaison psychiatry outpatient unit with the complaint of excessive and repetitive hand washing. Psychiatric, psychometric, neurocognitive, and radiological evaluations were performed. Radiologic evaluation included 3T brain magnetic resonance imaging (MRI) with new sequences (such as 3D-SPACE) and diffusion tensor imaging (DTI).

**Results:** In the psychiatric examination, anxious affect and slowed thought processes with severe memory impairment were significant. Neurocognitive performance evaluation included neurocognitive tests: Wisconsin card sorting, the Wechsler Memory Scale, and Stroop tests. Neurocognitive assessment revealed a severe memory deficit, especially in visuospatial memory. On MRI images, hydrocephalus, non-functional shunt catheters, and foramen magnum obstruction (due to web) were observed. DTI images show displacement and stretching in most of white matter tracts.

**Conclusion:** Memory deficit may result in excessive and repetitive behaviours and patients presenting with such behaviours may need further examination. This examination should involve comprehensive psychiatric and neurocognitive examination. These patients may also benefit from the recent technical developments in neuroimaging modalities.

## Examination of Consultation Liaison Psychiatry Referrals at Rehabilitation Setting: Five-month Experience

E05

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**Objective:** Rehabilitation setting includes patients with co-morbid psychiatric disorders. Turkish Armed Forces Rehabilitation Centre specialises in rehabilitation of

orthopaedic and spinal injury, and traumatic brain injury, particularly serving wounded soldiers. A variety of psychiatric symptoms present themselves during the rehabilitation process. Thus, we aimed to examine the consultation liaison psychiatry department referrals in a relatively short period of time.

**Methods:** Referrals to Consultation Liaison Department between November 2011 and March 2012 were examined retrospectively. Age, sex, marital status, referring clinic, major complaint, primary and co-morbid psychiatric diagnoses, and treatment data were collected from the patient records.

**Results:** A total of 255 patients were admitted to the Consultation Liaison Psychiatry Department. Of these patients, 71% (n = 181) were male and 29% (n = 74) were female. The mean age of the patients was 41.9 (standard deviation, 20.1) years. Anxiety (39.6%, n = 101) was the most often complaint among the patients. The 3 most common psychiatric diagnoses were anxiety disorder (44.5%, n = 113), depression (19.7%, n = 50), and post-traumatic stress disorder (11.8%, n = 30).

**Conclusion:** Rehabilitation settings consist mostly of traumatised patients. Responsible physicians must take into consideration that the co-morbidity rates are high in patients in rehabilitation centre and in their family members.

## Psychiatric Morbidity in Chinese Renal Transplant Recipients

E06

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**Objectives:** To determine the prevalence of psychiatric morbidity, identify correlates of psychiatric morbidity, and evaluate the effectiveness of the 12-item General Health Questionnaire (GHQ-12) as a screening tool for psychiatric morbidity in Chinese renal transplant (RT) recipients.

**Methods:** This was a cross-sectional study conducted from September 2010 to June 2011 in 175 randomly selected RT recipients from the Renal Transplant Clinic of a major hospital in Hong Kong. Socio-demographic data, clinical features, and psychiatric background of the participants were recorded. GHQ-12 was administered. Psychiatric diagnoses were established by the Chinese-bilingual Structured Clinical Interview for DSM-IV Axis I Disorders (SCID). Scores of GHQ-12 were compared against the psychiatric diagnoses.

**Results:** In the 157 recruited subjects, point prevalence of overall psychiatric disorders, depressive disorders, and anxiety disorders were 56.1%, 35.7% and 29.9%, respectively. Major depressive disorder was the most common depressive disorder while generalised anxiety disorder was the most common anxiety disorder. Fear of rejection was found to be predictive of current psychiatric disorders, current depressive disorders, and current anxiety disorders. Fewer hours of contact with confidant per week was found to be predictive of current psychiatric disorders and current depressive disorders. Not working and a history of graft rejection were found to be predictive of current depressive disorders. A family history of mental illness was found to be predictive of current anxiety disorders. The GHQ-12 was an effective screening tool for current psychiatric disorders (cut-off 0/1 by the [0-0-1-1] scoring system) and current depressive disorders (cut-off 12/13 by the [0-1-2-3] scoring system) with good sensitivity and specificity. The performance of GHQ-12 for current anxiety

disorders was unsatisfactory.

**Conclusion:** Psychiatric disorders are common in Chinese RT recipients. Risk factors were identified and GHQ-12 was evaluated as a screening tool for psychiatric disorders in this patient group.

## A New Paradigm of Consultation E07

### Liaison Service: Experience of the Psycho-oncology Clinic in a Local Tertiary Hospital

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**Objectives:** The psycho-oncology clinic in the New Territories West Cluster in Hong Kong was started in November 2011. Located in the day hospice centre of the oncology department, it aims to provide a prompt psychiatric assessment and treatment that is more easily accessible and acceptable for oncology patients. The experience of the psycho-oncology clinic in a local tertiary hospital is presented.

**Methods:** The clinic received referrals from oncologists, clinical psychologists, psychiatrists, and consultation liaison nurses. The diagnosis and symptomatology of these patients were studied. Psychiatric assessment was made by a specialist psychiatrist in the clinic. Patient's depressive and anxiety symptoms were assessed by the Hospital Anxiety and Depression Scale upon the first attendance.

**Results:** Forty-six new cases were seen in the psycho-oncology clinic from November 2011 till June 2012. As compared to 6 months before the clinic started, there were only 17 new case referrals from the oncology department in Tuen Mun Mental Health Centre. Majority (84.8%) of the new cases seen in the psycho-oncology clinic were diagnosed to have psychiatric disorders, namely depressive disorder (26.1%), adjustment disorders (23.9%), organic mental disorder (13.0%), primary insomnia (13.0%), generalised anxiety disorder (6.5%), and panic disorder (2.2%). The mean anxiety score of these patients was 8.27 (standard deviation [SD], 3.35) and the mean depressive score was 8.67 (SD, 3.61) which were both above the cut-off for psychiatric cases in a previously validated local study among inpatients in a local tertiary hospital.

**Conclusions:** The results highlight the ongoing unmet psychiatric need of oncology patients. Through such service model, the liaison role of consultation liaison psychiatrist was further strengthened by close collaboration with other disciplines and active involvement in the treatment plan of patients in a general hospital.

## Post-traumatic Stress Disorder E08

### Following Child Sexual Abuse: a Report from India

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**Objectives:** At least one out of 4 children experiences a significant traumatic event before reaching adulthood. Although most children display resilience after traumatic

exposure, only some develop significant and potentially long-lasting mental health problems. This study aimed to assess clinical profile of post-traumatic stress disorder (PTSD) with child sexual abuse (CSA) as the trauma in a tertiary care child and adolescent psychiatry centre in India.

