A1
Fluoxetine-induced regulation of Hsp90 and 14-3-3epsilon in NCCIT cells
Jchoi Choi,1 Daeyeong Oh,2 Miran Choi,2 Dalmuri Han,2 Young Gyu Chai3
1Hanyang University Guri Hospital, 2CHA Bundang Medical Center, CHA University, 3Hanyang University, Korea

Fluoxetine, a serotonin selective reuptake inhibitor (SSRI), has antidepressant and antiangiety effects on major depressive and anxiety disorders. Treatment with fluoxetine exerts an influence on adult neurogenesis of the brain, and thus, adult-born neurons can improve a patient's mood state. We speculate that many proteins will either increase or decrease during the differentiation of adult-born neurons, thereby playing a pivotal role in the therapeutic process. Here, we examined the protein expression profile of human embryonic carcinoma (NCCIT) cells in response to fluoxetine treatment using proteomic techniques such as 2-dimensional gel electrophoresis (2DE) and matrix-assisted laser desorption ionization-time-of-flight mass spectrometry (MALDI-TOF MS). We found several up- and down-regulated proteins in fluoxetine-treated NCCIT cells and biochemically confirmed the increased expression of Hsp90 and 14-3-3 epsilon in neuronal differentiation contributes to the therapeutic action of fluoxetine.

A2
Can inhibition of microglial activation prevent various neuropsychiatric disorders?
Sadayuki Hashioka, Jun Horiguchi
Department of Psychiatry, Faculty of Medicine, Shimane University, Japan

Microglial activation is one of common pathological findings observed in lesions of diverse neurodegenerative diseases, including Alzheimer disease, Parkinson disease and multiple sclerosis. In the 1980s, immuno-histochemical studies using anti-MHC (major histocompatibility complex) class II antibodies identified activated microglia in postmortem brains of neurodegenerative diseases. From 2000 onward, the microglial activation in brain of patients with neurodegenerative diseases has been demonstrated by PET (positron emission tomography) studies employing PK11195, a tracer of peripheral benzodiazepine receptors. Moreover, activated microglial have recently been implicated not only in neurodegenerative diseases, but also in endogenous psychiatric disorders, such as schizophrenia and mood disorders, whose common pathological findings were never identified. Consequently, it is tempting to wonder if inhibition of microglial activation can radically treat and/or prevent a broad spectrum of neuropsychiatric disorders. This presentation discusses the question from the prospective of heterogeneity of microglial activation.

Comorbid Conditions

A3
Impact of obsessive compulsive symptoms on clinical features and neurocognitive functioning in schizophrenia according to the stage of illness
Sung-Wan Kim,1 Yo-Han Lee,2 Jeong-Hoon Lee,2 Jae-Min Kim,1 Il-Seon Shin,1 G. Paul Amminger,4 Barnaby Nelson,4 Michael Berk,1 Patrick McGorry,1 Jin-Sang Yoon1
1Chonnam National University Hospital, 2St. John Hospital, 3Sejong Hospital, South Korea, 4Orygen Youth Health Research Centre, Parkville, Deakin University, Victoria, Australia

Objective: To investigate the impact of comorbid obsessive compulsive symptoms (OCS) on neurocognitive functioning and psychopathology in people with schizophrenia according to stage of illness.

Methods: This study enrolled 183 people with schizophrenia who were receiving risperidone monotherapy. Comorbid OCS were assessed using the Yale Brown Obsessive Compulsive Scale, and subjects with a score of 10 or higher constituted the OCS group. Neurocognitive functioning, psychopathology, and quality of life were compared according to the presence of OCS in the total population and among populations with <5 and ≥5 years of illness duration.

Results: A total of 30 patients (18.4%) had OCS. In the early-stage group (duration of illness <5 years), the learning index on the verbal learning test was significantly higher in the OCS than in the non-OCS group. In the chronic-stage group (duration of illness ≥5 years), the backward digit span was significantly lower in the OCS than in the non-OCS group. In both stages of illness groups, scores on positive and general psychopathology subscales and total Positive and Negative Syndrome Scale, Calgary Depression Scale for Schizophrenia, and Beck Depression Inventory scores were significantly higher in the OCS than the non-OCS subgroup. Additionally, the Subjective Well-being under Neuroleptic Treatment-Short Form score was significantly lower in the OCS than in the non-OCS group.

Conclusion: The relationship between OCS and neurocognitive in patients with schizophrenia is dependent on stage of illness. However, schizophrenia patients with OCS had greater psychotic and depressive symptoms and poorer quality of life regardless of illness stage.

A4
The interactive impact of co-occurring autism traits and negative and positive psychotic-like experiences on socio-cognitive abilities
Ahmad Abu Akel, Stephen Wood, Peter Hansen, Ian Apperly
University of Birmingham, UK

While both autism and schizophrenia spectrum disorders are considered diagnostically independent, they share similarities at both the diagnostic and trait levels. Central to these conditions is their association with severe socio-cognitive abnormalities. However, the impact of co-occurring traits on socio-cognitive abilities has not been investigated. Assuming that both conditions exist on extended phenotypic continua, the effect of co-occurring traits on socio-cognitive abilities was evaluated in 201 non-clinical healthy adults using a perspective-taking task. Positive and negative psychotic-like experiences were assessed using the Community Assessment of Psychotic Experiences Questionnaire, and autism tendencies were assessed using the Autism Spectrum Quotient Questionnaire. Regression analyses indicated that the interaction between negative and positive symptoms was associated with increased perspective-taking difficulties. Surprisingly, however, the interaction between the positive symptoms and autism traits was associated with better perspective-taking abilities. Overall, the findings suggest that subclinical manifestations of core disease features can influence socio-cognitive abilities. More specifically, the association of the interaction between positive and negative symptoms with worsening abilities suggests that while autism and negative symptoms can phenomonologically be similar, they may exert opposing effects on socio-cognitive abilities. Moreover, the negative association of the interaction between autistic traits and positive symptoms with better performance suggests that socio-cognitive abilities may be diamentically modulated by such co-occurrence. This has implications to understanding the nosological relationship between autism and schizophrenia and suggests that inter-individual differences in patients with autism or schizophrenia are likely to be better explained in terms of the relative dominance of one disorder vis-a-vis the other.
A5 Childhood emotional abuse is linked to specific metacognitive beliefs in early psychosis
Trill Østefjells, Akiah Ottesen Berg, Ingrid Melle, Jan Ivar Rassberg
NORMENT Centre for Psychotherapy Research, Oslo University Hospital and Institute of Clinical Medicine, University of Oslo, Norway

Objective: Metacognitive beliefs are beliefs we hold about our thoughts and guide how thoughts are appraised. Metacognitive abilities develop sequentially during childhood and adolescence and can be affected by early adverse life experiences. Maladaptive beliefs about thoughts increase development of metacognitive dysfunctional strategies. This document examines if emotional abuse in childhood had an impact on the patients metacognitive beliefs.

Methods: First episode patients with bipolar- or schizophrenia spectrum disorders were included in the TOP study (N = 57) and assessed for pre-morbid function (PAS), current symptoms of psychosis (PANSS), and depression (CDSS). They also completed self-reports of childhood trauma (CTQ) and metacognitive beliefs (MCQ-30).

Results: We found significant bivariate associations between childhood emotional abuse (CTQ-EA) and two specific aspects of metacognitive beliefs: Beliefs about uncontrollability/danger (MCQ-UD) and Need to Control Thoughts (MCQ-NCT). A block-wise hierarchical multiple regression analysis indicated that pre-morbid (childhood) social function, current depression and moderate to severe levels of childhood emotional abuse (often or very often) significantly predicted scores on MCQ-UD and MCQ-NCT. Childhood social function and current depression also explained a significant proportion of variance also after controlling for gender and psychotic symptoms.

Conclusion: Childhood emotional abuse in childhood appears to influence the development of metacognitive dysfunctional strategies. This could have implications for improvement of treatment strategies for these patients.

A6 Quick identification of the risk of psychosis: the Italian version of the brief Prodomal Questionnaire
Andrea Raballo,1,2,4 Irene Corrias,3,4 Dontalla R. Petretto,3,4 Antonio Preti1,4
1Department of Mental Health, Reggio Emilia, 2Reggio Emilia At Risk Mental States (Re-ARMS) Project, 3Department of Education, Psychology, Philosophy, University of Cagliari, Cagliari, 4Cagliari Psychosis Investigation on Risk Emergence (CAPIRE), Italy

Aim: In this study, we examined the general psychometric properties of the Italian version of the brief Prodomal Questionnaire (PQ-B), a self-report screening measure for psychosis risk syndromes.

Methods: The study is based on the second wave of the Cagliari Psychosis Investigation on Risk Emergence (CAPIRE, which in Italian language means to understand). Participants were 109 male and 134 female undergraduate students (mean age: 24 ± 3 years).

Results: Reliability of the PQ-B was good (interval consistency = 0.82; one-month test-retest stability = 0.89). Scores on the PQ-B were related to measures of psychopathology, with greater links with measures of psychotic-like experiences than with measures of general distress (General Health Questionnaire; GHQ-12). Applying the cutoff proposed for screening-treatment-seeking patients (8 or more positive symptoms) identified 22% of students, and a half of them also reported clinically relevant psychological distress on the GHQ-12. The PQ-B identified 4 out of 5 students who were recognized at risk of schizotypy on the basis of the Schizotypal Personality Questionnaire cutoff.

Conclusion: Findings of the study converge with past evidence suggesting that the PQ-B may be used as an effective and simple self-report screen for the identification of people at risk of psychosis who may benefit from more in depth assessment in a two-stage evaluation in help-seeking populations.

A7 Proverb interpretation in first episode psychosis
Eric Roche, Aisling McCl enchengan, Maurice Bonar, Anthony Kinsella, Mary Clarke
DETECT Early Intervention in Psychosis Service, Blackrock, Co Dublin, Ireland

Background: Bizarre idiosyncratic thinking (BIT), based on proverb interpretation, has been widely studied in patients with established psychosis. It has been found to be highly prevalent, predictive of occupational functioning and related to intellectual deterioration. To our knowledge, proverb interpretation has not been studied in a first episode psychosis (FEP) sample.

Methodology: Investigation of the clinical correlates of BIT based on proverb interpretation in an epidemiological FEP sample. Formal thought disorder (FTD) was rated with the Scale for the Assessment of Positive Symptoms (SAPS). Diagnosis, negative symptoms, depressive symptoms and premorbid IQ were assessed with structured instruments.

Results: BIT was normally distributed in this sample (n = 49), with 25% demonstrating moderate levels of this symptom. BIT was no more severe in those treated as inpatients than outpatients (mean total score 1.94 vs. 2.56 respectively, P = 0.44) or those in employment compared to those not in employment (mean total score 2.88 vs. 2.01 respectively, P = 0.34). BIT was correlated with FTD (r = 0.37, P < 0.05) but was not correlated with severity of delusions, hallucinations, negative symptoms or depression. BIT was not significantly correlated with educational level (r = −0.07, P = NS) or estimated premorbid IQ (r = 0.01, P = NS).

Conclusion: BIT was common in this FEP sample, and unrelated to symptom domains other than FTD. It was less prevalent in our sample, and unrelated to treatment status, employment status or intellectual functioning, unlike findings in those with more established psychosis. It is possible that BIT, as a clinical phenomenon, evolves over the course of a psychotic illness.

A8 The predictive power of the Wisconsin Scales of Schizophrenia Proneness in patients of an early detection service
Frauke Schultze-Lutter,1 Chantal Michel,1 Stephan Ruhmann,1 Benno G. Schimmelmann,1 Joachim Klosterkötter,1 Rahel Flückiger1
1University of Bern, Bern, Switzerland, 2University of Cologne, Cologne, Germany

Schizotypy is regarded as a subthreshold expression or precursor of schizophrenia spectrum psychosis. Schizotypal personality disorder is a risk factor of the genetic risk and functional decline criterion of the ultra-high risk (UHR) criteria for psychosis; and its positive features are part of attenuated psychotic symptoms (APS) of the UHR criteria. Furthermore, schizotypy as assessed with the Wisconsin Scales of Schizophrenia Proneness (WSSP) Perceptual Aberration, Magical Ideation, and Social Anhedonia but not Physical Anhedonia was predictive of psychosis in the community. Thus, we examined the psychosis-predictive value of the for WSSP in 128 patients seeking help at an early detection service (23 ± 7 years; 56% male; 81% at-risk for UHR and/or basic symptom criteria) with a median follow-up of 24 (1–101) months by Cox regression censored at 48 months. Within 48 months, 36 patients converted to psychosis. Unexpectedly, none of the four WSSP was a significant predictor of conversion in our clinical sample. This negative finding was replicated when the positive (Perceptual Aberration and Magical Ideation) and negative (both Anhedonia scales) dimension were examined. Thus, although schizotypy scales might be able to identify a more extreme range of the psychotic continuum in the community, they lack the ability to further separate true from false risk cases in a clinical sample already representing this more extreme range of the psychotic continuum. This indicates that WSSP might be useful rather as an initial screening for persons potentially at-risk for current criteria in the community than as additional predictors in already identified risk patients.
A9
Childhood trauma mediates the association between ethnic minority status and more severe hallucinations in psychotic disorder
Akiah Ottesen Berg, 1 Monica Aas, 1 Mari Nerhus, 1 Ole Andreassen, 1 Edvard Hauff, 1 Ingrid Melle 1
1 NORMENT Centre for Psychosis Research, Oslo University Hospital and Institute of Clinical Medicine, University of Oslo, 2 Division of Mental Health and Addiction, Oslo University Hospital and University of Oslo, Norway

Objective: Ethnic minority status and childhood trauma are risk factors for psychotic disorders, and both are associated with increased levels of positive symptoms, particularly auditory hallucinations. We hypothesized that childhood trauma would mediate a possible association between ethnic minorities and hallucinations.

Method: We included 454 patients with recent onset DSM-IV non-affective or affective psychotic disorder. Current hallucinations were measured with the Positive and Negative Syndrome Scale (item P3; Hallucinatory Behavior). Lifetime hallucinations were assessed with the Structured Clinical Interview for DSM-IV (SCID-I) items auditory hallucinations, voices commenting and two or more voices conversing. We used the Childhood Trauma Questionnaire, self-report version. The ethnic minority group (n = 69) consisted of non-Caucasian first- and second-generation immigrants primarily from Asia (n = 39, 57%) and Africa (n = 27, 39%).

Results: The ethnic minority group reported significantly more childhood trauma (T-test = −3.866, df 405, p < 0.001), current hallucinatory behavior (Mann Whitney U = 10.942, p < 0.013) and auditory hallucinations of two or more voices conversing (30% vs. 19%; X2 = 4.602, df1, p < 0.03) than the majority group. Regression analyses revealed that the presence of childhood trauma mediated the association between ethnic minorities and these hallucinations.

Conclusion: The association between childhood trauma and first rank symptoms may in part explain the heightened risk of being diagnosed with a schizophrenia-spectrum diagnosis in certain ethnic minorities. Of clinical relevance we are reminded to assess and treat the effects of childhood trauma in ethnic minority groups presenting with psychotic disorders.

A10
Classification of stages of psychosis using support vector machines
Angelo Cocchi, Antonio Preti, Maria Meliante, Maria Teresa Cascio, Anna Meneghelli
Programma2000, Center for early detection and intervention in psychosis, Department of Mental Health, Niguarda Ca Granda Hospital, Milan, Italy

Aim: Support vector machines (SVMs) are supervised learning algorithms that analyze and recognize patterns and can be used for classification purposes. In this study, severity of symptoms, clinical problems and social functioning were used to classify patients with first-episode of psychosis (FEP) or at ultra high-risk (UHR) of it.