**Methods:** This is a retrospective chart review where subjects having diagnosis of PTSD as per ICD-10 were selected and assessed for different correlates including characteristics of CSA.

**Results:** There were 32 cases with PTSD out of a total of 13,522 cases registered in a child and adolescent psychiatry department over a period of 6 years from 2005 to 2011. CSA was found to be the most common type of trauma, present in 33% of children, of which 54.4% of them had experienced it multiple times. The number of girls was more than twice (46.7%) that of boys (22.2%). In 72.7% of cases, the CSA perpetrator was known to the child, of which 62.6% of them came in contact with child almost daily. In all but one cases, perpetrators were not a family member or relative. The place of abuse was school / tuition place (27.3%), home (18.2%), or outside these settings (54.5%). Apart from PTSD, 63.4% of these children were diagnosed to have another psychiatric disorder.

**Conclusion:** Sexual abuse is the commonest form of trauma resulting in PTSD in children seeking treatment in a tertiary care child psychiatry centre. The risk for PTSD appears to be more when the perpetrator is not a family member or relative. Prospective studies are needed to substantiate the findings of this study. Clinicians need to be aware when children present with PTSD symptoms.

## Three-year Prognosis Study of E09 Patients with Neurosyphilis

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**Objective:** To analyse factors related to the long-term prognosis of neurosyphilis.

**Methods:** A total of 45 patients with neurosyphilis were treated with penicillin and were followed up prospectively. Before treatment, serum and cerebrospinal fluid (CSF) rapid plasma reagin (RPR), treponema pallidum particle agglutination (TPPA), and CSF total protein were collected. The Mini-Mental State Examination (MMSE) and activities of daily living (ADL) were also scored. At the sixth month and the end of the third year, each patient was assessed on MMSE, ADL, and serum RPR. Logistic regression and Pearson correlation analysis were used to estimate the factors related to prognosis.

**Results:** Of the 45 patients, 41 completed the 3-year follow-up. Six months after initiation of treatment, 25 of them (61.0%) worsened. There was no difference in serum RPR titre, CSF RPR titre, and MMSE score on admission between the stable and worsened groups ( $p > 0.05$ ). By the end of a 3-year treatment, 30 patients (73.2%) improved. The serum TPPA of all the patients was positive throughout the 3 years. Serum RPR titre was all positive on admission. No patient had their serum RPR becoming negative at the sixth month. Serum RPR in three patients (7.3%) turned to negative by the end of the third year. By the end of the third year, the CSF protein titre on admission was higher in the worsened

group than in the stable group ( $0.75 \pm 0.31$  vs.  $0.52 \pm 0.22$ ,  $p = 0.014$ ). Serum RPR titres were not different between the 2 groups. Independence factor related to the 3-year prognosis was CSF total protein increase ( $p = 0.023$ ).

**Conclusion:** Six months after initiation of treatment, 61% of the patients with neurosyphilis worsened despite penicillin treatment. Nevertheless, most patients improved after 3 years of treatment. There was a relationship between CSF total protein and long-term prognosis.

**Declaration of interest:** 2010 Science and technology projects in Guangdong Province (No.20100601).

## Anxiety Symptoms in Patients with Frontal Lobe Epilepsy Versus Generalised Epilepsy

E10

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**Objective:** The aim of this study was to compare the frequency of anxiety symptoms between patients with frontal lobe epilepsy (FLE) and generalised epilepsy (GE).

**Methods:** A total of 40 and 78 patients with FLE and GE respectively were enrolled in the study. Anxiety symptoms were measured with the Hamilton Anxiety Rating Scale (HARS) and the anxiety subscale of the Hospital Anxiety and Depression Scale.

**Results:** Compared to the GE group, the FLE group had significantly higher HARS ( $10.9 \pm 8.7$  vs.  $7.9 \pm 6.8$ ;  $p = 0.039$ ) scores. Significant correlations were also found between anxiety symptoms and epilepsy-related variables, particularly with the seizure frequency and the number of currently taken anti-epileptic drugs.

**Conclusion:** Anxiety symptoms were more common in patients with FLE in comparison to those with GE. Further studies are warranted to clarify the relationship between anxiety symptoms and FLE.

## Cerebral Microbleeds and Suicidality in Stroke

E11

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**Objective:** Cerebral microbleeds (CMBs) are common in stroke survivors. The clinical significance of CMBs in the development of suicidality (SI) following stroke is unknown.

This study examined the association between SI and CMBs. The aim of the study reported here was to determine the relationship between CMBs and SI in ischaemic stroke survivors.

**Methods:** A cohort of 367 patients with acute ischaemic stroke admitted to the stroke unit of a university-affiliated regional hospital in Hong Kong was recruited. SI was assessed with the Geriatric Mental State Examination at 3 months following the subjects' index stroke. Depressive symptoms were assessed using the Geriatric Depression Scale. A qualified psychiatrist administered the Chinese version of the Structured Clinical Interview for DSM-IV to diagnose depressive disorders. The presence and location of CMBs were evaluated with magnetic resonance imaging.

**Results:** Compared to the non-SI patients, the SI patients were more likely to have CMBs in any brain region (36.6% vs. 20.2%,  $p = 0.017$ ), and specifically more lobar (29.3% vs. 13.5%,  $p = 0.008$ ) and thalamic CMBs (19.5% vs. 7.5%,  $p = 0.018$ ). Presence of CMBs (odds ratio = 2.5,  $p = 0.026$ ) and lobar CMBs (odds ratio = 2.6,  $p = 0.034$ ) were independent predictors of SI in the multivariate analysis.

**Conclusions:** The results suggest that lobar CMBs may play roles in the development of SI. The importance of CMBs in the pathogenesis of SI in stroke survivors warrants further investigation.

## POSTER F. Psychological, Social and Complementary Interventions

### Mental Health Promotion

F01

#### Intervention for Migrant Workers in Labour-intensive Enterprises: an Experimental Study of a Shoe-making Enterprise in Shenzhen

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**Objective:** To assess the effectiveness of comprehensive mental health interventions in promoting the mental health of rural migrant workers in labour-intensive enterprises.

**Methods:** One workshop of a factory and one in another factory in Shenzhen were selected as an intervention group and control group by random sampling. A total of 921 workers were recruited from the 2 factories with 550 in the intervention group and 371 in the control group. Both qualitative and quantitative measures were taken at the baseline and after the intervention group had received the mental health promotion interventions. The data collected

were studied with both pre-protocol analysis (PP analysis) and intention-to-treat analysis.

**Results:** With the PP analysis, the self-reported rates of depression before and after the intervention were 63.9% and 51.6%, respectively ( $p = 0.009$ ) while that of the control group were 88.1% and 66.0%, respectively ( $p = 0.057$ ). In the intervention group, the rates of early identification of depression was 51.2% at the baseline but rose to 67.3% after the intervention, reaching a statistically significant difference ( $p = 0.003$ ). In contrast, there was no significant change in the rate of early identification of depression in the control group (from 44.3% to 34.4%,  $p = 0.266$ ). Workers in the intervention group were more likely to seek help for their psychological problems (53.3%) compared to the control group (49.4%). The difference was statistically significant ( $p = 0.016$ ). For the workers' help-seeking behaviour, they mainly attended mental institutions or local mental health professional organisations.

**Conclusion:** The comprehensive mental health interventions were effective in promoting mental health in rural migrant workers in labour-intensive enterprises. The interventions were seen as operable and sustainable.

## Spirituality for Schizophrenia: a Multi-perspective Case Studies with Patients, a Family Member, and a Psychiatrist F02

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**Objectives:** Spirituality is a salient issue for patients. While spirituality is often disrupted or significantly altered in the face of illnesses, there remain patients who eventually find resilience and meaning of their suffering through spirituality. The objectives of this study was to provide a preliminary understanding of what spirituality means to patients with schizophrenia and its role in rehabilitation.

**Methods:** This was a pilot trial of a larger qualitative study adopting a constructivist-grounded theory approach. Two patients (aged 20 and 25 years), a parent, and their psychiatrist were interviewed. They were recruited by the psychiatrist. The semi-structured interview schedule explored their own perception of spirituality, with other open-ended questions based on existing literature on spirituality and mental illness. Interviews were audio-recorded and transcribed, and analysis was conducted with ATLAS.ti(v.6.0).

**Results:** Views of spirituality in schizophrenia were highly congruent among patients, family, and psychiatrist. Their definition of spirituality often includes religion, but also included moral and existential components of attitudes, principles, sense of peace, protection, and an "inner voice". Meaning in life, making sense of the illness, and seeking a connection with their past self and with the community were other facets of spirituality associated to their rehabilitation

process. Spirituality was taken to be a useful element in the process of rehabilitation, although over-reliance may lead to medical non-compliance.

**Conclusion:** This pilot study demonstrated that spirituality is a core component in the illness process and rehabilitation. Both patients and family member demonstrated eagerness to discuss spiritual issues and hence, spiritual support, which involves but is not confounded by religion, should be offered as part of the mental health support system. Notwithstanding the limitation of sample size, hypotheses generated can be further attested in future studies for more valid and reliable conclusions.

**Acknowledgement:** This study was supported by the Research Grants Council (HKU/745511).

## Training Health Workers in Low-resource Settings Using Different Channels and Platforms F03

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**Objectives:** The treatment gap for mental, neurological, and substance abuse disorders in low- and middle-income countries is more than 75%. In order to increase access to mental health services in these low-resource settings, several global and local programmes were initiated and intervention guides written. The author explores how health workers in these low-resource settings can be trained and educated about mental health disorders and treatments, and how new technologies like the internet, smart phones, and SMS / voice platforms can contribute in this mental health capacity building.

**Methods:** Exploration of examples and best practices in the mental health field and, if applicable, in other health field as well.

**Results:** In the mental health field, paper / printed materials and face-to-face training and instructions, still seemed to be the main channel of capacity building. In other health fields however, feasible and inspiring examples of other channels were available and sometimes successful. For example, one could think of internet toolkits, computerised training programs, smart phone apps with decision trees, quizzes, go to taps and search engines, SMS automatic reply services and short mobile phone audio clips.

**Conclusions:** With the use of new technologies like the internet and phone-based applications / platforms, one could reach more health workers and save money and time. With these techniques, training can be more attractive as well. Of course all methods, from printed guides with classroom training, to mobile apps and cell phone programs, have their own drawbacks and benefits. Yet, it seems that they complement rather than replace each other. Internationally concerted development of tools and applications seems necessary. It is also important to consider local / national circumstances, and implement locally what is most suitable within the context.

## A Randomised Controlled Trial (RCT) Evaluating the Effect of Health Qigong on General Self-efficacy, Personal Well-being, and Subjective Training Success for Inpatients with Schizophrenia Spectrum F04

## Disorders: a Pilot Study

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**Objective:** To investigate the efficacy of health qigong (Baduanjin 八段锦) for inpatients with schizophrenia spectrum disorders. The impact on general self-efficacy, personal well-being, and subjective training success were investigated.

**Methods:** A pilot study of randomised controlled trial of 21 adult psychiatric inpatients with schizophrenia spectrum disorders were randomly assigned to a control group with conventional occupational therapy rehabilitation programme (n = 10) or a health qigong intervention group (n = 11). The experimental group practised 12 sessions of health qigong programmes under the instruction of a certified health qigong master over 3 consecutive weeks. The sessions consisted of warm-up (5 minutes), the health qigong exercise (20 minutes), and cool-down exercises (5 minutes) totalling approximately 30 minutes. Subjects were not asked to perform health qigong by themselves during the intervention period. The Chinese General Self-efficacy Scale (GCSS) and Personal Well Being Index (PWI) were used to measure general self-efficacy and personal well-being respectively as pre-test (week 0) and post-test (immediately after 3 weeks of intervention period). Subjective training success was assessed by feedback after the intervention period.

**Results:** There was no statistically significant difference in GCSS and PWI after 3 weeks of health qigong exercise. Patients from the intervention group reported positive experience after the qigong exercises classes.

**Conclusion:** This pilot study demonstrates the positive subjective training success of practicing health qigong (Baduanjin) on patients with schizophrenic spectrum disorders. No difference was demonstrated on personal well-being and general self-efficacy. Limitations included small sample size and short duration of treatment.

## Attempts of Normalisation by Psychotic Patients and Families to Avoid Being Stigmatised: a Proposed Study

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**Objectives:** Stigma against psychotic patients and families has long been known to be a salient factor that hinders help seeking and recovery. It is especially true in Chinese society where the culture emphasises the collective representation of families and the inferiority attached to mental illness. To avoid being stigmatised, it is not uncommon for patients and families to adopt various attempts in normalising psychosis. Normalisation here refers to mitigating the seriousness of psychosis and portraying it as another less stigmatising illness. Furthermore, their willingness in disclosure may vary within their social network. Little attention has been paid on the negative consequences entailed. This proposed study therefore aimed at investigating the coping strategies of patients and their families in response to stigma and the

discrepancy between them in the disclosure of information related to psychosis.

**Methods:** Forty pairs of first-episode psychosis patients and their primary carers were recruited. The Perceived Devaluation-Discrimination Scale and the Internalized Stigma of Mental Illness Scale were used to assess the stigma level of patients. As for carers, the Devaluation of Consumer Families Scale and the Affiliate Stigma Scale were implemented. Each of their social networks was then mapped out and a quantitative interview was administered to understand how patients and families disclose information of the patient to different social groups. Afterwards, an experience sampling method was adopted in which patients were phoned for 5 days (4 times a day) to capture their real-time context (location, company, activity) and their stress level was measured.