Method: The sample included 129 FEP and 125 UHR patients enrolled in the Programma2000 (Milan, Italy) from 1999 to 2013. The 24 items Brief Psychiatric Rating Scale (BPRS), the Health of the Nation Outcome Scales (HoNOS) and the Global Assessment of Functioning were used to assess patients at enrollment. Non-radial SVMs were used to classify patients on the basis of assessment.

Results: A high-cost model (cost = 100, gamma = 1) correctly classified 84% of cases by crossing BPRS and HoNOS scores and using a GAF threshold = 40. Eleven UHR were classified as FEP. These cases were undistinguishable from those correctly classified as UHR, but for a lower GAF (p < 0.05). However, they had a marginally higher chance of prematurely discontinuing treatment (OR = 2.0; 95%CI: 0.6–7.1).

Conclusion: Lower social functioning might be predictive of dropout in UHR patients. SVMs might be helpful to identify symptomatic patterns indicative of poor outcome in early intervention protocols.

A11
From threat to rumination
InHo Hwang, 1 Jong-il Park, 1 Hong-Mei Jin, 2 Yin Cui, 1 Young-Chul Chung 1,2
1 Department of Psychiatry, Chonbuk National University Medical School, 2 Research Institute of Clinical Medicine of Chonbuk National University-Biomedical Research Institute of Chonbuk National University Hospital, Jeonju, Korea

The perception of threat is a central feature of paranoia. Combined with emotional distress, negative beliefs about the self, others and the world, and reasoning bias, hypervigilant individuals may try to make sense of internal unusual experience in negative and malicious way leading to the formation of threat belief. However, there are different theoretical approaches to the understanding of delusion formation such as deficits in self-monitoring and theory of mind, externalizing attribution style or lower social rank. We would like to suggest rumination as another novel and crucial factor triggering and maintaining paranoid thinking. We developed a new Rumination Scale (RS) consisting of three subdomains, frustration, anger, and foolishness, based on the teachings of Buddhism (three mind poisons). We recruited patients with anxiety disorder (n = 74), depression (n = 148) and psychosis (n = 65), and normal volunteer (n = 124) to compare psychological aspects using RS and other tools. The RS score in patients with psychosis was between the scores of patients with depression, and patients with anxiety disorder or normal volunteer though no significant differences between subgroups. Interestingly, there were significant positive correlations between the P3 (hallucinatory behavior) and P4 (excitement) of PANSS and total score of RS in patients with psychosis. These results may point to contributing role of rumination in the genesis of positive symptoms. Further studies are needed to explore relationships between rumination and paranoia and to refine the definition of rumination with regard to psychosis. Lastly, therapeutic implications for cognitive therapy will be discussed.
A13
Diagnostic stability of acute and transient psychotic disorders in developing country settings: an overview
Shubham Mehta
SMS Medical College, Jaipur (Rajasthan), India

Objectives: Acute and transient psychotic disorders (ATPD), introduced in the International Classification of Diseases (ICD-10) diagnostic system in 1992, have not received much attention in developing countries. The main objective of this article was to review the literature related to diagnostic stability of ATPD in developing country settings.

Methods: A PubMed search was conducted to review the studies concerned to diagnostic stability of ATPD in the context developing country settings as diagnostic stability is more of a direct test of validity of psychiatric diagnoses. Four publications were found to be specifically related to this issue.

Results: There was stability percentage of 63–100% for the ICD-10 ATPD diagnosis. The diagnostic shift was more commonly either towards schizophrenia or bipolar disorder, if any. Shorter duration of illness (<1 month) and abrupt onset (<48 hours) predicted a stable diagnosis of ATPD.

Conclusion: Based on available evidence, the diagnosis of ATPD appears to be relatively stable in developing countries. But it is difficult to make the concrete conclusion as there is a substantial lack of literature in this regard in developing country settings.

A14
Pseudohallucinations and first episode psychosis
Sajish Pandaraparambil
Pennine Care NHS Foundation Trust, UK

Background: Pseudohallucinations are poorly understood in first episode psychosis. Their differential influence on morbidity and long term outcome is poorly understood. Currently, there is no study looking at prevalence of pseudohallucinations in first episode psychosis (FEP) patients referred to secondary care.

Rationale/relevance of the project: Pseudohallucinations are often recognised symptom which can influence in functional and prognostic outcome of patients with FEP.

Specific study objectives: Primary objective: To find out prevalence of pseudohallucinations in patients with first episode psychosis referred to secondary care services in Rochdale, UK. Secondary objective: To find out the distribution of pseudohallucinations in patients with different diagnostic categories.

Research methods: Study design Retrospective survey of anonymous patient notes to recognise presence of pseudohallucinations during their first episode of psychosis II.

Subjects inclusion/exclusion criteria: All patients who are on accepted to caseload for Rochdale EIT Sampling; 42 patients accepted to EIT in 2013–14 III.

Data collection variables: Presence or absence of pseudohallucinations; ICD 10 diagnostic code measures/instruments: 4 and 5 Subscales of Psychotic Symptom Rating Scales. Scores < or = 1 on subscale 4 and Scores < or = 2 on subscale 5 are considered as pseudohallucinations.

Results and conclusions: Data analysis shows about 12% prevalence of pseudohallucinations in first episode patients with or without other psychotic symptoms. Of 5 patients with presented 2 (40%) were having emotionally unstable personality disorder and psychosis. 1 (20%) patient was in Prodomine of psychosis. 1 (20%) was having severe depression with psychotic symptoms and 1 (20%) was having Paranoid Schizophrenia. Clinical significance of the results will be discussed and presented.

A15
Search of possible correlation between prepulse inhibition of startle response (PPI) and schizophrenia subtypes
Michael Segal,1,2 Mahmood Kanana,1 Salman Zubedat,2 Inon Maoz,3 Avraham Weizman,4 Alexander Grinshpoon,4,5 Avi Avital1,5
1Shaar Menashe Mental Health Center, 2Faculty of Medicine, Technion-Israel Institute of Technology, Haifa, 3Geha Mental Health Center, Petach Tikva, 4Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, 5Emek Medical Center, Afula, Israel

Background: Various studies indicate that we must consider schizophrenia not as a single disease but as several distinct etiological processes that give rise to characteristic symptoms. In previous reports we found a significant association between prolactin serum levels and schizophrenia subtypes in unmedicated patients. The findings suggest a different dopaminergic activity and support the clinical and the neuropsychological individuality of disease subtypes. Deficits in information processing are prominent in pathogenesis of schizophrenia. Prepulse inhibition (PPI) and habituation of the startle reflex (SR) are potentially useful endophenotype of early information processing. PPI usually refers to an auditory based paradigm: a brief, non-startling stimulus (called a prepulse) shortly precedes a strong, sudden-onset startling stimulus, resulting in a reduction in the startle eyeblink compared to when the startling stimulus is presented alone. Previous reports described various impairments of PPI-SR in schizophrenia. The present investigation assumed that the filtering of PPI will be different in schizophrenia subtypes. The study included 60 male (18 to 60 y old) paranoid and “nonparanoid” (Disorganized and Schizoaffective) inpatients. They were treated with stable antipsychotic PO/IM monotherapy. The diagnosis of schizophrenia subtypes was made by DSMIV and by Maine Paranoid and Nonparanoid Schizophrenia Scale. The symptoms severity was evaluated by PANSS. The results indicate an impaired PPI in all patients. However, the impairment was significantly more severe in the nonparanoid compared with the paranoid subgroup.

Conclusion: The impaired sensory-motor filtering of external stimuli flooding could explain the “disorganization” symptoms and support the different entities of schizophrenia.
Epidemiology

A16
2 years after a first episode psychosis: any outcome difference between immigrants and non-immigrants?

Clairéline Ouellet-Plamondon 1,4,5, Amal Abdel-Baki 1,4,5, Sofia Madrano 3, Luc Nicole 2,4, Cécile Rousseau 1

1 Centre Hospitalier de l’Université de Montréal (CHUM), 2 Institut Universitaire en Santé Mentale de Montréal, 3 Centre Universitaire de Santé McGill, 4 Département de psychiatrie Université de Montréal, 5 Centre de recherche du CHUM, Montréal, QC, Canada

Objectives: Immigration is a well-known risk factor for the development of psychosis, but the literature looking at outcomes in this population is scarce and heterogeneous. The aim of this study is to compare first- and second-generation immigrants and non-immigrants treatment engagement as well as symptomatic and functional outcomes 2 years after admission to a First Episode Psychosis Early Intervention Service.

Methods: This longitudinal prospective study of 223 subjects entering First Episode Psychosis early intervention services, included immigration status, socio-demographic characteristics, adherence to medication, symptoms, social and occupational functioning, and attrition rate.

Results: Immigrants and non-immigrants entering the services had similar symptoms and functioning profile. First-generation immigrants present less substance use disorder and are more likely to study at 12 and 24 months. Second-generation immigrants were more likely to be living with their parents throughout the study. Importantly, immigrants were about 3 times more likely to be lost to the 2-year follow up compared to non-immigrants even when controlling for potential confounding factors. Differences were found between first- and second-generation immigrants in terms of substance use and occupational outcome.

Conclusions: Immigrants are more likely to quit treatment than non-immigrants 2 years after a first episode psychosis but once engaged in first episode psychosis services, immigrants outcome seems to be similar to non-immigrants.

A17
Does early autistic symptoms predict later mental health problems?

Yoko Kami, 1 Kazuo Ogino, 1 Yukako Iida, 2 Akiyo Endo, 1 Sahoko Komatsu, 1 Hitotoshi Takashashi, 1 Makoto Ishitobi, 1 Atsuko Miyake 1

1 National Center of Neurology and Psychiatry, 2 Surugadai University, 1Tama-Hokubu Medical Center, Japan

It has been recognized that individuals with autism spectrum disorders (ASD) manifest co-occurring psychiatric symptoms in their life course, suggesting that children with ASD are at high risk of developing mental health problems in later life. At present, ASD can be identified around 2 years of life based on developmental or behavioral features. The objective of this study is to examine whether autistic symptoms measured by the Modified Checklist for Autism in Toddlers (M-CHAT) or the Social Responsiveness Scale (SRS) can predict later mental health problems measured by the Strengths and Difficulties Questionnaire (SDQ) in childhood. Participants were (n = 1190) recruited via community day nurseries in Tokyo and assessed by parent-report questionnaires at age 5 and age 7. In girls, early autistic symptoms as well as some temperament features at age 2 were associated with poor mental health at age 5 and 7. On the other hand, in boys, autistic features at age 2 were associated with poor mental health at age 5 but not that at age 7. However, autistic symptoms at age 5 were associated with poor mental health at age 7 only in boys but not in girls. In this community sample of children, poorer mental health at age 7 was predicted by earlier autistic symptoms but the association pattern differed by gender. Our study might suggest that psychiatric risk differ by gender in a negative autistic traits during early childhood.

A18
Investigating the association of childhood maltreatment and psychosis in a cohort of youths served by Child Protective Services

Caroline Lim, Amy He, Dorian Traube

USC School of Social Work, USA

Research has demonstrated an association between childhood maltreatment and subsequent development of psychosis. Methodological limitations, notably the use of samples with unsubstantiated maltreatment, could distort the association. We seek to contribute to this body of knowledge by investigating the association between substantiated childhood maltreatment and clinical diagnosis of psychosis in a cohort of youths (N = 912). Data on youths who were dually served by the Department of Children and Family Services and the Department of Mental Health in Los Angeles County between July 2011 and July 2012 were linked using probabilistic linking methodology. The linked dataset yielded demographic, child welfare assessment, and mental health treatment data that were stripped of identifiers. The mean age of the sample was 15.13 (SD = 1.55, range = 13 20). The multiethnic sample comprised primarily Latinos (58.44%) and females (59.28%). Neglect was the most common type of alleged maltreatment (56.17%), followed by physical abuse (15.50%), emotional abuse (13.68%), sexual abuse (7.99%), and at risk due to sibling abuse (6.66%). The prevalence of clinician diagnosis of psychosis in this sample was 7.68%. When the sample was stratified by age, the prevalence of psychosis among youths aged 13 was 5.99%, and peaked among youths aged 17 at a rate of 12.50%. Controlling for gender and age, there were no significant differences in rates of psychosis among the types of maltreatment. Taken together, these findings suggest that besides increasing the risk for psychosis, childhood maltreatment could be associated with an earlier age of onset.

A19
Social environmental risk factors for transition to psychosis in an ultra-high-risk (UHR) population

Brian O’Donoghue 1,2, Barnaby Nelson, 1,2 Hok Pan Yuen, 1,2 Abbie Lane, 2 Stephen Wood, 4,5 Andrew Thompson, 4 Ashleigh Lin, 1 Patrick McGorry 1,2, Alison Yung 1

1 Orygen Youth Health Research Centre, Parkville, Victoria, Australia, 2 University College Dublin, Belfield, Dublin 4, Ireland, 3 University of Melbourne, Parkville, Victoria, Australia, 4 School of Psychology, University of Birmingham, Birmingham, UK, 5 Melbourne Neuropsychiatry Centre, Department of Psychiatry, University of Melbourne, Parkville, Victoria, Australia, 6 Division of Mental Health and Wellbeing, University of Warwick, UK, 7 Institute of Brain, Behaviour and Mental Health, University of Manchester, Manchester, UK

Background: A number of clinical, neuropsychological, neuroanatomical and genetic factors have been associated with an increased risk of transition to psychotic disorder in the ultra-high risk (UHR) for psychosis population. However, there is a paucity of knowledge on the influence of social environmental risk factors in the UHR population despite being established risk factors for psychotic disorder. Firstly, we aimed to investigate the association between social deprivation and risk of transition and secondly, we aimed to investigate the association between migration status and the risk of transition.

Methods: UHR individuals involved in research studies between 2000 and 2006 at the Personal Assessment and Crisis Evaluation (PACE) service in Melbourne were included. The level of social deprivation as assessed according to postal code area of residence was obtained from census data and Cox regression analysis was used to calculate hazard ratios for risk of transition to psychotic disorder.

Results: A total of 219 UHR individuals were included and the median time to follow-up from baseline was 4.8 years and 32 individuals (14.6%) were known to have transitioned to a psychotic disorder. The level of social deprivation was not associated with the risk of transition (p = 0.83). Similarly, first or second generation migrants did not have an increased risk of transition to psychosis (p = 0.84).

Conclusions: Despite being established risk factors for psychotic disorders, social deprivation and migrant status have not been found to increase the risk of transition in a UHR population in this study.

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67
Does dissociation mediate between bullying and psychotic-like experiences among pre-adolescent children?

Syudo Yamasaki,1,2 Shutaro Ando,1,3 Shinshu Koike,1,3,4 Yuko Morimoto,1 Shin-ya Fujikawa,3 Sho Kanata,3 Rie Toriyama,3 Aya Kikutsugi,2 Nozomu Asukai,1 Atsushi Nishida,1 Mariko Hasegawa,5 Kiyoto Kasai3

1Tokyo Metropolitan Institute of Medical Science, Japan, 2Institute of Education at University of London, UK, 3The University of Tokyo, Japan, 4MRC Unit for Lifelong Health and Ageing at UCL, London, UK, 5The Graduate University for Advanced Studies, Japan

Introduction: Childhood adversities including parental maltreatment and bullying was suggested as predictors for psychotic-like experiences (PLEs) (Varase 2012a). Some clinical research showed dissociation mediated the relationship between childhood adversities and psychotic symptoms (Varase 2012b). However, this mediate process has not been investigated among pre-adolescent general population. We aimed to test the mediate process via dissociation between adversities and PLEs among pre-adolescent children.