**Results:** Results of the study will be presented in the conference.

**Conclusion:** Understanding the pattern of how patients and families usually normalise psychosis can be a hint to further improve early intervention work and thereafter reduce patients' self stigma and families' associative stigma with the ultimate goal of enhancing recovery.

## Study of Patient Characteristics and Treatment Efficacy of Fast-track Clinical Psychological Services for Common Mental Disorders

F06

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**Objective:** The present study examined the treatment efficacy of fast-track clinical psychological (CP) services for common mental disorders (CMD) across 4 outpatient clinics of the Hospital Authority. Patient characteristics and factors related to treatment efficacy were explored.

**Methods:** A total of 784 patients were included in this study. Standardised surveys on demographics and measures indicating level of psychological distress were used. These include: DSM-IV clinician's rated Global Assessment of Functioning scale (GAF), Subjective Units of Distress Scales (SUDS), Depression Anxiety Stress Scale (DASS), WHO-5 Wellbeing Index (WHO-5), and Hospital Anxiety and Depression Scale (HADS). Treatment outcome for patients who have completed pre- and post-treatment measures were examined by using paired sample t-test. Factors related to treatment efficacy were explored with correlation analyses.

**Results:** Preliminary results revealed that 70.4% of our patients were female, with ages ranged between 18 and 84 (mean = 47.2) years. The most frequently identified primary conditions were depression (28.9%), adjustment disorders (19.4%), and anxiety disorders (18.2%). Pre-treatment measures indicated that most of them suffered from mild-to-moderate level of distress. These included GAF (mean = 63.6, standard deviation [SD] = 9.8), SUDS (mean = 4.7, SD = 2.4), WHO-5 (mean = 10.1, SD = 6.2), DASS

(mean = 46.4, SD = 30.8), and HADS (mean = 16.7, SD = 8.2). Among patients who have completed pre- and post-treatment outcome measures, 82.5% had received cognitive behavioural therapy with an average of 4.4 outpatient sessions (SD = 2.94). Substantial improvement in mental health for all outcome measures were indicated ( $p < 0.001$ ). Higher pre-treatment symptom severity was found to be significantly related to greater treatment efficacy ( $r = 0.35-0.77$ ,  $p < 0.01$ ).

**Conclusion:** Present results provide support for fast-track CP services for CMD. The routine use of standardised outcome measures is indicated for service evaluation.

## Emotional Experiences Within: **F07** the Journey of Trainee-psychotherapists

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**Objectives:** Psychotherapists carry vulnerabilities from the past which prevent them from being a 'blank slate' in the context of therapy with clients. This study explored the nature of emotions triggered by therapeutic encounters with clients within trainee psychotherapists, and shed light on management strategies they use for negative emotions.

**Methods:** Information was gathered from 79 trainee-therapists (31 clinical psychology trainees, 26 psychiatric social work trainees, and 22 lay counsellors) using the Psychotherapists' Work Involvement Scale (a part of a larger scale called the Development of Psychotherapists Common Core Questionnaire). This scale endeavours to study the person of the therapist. Central tendency and variation of the scale based on 5000 therapists who have varieties of theoretical origins, practising in institutions, agencies, and independent practice are available. Ten randomly selected participants took part in a semi-structured interview to obtain deeper understanding of nuances of the emotional reactions and management strategies.

**Results:** Data analysed using narrative analysis and descriptive statistics showed recurrent themes of feeling inspired, stimulated, challenged, irritated, frustrated, and helpless. Discussing with an experienced therapist helped most trainees manage negative emotions.

**Conclusion:** Themes relevant to the lacunae and expectations from supervisory sessions emerged. Implications for rethinking psychotherapy training and supervision within the Indian cultural milieu were discussed.

## Associations of Religiosity and **F08** Synergy of Treatment: Implications for Patient Care and Adherence

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**Objectives:** Psychotic experience like hallucinations or delusions is commonly found in patients suffering from schizophrenia or schizophrenia spectrum disorders, yet it is often strange, unexplainable, and highly stressful to them. Religion or spirituality, however, provides a set of appealing beliefs to give meaning to experience as strange as hallucinations and delusions. Some studies reported that

religious coping is effective in various stress situations and a large proportion of patients use religion as a way to cope with their illness, and religious community is a precious social support. Therefore, religiosity needs to be carefully integrated into patient care. This study aimed to identify, first, the essential elements of religiosity in relation to the coping style and mental health, and second, how these elements and coping styles influence the synergy of treatment and functioning. And finally, the implications for clinical practice could be made.

**Methods:** Participants aged between 18 and 65 years meeting the DSM-IV criteria diagnosis of schizophrenia were divided into 2 groups: schizophrenia with and without religiosity. Current clinical characteristics, functioning, and quality of life were assessed by the interviewer with the Positive and Negative Syndrome Scale, Social and Occupational Functioning Assessment scale, and Schizophrenia Quality of Life Scale, respectively. Qualitative interviews and quantitative questionnaires were employed to specifically test the relationships between the religion, coping styles, and synergy of religion with psychiatric care. Semi-structured interviews and quantitative questionnaires were adopted from the 'Multi-dimensional Measurement of Religiosity/Spirituality for Use in Health Research' (Fetzer Institute, 1999) with modifications for this study.

**Results:** Results will be published in August 2013, while the preliminary results will be released for discussions and adjustment.

**Conclusions:** Religiosity is a kind of social support and network for patients suffering from schizophrenia; clinicians and the companions of religious groups should pay attention to its interactions with the patients. Investigation into the relationships between religious support and adherence as well as quality of life is important.

## POSTER G. Substance Misuse, Impulse Control, and Related Disorders

### The Survey on Relatives of Mental **G01** Disorder Patients with a History of Troublemaking in Communities

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**Objective:** The purpose of this study was to examine the experience of relatives who were coping with mentally disorder family members with troublemaking history of violence or criminal behaviours.

**Methods:** A questionnaire was designed specifically for Beijing subjects. Information was gathered through interviews with 115 relatives at their homes. Characteristics of the caregivers were as follows: the number of male and female relatives was the same; 46 (40%) of them were spouse; 50 (43%) were parents; 5 (4.3%) were elder children;

12 (11%) were close relatives, and 2 (1.7 %) were others. Among these relatives, 94 (81.7%) were living and dining with patients; 105 (91.3%) were physically healthy and able to monitor patients' condition; 62 (53.9%) were having financial difficulty in meeting the cost of patients' medicine and daily care.

**Results:** Results were as follows: 32 (27.8%) respondents believed the purpose of taking medicine was to enhance the treatment effect, 78 (67.8%) considered that maintenance therapy could prevent relapse; 101 (87.8%) recognised the patients had mental illness while 14 (12.2%) respondents were against it; 87 (75.7%) respondents considered they could actively supervise the patients, 19 (18.3%) said they could only supervise them passively, while 7 (6.1%) respondents opined that they could not supervise the mentally ill family members. Regarding respondents' experience of external assistance, 67 (58.3%) respondents had sought help from doctors in the community, 48 (41.7%) reported to have no such experience; 48 (41.7%) had received help from policemen in the community, 67 (58.3%) stated they did not have such need; 62 (53.9%) respondents received help from neighbourhood committees, 53 (46.1%) said they did not require such help. Concerning the enforcement of Beijing City Mental Health Act, 39 (33.9%) respondents showed knowledge of it, 76 (66.1%) reported they did not know about it; 70 (60.9%) respondents considered they should have responsibilities of supervising their mental ill family members, but 45 (39.1%) disagreed.

**Conclusion:** The relatives of people with mental illness are important in supporting patients in their daily attendance in communities. Community doctors, policemen and neighbourhood committees play a crucial role in helping family members to supervise patients with a history of troublemaking (violence or criminal behaviours). We have to pay more attention to the patients who are poor and without supervision as they are prone to relapse. Proactive measures should also be taken in order to prevent them from committing violence or engaging in criminal activities.

## Punishment or Treatment for Offenders with Different Mental Disorders

G02

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**Objectives:** To analyse the reasons for the way serious criminal offenders with different mental disorders are held to be culpable or not and are either treated or punished.

**Methods:** The literature on the relationship between offending and different mental disorders was reviewed, including as to whether the mental disorder is a necessary and / or a sufficient cause of offending. Psychopathic offenders were also compared to juvenile offenders. The way mentally disordered offenders are sentenced was compared to the different goals of punishment, including the consequentialist approaches of rehabilitation, deterrence and incapacitation, and the deontological approach of retribution.

**Results:** A severe mental illness such as schizophrenia can directly or indirectly lead to offending and can usually be ameliorated by specific psychiatric treatment. While severe personality disorder has a strong association with offending,

it is in general considered refractory to treatment, although treatment is offered in prisons, e.g. cognitive therapy, and in specialist units, e.g. Dangerous and Severe Personality Disorder units in England.

**Conclusions:** Clinicians find it difficult to determine criminal responsibility, which is a legal concept and is also distinct from treatability. The offending behaviour of mentally disordered offenders may be affected by 2 mechanisms: incapacity of moral reasoning (irrationality), e.g. due to psychotic symptoms, or volitional incapacity (poor moral judgement, poor impulse control), e.g. in personality disorder. These 2 mechanisms sometimes may only constitute risk factors for offending rather than necessarily being a sufficient cause alone of it. In terms of the consequentialist approaches of punishment, rehabilitation is related to treatability, deterrence is related to deterability and incapacitation with dangerousness. Retribution is dependent on criminal responsibility. The mechanism through which the mental disorder contributes to the offending can potentially be an important factor to the determination of one's liability. However, while psychopathy may be considered to reduce criminal responsibility, associated dangerousness may favour increasing incapacitation.

## Neuropsychological Functioning in Substance Abusers in Hong Kong

G03

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**Objective:** The present study examined the harmful effect of substance abuse on neuropsychological functioning of patients in Hong Kong.

**Methods:** A total of 57 patients, aged 14 to 39 years, with non-impaired intelligence (mean IQ = 85.38; standard deviation [SD] = 8.80) were recruited in Substance Abuse Assessment Unit, Kwai Chung Hospital. Each patient has abused at least one of the following psychotropic substances including cannabis, cocaine, cough medicine, Ecstasy, ketamine, methamphetamine, nimetazepam and triazolam. Patients with a history of head injury, brain tumour, and premorbid psychiatric problems were excluded. Neuropsychological assessments and individual interviews were conducted with each patient to assess their general cognitive functioning, verbal memory, visual memory, attention, and other executive functions. Results were compared with normative data.

**Results:** By comparing patients' performance with the normative data, they had below-average performance in verbal memory, visual memory, and verbal fluency. Furthermore, the majority (73.7%) of patients had at least one neuropsychological deficit among the tested domains, i.e. the z-score of the respective tested area fell below 2 SDs from the mean score. Detailed analyses indicated that a significant proportion of them have impairments in delayed recall for auditory memory (16.1%), immediate recall (35.1%), delayed recall (36.9%), and recognition (22.7%) of visual stimuli. However, caution should be taken in interpreting the above results as our study only included patients with substance abuse, and there was no control group. Thus, comparisons were based on normative data of the neuropsychological assessment tools. The weaknesses identified in the current study could be related

to confounding factors, e.g. intelligence or socioeconomic status. Future studies could include non-substance abusers, so that possible confounding effects could be controlled when investigating the relationships between substance abuse and neuropsychological functioning.

**Conclusion:** The present results revealed some preliminary findings regarding the cognitive weaknesses related to substance abuse, which were consistent with other studies.

## Smoking and Its Demographic Correlates in Chinese Nurses

G04

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**Background:** There have been very few studies examining the prevalence of smoking in nurses in China. The aim of this study was to determine the prevalence of lifetime, current mild and heavy smoking, and the socio-demographic correlates of current smoking in nurses working in psychiatric and general hospitals in China.

**Methods:** A total of 799 nurses were surveyed in 2 psychiatric hospitals and the medical unit of a general hospital. Socio-demographic data and smoking were collected with a self-reported questionnaire. Work-related stress (WRS) was evaluated with the Nurse Stress Inventory.

**Results:** The prevalence of lifetime smoking was 7.6%; the rates for current mild and heavy smoking were 6.4% and 1.3%, respectively. The prevalence of current smoking was 7.1% (female vs. male: 2.1% vs. 44.7%). In multiple logistic regression analysis, aged 30 years or older (odds ratio [OR] = 18.6; 95% confidence interval [CI], 2.5-139.7;  $p = 0.005$ ), male sex (OR = 19.4; 95% CI, 8.2-46.0;  $p < 0.001$ ), having children (OR = 4.6; 95% CI, 1.6-13.5;  $p = 0.005$ ), being psychiatric nurses (OR = 3.5; 95% CI, 1.04-11.6;  $p = 0.04$ ), and alcohol consumption (OR = 8.6; 95% CI, 3.6-20.2;  $p < 0.001$ ) positively associated with smoking, while being a nursing officer was negatively associated with smoking (OR = 0.1; 95% CI, 0.02-0.9;  $p = 0.04$ ). There was no significant association between smoking and WRS (OR = 0.8; 95% CI, 0.5-1.5;  $p = 0.6$ ).

**Conclusions:** There was a big difference between male and female nurses in prevalence of current smoking. Considering the harmful effects of smoking, effective measures to promote smoking cessation for Chinese male nurses are warranted.