Method: We started Tokyo TEEN Cohort study in September 2012. We randomly recruited participants from the local areas in Tokyo using resident registers. Interviewers visited participant’s home and administered comprehensive assessment with questionnaires and interview to a primary care giver and a child. Interviewers visited their home when the child was aged between 9.5 and 10.5 years. Written, informed consent from both child and child’s primary care giver was obtained. In March 2014, we collected 3065 participants and analyzed the data. In the assessment, we assessed bullying/victimization, experience of accident and harsh discipline registers. Interviewers visited participant’s home and administered random recruited participants from the local areas in Tokyo using resident children.

Discussion: We demonstrated the mediation effect of dissociation among large sample of Japanese pre-adolescent children. Further longitudinal research will be needed.

First Episode Psychois

A22

It is hard work to become educated in one’s vulnerability. Patients’ conceptualization of treatment for first episode psychoisis: a qualitative study

Marianne Melau, Charlotte Jacobsen, Anne Thorup, Merete Nordentoft
Copenhagen University Hospital, Denmark

Background: Young people treated in specialized early intervention services for first episode of psychosis may achieve a high rate of remission and recovery. It is essential for a positive outcome that the treatment matches young peoples’ needs, their aspirations and thereby facilitates their motivation to adhere to treatment. The results of this study can provide the mental health care system with up-to-date knowledge about young patients’ interpretation of treatment, and thus contribute to the improvement of first episode treatment.

Aim: To explore young patients perceptions of the specialized early intervention and to identify factors they experiences as important for adhering to treatment.

Method: Young patients with a first episode of psychosis represented the study sample (n = 14). The patients participated in focus groups in the beginning the research period. They were thereby included in the process of identifying the topics and questions that served to guide the choice of themes for this study. The identified questions were subsequently used in individual in-depth interviews (n = 10), which focused on young patients experiences of factors deemed important for remaining in treatment. Data was analyzed within the framework of phenomenology and hermeneutics.

Results: The psycho-educational and cognitively oriented content of the specialized early intervention service match young patients experiences of being in an educational setting.

Conclusion: Conceptualizing treatment for first episode psychosis as an education may facilitate motivation for staying in treatment over time and enhance empowerment for young patients.
A23
How do young people recently diagnosed with psychosis conceptualize well-being?
Shalini Lal, 1 Michael Ungar, 2 Ashok Malla, 1 Jim Frankish, 3 Melinda Suto 1
1 McGill University, 2 Dalhousie University, 3 University of British Columbia, Canada

Introduction: The phenomenon of well-being has attracted a surge of attention in mental health policy, clinical practice, and research internationally. Yet, the definitions of well-being remain elusive, and there is limited understanding on its meanings from the perspectives of youth mental health service users.

Objective: This study explored the meanings of well-being from the perspectives of youth mental health service users diagnosed with a first episode of psychosis in the past three years.

Methods: Using a qualitative approach, we conducted semi-structured interviews and participant photography elicited focus groups with seventeen youth, between the ages of 18–24 (SD: 1.9), recruited from an early intervention program for psychoses and a mental health program specializing in the delivery of psychiatric services to street youth. Analysis combined the methods of constructivist grounded theory and narrative inquiry.

Results: The findings illustrated five key themes in participants conceptualizations of well-being: multidimensionality; active oriented states; social environment; identity; and normality. Dimensions of well-being identified in participants accounts include: psychological, physical, emotional, moral/virtuous, financial/material, spiritual, and social aspects.

Conclusions: This heuristic framework for conceptualizing well-being, grounded in narrative accounts, can help to inform the future planning and design of interventions, research, and outcome measures pertaining to the well-being of youth recently diagnosed with psychosis.

A24
Long term trajectories of positive and negative symptoms in first episode psychosis: a 10 year follow-up study in the OPUS cohort
Stephen Austin, 1, 2 Ole Mors, 1 Ebene Budtz-Jørgensen, 1 Rikke Gry Secher, 1 Carsten Hjorthøj, 1 Merete Nordenstof 1
1 Centre for Psychiatric Research, Aarhus University, 2 Biostatistics Department, University of Copenhagen, 3 Mental Health Centre Copenhagen, University of Copenhagen, Denmark

Objective: Knowledge about course of illness can help clinicians to develop effective interventions and improve treatment outcomes. The goal of this study was to construct positive and negative symptom trajectories based on structured clinical assessments collected over 10 years within a cohort of people with first episode psychosis.

Method: A cohort of 406 people with first episode psychosis originally recruited for the OPUS study (1998–2000) and treated in community psychiatric services were rated on clinical symptoms at 5 different occasions across 10 years. Psychopathology was assessed using the Scales for Assessment in Psychiatric Services client database and DUP calculations were checked for accuracy. Data was split into 3 groups, dependent on which year period the client maintained below 3 months over the last 3 years and currently exceeds national targets.

Results: Five distinct trajectories were identified for positive symptoms (response- 47%, delayed response-12%, relapse- 15%, non-response 13% and episodic response 13%). Four distinct trajectories were identified for negative symptoms (response- 28%, delayed response- 19%, relapse- 26% and non-response 27%). Multivariable regression analysis of baseline characteristics identified that longer duration of untreated psychosis and substance abuse were associated with poorer positive symptom trajectories while poor pre-morbid social functioning, disorganized symptoms and schizophrenia diagnosis were associated with poorer negative symptom trajectories. A proportion of people displayed significant changes in symptoms several years after diagnosis.

Conclusions: Trajectories of illness for positive and negative symptoms were heterogeneous amongst people with first episode psychosis. Positive symptoms showed a general pattern of reduction and

A25
Social brain functioning in individuals with first episode psychosis: an fMRI theory of mind study
Cali Bartholomeusz, 1 Sarah Whittle, 1 Kelly Allott, 2 Andrew Thompson, 2 Patrick McGorry, 1 Eoin Killacky, 1 Christos Pantelis, 1 Stephen Wood 1
1 Melbourne Neuropsychiatry Centre, The University of Melbourne, 2 Orygen Youth Health Research Centre, The University of Melbourne, Australia, 3 Sussex Partnership NHS Trust, East Sussex Early Intervention in Psychosis Service, 4 School of Psychology, University of Birmingham, UK

Introduction: The ability to infer one’s own and others mental states is the social cognitive process shown to have the greatest impact on functional outcome in both early and late stages of psychosis. Abnormal activation of key social brain regions in relation to ToM is consistently shown in established schizophrenia. However, little is known about social brain activation in first episode psychosis (FEP). Thus, we aimed to investigate whether individuals with FEP display abnormal neural activation of key social brain regions during a ToM attribution of intentions paradigm.

Methods: Eighteen FEP participants aged 15–25 have been recruited from the Early Psychosis Prevention and Intervention Clinic at Orygen Youth Health, Melbourne. Twenty-six healthy control participants aged 15–25 have been recruited from the general public. All participants had a magnetic resonance imaging (MRI) scan in a 3T scanner and completed a block design picture story ToM functional MRI task. This involved participants viewing a sequence of cartoon pictures and then deciding the most logical ending to the story from three options. Preliminary analyses have been carried out on a sub-sample (FEP n = 10; controls – 7). This analysis showed FEP participants, in comparison to healthy controls, underwent the right superior temporal region/temporoparietal junction, the orbitofrontal/ inferior frontal cortex and medial prefrontal cortex when making social judgements.

Results: The findings illustrated five key themes in participants conceptualizations of well-being: multidimensionality; active oriented states; social environment; identity; and normality. Dimensions of well-being identified in participants accounts include: psychological, physical, emotional, moral/virtuous, financial/material, spiritual, and social aspects.

Conclusions: This heuristic framework for conceptualizing well-being, grounded in narrative accounts, can help to inform the future planning and design of interventions, research, and outcome measures pertaining to the well-being of youth recently diagnosed with psychosis.

A26
Monitoring of duration of untreated psychosis 2011–2014: a service evaluation report
Conor Campbell, Susie Ackner, Tony Gillam, Jo Smith Worcestershire Health and Care NHS Trust, UK

Introduction: Research evidence consistently suggests that extended Duration of Untreated Psychosis (DUP) is associated with poorer outcomes through its negative impact on the individual, biologically, psychologically and socially (Birchwood et al., 2013). Early Intervention in Psychosis (EIP) services aim to reduce DUP to a median of less than 3 months as there is substantial evidence that this improves outcomes in clients with psychosis (Marshall et al., 2005). The association between DUP and outcomes is so well documented in research that DUP data is required to be collected by all UK EIP services for the Mental Health Minimum Dataset (2011) for analysis.

Method: The present audit collated DUP data over the previous 3 financial years within the EIP Worcestershire service and examined if the service is meeting the target of reducing median DUP to less than 3 months. DUP data between 1st April 2011 and 31st March 2014 was collated from the services client database and DUP calculations were checked for accuracy. DUP figures remain a national key target within the NHS (Department of Health, 2000; Mental Health Minimum Dataset, 2011). The service is reducing DUP and exceeding the national NHS target. Continued local mental health promotion and a new, improved database for recording DUP data are recommended.
A27 A stepped approach to early psychosis family work
Kingsley Crisp,1 Heather Stavelj,2 Sarah Fraser2
1Orygen Youth Health Clinical program, 2Orygen Youth Health Research Centre, Australia
The Early Psychosis Prevention and Intervention Centre (EPPIC) provides early intervention services to young people aged 15 to 24 years and their families. The impact on families of having a young person experiencing early psychosis can be immense and the importance of their role in the recovery process cannot be overstated. It is an ongoing challenge to the EPPIC service to address the many varied needs of families and provide them with appropriate support. This poster will describe the approach to family work and support at the EPPIC service, which has evolved from a combination of over 20 years clinical experience, evidence and ‘real world’ resourcing issues. The EPPIC service employs a pyramid framework to describe a range of family supports and interventions that can be integrated into routine clinical care; as well as to conceptualise a minimum level of support that should be offered to all families. The pyramid structure reflects the layers of intervention that build upon each other, increasing in intensity, while being required by a progressively diminishing number of families.

A28 Subjective quality of life for patients with a first episode psychosis. A 5 and 10 years follow-up study.
Erleand Strand Gardsjord,1 Kristin Lie Romm,1 Jan Ivar Rassberg,1 Ingrid Melle,1 Wenche Ten Velden,2 Ulrik Helt Haahr,1 Thomas McGlashan,3 Svein Fries1
1Oslo University Hospital, Oslo, 2Stavanger University Hospital, Stavanger, Norway, 3Psychiatry Roskilde, Roskilde, Denmark, 4Yale University School of Medicine, New Haven, CT, USA
Quality of life measures are an important part of outcome assessments for patients with a first episode psychosis (FEP). There is a lack of studies examining the long-term development of subjective quality of life (S-QoL) among patients with a FEP. The main aim of the present study was to examine change in S-QoL and its predictors in a 5 and 10 years follow-up study. A total of 301 patients with a first episode psychosis were included and completed the Lehman’s Quality of Life Interview at baseline. A total of 206 patients were interviewed at 5 years and 186 patients at 10 years. All patients were evaluated reliably with an extensive clinical assessment battery. Paired t-test revealed no significant changes in S-QoL from 2 years to respectively 5 and 10 years. However, a theoretically driven hierarchical blockwise multiple regression showed that objective measures of improvements in activities and finances, between baseline and 5 years, predicted improvement in S-QoL at 5 years. Moreover, improvements in social contacts and activities, between baseline and 10 years, predicted improvement in S-QoL at 10 years. These predictors explained a significant additional amount of the variance even when change in symptoms was controlled for. Long-term quality of life outcomes shows no significant changes from neither 2 to 5 years nor 5 to 10 years. A focus on social contacts, daily activities and finances seems important to enhance satisfaction with life over a 10 years period for patients with a FEP.

A29 Early rehabilitation in young people with first-episode psychosis: experience from the day center for psychiatric early rehabilitation (TAF, PSD Vienna)
Robert Herz, Andrea Czeliecz, Christine Gadinger-Häupl
Tageszentrum für psychiatrische Frührehabilitation-TAF, PSD-Vienna, Austria
Since 2008, the Psycho-Social Services Vienna (PSD) have provided one of the very first comprehensive ambulant early rehabilitation programs for young people suffering from first-episode psychosis (Day Centre for Psychiatric Early Rehabilitation, TAF) in German-speaking countries. The TAF-services stand on five pillars: (1) Ambulant setting, (2) Multiprofessional treatment, (3) Individuality, (4) Peer effects, (5) Time. The interdisciplinary treatment is based on individually agreed treatment plans. Paramount are: Dealing with the psychosis experience, personal growth, empowerment, recovery, and the return to a self-determined life. Young people suffering from first-episode psychosis are additionally confronted with the developmental tasks of individuation, autonomy, relationships, and career development. Yet, because of their young age, they generally lack previous experience with illness, coping strategies and resources. This particular situation requires a great deal of motivational work as well as addressing the individual potentials of each and every one of them. This program has been developed in order to tackle the inadequate mental healthcare provision for individuals suffering from schizophrenic disorders: on average, it still takes five to six years until treatment is received; this is particularly concerning for the first years of illness are decisive for the further course of the disorder. The resulting consequences remain a major burden for these individuals, their social environment, and the healthcare system. That’s why in the 1990s a paradigm shift has taken place: prevention, early detection and intervention instead of aftercare. Early rehabilitation aims at preventing and minimising a chronification of the illness and its related consequences.

A30 Family’s hardships who have offspring with first-episode psychosis
Megumi Kodaka
Sophia University, Tokyo, Japan
Aim: Family’s hardships were conceptualised to capture the process of family’s subjective experiences with their offspring’s first-episode psychosis.
Methods: Ten mothers with under 30 age first-episode psychosis offspring were semi-structured interviewed about 1 hour at the participating hospital. The descriptive data was analysed using the constant comparative analysis by grounded theory approach. The Ethics Committees at both St. Luke’s College of Nursing and the hospital approved the proposal for the study.
Result: Participant’s ages ranged from mid 30s to mid 50s. Their offspring’s ages ranged from 16 years to 26 years; the average was 20.3 years old and their DUP were from 5 months to 2 years. The mothers related their unique psychological, cognitive and behavioural experiences by reminiscing about their process during their offspring’s illness onset to the present. Family’s hardships contained 11 categories and 34 sub-categories. Two categories of them affected their hardships experiences through all process; “Referring to their past experience concerning psychoses” and “Facing the stigma against psychosis”. These categories generated the core-category of mothers hardships with first-episode psychosis offspring: “Taking eternal parenting to heart”.
Discussion: This study clarified that the interruption of their offspring’s development was the greater burden for mothers and they worried about their offspring’s growth and their uncertain attainment. As previously noted a systematic policy was required to provide easy access to correct information and knowledge before the onset psychosis, because it might be that earlier treatment of offspring, reduces not only stigma but mother’s burden.
A31
A new tool to assess social functioning: the First Episode Social Functioning Scale

Tania Lecomte,1 Marc Corbière,2 Tom Ehmann,3 Jean Addington,4 Amal Abdel-Baki,1 Bill MacEwan4
1Université de Montréal, 2Université de Sherbrooke, QC, 3St-Paul’s Hospital, BC, 4Université of Calgary, AB, 4Notre-Dame Hospital, CHUM, QC, 4University of British Columbia, BC, Canada

The current study aimed at developing and conducting a preliminary validation of a novel social functioning measure for people with early psychosis. The First Episode Social Functioning Scale (FESFS) was developed to cover many domains specific to this population in their contemporary reality. The self-report version of the FESFS was administered to 203 individuals receiving services in first episode clinics. Scores of the GAE SOFAS, Social Functioning Scale and BPRS were also obtained for parts of the sample to calculate convergent and discriminant validity. A subgroup also answered the FESFS at several time points during treatment in order to determine sensitivity to change. Principal component factor analyses and internal consistency analyses revealed the following nine factors with alphas ranging from 0.63 to 0.80: friendships and social activities, independent living skills, interacting with people, family, intimacy, relation-ships and social activities at school, educational abilities, convergent and discriminant validity were demonstrated, as well as sensitivity to change. Clinical and research utility of the FESFS are discussed.