## Six-month Outcomes for Patients

G05

### Attending a Substance Abuse Clinic in Hong Kong: a Retrospective Study

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**Background:** The aim of this retrospective study was to demonstrate the effectiveness of the services offered in the 2 Substance Abuse Clinics (SACs) in the New Territories East

Cluster of Hong Kong.

**Methods:** The case notes of 99 patients were reviewed. The Christo Inventory for Substance-Misuse Services (CISS) at intake and 6 months later were recorded.

**Results:** The CISS total scores were  $5.9 \pm 2.6$  and  $4.4 \pm 2.3$  ( $t = 6.345$ ,  $p < 0.001$ ) at intake and at the 6-month follow-up, respectively. The majority of the subjects (64.6%) showed improvement at the 6-month follow-up. They demonstrated significant improvement in psychological status ( $t = 0.5202$ ,  $p < 0.001$ ), drug / alcohol use ( $t = 4.589$ ,  $p < 0.001$ ), general health ( $t = 4.500$ ,  $p < 0.001$ ), degree of criminal activity ( $t = 2.803$ ,  $p = 0.006$ ), and high-risk behaviour (risky sexual behaviour and / or the use of injectable substances;  $t = 2.755$ ,  $p = 0.007$ ), whereas there was no statistically significant improvement in the areas of social functioning, occupation, working relationships, ongoing support, and treatment adherence.

**Conclusions:** The current services provided by the SACs are effective and lead to a better overall outcome, although further improvement is needed in relation to the specific areas of occupation, ongoing support, and treatment adherence.

## Traditional Chinese Medicine

G06

### Diagnoses in Persons with Ketamine Abuse

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**Introduction:** Therapy based on traditional Chinese medicine (TCM) is commonly used in the treatment of substance abuse. Treatment according to syndromes is the core of TCM therapy for any disease, including substance abuse. Ketamine is currently the most commonly abused drug in Hong Kong. A comprehensive study on TCM diagnoses in the field of ketamine abuse is still lacking. We conducted a study on the diagnostic profile and reliability of TCM in persons with ketamine abuse.

**Methods:** A total of 84 subjects, recruited from substance abuse clinics and non-governmental counselling services catering for ketamine abusers, were examined by one or two TCM practitioners. The distribution and inter-rater reliability of the TCM diagnoses between the 2 TCM practitioners were described and measured.

**Results:** Seven TCM diagnoses were made. The 4 most common TCM diagnoses were the Heart *Yin Xu* (29.8%), Kidney *Yang Xu* (26.2%), Kidney *Yin Xu* (19.0%), and Spleen *Yang Xu* (14.3%). The agreement between the 2 TCM practitioners was 59%; the kappa for the 3 most common diagnoses was 0.472 ( $p = 0.003$ ). The proportion of men was lower in the Kidney *Yin Xu* group (18.8%), in comparison to the Heart *Yin Xu* (60.0%,  $p = 0.009$ ) and Kidney *Yang Xu* group (59.1%,  $p = 0.013$ ).

**Conclusion:** The differences between the TCM groups in terms of the source of referral and number of drug uses other than ketamine were of borderline significance. Further research should focus on validating diagnostic tools and

improving inter-rater reliability in TCM to enhance the quality of clinical trials of TCM treatments for ketamine abuse.

## Review of Theft Offenders:

G07

### Kleptomania Versus Non-Kleptomaniac Repeat Theft Offenders

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**Introduction:** Kleptomania is an enigmatic diagnostic identity in which crime is medicalised and is used as a legal defence. Early literature and even newer studies have shown female preponderance for early age of onset of stealing in people with co-morbid personality disorders. However, none of the studies to our knowledge have compared socio-demographic profile of kleptomaniac individuals versus other non-kleptomaniac repeat theft offenders.

**Objective:** To describe the socio-demographic profile and clinical characteristics of theft offenders diagnosed with kleptomania and compare it with repeat theft offenders not diagnosed with kleptomania.

**Methods:** Individuals in Singapore who have committed offences that do not warrant capital punishment and who either have a record of psychiatric treatment or are suspected to suffer from a mental disorder are remanded by the courts for assessment to the Institute of Mental Health (IMH), the only state psychiatric hospital in Singapore. Small numbers of alleged offenders are also referred for assessment in forensic outpatient clinics. We retrieved all the 201 forensic evaluations (inpatient remand and outpatient) done in IMH for 2010 with theft as an index offence and reviewed their notes thoroughly.

**Results:** We found that 2.5% of the theft offenders were diagnosed with kleptomania and 42.3% were repeat offenders without kleptomania. The mean age of onset of stealing for kleptomania was 31 years and the male-to-female ratio was 1.5:1. Among those with kleptomania, 40% had a concurrent Axis I psychiatric disorder and 20% had a personality disorder. There were no statistically significant differences between the 2 groups in terms of socio-demographic and clinical variables, particularly for gender and age of onset of stealing.

**Conclusion:** Kleptomania remains an uncommon diagnosis and is difficult to diagnose even among repeat theft offenders. Our sample neither showed a female preponderance nor an early age of onset. The study did not reveal any socio-demographic or clinical variables that distinguish offenders with or without a diagnosis of kleptomania.

## Clinical Characteristics of Cough

G08

### Mixture Abusers Referred to Three Substance Abuse Clinics in Hong Kong: a Retrospective Study

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**Objectives:** In the outpatient setting, cough mixture is the third most commonly abused substance in patients attending the Prince of Wales Hospital Substance Abuse clinic. The content of the local cough mixture is not well researched. Paranoid psychosis manifesting as persecutory delusions and derogatory hallucination is common in these patients, as well as mood symptoms. The natural history and outcome of the psychosis is unknown. This study aimed at addressing these questions.

**Methods:** This was a cross-sectional descriptive study on cough mixture misuse in Hong Kong. Case records of cough mixture abusers currently receiving treatment at the 3 substance abuse clinics at the Prince of Wales Hospital, the Alice Ho Miu Ling Nethersole Hospital, and the North District Hospital were retrieved for data collection. The subjects' demographic data, duration and intake pattern of cough mixture, and the use of any other drugs were documented. The presenting psychopathology, the first urine toxicology results, diagnosis, treatment given, number of hospitalisations, and course of the illness were recorded.

**Results:** A total of 63 patients were identified: 88.9% were male; their mean age was 34.35 (standard deviation [SD] = 6.2) years; 66.7% were single; and 82.5% were unemployed. The mean age of onset of cough mixture use was 20.0 years (SD = 5.39) and developed psychiatric symptoms 7.63 years (SD = 7.13) later. The top ICD-10 psychiatric diagnoses were substance-induced psychotic disorder (66.7%), schizophrenia (19.0%), depressive disorder (11.1%), and dysthymia (9.5%). The most common ingredients in the urine sample on first presentation were promethazine (74.6%), pseudoephedrine (66.7%), codeine (60.3%), ephedrine (57.1%), zopiclone (17.5%), and hydrocodone (15.9%). Of the patients, 14.3% belong to the priority follow-up group. The mean duration of follow-up was 6.2 years (SD = 7.1) since onset, during which there were 3.2 episodes (SD = 3.7) of hospitalisations, and the mean length of stay in each admission was 25.0 days (SD = 40.9).

**Conclusions:** Dextromethorphan is not a common psychoactive ingredient in the cough mixture locally; rather it is ephedrine, pseudoephedrine, codeine, and hydrocodone. Psychotic disorders were the most common psychiatric diagnoses. Patients with cough mixture misuse were more likely to exhibit aggressive and violent behaviour compared with other patients suffering from psychosis.

## Overview of Alcohol Consumption

G09

### in Ukraine

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**Objective.** Heavy alcohol consumption is one of the main public health problems in Ukraine. Its rate in Ukraine has increased in recent years. We reviewed the alcohol

use, misuse and dependence, its behavioural effects and psychiatric comorbidity in Ukraine.

**Methods:** Online journals and manuscripts in English, Russian, and Ukrainian languages were searched with 2 search engines: 'PubMed' and 'Google Scholar'. Terms applied in the literature search were "Ukraine", "alcohol use", "alcohol misuse", "alcohol dependence", "behavioural effects of alcohol", and "psychiatric morbidity". A review of the materials was performed to address the subsequent questions: (1) prevalence of alcohol use, misuse, and dependence in Ukraine; (2) patterns of drinking in Ukraine; (3) risk factors for heavy alcohol consumption; and (4) comorbidity between mental and alcohol disorders.

**Results:** A total of 33 articles were yielded from the initial search. Data from 20 papers were presented. According to the World Health Organization national mental health

survey, Ukraine has the highest rate of alcohol abuse among men (20%). The most significant risk factors were age (26-54 years for men and 18-25 years for women), living in the Southeast region, and being in the labour force regardless of their current employment status for both sexes. Beverage with strength of 40% volume was most commonly consumed. The average amount of pure alcohol use was around 15.6 litres. Drinking habit identified in Ukraine correlated with the most risky pattern as stated in the United Nations report. Alcohol and mental disorders were highly co-morbid.

**Conclusion:** Based on literature review, prevalence of alcohol consumption is high in Ukraine. The drinking pattern is regarded as the most risky type. In view of this, governmental intervention programme is required in Ukraine.

# Atypical power in major depressive disorder and generalised anxiety disorder



- Symptom relief\* as early as Week 1 in MDD and Day 4 in GAD<sup>1-3</sup>
- Broad-spectrum improvement including insomnia<sup>1-5</sup>
- Prevention of recurrence with good tolerability<sup>4-6</sup>

\*measured by MADRS total score for MDD and HAM-A total score for GAD

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quetiapine

#### Abbreviated Prescribing Information:

**Presentation:** Quetiapine fumarate extended-release tablet. **Indications:** **Bipolar Disorder:** Maintenance treatment of bipolar I disorder, as monotherapy or in combination with lithium or sodium valproate, for the prevention of relapse/recurrence of manic, depressive or mixed episodes. Treatment of depressive episodes associated with bipolar disorder. Treatment of acute mania associated with bipolar I disorder as monotherapy or in combination with lithium or sodium valproate. **Schizophrenia:** Treatment of schizophrenia, prevention of relapse and maintenance of clinical improvement during continuation therapy. **Major Depressive Disorder:** Treatment of recurrent major depressive disorder (MDD) in patients who are intolerant of, or who have an inadequate response to, alternative therapies. **Generalised Anxiety Disorder:** Treatment of generalised anxiety disorder (GAD). **Dosage:** **Schizophrenia:** Once-daily in the evening. Initial dose: 300 mg (Day 1), 600 mg (Day 2) and up to 800 mg after Day 2. Range: 400-800 mg/day depending on clinical response & tolerability of patient. Same dosage is used for maintenance therapy. **Bipolar Disorder:** Acute Mania: Starting daily dose is 300 mg (Day 1) & 600 mg (Day 2) & up to 800 mg by Day 4. **Maintenance treatment:** Use same dose as active treatment for prevention of manic, depressive or mixed episodes in bipolar disorder. Range: 300-800 mg/day. **Recurrent major depressive disorder:** Once-daily in the evening. Initial dose: 30 mg (Day 1 & 2), increased to 150 mg on Day 3 & 4. Usual effective dosage: 150 mg. Range of 50 - 800 mg/day. Same dosage is used for maintenance. **Generalised Anxiety Disorder:** Initial dose: 30 mg (Day 1 & 2), increased to 150 mg on Day 3 & 4. Range of 30 - 150 mg/day. **Switching from Seroquel XR:** Switch to equivalent total daily dose. Individual adjustments may be necessary. Elderly or hepatic impairment patients: Slower dose titration is recommended. Initial dose 50 mg/day up to target dose depending on clinical response and tolerability of patient. In elderly MDD: Initial dose 50 mg (Day 1-3), increased to 100 mg (Day 4), 150 mg (Day 5) and then up to 300 mg, in elderly GAD: Initial dose 50 mg (Day 1-3), increased to 100 mg (Day 4), up to 150 mg on Day 5. **Contraindications:** Hypersensitivity to the active substance or excipients of this product. **Precautions:** Not recommended for below: 18y old; clinical worsening and suicide risk associated with psychiatric disorder; concomitant severe neutropenia; known cardiovascular or cerebrovascular disease; conditions predisposing to hypotension; orthostatic hypotension; orthostatic symptoms; history of seizures; tardive dyskinesia; neuroleptic malignant syndrome; not approved in elderly patients with dementia-related psychosis; established diabetes mellitus; dysphagia; jaundice; development; venous thromboembolism; galactose intolerance; pregnancy & lactation. **Interactions:** CYP3A4 inhibitors; centrally acting drugs; grapefruit juice; thiazolidine; levetiracetam; and dopaminergic agonists; carbamazepine, phenytoin, ketoconazole, ADHD medications & cardiovascular medicines that cause electrolyte imbalance or to increase QTc interval. **Undesirable effects:** Tachycardia; vision blurred; mild asthenia; peripheral edema; irritability; increased appetite; dizziness; elevations in serum transaminases (ALT, AST); syncope; fatigue; abnormal dreams & nightmares and elevations in serum prolactin. **Full local prescribing information is available upon request. APLHK\_SXL0810**

References: 1. Culler AJ et al. J Clin Psychiatry 2008; 70(4): 526-539. 2. Bauer M et al. J Affect Disord 2010; 127: 19-30. 3. Bandelow B et al. Int J Neuropsychopharmacol 2010; 15: 809-820. 4. Lilescu M et al. Depression and Anxiety 2010; 27: 964-976. 5. Katzman MA et al. Int Clin Psychopharmacol 2011; 26: 11-24. 6. Seroquel XR Package Insert Version July 2011.