A32
A 10 year prospective study on childhood onset psychoses

Laura Nussbaum,1 Liliana Nussbaum2
1University of Medicine and Pharmacy “V. Babes”, Department of Child and Adolescent Psychiatry, 2Adolescent Psychiatry, Timisoara, Romania

Objectives: The early detection and prevention of a first psychotic episode, the approach of optimal intervention strategies, the minimalizing of the duration of untreated illness-DUP and psychosis-DUP, the prospective identification of children with a high probability to develop a psychotic disorder.

Methodology: In our study, accomplished during the period 2004–2013 on 125 children with psychotic onset and 106 – high risk children, offspring of psychotic parents, we applied: PANSS-Positive and Negative Syndrome Scale, CBCL, SCL 90, CGI-S/CGI-I and CGAS. Through the qui-square analysis, the scores were compared in different timepoints in order to assess the intervention efficacy. From the 106 – high risk children, 50 received therapy and support.

Results: Through one way ANOVA, we obtained statistically significant correlations, p < 0.001, between SCL-CBCL: high obsessive values in parents determine high internalization scores in children. The total mean PANSS score, in the group with psychosis was 89.03 ± 20.1, the positive symptoms score 23.8 ± 6.5 and negative score 20.02 ± 8.8. The global functioning improved after targeted interventions. There were significant positive correlations between negative symptoms, long DUP and a poor outcome. (Spearman’s p = 0.012).

Conclusions: Through therapy, only 10% of the high risk children developed psychosis in comparison to 35% in the group of children who didn’t receive therapy, proving the fact that the onset can be delayed or even prevented. DUP remained a significant predictor of outcome, proving to be a target for secondary prevention. This facts prove that early intervention, prevention and anti-stigma strategies must be implemented.

Key words: psychosis, high risk, prevention, intervention

A33
Symptomatic remission in first-episode psychosis (FEP) at 1 year follow-up: does it relate to better functioning or neurocognition?

Carmen Simonsen,1 Torill Ueland,1,2 Thomas Bjella,1 Ann Faerden,1 Kjetil Sundet,1 Ole Andreassen,1,3 Ingrid Melle1,3
1Department of Mental Health and Addiction, Oslo University Hospital, 2Department of Psychology, University of Oslo, 3Department of Psychiatry, University of Oslo, Norway

Methods: Within an ongoing longitudinal psychosis study (NORMENT), FEP patients (n = 102) and healthy controls (n = 164) were investigated at baseline and after 1 year. Symptomatic remission was based on specific remission criteria. Adequate global functioning was defined as scoring higher than 60 on the functioning score from the split version of GAF: Neurocognitive function above clinical cut-off was defined as scoring better than 1.5 stdev below the healthy control group across neuropsychological measures.

Results: Almost ½ the FEP sample was in symptomatic remission and ½ the remission group had adequate global functioning compared to 1/8 in the non-remission group. The rate of neurocognitive function above clinical cut-off was just over ½ in both groups: significantly below the rate in healthy controls.

Conclusions: Our findings suggest that ½ of FEP patients reach symptomatic remission 1 year after treatment initiation. Remitted patients have better global functioning but not better neurocognitive functioning than unremitted patients. This suggests that symptomatic remission is more closely related to global functioning than to neurocognitive functioning.

Key words: First-episode psychosis – Symptomatic remission – Functioning – Neurocognition

A34
Duration of untreated psychosis (DUP) and social changes: comparison between the result of ten years ago and present in the same hospital condition

Kouta Suzuki,1 Ryoko Yamazawa,1 Hidehito Niimura,2 Takahiro Nemoto,3 Chiyo Fuji,1 Masaru Mimura,2 Masafumi Mizuno2
1Oizumi Hospital, 2Keio University School of Medicine Department of Neuropsychiatry, 3Toho University School of Medicine Department of Neuro-psychiatry, Japan

Objective: We previously studied the Durations of Untreated Psychosis (DUPs), the social backgrounds, and the outcomes of patients treated at a psychiatric hospital in Tokyo between March 1999 and March 2001 (Yamazawa et al., 2004). Here, we examined the recent DUP at the same hospital to identify any changes over the last ten years.

Methods: The subjects were outpatients who visited the psychiatric hospital between April 2009 and April 2011, were diagnosed as first episode of schizophrenia, and treated for the first time. The DUP age, referral pathway, living companions, social participation, and schooling history were examined and the results were compared with the previous findings.

Results: Forty-six patients were diagnosed as first-episode psychosis; the DUP was known in 42. The average age at the first consultation was 32.5 years (SD = 9.1), and the mean DUP was 16.0 months (SD = 18.7). The schooling history was 13.4 years (SD = 2.5). No significant differences in age, referral pathway, living companions, social participation, or schooling history were seen between the two time periods.

Discussion: The past ten years have seen the construction of a new ward, the establishment of a satellite clinic, and the initiation of an emergency psychiatric service, although the hospital catchment area stays as before. The patients average age and the initial treatment process have remained unchanged. Therefore, the DUP might not change without early intervention, including campaigns for enlightenment and anti-stigmatization and active searching. Interventions to shorten the DUP are required to improve patient prognosis.
A35 Predictors of vocational activity over the first year in inner-city early intervention in psychosis services

Andrew Tapfumaneyi,1 Sonia Johnson,2,3 John Joyce,1 Barnaby Major,1 Jo Lawrence,2 Farhana Mann,1 Brock Chisholm,6 Nikola Rahaman,1 James Wooley,6 Helen L. Fisher8

1 Lewisham Early intervention Service, South London and Maudsley NHS Foundation Trust, 2 Camden and Islington Early Intervention Service, Camden and Islington NHS Foundation Trust, 3 Mental Health Sciences Unit, University College London, 4 EQUIP, Hackney, East London NHS Foundation Trust, 5 STEP, Southwark, South London and Maudsley NHS Foundation Trust, 6 Wandsworth Early Intervention Service, Southwest London and St Georges’ Mental Health NHS Trust, 7 Kensington, Chelsea, Westminster and Brent Early Intervention Service, Central and North West London NHS Foundation Trust, 8 MRC Social, Genetic & Developmental Psychiatry Centre, Institute of Psychiatry, King’s College London, London, UK

Aim: Work and educational activities are an important part of recovery for young people with psychosis. This study evaluated predictors of vocational activity for first-episode psychosis (FEP) patients during the first year of Early Intervention Service care. It was hypothesized that longer duration of untreated psychosis (DUP) and minority ethnic status would predict poorer vocational outcomes, whereas a history of good vocational functioning would predict better vocational functioning during follow up.

Methods: FEP patients aged 14–35 years, who presented to seven EIS in London, UK, between 2003 and 2010, were followed for 1 year. Sociodemographic, clinical and vocational information (qualifications obtained and paid employment) were collected using the MiData audit tool at entry to EIS and 1 year later.

Results: Approximately one-third of patients (n = 345/1013) were studying or employed at some point during the first year of EIS care. Baseline vocational activity was the strongest predictor of vocational functioning during 1 year of follow up. Moreover, employment prior to entry into EIS strongly predicted change in vocational activity during 1 year of follow up. Individuals with DUP < 6 months or of Asian or black African origin were more likely to be studying than their white British counterparts.

Conclusion: This study confirms that a significant proportion of FEP patients are able to engage in meaningful vocational activities even within the first year of EIS care. However, services need to focus more resources on getting patients with poor educational or employment histories into training programmes to improve their vocational outcomes.

A36 Childhood and adolescent trauma in first-episode psychosis and control participants: preliminary results

Anne Marie Traulsen,1,2,3 Ulrik H. Haahr,2 Hanne-Grethe Lyse,2 Marlene Buch-Pedersen,2 Jens Einar Jansen,2 Erik Simonsen4

1 Faculty of health and medical sciences, University of Copenhagen, 2 Early Psychosis Intervention Center, Region Zealand Psychiatry Roskilde, 3 Psychiatric Research Unit, Roskilde, 4 Institute of Clinical Medicine, University of Copenhagen, Denmark

Introduction: The trauma – psychosis debate has been revived the recent decade, and more studies have emerged. This study involved participants with chronic schizophrenia where representativeness, among other methodological issues, is problematic.

Objective: This study seeks to compare the prevalence of childhood- and adolescence trauma in first-episode psychosis (FEP) participants with non-clinical control participants.

Design and methods: FEP participants were assessed from April 2011–April 2013. Inclusion criteria were: An ICD-10 F20-F29 diagnose, except F21; age 18–35 years; and adequate Danish skills. Control participants were assessed from October 2013–April 2014. They were matched on gender, age and parents socioeconomic status. The presence of no prior or present psychiatric illness was secured by the MINI 6.0. Traumas were assessed with the Brief-Betrayal Trauma Questionnaire, the Childhood Trauma Questionnaire (CTQ) and parts of the Childhood Experience of Care and Abuse Questionnaire (CECA-Q).

Results: Preliminary analyses rest on 89 participants. The reports for FEP and control participants for CTQ were: Any trauma 85% and 30% (odds ratio (OR) 7.1); sexual abuse 24% and 2% (OR 20); physical abuse 39% and 12% (OR 5.0); emotional abuse 63% and 18% (OR 5.4); physical neglect 57% and 15% (OR 5.2); and emotional neglect 44% and 5% (OR 19). All ORs were highly significant.

Conclusion: We found a significantly more reported childhood- and adolescence trauma in FEP participants compared to the non-clinical control participants. This highlights the need for research on how trauma might lead to psychosis and for trauma-focused interventions in FEP services.

Genetics

A37 Association of the adiponectin gene (ADIPOQ) +45T>G polymorphism with the clozapine-induced weight change and baseline body mass index in patients with chronic schizophrenia

Shihyun Kang, Jong-il Lee

Seoul National Hospital, South Korea

Objectives: We investigated the associations of the ADIPOQ+45T>G polymorphism with long-term clozapine-induced weight changes and baseline body mass index (BMI) in chronic patients with schizophrenia.

Methods: A total of 113 patients receiving clozapine for at least 1 year were enrolled. Body weight was cross-sectionally measured and data on body weight just before starting clozapine were retrospectively extracted from medical records.

Results: The ADIPOQ+45T>G polymorphism was significantly associated with the BMI change (F = 3.455, P = 0.035) during clozapine use; those with the GG genotype had the highest BMI gain (3.4 ± 4.6 kg/m2), followed by those with the TG (23.5 ± 4.5 kg/m2) and TT (21.4 ± 3.4 kg/m2) genotypes. The statistical significance of the difference remained in stepwise regression analysis adjusting for age, sex, baseline BMI, duration of clozapine treatment, and clozapine dose (F = 3.125, P = 0.048). We found a significant association between the ADIPOQ genotype and BMI at baseline (F = 4.106, P = 0.019); those with GG genotype had the lowest baseline BMI (21.4 ± 3.4 kg/m2), followed by those with theTG (23.5 ± 4.5 kg/m2) and TT (25.0 ± 4.6 kg/m2) genotypes. The statistical significance of the difference remained in stepwise regression analysis adjusting for age at baseline BMI, sex, and haloperidol-equivalent dose of antipsychotics before switching to clozapine (F = 3.608, P = 0.029).

Conclusions: The ADIPOQ+45T>G polymorphism was associated with clozapine-induced weight change and baseline BMI in chronic patients with schizophrenia.
Mood Disorders

A38
Mutagen mitomycin C used as a model in the study of its in vitro impact on the chromosomal apparatus of probands with depression and adolescents in the control group

Tetyana Proskurina,1 Nataliya Bagatskaya1,2
1SI «Institute for Children and Adolescents Health Care of the NAMS of Ukraine», 2Kharkiv V. Karazin National University, Ukraine

Aim of the study: To investigate spontaneous and induced mutagenesis in the peripheral blood lymphocytes (PBL) of children with depression.

Patients and methods: A cytogenetic analysis was carried out in 24 patients with depression before and after administration of mitomycin C, and in 24 their healthy coevals, aged 6 to 18. Statistical processing of the results obtained was performed using the Excel and SPSS Statistics 17.0 software packages.

Results: 100% of probands with depression had various disorders in the structure of chromosomes. Average group frequency of chromosome aberrations per 100 cells was 0.14, while the total number of chromosome abnormalities in the group of probands with depression, before exposure of PBL to the impact of mitomycin C, was 14.48%. In healthy probands it came to 2.26%, p < 0.001. Estimation of the impact of the mutagen on the PBL has established that after exposure to mitomycin C 100% of probands also had different chromosome aberrations. Average group frequency of aberrations, induced by mitomycin C, was 0.21 per 100 cells, i.e. after exposure of PBL to the impact of the mutagen the incidence of chromosome aberrations in the group of patients increased by 1.5 times, and in the group of healthy persons – by 7.1 times. Comparison of spontaneous and induced mutations in patients with depression made it possible to establish an increase in chromosome aberrations (chromatid and chromatid types) after exposure to mitomycin C from 11.27% to 17.52%. Single fragments prevailed among aberrations of chromatid type, but significant differences in their frequency were absent. Elongation and breaks on the centromere, dicentric chromosomes and chromatid-isochromatid exchanges have been registered among aberrations of the chromatid type.

A39
Targets for psychological interventions in offspring of parents with bipolar disorder: findings from a selective review of the literature

Emilie Magaud,1 Anne Duffy,1 Jan Scott2
1Hotchkiss Brain Institute, Mathison Centre for Mental Health Research & Education, University of Calgary, Alberta, Canada, 2Institute of Neuroscience, Newcastle University & Centre for Affective Disorders, Institute of Psychiatry, UK

Bipolar disorders (BD) is a devastating and highly heritable illness that onset typically in adolescence. Our group recently published a novel clinical staging model describing the development of BD in youth at familial risk (HR). BD evolved from non-mood disorders (anxiety and sleep disorders), into minor mood or adjustment disorders, followed by depressive episodes in mid to late adolescence and then on average 4 years later the index activated episode. This model supports stage-specific early intervention research and we hypothesize that the early stage disorder may respond to a psychological intervention. Based on a selective review of the evidence for psychological interventions in adolescents offspring of depressed and BD parents, we propose a stepped care approach that aligns with the staging model: (i) in asymptomatic HR youth, offering psycho-education about prodromes and potential triggers of mood disorders, regulation of sleep cycle, and impact of substance use; (ii) in symptomatic HR, targeting excessive ruminating by means of cognitive restructuring techniques, to regulate mood and processing style; (iii) a rapid surveillance program, offering comprehensive psychiatric assessment. Acceptable early intervention with a favorable benefit to risk ratio is critical to preventing progression of serious psychiatric disorders in HR youth. The state of evidence to inform this agenda in youth at risk of mood disorders falls behind that related to the psychosis literature. Therefore, identifying stage-specific early intervention targets for youth at HR of developing BD is a poorly understood clinically and research priority.

A40
The impact of personality disorder on outcome following a first episode of mania with psychotic features

Melissa Hasty,1 Craig Macneil,1 Sue Cotton,1 Michael Berk,1 Philippe Conus2
1Orygen Youth Health Research Centre, Centre for Youth Mental Health, University of Melbourne, Australia, 2Treatment and Early Intervention in Psychosis Program (TIPP), Département de Psychiatrie CHUV, Université de Lausanne, Switzerland

Objectives: The presence of personality disorder (PD) in addition to bipolar disorder is common and has been shown to negatively impact outcome. However, little is known about PDs in youth with bipolar disorder. Thus, the aim of this study was to examine the prevalence and impact of co-occurring PD on a range of clinical and outcome variables in a cohort of youth with first episode mania (FEM) with psychotic features.

Methods: Seventy-one (male = 48; female = 23) patients with FEM aged between 15 and 29 years who were treated at the Early Psychosis Prevention and Intervention Centre (EPPIC) in Melbourne were assessed at initiation of treatment and three follow-up time points (6, 12 and 18 months).

Results: Only 16.9% of participants met full criteria for a comorbid DSM-IV PD. The most prevalent PDs were antisocial and narcissistic. There were no significant differences in relapse rates or symptomatic and functional outcomes of individuals with PD and those without a comorbid PD at 12 and 18 months. However, fewer individuals with comorbid PD had achieved symptomatic recovery and had poorer functioning at 6 months, suggesting that comorbid PD is associated with slower recovery from FEM. Participants with comorbid PD were found to be almost two and a half times less likely to be adherent to medication and had higher rates of hospitalisation.

Conclusions: More attention is needed focusing on comorbid PDs early on in the course of bipolar disorder, particularly examining the potential impact of early psychosocial intervention targeting medication adherence.

A41
Distinguishing social anxiety from paranoia: testing the aetiological role of interpretative biases

Yuanyuan Huo,1 Yiend Jenny,1 Sukhi Shergill,2 Michael Eysenck2
1Institute of Psychiatry, King’s College London, 2Department of Psychology, Roehampton University, London, UK

Social anxiety and psychosis are highly co-morbid, especially in the prodromal phase. Both are associated with a negative interpretation style. Overlaps from cognitive theories of social anxiety and paranoia suggest this negative interpretation bias indeed applies to social scenarios. Both socially anxious and paranoid people show a biased interpretation of ambiguous social scenarios, however, the socially anxious person is afraid of negative evaluation, the paranoid person is afraid of persecution. We predict that differences in these cognitive biases and their outputs help determine which symptoms predominate, perhaps even which pathology emerges. This project uses rigorous cognitive experimental methods to isolate the processes of interpretation, and examine their degree of specificity for social anxiety relevant versus psychosis relevant information. It is the first step toward creating more effective cognitively based therapeutic interventions.
Neurocognition

A43 Gender specific correlates of neurocognition and functioning in first episode psychosis

Christy Hui, Adrienne Li, Wing-Chung Chang, Sherry Chan, Edwin Lee, Eric Chen
Department of Psychiatry, The University of Hong Kong, Queen Mary Hospital, Hong Kong

Objective: Studies of gender differences in cognitive functioning have yielded mixed results in schizophrenia research so far. This study examined correlates of cognition including demographics, symptoms and functioning in men and women, as well as predictors of cognition in a large sample of patients with first episode psychosis (FEP) in Hong Kong.

Method: Detailed demographic, clinical and functioning data were collected from 360 FEP patients upon admission into a specialized early intervention service. They were also administered a comprehensive battery of neurocognitive tests.

Results: Bivariate correlation analyses showed that memory and working memory were more significantly associated with onset age, negative symptoms and side effects in women. Processing speed was associated with antipsychotic dosage in men and side effects in women. Selective attention was associated with positive and negative symptoms in women, and onset age and educational level in men. Executive function is associated with onset age and positive symptoms in women. All cognitive domains were significantly associated with educational level and functioning in both genders. DUP and disorganization had no significant correlations. Further analyses with linear regression indicated that negative symptoms were predictive of cognition in both genders, while positive symptoms, medication side effects and affective symptoms were predictors in men and women respectively.

Conclusion: The data suggest that although there are similarities in cognitive deficits, considerable heterogeneity exists in associations of symptoms and cognitive performance in men and women. Results will enable more individual tailoring of treatment plans, including cognitive remediation therapy.

A44 Language pattern of schizophrenics

Miza Aini
Gadjahmada University, Yogyakarta, Indonesia

Schizophrenia is a mental illness caused by abnormalities of dopamine and serotonin in the brain. This illness can cause hallucination and delusion, in which the sufferer hear voices that is not real. There are so much negative stigma suffered by schizophrenics. People say that schizophrenia is a curse and caused by devil affection. In fact, schizophrenics have language disorder in the ability of speaking and writing. Their language can not be understood clearly by other people. Therefore they suffered lack of communication. People are misunderstood schizophrenics and they consider them as society in the lower level. Some of them can fight against this illness but most of them are failed. Nowadays, Psycholinguistic theory comes as a breakthrough of studying and analyzing language. Language does not only come form behavior but also from human mind. Psycholinguistic combines between language and psychology meaning language has any continuity with human mind. In conclusion, language disorder in schizophrenia can be analyzed and learned more by using Psycholinguistic theory. Therefore, the researcher conducted research in gaining Language Pattern of Schizophrenics. This research conducted by field research method using psycholinguistic approach, in which the researcher interviewed schizophrenics in Lawang Mental Hospital, East Java, Indonesia. Beside interviewing, the researcher also use schizophrenics writing as primary data. The goal of this research is finding language pattern of schizophrenics such us cohesion, coherence, words and sentence pattern.

A45 Do cognitive deficits predict risk perceptions, health behaviours and outcomes in people with first episode psychosis?

Poonam Gardner-Sood, Anthony David, Jennifer O’Connor, Ben Wiffen, Aurora Falcone, Manuela Russo, Heather Taylor, Khalida Ismail
King’s College London, UK

First episode psychosis (FEP) patients have poorer cognitive functioning than non-clinical samples, limiting capacity for deliberative decision-making. Health behaviour models propose that individuals deliberate over information regarding personal risks, and risk-minimising behaviours. This study explored whether FEP patients with impaired cognitive function have unrealistic risk appraisals, engage in unhealthy behaviour, and have poorer health. 88 FEP patients [26 [29.5%] female, mean age 31.1 years; 62 [70.5%] male, mean 28.8 years], were recruited from inpatient psychiatric services. They completed a neuropsychological assessment battery, including 14 tests of cognitive functioning from the Wechsler Adult Intelligence Scale (WAIS-III), Wechsler Memory Scale (WMS-III), and CANTAB. Engagement in two health behaviours (saturated fat intake, exercise) over the past week was recorded. Anthropometric measurements were taken and BMI calculated. Psychiatric symptomatology was assessed via the PANSS and GAF; and health risk perceptions self-reported. Patients demonstrated impairment on all aspects of cognitive functioning. Those with poorer general knowledge, delayed visual memory, and category fluency were less likely to have accurate risk perceptions. CANTAB working memory predicted fat intake, and CANTAB spatial working memory between-error scores predicted BMI. All significant effects were small. Health risk perceptions did not mediate between cognitive functioning and health behaviour. Findings provide some evidence of effects of cognitive impairment on risk perceptions and behaviour, and highlight the specific cognitive domains that may be relevant to risk-based decision-making. However, given the potential for Type I error arising from multiple testing, these findings require replication before practical implications can be fully considered.
A46 Are executive functions stable in first episode patients? – One year follow-up study

Beate Haatveit,1,2 Ingrid Melle,1,2 Jimmy Jensen,2,6 Kjetil Sundet,3 Anja Vaskinn,4 Carmen Simonsen,1 Ole Andreassen,1,2 Torill Ueland1,9
1NORMENT, KG Jebsen Centre for Psychiatry Research, Division of Mental Health and Addiction, Oslo University Hospital, 2NORMENT, KG Jebsen Centre for Psychology Research, Institute of Clinical Medicine, University of Oslo, 3Institute of Psychiatry, University of Oslo, Norway. 4Centre for Psychology, Kristianstad University, Sweden

Background: Previous findings report that neurocognitive function first-episode psychosis (FEP) generally remains stable over time. The aim of this study was to determine whether executive functions remain stable over time in FEP, using a broad range of executive measures. Furthermore, we wanted to see whether follow-up results are influenced by clinical characteristics at baseline.

Methods: Eighty-two patients with first episode psychosis and 107 age and gender matched healthy controls were clinically and neuropsychologically assessed at baseline and at 1 year follow-up. Five different subdomains of executive functioning: working memory, fluency, flexibility, cognitive control and problem-solving/planning was assessed with neuropsychological measures. Clinical characteristics at baseline included as predictors were the disorganized and positive factors from a PANSS five-factor model, sub-diagnose (SCID), and premorbid academic function (PAS).

Results: Patients perform significantly poorer than controls on all executive measures at baseline and 1 year follow-up. In general neurocognitive function remains stable from baseline to follow-up, although both groups improve in cognitive control and problem-solving/planning. In fluency, controls slightly improve, while patients slightly deteriorate. More disorganized behavior at first assessment predicts poorer performance on fluency at follow-up, and higher premorbid academic function predicts better working memory performance at follow-up.

Conclusion: These findings suggest that patients have poorer executive functioning than controls at treatment initiation and 1 year later. Some executive domains improve in both groups, but an overall stability is observed. Early disorganized behavior predicts certain executive function domains. This suggests that executive functioning is an important intervention target.

A47 Adaptation and pilot study of a cognitive remediation programme (RECOS) to adolescents with schizophrenia

Laure Jaugéy,1 Sébastien Urban,1 Pascal Vianin,2 Olivier Halffon,1 Laurent Holzer1
1Service Universitaire de Psychiatrie de l’Enfant et de l’Adolescent, University of Lausanne, Centre Hospitalier Universitaire Vaudois, 2Service de Psychiatrie Générale, University of Lausanne, Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland

Background: Patients with schizophrenia frequently present cognitive dysfunctions. Recently therapeutic efforts focused on improvement of these features. One of the current cognitive remediation training strategy (RECOS) designed for adults with schizophrenia aims to improve key cognitive domains (following MatRICS consensus) based on training in a personalized way.

Method: For our study with adolescents we introduced a number of adaptations to the RECOS training. The programme runs over 14 weeks and includes three 45-minutes sessions per week of standardized tasks adapted to the individual level of cognitive impairments. Two clinical cases from the Day Care Unit for Adolescents attended the programme. Patient A is a 15 year-old boy presented a childhood-onset psychosis and patient B who is a 18-year-old boy suffering from a psychotic disorder.

Results: After the RECOS programme, A showed significant improvements in cognitive abilities and more specifically in working memory and reasoning. In addition, there was a major reduction of impulsive behaviour, which was present prior to training. B could develop many new metacognitive strategies in order to face problems that he had to solve. Although his reasoning abilities were greatly improved, there was few evidence of transfer to other cognitive domains.

Conclusion: First, we could observe that the RECOS programme could successfully be adapted for adolescent patients with psychosis. Indeed, two patients could attend the programme and presented a reduction of their cognitive deficits as well as an alleviation of their clinical symptoms and a diminution of functional repercussions of their cognitive deficits in everyday life.

A48 Endophenotype status and clinical correlates of semantic fluency task in schizophrenia

Boban Joseph, Anekal C Amaresha, Venkataram Shivakumar, Harve S Virupaksha, Vijay Danivas, Vishwanath Vishal, Anusheer Bose, Sri Mahavir Agarwal, Janardhanan C Narayanaswamy, Ganesan Venkatasubramanian
National Institute of Mental Health and Neurosciences, Bangalore, India

Background: Category fluency (CF) deficits are considered as a trait marker of schizophrenia. It is important to examine the endophenotype status of CF and its clinical correlates among patients.

Methods: We examined the CF (categories being animals, fruits and vegetables) deficits across medication naïve schizophrenia patients, unaffected first degree relatives (siblings) of schizophrenia patients (HR) and healthy controls (HC) in addition to examining the clinical correlates of CF performance among patients. The patients were evaluated using Scale for the Assessment of Positive Symptoms (SAPS) and Scale for the Assessment of Negative Symptoms (SANS) for the symptom severity.

Results: Total 64 patients, 30 HR and 40 HC with age and years of education as [30.25 ± 6.81 vs. 27.67 ± 5.32 vs. 26.48 ± 3.98, F = 5.71, p = 0.004] and [12.10 ± 3.80 vs. 13.97 ± 2.37 vs. 16.45 ± 2.56, F = 22.58, p < 0.001]. There was no sex difference between the groups. ANCOVA controlling for age, sex and years of education revealed significant difference in CF performance between the groups (animals: p = 0.01; fruits: p < 0.001; vegetables: p = 0.03). Post-hoc analysis revealed that patients performed significantly poorly compared to both HR and HC. HR performed significantly poorly compared to HC. The years of education had a significant positive correlation with CF scores among patients. Partial correlation analysis controlling for years of education revealed that CF scores had significant negative correlation with SANS score (animals: p = 0.005, fruits: p = 0.042, vegetables: p = 0.016).

Conclusion: The results indicate that CF could have endophenotype validity. Inverse relationship between CF performance and negative symptom severity might indicate a shared substrate for these parameters demonstrating hypofrontality among patients.
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A49 Defects of neurocognitive performance and social functioning in non-prodromal individuals with high genetic loading for schizophrenia

Jin Woo Park,1 Sung Nyun Kim,1 Taey Young Lee,1 Ye Seul Shin,2 Jun Soo Kwon1,2
1Seoul National University College of Medicine, 2College of Natural Sciences, Seoul National University, Seoul, Republic of Korea

Introduction: Neurocognitive dysfunction in unaffected relatives of individuals with schizophrenia was regarded as evidence of an endophenotype and examined in relation to social functioning. Although previous research has investigated this relationship, these studies included relatives at the prodromal stage. Given recent clinical high-risk studies showing that such individuals may have neurocognitive or neurobiological alterations similar to those observed in schizophrenia, this relationship remains unclear. This study examined neurocognitive and social functioning in non-help-seeking individuals with high genetic loading but without psychosis-risk syndrome (GHR) to determine whether neurocognitive deficits account for social functioning impairment.

Method: The GHR group (n = 61) included unaffected individuals with high genetic loading for schizophrenia, and were compared with the healthy control group (n = 103). GHR individuals fulfilling the psychosis-risk syndrome criteria were excluded. The Social Functioning Scale, measures of neurocognitive and social cognitive function were administered.

Results: The GHR group showed significant impairment on the Trail Making Test B and the Wisconsin Card Sorting Test (WCST) compared with the healthy control group even after controlling for general intelligence and education. Average scores on the Social Functioning Scale were found to be significantly lower in the GHR subjects. Categories completed from the WCST significantly predicted impairment on the social functioning scale in the GHR group, but not in the healthy control group.

Conclusion: These results suggest that neurocognitive impairment, especially executive dysfunction, plays an important role in social functioning impairment in GHR subjects without psychosis-risk syndrome, and that executive dysfunction may serve as a target of early intervention in GHR individuals with impaired social functioning.

A50 MATRICS Cognitive Consensus Battery (MCCB) performance in 12–19 year-old healthy adolescents from the NAPLS-2 and CIDAR studies: developmental and normative analyses

William Stone,1 Anthony Giuliano,1 Raquelle Mesholam-Gately,1 Jean Addington,2 Kristin Cadchen,1 Tyrone Cannon,2 Barbara Cornblatt,1 Daniel Mathalon,6 Diana Perkins,2 Elaine Walker,4 Scott Woods,4 Larry Seidman1
1Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, MA, USA 2University of Calgary, AB, Canada 3University of California, San Diego, CA, 4Yale University, Nee Haven, CT, 5Zucker Hillside Hospital, NY, 6University of North Carolina, Chapel Hill, NC, 6Emory University, Atlanta, GA, USA

Background: The development of the MCCB fills a significant need for a standardized battery of cognitive tests to use in clinical trials of therapeutic interventions for schizophrenia. The success of initial validation studies in adults aged 20–59 now underscores a need to validate its utility at younger ages in which the risk of schizophrenia is also elevated. Toward this end, we assessed developmental and performance in healthy adolescents aged 12–19.