A **NEW** SNRI THERAPY FOR DEPRESSION

# A New Gateway of Treatment

# A New Way of Life

## Predictable...

- Metabolism independent of CYP2D6 pathway in the liver<sup>1-3</sup>
- Low potential for CYP2D6-mediated drug-drug interaction<sup>4</sup>

## Reliable...

- Discontinuation rate due to adverse events comparable to placebo<sup>4</sup>

## Convenient...

- One simple 50 mg dose<sup>4</sup>

**PRISTIQ® ABBREVIATED PACKAGE INSERT. TRADE NAME: PRISTIQ® PRESENTATION:** Pristiq is formulated as an extended-release tablet which contains 75 mg of desvenlafaxine succinate equivalent to 50 mg of desvenlafaxine. Light pink, square (pyramidal one side) tablet dosed with "W" (over) "50" on one side. **INDICATIONS:** Pristiq is indicated for the treatment of major depressive disorder (MDD). **DOSEAGE & ADMINISTRATION:** The recommended dose for Pristiq is 50 mg once at approximately the same time daily, with or without food. Pregnant women during the third trimester, child & adolescent must balance the potential risks with the clinical need; No dosage adjustment in patients with mild renal impairment but the recommended dose in patients with moderate renal impairment is 50 mg per day. The recommended dose in patients with severe renal impairment or end-stage renal disease (ESRD) is 50 mg every other day. Supplemental doses should not be given to patients after dialysis; No adjustment of the starting dosage for patient with hepatic impairment; No dosage adjustment is required solely on the elderly patients but the possibility of reduced renal clearance of Pristiq should be considered when determining the dose. **CONTRAINDICATIONS:** Hypersensitivity to desvenlafaxine succinate, venlafaxine hydrochloride or to any excipients in the Pristiq formulation. Must not be used concomitantly in patients taking MAOIs or in patients who have taken MAOIs within the preceding 14 days. **WARNINGS & PRECAUTIONS:** All patients being treated with antidepressants for any indication should be monitored appropriately and observed closely for clinical worsening, suicidality, and unusual changes in behaviour, especially during the initial few months of a course of drug therapy, or at times of dose changes, either increases or decreases. Not approved for use in treating bipolar depression; Serotonin syndrome or NMS-like reactions; Activation of mania/hypomania; Elevated blood pressure and abnormal bleeding; Serum cholesterol & triglyceride elevation; Narrow angle glaucoma; Renal impairment; Seizure; Hyponatremia; Interstitial lung disease & Esophageal pneumoniae; New symptoms and anxious discontinuation symptoms were reported in discontinuation of treatment. Caution is advised to patients with cardiovascular, cerebrovascular, or lipid metabolism disorders; Co-administration of drugs containing desvenlafaxine & venlafaxine is not recommended. **SIDE EFFECTS:** Most commonly observed adverse reactions in short term fixed-dose studies were: nausea, dizziness, insomnia, hyperhidrosis, constipation, somnolence, decreased appetite, anxiety, and specific male sexual function disorders. Hypersensitivity, effects on blood pressure, abnormal bleeding, mydriasis, hypomania & mania, serum cholesterol & triglyceride elevation, and seizure were also reported. **INTERACTIONS:** Risk in combination with other CNS-active drugs has not been systematically evaluated and caution is advised. MAOI, Serotonergic drugs; Drugs that interfere with hemostasis; Not increase the impairment of mental and motor skills caused by ethanol but advised to avoid alcohol consumption; Concomitant use with potent inhibitors of CYP3A4 may result in higher concentrations of Pristiq; Inhibitors of other CYP enzymes are not expected to have significant impact on the pharmacokinetic profile of Pristiq; Minimal inhibitory effect of desvenlafaxine on CYP2D6; Not inhibit or induce the CYP3A4 isozyme; Not inhibit CYP1A2, 2A6, 2C8, 2C9 & 2C19 isozymes & not expected to affect the pharmacokinetics of drugs that are metabolized by these CYP isozymes; Not a substrate or an inhibitor for the P-glycoprotein transporter; No clinical data establishing the risks and/or benefits of electroconvulsive therapy combined with Pristiq treatment. **PREGNANCY AND LACTATION:** Pregnancy Category C. Carefully consider the potential risks and benefits of treatment when treating a pregnant woman during the third trimester, labor and delivery. Excreted in human milk, breastfed if the expected benefits outweigh any possible risk. **DRUG ABUSE AND DEPENDENCE:** Not systematically studied in preclinical/clinical studies for its potential for abuse. Physicians should carefully evaluate patients for a history of drug abuse and follow such patients closely, observing them for signs of misuse or abuse of Pristiq. Limited clinical experience with desvenlafaxine succinate overdose in humans. **Reference:** W10590005-4K (04/08) **Date of preparation:** MAY2010 **Identifier number:** PRIS0510 **FULL PRESCRIBING INFORMATION IS AVAILABLE UPON REQUEST.**



### References:

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  2. Patronova A, et al. Drug Metab Disp 2008;36:2484-2491.
  3. Preskorn S, et al. J Clin Psychopharmacol 2009;29:39-43.
  4. Pristiq® Approved Product Information.
- Further information is available upon request.



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# East Asian Archives of Psychiatry

## Instructions for Authors

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The *East Asian Archives of Psychiatry* is a continuation of the *Hong Kong Journal of Psychiatry*. It is the official peer-reviewed, quarterly publication of the Hong Kong College of Psychiatrists. The Journal aims to encourage the exchange of ideas, research and development of psychiatry between the East and the West. Selected quality papers are presented in both English and Chinese. The Journal is circulated among psychiatrists, colleagues in other fields of medicine and allied professions, both locally and abroad. The International Advisory and Editorial Boards ensure that the Journal has a global perspective. The Journal is published by Hong Kong Academy of Medicine Press, and is indexed in MEDLINE/*Index Medicus*, EMBASE/*Excerpta Medica*, PsycINFO, Index Copernicus, and EBSCO, and can be accessed online at <http://www.easap.asia>.

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*Standard journal article:*

Lee H, Swanwick GR, Coen RF, Lawler BA. Use of the clock drawing task in the diagnosis of mild and very mild Alzheimer's disease. *Int Psychogeriatr* 1996;8:469-76.

*Chapter in a book:*

Phillips SJ, Whisnant JP. Hypertension and stroke. In: Laragh JH, Brenner BM, editors. *Hypertension: pathophysiology, diagnosis, and management*. 2nd ed. New York: Raven Press; 1995:465-78.

Journal titles should be abbreviated according to the style used in the *List of journals indexed in Index Medicus*, published annually by the United States National Library of Medicine <[www.nlm.nih.gov](http://www.nlm.nih.gov)>.

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