Methods: Baseline MCCB, reading and IQ data were obtained from healthy controls in the NIMH-funded NAPLS-2 (n = 126) and CIDAR (n = 13) studies. All MCCB tests were administered except the MSCEIT. NAPLS-2 data were collected from 4 geographical regions across North America; CIDAR data was collected in Boston. Developmental MCCB scores were presented in 2-year age cohorts as T-scores for each test and cognitive domain, based on the overall sample of 139 participants, and analyzed for effects of age, gender and education. Overall and gender-based raw scores for individual MCCB tests were presented for each age-based cohort.

Results: Performance improved differently in all MCCB Cognitive Domains with age. Attention/Vigilance, Speed of Processing, and Working Memory showed significant, moderate, positive correlations with age (r = 0.47, 0.40 and 0.33); Reasoning and Problem-Solving showed a small but significant positive correlation (0.19), and Verbal Learning and Visual Learning showed positive but non-significant correlations (0.12 and 0.11). Males performed better overall on Reasoning and Problem Solving.

Conclusion: These normative, developmental MCCB performance data will likely facilitate research and clinical evaluations of adolescents at risk for schizophrenia.

Neuroimaging

A51 Frontal and temporal brain activity during a verbal fluency task in individuals at risk for psychosis a functional near-infrared spectroscopy study

Aleksandra Aleksandrowicz,1,2 Florence Hagenmuller,2 Helene Haker Rosler,1,4 Karsten Heekeren,1,2 Anastasia Theodoridou,1,2 Susanne Walitza,1,3 Wulf Rosler,1,3 Wolfram Kowohl,1,3
1The Zurich Program for Sustainable Development of Mental Health Services (ZInEP), University Hospital of Psychiatry Zurich, 2Department of Psychiatry, Psychotherapy and Psychosomatics, University Hospital of Psychiatry Zurich, 3Department of Child and Adolescent Psychiatry, University of Zurich, 4Translational Neuromodeling Unit, Institute for Biomedical Engineering, University of Zurich and ETH Zurich, Zurich, Switzerland, 5Institute of Psychiatry, Laboratory of Neuroscience (UM 27), University of Sao Paulo, Brazil

Lower frontal brain activity has been observed in individuals suffering from schizophrenia and bipolar disorder during the verbal fluency task (VFT) using the functional near-infrared spectroscopy (fNIRS). Our goal was to investigate if the abnormalities in the frontal brain activity can also be observed in the at-risk individuals for schizophrenia or bipolar disorder. Four groups of individuals were examined in the study: at-risk for bipolar disorder (BIP; n = 13), at-risk for schizophrenia (HR; n = 39), at ultra-high-risk for schizophrenia (UHR; n = 41), and healthy controls (HC, n = 35). We used a 52-channel fNIRS to measure the changes in concentration of the oxygenated hemoglobin, which reflects the brain activity. During the measurement all participants performed semantic and phonemic VFT. The analysis focused on the bilateral prefrontal and frontotemporal cortex (PFC, FTC). Individuals in the HR and UHR groups produced significantly less words in phonemic and semantic VFT compared to the HC. The region of interest analysis of the brain activity revealed significant differences between the groups in the left PFC during the phonetic VFT (F(3,122) = 3.059, p < 0.05). Furthermore, post-hoc tests revealed a lower left prefrontal activation in the UHR group compared to the HC (p < 0.05, 95% CI [0.007–0.055]). These preliminary findings indicate that the behavioral deficits observed in the UHR group are partially reflected in the lower PFC activation. These results are in line with previous studies investigating patients with manifest schizophrenia and allow an interpretation that the functional deficits in the PFC appear already in individuals at ultra-high risk for psychosis.
AS2  
Brain temperature and glutamate in recent onset schizophrenia: a 7 Tesla MRS study
Nicola Cascella,1 Sotirios Posposieli,2 Teppie Tanaka,2 Anouk Marsman,2 Mark Varvaris,2 Jennifer Coughlin,2 Richard Edden,2 David Schretlen,2 Peter Barker,2 Akira Sawa2
1Sheppard Pratt Hospital, 2Johns Hopkins University, MA, USA
Thermoregulation and glutamate dysfunction is associated with schizophrenia (SZ). Magnetic resonance spectroscopy (MRS) measures brain temperature (BT), an index of metabolism, in a non-invasive manner. We studied 11 recent onset DSM-IV SZ patients (age 24.22 ± 3.07) and 9 controls (age 23.82 ± 2.71) matched for ethnicity, education, sex and smoking status. T1-weighted (MP-RAGE) sequence (225 slices, 0.8 mm isotropic voxels, TR = 4.3 ms, TE = 1.93 ms, flip angle = 7°, FOV = 220 × 220 × 180 mm3, 276 × 274 acquisition matrix, SENSE factor 4) were obtained using a 7T MR Philips scanner. Spectroscopic voxel was positioned in the anterior cingulate cortex. Metabolite concentrations including glutamine, glutamate, GABA were corrected for the proportion of CSF. Spectra were analyzed using LCModel version 6.3. We used in vivo MRS thermometry semi-localized by adiabatic refocusing sequence (sLASER; TR = 3000 ms, TL = 120 ms, 2048 points, 16 averages). BT was estimated using water chemical shift relative to NAA. Oral temperature (OT) was assessed using a digital thermometer. BT was higher than OT in SZ and controls. This difference (\( p < 0.0125) \) was significant in both (SZ: \( r = 1.101, t = 5.03, p = 0.001 \) Controls: \( r = 0.875, t = 3.98, p = 0.004 \)) but not between groups. There was a significant inverse correlation between glutamate (rho = −0.803, p = 0.009 < (p < 0.05/4 = 0.0125)) and BT in controls but not in SZ (rho = 0.543, p = 0.084). Results indicate that a decoupling between BT and glutamate concentration occurs in SZ and that \( ^\circ C \) in SZ, like in traumatic brain injury and stroke, suggests abnormal thermoregulation in SZ.

AS5  
Gamma band auditory response with EEG and fMRI BOLD in first episode of schizophrenia
Hironori Kuga,1,2 Takefumi Ueno,1,2 Hiroshi Okamoto,1,2 Itta Nakamura,1,2 Naoya Orité,1,2 Yoji Hirano,1,2 Shigenobu Kanba,2 Toshiaki Onitsuka,2
1National Hospital Organization Hizen Psychiatric Center, 2Kyushu University, Japan
Dysfunction in GABAergic neuron, highlighted by postmortem studies and pharmacological studies, is one of the possible molecule pathogenesis of Schizophrenia. To verify this hypothesis, we focus on gamma band auditory steady state response (ASSR) which is considered to reflect function of GABAergic interneurons. Several MEG and EEG studies have reported that generators of ASSR are located in the primary auditory cortex, but there are only few studies that detected ASSR-BOLD activation in functional magnetic resonance imaging (fMRI) and it is still unknown when this deficit starts. We measured gamma band ASSR in patients around the onset of psychosis with 64ch EEG and 1.5T fMRI. Patients with first episode schizophrenia and healthy controls participated in this study. We used the ASSR paradigm in each subject. Click stimuli were presented at a frequency of 20, 30, 40 and 80 Hz. MATLAB and SPM8 were used in order to assess using phase consistency (phase locking factor (PLF) and analyze BOLD fMRI data within each subject, as well as a group. We will show the results of this study and discuss it in the presentation of the day. This study was approved by the ethical committee of the Hizen Psychiatric Center and there are no COI with regard to this presentation.

AS4  
Parahippocampal dysconnectivity in the at risk mental state
Jun Miyata,1,2 Ioby Winton-Brown,1 Nicolas Crossley,2 Shitij Kapur,2 Philip McGuire2
1Department of Neuropsychiatry, Kyoto University Hospital, Japan, 2Department of Psychiatry Studies, Institute of Psychiatry, King’s College London, UK
Background: Dopamine dysfunction may lead to psychotic symptoms through an effect on salience processing (Kapur, 2003). It has been suggested that this dopamine dysfunction is driven by hippocampal overactivity, which influences midbrain dopamine neurons via inputs through the basal ganglia (Lisman and Grace, 2005). On the other hand, independent research suggests that there is a salience network (SN) comprising the insula and anterior cingulate cortex (ACC). We used neuroimaging to investigate functional connectivity within and across these two different salience networks in people with an At Risk Mental State (ARMS) for psychosis.

Methods: Resting state functional MRI (rsfMRI) data were acquired from 29 ARMS subjects and 25 healthy controls (HC). The rsfMRI data were analyzed by independent component analysis. Three networks of interest were identified: hippocampal network (HN), basal ganglia network (BGN), and SN. Group differences in inter-network connectivity analysis within each network were tested, controlling for clusterwise family wise error across all 6 tests. Group differences in inter-network connectivity were calculated by partial correlation between the time series of each network.

Results: ARMS participants had significantly decreased connectivity within the HN and BGN. ARMS participants showed a significantly increased partial correlation between the HN and SN (p < 0.05, FWE corrected).

Discussion: The ARMS was associated with intra-network abnormalities in both the HN and BGN, but not within the SN, and with heightened coupling between the HN and SN. These data provide further support for the role of altered medial temporal connectivity in psychosis, but also implicate the insular-ACC salience network.

AS5  
Altered depth of the olfactory sulcus in ultra high-risk individuals
Tsutomo Takahashi,1 Stephen Wood,2,3 Alison Yung,2,4 Barnaby Nelson,2 Ashleigh Lin,2 Murat Yücel,2,5 Lisa Phillips,2 Michio Suzuki,1 Warrick Brewer,2 Patrick McGorry,2 Dennis Velakoulis,2 Christos Pantelis2
1University of Toyama, Japan, 2University of Melbourne, Australia, 3University of Birmingham, 4University of Manchester, UK, 5Monash University, Australia
A shallow olfactory sulcus has been reported in first-episode schizophrenia, possibly reflecting abnormal forebrain development during early gestation. However, it remains unclear whether this anomaly exists prior to the onset of psychosis. In the current study, magnetic resonance imaging was used to investigate the length and depth of the olfactory sulcus in 135 ultra high-risk (UHR) individuals [of whom 52 later developed psychosis (UHR-P) and 83 did not (UHR-NP)] and 87 healthy controls. While there was no group difference in the length of the sulcus, UHR-P subjects had significantly shallower olfactory sulcus at baseline as compared with UHR-NP and control subjects. The depth of the olfactory sulcus in the UHR-P subjects was negatively correlated with the severity of negative symptoms. These findings suggest that altered depth of the olfactory sulcus, which exists before psychosis onset, could be predictive of transition to psychosis.
Predictors of treatment resistant schizophrenia-spectrum disorder: 10-year retrospective study of first-episode psychosis

Sherry Kit Wa Chan, Wing Yan Chan, Christy Lai Ming Hui, Wing Chung Chang, Edwin Ho Ming Lee, Eric Yu Hai Chen

Department of Psychiatry, The University of Hong Kong, Hong Kong

Background: Schizophrenia is a serious mental illness that affects approximately 1% of the general population. While pharmacological treatment has been the main intervention for patients, evidence has suggested that around 20–30% of patients do not respond to antipsychotic medication and are considered as treatment resistant. The present study aimed to explore the prevalence and patterns of treatment resistant schizophrenia, and predictive factors associated with its development.

Methods: Seven hundred patients with first-episode psychosis (Mage: 34.92, SD: 3.74) presented to the Early Intervention Service in Hong Kong from January 1998 August 2003 were studied. Socio-demographics, durations, untreated psychosis, age of first presentation and medication history were collected via systematic medical file review. Treatment resistant status was defined as ever been treated with Clozapine.

Results: Of all 700 patients studied, 69 (9.9%) are treatment resistant. Of the 69 patients, 2 (0.3%) were recorded dead. Logistic regression analysis revealed that age of first presentation (p < 0.001), number of relapse during the first three years (p < 0.001) and duration of atypical antipsychotics prescription over the initial three years (p < 0.05) reliably predicted clozapine status.

Conclusion: The preliminary results showed that younger age of first onset, more number of relapse and longer duration of atypical antipsychotics prescription over the initial three years are associated with increased risk of developing treatment-resistant. These suggested the contribution of both neurodevelopmental and neurodegenerative factors. Further studies should focus on detail understanding of the role of these factors in the longitudinal progression of the illness.

A systematic review of international guidelines for the pharmacological treatment of first episode schizophrenia

Dolores Keating,¹ Stephen McWilliams,¹ Grainne Cousins,² Judith Stravbidge,³ Mary Clarke⁴

¹Saint John of God Hospital, Stillorgan, ²Royal College of Surgeons in Ireland, ³DETECT, Early Intervention for Psychosis Services, Blackrock, Co Dublin, Ireland

The National Clinical Programme for Mental Health in Ireland is charged with implementing a programme plan for early intervention in psychosis. Key to the recommendations will be an evidence based guideline for the pharmacological treatment of first episode schizophrenia. Recent evidence from large pragmatic trials has changed opinions regarding the appropriate choice of medication and several guidelines have been written internationally to inform treatment choice. The National Clinical Effectiveness Committee (NCEC) has recommended the ADAPTE process of guideline development for groups wishing to develop treatment guidelines for the Irish setting. In this poster we present the first stage of the ADAPTE process, a systematic review of current treatment guidelines for first episode schizophrenia using the AGREE criteria and a comparison of recommendations.

Non-alcoholic liver disease on first episode psychosis patients receiving antipsychotic medication

Evangelia – Lila Amiri, Najma Ahmed

McGill University, Canada

Second Generation Antipsychotic (SGA) medication is used to treat First Episode Psychosis (FEP) in children and adolescents but can affect metabolism and cause weight gain. There is data to suggest that Non-Alcoholic Fatty Liver Disease (NAFLD) develops as a result of insulin resistance and obesity. The aim of this pilot study is to gather data on development of NAFLD in children and adolescents with FEP that are treated with SGA medication. Out of 20 participants that were recruited from the FEP program of the Montreal Children’s Hospital, 7 completed the 6-month follow-up metabolic work-up (lipid profile, fasting glucose, fasting insulin, liver enzymes, alkaline phosphatase, bilirubin and GGT) as well as anthropometric data including BMI and waist circumference. Every patient has a liver ultrasound at baseline and at 6 months.

Results: Non-alcoholic fatty liver deposits did not show significant change from baseline to 6 months. Weight, cholesterol and fasting insulin showed a significant increase and total cholesterol and BMI showed a near significant increase as well. Neither weight nor BMI changed with increase of SGA medication over time. Higher dose of medication at baseline or at 6 months was associated with higher ALT, triglycerides and waist circumference. This is, to our knowledge, the first study to evaluate potential risk factors for development of NAFLD in children and adolescents receiving SGA medication for FEP. Our data suggests that SGA medication appears to increase measures associated with metabolic syndrome. Appropriate monitoring for all children and adolescents receiving SGA medication is strongly recommended.

Quetiapine in bipolar depression

Neeraj Gupta, Babita Gupta

Chetan Clinic, Moradabad, IN

100 patients diagnosed bipolar type 2 on DSM IV were included serially in the study and were put on quetiapine alone or with divalproex sodium/lamotrigine/lithium/SSRI. They were followed for three months at fortnightly interval and were rated on BPRS and youngsmania rating scale. More than 80% patients showed complete recovery. 70% of these patients were followed for the further six months and more than 85% of these patients continued to show complete recovery.

Antipsychotic associated metabolic syndrome: clinical course and vulnerability factors

Rohit Lodhi,¹ Leslie Roper,² Brett Granger,² Carol Bolt,² Adrian Heald,¹ Katherine Atchison,¹,2,4 Scott Purdon²,3,4

¹Department of Psychiatry, University of Alberta, ²Edmonton Early Intervention Clinic, ³Department of Medical Genetics, ⁴University of Alberta, ⁵Neuropsychology, Alberta Hospital Edmonton, Canada, ⁶University of Manchester, UK

Introduction: Metabolic syndrome can be a major side effect of antipsychotic medications. Medication concordance, quality of life and self esteem of patients may be affected by aspects of the metabolic syndrome. Several genes have been associated with aspects of the metabolic syndrome, including HTR2C, LEP, LEPR, DRD2, TNF, SNAP-25 and MC4R.

Methods: Patients with first episode psychosis (mean age approximately 20 years) received prospective monitoring for metabolic dysfunction as part of good clinical practice: weight gain, fasting glucose and lipid profile, blood pressure, and waist circumference were recorded at intake and at 9, 27, 53 and 104 weeks. We intend to seek consent from patients to investigate biomarkers conferring vulnerability to metabolic dysfunction.

Results: The proportion of patients with dysglycemia was relatively low (less than 5%); however, the proportion with dyslipidemia was high (over 40% had elevated cholesterol at one year follow-up). In work conducted in parallel with other collaborators, we have shown an association between weight gain on treatment with an antipsychotic and a mutation in the leptin receptor gene (LEPR). We will be seeking to replicate and extend this finding to other relevant biomarkers.

Discussion: By one year, the percentage with dyslipidemia is concerning. This has implications for early provision of appropriate healthy lifestyle interventions. The availability of replicated biomarkers would have significant public health implications.

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A61  Kyurenine pathway in patients with psychosis a meta-analysis of in vivo studies

Flavia Napoletano,1,2 Simone Ciufolini,1 Carmen Pariante,1 Valeria Mondelli,2 Paola Dazzan1

1King’s College London, Institute of Psychiatry, Department of Psychosis Studies, London, UK, 2NEMOS Department (Neuroscience, Mental Health, and Sensory Organs), Sapienza University, School of Medicine and Psychology, Sant Andrea Hospital, Rome, Italy, King’s College London, Institute of Psychiatry, Department of Psychological Medicine, London, UK

Introduction: In line with the hypothesis of glutamatergic hypofunction in psychosis, post-mortem studies show an increased concentration of kynurenic acid (KYNA), and of its direct precursor, kynurenine (KYN), in brain tissues of patients with schizophrenia. However, in vivo studies yield conflicting results; furthermore, it remains unclear if antipsychotic treatment (APs) affects the levels of these molecules. In order to clarify these issues we completed a meta-analysis of existing studies.

Methods: A literature search in PubMed was performed. Out of 48 studies involving human subjects, 9 provided sufficient information for the meta-analysis. Three measured KYNA concentration in Cerebrospinal Fluid (CSF) in patients with schizophrenia and healthy controls (HC), 3 evaluated CSF KYNA level in drug-naïve patients and individuals treated with APs and 3 quantified plasmatic KYN concentration in patients with psychosis and HC.

Results: Individuals with schizophrenia showed a higher level of KYNA in CSF compared with HC (g = 0.61 95% CI 0.32, 0.89; p < 0.001 heterogeneity chi2 = 2.05 p = 0.36), while there was no difference in plasmatic KYN concentration between individuals with and without psychosis (g = −0.96 95% CI: −2.73, 0.77; p = 0.27; heterogeneity chi2 = 90.62 p = 0.00). No significant difference in CSF KYNA levels was found in drug-naïve patients when compared with individuals treated with APs (g = −1.23 95% CI: −3.22, 0.75; p = 0.22; heterogeneity chi2 = 23.62 p = 0.00).

Conclusions: Notwithstanding the small number of studies, these findings point to an alteration of the kyurenine pathway in psychosis, in line with the hypothesis that an excess of KYNA, by reducing the activity of the NMDAR, may play a role in the pathogenesis of schizophrenia.

A62  Embracing uncertainty – the role played by belief flexibility and reasoning style in responding adaptively to psychosis-like experiences

Thomas Ward, Emmanuelle Peters, Thomas Jamieson-Craig, Fern Day, Philippa A Garety

Institute of Psychiatry, King’s College London, UK

Introduction: Belief inflexibility and reasoning biases have been shown to play a key role in clinical psychosis (e.g. Garety et al., 2005; So et al., 2012). Comparing individuals with clinical psychosis with those who report persistent anomalous experiences (AE) of a psychotic nature with no need for care offers a unique opportunity to differentiate those factors that are linked to clinical disorder from those associated with benign AE.

Method: Data from the UNIQUE study will be presented- two groups of individuals with persistent anomalous experiences with and without need for care (Clinical vs. Non-Clinical; n = 80 per group) will be compared on (a) Belief Flexibility items of the Maudsley Assessment of Delusions (Wessely et al., 1993), and (b) jumping to conclusions (JTC) data-gathering bias (Beatt task; Garety et al., 1991). A randomly selected subset of semi-structured interviews (n = 28 per group) will be analysed to explore differences in specific reasoning processes.

Results: It is predicted that the NC group will be more likely to demonstrate belief flexibility when reasoning about their own psychotic experiences (and a control belief). It is further predicted that the C group will be more likely to show JTC bias and that JTC will be associated with belief inflexibility. Finally it is predicted that NC group will score higher on ratio- nal (Epstein, 1994) reasoning processes.

Discussion: Implications for our understanding of the transition to need for care will be considered. The theoretical relevance of dual-process theories to understanding the psychosis continuum will be discussed.

A63  Use of technological tools, internet, social media, video games among first episode of psychosis youth

Amal Abdel-Baki,1,2 Olivier D-Charron,3 Niela Meizghani,1,4 Nadja Kara4
1Centre Hospitalier Université de Montréal (CHUM), 2Université de Montréal, 3Centre de recherche du CHUM, 4Ecole de technologie supérieure, Montréal, Canada

Introduction: Computers, video games and technological devices are part of youth everyday life. However their use in a first episode psychosis (FEP) treatment is rare although they could be used for different aspects (attractive cognitive remediation video games, web based psychoeducation tools, social media on mental health, etc). Knowing the technological tools utilisation of FEP individuals is essential for the development of such applications. No study was published on this topic.

Objective: To describe FEP patients use of technological tools.

Methods: Self-administered computer or pen and paper survey on 71 individuals recruited from a FEP service, Montréal, Canada, summer 2012.

Results: 74.6% of participants were male. 78.8% aged 17–29 years old. 47.9% completed high school. PCs/laptops have been used by every participant; cellphones/smartphones by 92% and are used more frequently by women as well as the 25–29 years old group. Consoles were used by 83%, mainly men; 30% used them frequently. 68% use those technological tools mainly at home. 44% of those who do not own one, say it is not affordable for them. The more frequently used apps are phone and internet. Women seem to text and use social networks more frequently; men play games (mainly action gaming) more often. The young ones play games more frequently but use less web and social networks (facebook is the favourite). 30% never used games, 32% play daily.

Conclusions: FEP expressed interest in using technology to exchange mental health information (social media, web-based psychoeducation) or cognitive remediation.

A64  Improving mental health literacy in the early phase of psychosis with digital phone applications

Kevin Madigan,1,2 Noel Kehoe,1 Mary Clarke1,3
1DETECT Early Intervention in Psychosis Service, 2Royal College of Surgeons in Ireland, 3University College Dublin, Ireland

Background: Access to high quality information on psychosis is imperative to enable the understanding of the nature, likely course and available treatments for psychosis for patients and carers. Such information is closely correlated with better outcomes. Health literacy refers to the level of ability to access, process and utilise valid health information, follow appropriate treatment regimes and make informed health related decisions. Much information on the early course of psychosis exists on the internet. In 2014 worldwide sales of mobile digital devices are expected to quadruple those of PCs.

Aims: The purpose of this study has been to compare downloads of a brochure type app specific to early psychosis with web downloads of a website with the same information.

Method: The website www.detect.ie which contains information specific to early phase psychosis and targeted at persons with first episode/early psychosis, carers and general practitioners was developed into a digital application by a mental health service user, apps developer.

Results: A comparison of the downloads from the app vs. website for the period November 1st 2013 until February 1st 2014 using web analytics demonstrated 1193 (16.83%) website downloads vs. 5894 (84.17%) app downloads.
**Implications:** High quality information on the early phase of psychosis is being accessed in greater numbers through digital applications than traditional websites.

**A65**

**The Prize is Right: a low-cost incentive intervention for first episode psychosis patients**

Nicole Mehdiyoun, Emily Lifick, Ashley Overley, EmmaLee Metzler, David Spradley, Alan Breier

Indiana University Psychotic Disorders Program, IN, USA

Appointment non-adherence (no-shows) is common in mental health settings and may lead to symptom exacerbation and poor prognosis in patients diagnosed with schizophrenia spectrum disorders. Additionally, lost revenue and staff productivity reduces the financial solvency of clinics and the continued ability to provide services when no-show rates are high. Contingency management (CM) programs, interventions that apply operant conditioning principles to specific behaviors for positive reinforcement with the goal of promoting a clearly defined behavior, have been most widely studied in substance abuse treatment. Incentives for attending medical management appointments were offered to first episode psychosis (FEP) patients in a CM program termed The Prize is Right. Upon attending each appointment, patients drew a ticket with a 50% probability that a ticket resulted in a prize. For individuals who did not win a prize, a small piece of candy was offered. Prizes were offered in multiple sizes: Small (worth approximately ($1), Medium ($5), Large ($20), and Super ($50) with the chances of winning a specific prize inversely related to its cost. It was anticipated that The Prize is Right would provide a relatively low-cost approach to improving no-show rates in our clinic. Within the first two months, CM decreased the no-show rate (26.5% vs 32%). Data at six months will be presented. These findings suggest contingency management using incentives may be an affordable option to increase treatment adherence, which may improve the long-term functional and recovery outcomes in FEP.

**Results:** Twelve major stakeholders from 6 EIPS based in England were interviewed in 2014. Findings generally reflected that comprehensive family genograms and histories were not routinely gathered or accessed post admission to EIPS, the focus being on a named carer (mostly a parent). Recruitment routes used to approach siblings were indirect: clinicians to service users; service users to parent or siblings, due to lack of any database. Other challenges identified were: concerns and confusion over confidentiality and consent required; uncertainty about whether siblings could be approached for research purposes; clinicians attitude towards siblings and competing clinical demands such as caseload and administrative tasks. We propose some strategies to enhance future research involving family members/carer.

**A66**

**Making connections with families how inclusive are England EIPS?**

Jacqueline Sin, Claire Henderson, Mike Booker, Ian Norman, Catherine Gamble

1King’s College London, Florence Nightingale School of Nursing & Midwifery, 2King’s College London, Institute of Psychiatry, 3Central and North West London NHS Foundation Trust, 4South West London and St George’s Mental Health NHS Trust, London, UK

**Objectives/background:** Family Intervention is a prominent feature of Early Intervention in Psychosis Services (EIPS) (1) and now alongside their parents, siblings of young people accessing EIPS are being recognised as pivotal in promoting recovery (2,3). EIPS are active in research, yet the majority (over 90%) of the studies, recruit service users, followed by staff working in EIPS. Family members remain a minority with siblings a largely neglected study group. This study set out to investigate how EIPS approach FEP siblings in research activities.

**Design/methods:** As a process evaluation of the E Sibling Project RCT that targeted siblings, a qualitative study inviting major stakeholders such as Principal Investigators (PI), clinicians, and Clinical Studies Officers (CSOs) who had been involved in the recruitment of siblings was undertaken (4).

**A67**

**Helping parents and families differentiate between psychosis effects and developmental stages**

Andrew Wake, Hamish Alker-Jones

1North East Child and Adolescent Mental Health Service – AWH, 2Royal Australian and New Zealand College of Psychiatrists, 3Australian College of Nurse Practitioners, 4Mental Health Drug and Alcohol Nurse Practitioner Collaborative of Victoria, Australia

This talk will provide discussion around how parents and families who had a young adult receiving treatment from the Early Psychois Service differentiate between psychosis symptoms and behaviours, and the more typical symptoms and behaviours of the angry, sad, worried, lonely, isolated, angst ridden, developmentally delayed young adult. This exploration of case studies underlines that working with parents and families is a powerful tool (one of our few) to create change. Employing a structured approach that follows a predictable path is helpful for all parties involved and maximises the collaborative relationship. The understanding of their child’s (as a young adult) needs as it relates to their mental health disorder as the foundation for an alliance and further work. Consideration related to the loss and grief that parents/families expressed for their child who were now grappling with their new and unwanted role as carer on a journey that had no definite end point. The benefit in being able to support this family system during significant change provided the impetus for the consideration of a greater emphasis on “family friendly” services. The need for flexible deployment of limited resources in the rural clinical context and how to get “best bang for your buck” when tailoring such an intervention will also be explored.

**A68**

**A specific 6 session approach to parent work**

Andrew Wake, Hamish Alker-Jones

1North East Child and Adolescent Mental Health Service – AWH, 2Royal Australian and New Zealand College of Psychiatrists, 3Australian College of Nurse Practitioners, Australia

This talk will explore the specific parent work approach that focused on the developmental needs of the young adult that are still present, though impacted on by the psychosis. Drawing on explanatory models such as the triune brain, attachment theory, grief work, existential ideas, understanding disappointment and hate, and Maslow’s hierarchy. This approach has encouraged clinicians to be more confident in their work when engaging families and parents and allows the navigation around barriers of communication that may unwittingly increase expressed emotion.

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A69 The relationship between neurocognition, social cognition and vocational engagement in first-episode psychosis

Kelly Allott,1,2 Susan Cotton,1,2 Eoin Killackey1,2
1Orygen Youth Health Research Centre, 2Centre for Youth Mental Health, The University of Melbourne, Australia

Impaired neurocognition and social cognition are common features of psychosis and are associated with poorer socio-vocational functioning in chronic populations. The relationship between cognition and functioning in first-episode psychosis (FEP) is unclear and it is unknown whether engagement in employment and education may positively influence cognitive functioning. The aims of this study are to examine: (i) whether baseline neurocognition and social cognition predict 6, and 18-month vocational outcomes; and (ii) the impact of IPS and vocational engagement on 18-month neurocognitive and social cognitive functioning in FEP. 135 FEP participants (IPS n = 69; TAU n = 66) completed a comprehensive neurocognitive and social cognitive battery at baseline and 18-months and education and employment engagement measures at 6 and 18-months. Six cognitive factors were extracted using factor analysis: (i) social cognition; (ii) information processing speed; (iii) verbal learning and memory; (iv) attention and working memory; (v) visual organisation and memory; and (vi) verbal comprehension. Enrolment in education over 6 months was predicted by baseline education (p = 0.002) and poorer visual organisation and memory (p = 0.024). Employment over 6 months was predicted by baseline employment (p = 0.041) and receiving IPS (p = 0.020). Better visual organisation and memory predicted total hours of paid work over 6 months (p < 0.001). Predictors of vocational engagement at 12 and 18 months will also be reported. Furthermore, group allocation (IPS/TAU) and days employed over 18-months will be examined as predictors of neurocognitive and social cognitive functioning at 18-months. Vocational outcomes may be enhanced by addressing cognitive functioning in young people with FEP.

A70 The relationship between vocational functioning and quality of life in patients with first episode psychosis

Susan Cotton,1,2 Kelly Allott,1,2 Gina Chinnery,1 Henry Jackson,4 Eoin Killackey1,2
1Orygen Youth Health Research Centre, 2Centre for Youth Mental Health, The University of Melbourne, 3Orygen Youth Health Clinical Program, 4School of Psychological Sciences, The University of Melbourne, Australia

Poor vocational functioning is common in young people with first episode psychosis (FEP); the prevalence of unemployment and disengagement from academic studies is very high. The overall purpose of this paper is to delineate the relationship between vocational functioning and quality of life (QoL) in a large group of FEP patients who were participating in a randomised controlled trial (RCT) of Individual Placement Support (IPS). Specific aims were to: (i) determine whether participation in the IPS had an impact on QoL at 6 months, 12 months and 18 months post intervention; (ii) whether employment/studying status at 6 months months and 18 months also related to QoL at these time points. There were a total of 146 FEP participants who were randomised to receive either 6 months of IPS plus treatment as usual (TAU) or TAU (n = 73 in both groups). QoL was assessed using the World Health Organisation Quality of Life- BREF Scale (WHOQoL); overall QoL as well as four domains of QoL (physical, psychological, social, environment) were examined. Preliminary statistical analyses depict fluctuation in QoL over time, and the extent to which QoL fluctuates across time in the IPS and TAU groups. The relationship between QoL and vocational engagement over the three time points is examined. A conceptual model regarding the relationship between vocational functioning and QoL will be discussed.

A71 A collaborative approach to risk – Primary prevention of self-harm and suicide in first episode psychosis

Alan Farmer, Matt Lammas, Conor Campbell
Early Intervention Services, Worcestershire NHS Health and Care Trust, UK

We examined the routine use of a comprehensive risk assessment and management process (STORM) for people with first episode psychosis (FEP) who present with urges or attempts towards self-harm and/or suicide. We consider the reaction of staff and patients to this process and the concern that it may effect engagement and professional relationships.

Studies suggest that 18.4% of people with FEP have self-harmed prior to treatment, 9.8% self harmed during a period of untreated psychosis and 11.4% went on to self-harm during treatment for FEP STORM (Skills based Training On Risk) began as a research project at the University of Manchester in the mid-1990s in response to the need for skills-based self-harm risk assessment and management training. The STORM model increases skills, improves attitudes to self-harm mitigation, and confidence in assessing risk and safety planning. Most staff from the Worcestershire Early intervention Services are trained in this process. All trained staff completed a structured questionnaire (User Experience Questionnaire) about their attitudes towards the process together with supplementary questions covering any effect on engagement or professional relationships. Young people who had been through the STORM process were also invited to anonymously give their feedback. We found that the use of this comprehensive assessment and management process for suicide/self-harm is acceptable to staff and patients. Preventative and empowering work around protective factors and responsibility were particularly useful and contributed to engagement with health professionals and recovery-based support plans.

A72 Training community clinicians in the use of CBT for psychosis within an early intervention in psychosis service

Kate Hardy,1 Jessica Hu,1 Christopher Smith,2 Carisse Cronquist,2 Shobha Pairs,2 Erka Van Buren,3 Bob Bennett,4 Marta Rose,4 Will Chapman,4 Rachel Loey1
1University of California, San Francisco, 2Felton Institute, 3First Place for Youth, 4East Bay Community Recovery Project, USA

CBT for psychosis (CBTp) has a growing evidence base and has been widely recommended as a treatment, adjunctive to medication management, for individuals experiencing psychosis (Dixon et al., 2010; National Institute of Clinical Excellence, 2014) and those receiving early psychosis care (Bertolote and McGorry, 2005). The majority of the data for this evidence base comes from research conducted in academic settings with doctoral-level clinicians trained, and adhering to, a manualized protocol. While useful in terms of developing a strong evidence-base, this approach may not represent the experience of the ‘real world’ clinician attempting to learn this technique and apply it to their diverse community caseload. Research on the implementation and dissemination of CBTp can help to translate this intervention to community-based settings. We have adapted a manualized CBTp approach for community clinicians and provided training and fidelity-monitoring as part of a wider mandatory training in several evidence-based practices. These clinicians work within PRIP (Prevention and Recovery in Early Psychosis), an early intervention in psychosis service operating in five counties in Northern California. Community clinicians, from a variety of training backgrounds, participated in an initial didactic training series followed by weekly group supervision and monthly tape review to ensure delivery of CBTp to competence. Data on clinician outcomes will be presented, including number of audio tapes reviewed in order to meet competence criteria and clinician characteristics as predictors of achieving competence. In addition, pilot data on client outcomes, including symptom and distress reduction and changes in functioning will also be summarized.
A73
The relations of duration of untreated illness and quality of life with parents’ stigma in child and adolescent psychiatry
Takahiko Inagaki,1 Takao Nakabayashi,2 Ayaka Tamura,2 Satomi Marukawa,2 Tsunehiko Tanaka,1 Fumi Masuda,1 Riku Sanada,1 Naoto Yamada1
1Department of Community Psychiatric Medicine, Shiga University of Medical Science, 2Department of Psychiatry, Shiga University of Medical Science, 3Japanese Red Cross Society Nagahama Hospital, Japan

Introduction: Early intervention for mental disorders in Child and Adolescent Psychiatry (CAP) is of the greatest importance. In Japan, all youngsters come to us with their parents. Therefore, in order to shorten the duration of untreated illness (DUI) and to intervene before further aggravation, we consider it important to reduce the stigma of parents. We investigated the relations of DUI and Quality of Life (QOL) with parents’ stigma.

Method: Starting January, 2014, we measured DUI and QOL (by Peds QLTM) of all our new patients (from 10 to 18 years old), and stigma of their parents with the Devaluation-Discrimination Scale (DDS).

Result: By April 18, 2014, 43 patients were evaluated. Three cases were excluded from analysis because they were diagnosed as developmental disorder and their DUIs were much longer than other cases. In the 40 cases, the mean of DUI was 17.4 months (SD = 20.4). The mean of DDS was 31.0 (SD = 4.49). The mean of Peds QLTM was 59.1% (SD = 17.1). The correlation between DUI and DDS was not significant. But DDS showed moderate negative correlation with Peds QLTM (r = -0.43).

Discussion: Against our expectations, DDS did not show correlation with DUI. In our investigation DUI was abnormally long as compared with past reports. The tendency may be different from other countries in Japan. But, as we expected, DDS showed negative correlation with QOL at initial diagnosis. To intervene with the children before aggravation, it is important to reduce stigma of parents.

A74
What do we know about homelessness in first episode psychosis?
Isabelle-Sarah Abdel-Baki,1,2,3 Amal Abdel-Baki1,2,3
1Centre Hospitalier Université de Montréal (CHUM), 2Université de Montréal, 3Centre de recherche du CHUM, Canada

Background: Psychosis increases the risk of homelessness, which increases mental and physical morbidity and mortality. Risk is increased in youth.

Objective: To determine homelessness prevalence, factors associated with its persistence and its impact on outcome in early psychosis individuals.

Method: Systematic literature review on impact of homelessness on early psychosis outcome using electronic database (Pubmed, Psych Info, etc.) and manual search.

Results: Up to 29% of homeless youth suffer from psychosis and 5–20% of FEP youth have experienced homelessness. No data was found on its impact on outcome or on factors associated with homelessness in psychosis youth. However in older psychotic individuals, male gender, younger age, limited social support, criminality, substance misuse are. Of homeless individuals with mental disorder, only 45% are using services (less in youth). They are more likely to use emergency and hospitalisation than ambulatory services (which are less offered to them). Homeless FEP youth are at increased risk of suicide and homicide. In the general homeless population, childhood abuse and placements are more frequent. Younger age at first homelessness episode, substance misuse, legal problems, absence of psychiatric follow-up, unemployment and absence of source of income are associated with homelessness persistence.

Conclusion: Homelessness is a serious and frequent problem among FEP youth. Data among homelessness in first episode psychosis (FEP) is sparse. Studies documenting factors associated with homelessness and its persistence and studies on interventions focusing on potentially modifiable factors such as substance use disorders need to be studied in this population.

A75
Comprehensive early intervention for patients with first-episode psychosis in Japan (J-CAP): nine-month follow-up of randomized controlled trial
Shuntaro Ando,1 Atsushi Nishida,1 Shinshuke Koike,2 Syudo Yamasaki,1 Sanae Maegawa,1 Kayo Ichihashi,1 Yoshiki Kishi,1 Nozomu Asukai,1 Kyoto Kasi,1 Yuji Okazaki2
1Tokyo Metropolitan Institute of Medical Science, 2University of Tokyo, 3Mie Psychiatric Mental Care Center, 4Hinaga General Center for Mental Care and Sagasawa Clinic, 5Okayama Psychiatric Medical Center, 6Tokyo Metropolitan Matsuwasu Hospital, Japan

Although several studies have shown the effectiveness of multidisciplinary team intervention for first episode psychosis (FEP), such intervention has not been well developed in Japan. We hypothesized that multidisciplinary team intervention for first-episode psychosis in Japan was effective in reducing disengagement from treatment over 9 months period. Eligible patients were randomly allocated to two intervention groups: the control group received a medication adherence program, and the intervention group received a comprehensive approach care. The comprehensive approach care included individualized medical care, individualized psychiatric care, family intervention, vocational rehabilitation, and interventional mental care. The results showed significant improvement in medication adherence and clinical symptoms.

A76
Job/education coaching in young adults with mental health needs: users and staff’s evaluations
Maryse Badan Bâ, Manuel Tettamanti, Sérèvère Bessero, Logos Curtis
University Hospitals of Geneva, Switzerland

The Individual Placement and Support model (IPS, Becker & Drake, 1993) has been adapted and implemented in the Young Adult Psychiatric Unit (CAP) in Geneva. Due to the young age of users and to their motivation to reintegrate educational training, we expanded our model in order to be able to elaborate either professional or educational projects as needed with individual users. Both aspects employment support and educational projects – require from coaches specific skills, flexibility and the attention to motivate and drive the candidate to successful accomplishment. To evaluate the adequacy of job/education coaching in our unit, we submitted 34 users and 19 care givers/coaches to satisfaction questionnaires (5 point Likert scales). The results indicate that users and practitioners are globally satisfied and the job/coaching program: 82% of users report they are satisfied by the job coach’s intervention and 76% would recommend such support to other patients. Furthermore, 29% of users said that before meeting the job/education coach, they were unable to find a job on their own and 61% reported improving their skills thanks to their coach. Thus, to progressively increase the patients ability to independently find a job, we would propose formal feedback sessions where users could explain what they learned, and the benefits of coach advice and employers observations. This feedback can also be used to suggest modifications of the mental health care habits in our unit to respond more specifically to the patients needs.
A78  A group cognitive behavioral intervention for people registered in supported employment programs: CBT-SE

Marc Corbiere, 1 Tania Lecomte, 2 Paul Lysaker 3
1University of Sherbrooke, 2University of Montreal, Quebec, Canada, 3Indiana University, Indianapolis, USA

Supported employment (SE) programs are highly effective in helping people with severe mental illness obtain competitive jobs. However, job tenure is often brief. Among obstacles, dysfunctional beliefs regarding the workplace and one’s own abilities have been identified.

Objectives: The purpose is twofold: (1) to present the feasibility and acceptability of the intervention; (2) to investigate preliminary work outcomes.

Methods: A group CBT intervention of 8 sessions (1 month) was tailored to facilitate the learning of CBT skills specific to the workplace. A sub-sample of the first 24 participants (11 of were individuals with early psychosis) having completed the 12 month follow-up is presented, with 12 having received CBT-SE and 12 the SE program only.

Results: Therapists and participants all mentioned finding the group useful and helpful. The only negative feedback was related to the frequency of the meetings (many would prefer one 2-hour session per week instead of two 1-hour sessions). Participants attended on average 6/8 sessions. 50% of participants in both conditions obtained competitive work. The number of participants working more than 24 hours per week at the 12 month follow-up was higher in the CBT-SE group (75% vs 50%) and 60% in the SE condition (75% vs 50%).

Discussion: Preliminary data suggest that the CBT-SE intervention might help participants use skills and gain the needed confidence enabling them to sustain their employment.

A79  How to care for the homeless intensive community care team dedicated to homeless youth with psychosis

Amal Doré-Gauthier, 1,2,3 Virginie Doré-Gauthier, 1,2,3 Clairelaine Ouellet-Plamondon, 1,2,3 Didier Justras-Aswad 1,2,3
1Centre Hospitalier Université de Montréal (CHUM), 2Université de Montréal, 3Centre de recherche du CHUM, Montréal, QC, Canada

Background: Homelessness carries an increased risk of developing severe mental disorders and conversely psychosis is associated with homelessness. In Montreal, approximately 15% of homeless people suffer from psychosis. The young ones are even more at risk. It hits them at a crucial time of their development while they should consolidate their personality and life choices. This population’s life conditions make it more difficult for mental health teams to engage them in treatment. In 2012, an intensive community care team (EQUIP SOL) was set-up to adress the specific needs of young homeless adults (YHA) suffering from psychosis.

Objectives: To determine functional and symptomatic outcome of YHA suffering from early psychosis and treated by a specialized assertive outreach community care team in Montreal Canada.

Method: Prospective longitudinal study of the impact of the addition of an assertive outreach team to a specialized early psychosis intervention clinic. Symptomatic (eg. PANSS, CDS, CGI) and functional outcome (eg. GAF, SOFAS, QOLI) as well as service utilization data has been collected at 3, 6 and 18 months.

Results: About 50 young adults have enrolled in the project EQUIP SOL. The preliminary data on demographic, symptomatic and functional evolution of this sample will be discussed as well as challenges in implantation of such a team.

Conclusion: YHA psychotic patients can be helped by a specialized team offering intensive integrated treatment in the community, which increases accessibility of mental health services and its effectiveness. Further research is warranted to compare this treatment team to treatments already available.

A80  Detection and early intervention to target social recovery in early psychosis and at risk mental states: the PRODIGY and SUPEREDEN3 trials

David Fowler
Sussex University, UK

Background: Early intervention services have made a step change in the outcome of young people with first psychotic episodes. The earliest improvements are in the area of improving social outcomes. However, further improvements are needed in both detection and prevention of social disability in the early stages of severe mental illness, and in intervening to target residual social disability once it has emerged.

Method: In the SUPEREDEN3 trial we are undertaking a definitive trial of a further development of cognitive-behavioural intervention for social disability, recruiting participant who still show severe social disability despite receiving early intervention services. In the PRODIGY trial our approach to identifying high risk cases focuses primarily on adolescents and young people who are showing lifestyle patterns of extreme low activity and who have at risk mental state or associated severe mental illness symptoms. Our therapy is then addressed at improving social recovery as well as managing symptoms.

Results: We have recruited 150 cases to SUPEREDEN3 and this paper will describe the nature of this client group which highlights the range of syndromes which contribute to persisting and delayed social recovery. In PRODIGY we have recruited over 100 participants. Here we describe the nature of presenting cases which include both at risk mental state presentations of different types.

Discussion: This trial will provide a clear basis on which to develop novel detection and early intervention strategies in youth mental health services to prevent persistence of social disability and severe mental illness from its emergence in adolescence.

A81  A randomised controlled trial of moderated online social therapy for carers of first-episode psychosis clients

John Gleeson, 1 Mario Alvarez-Jimenez, 2,3 Reeva Lederman, 4 Helen Hermann, 2,3 Sarah Bendall, 2,3 Sue Cotton 2,3
1School of Psychology, Australian Catholic University, 2Oxygen Youth Health Research Centre, 3Centre for Youth Mental Health, The University of Melbourne, 4Department of Computer Science and Information Systems, The University of Melbourne, Australia

Family members caring for a young relative with a first episode of psychosis face high levels of chronic stress. Surprisingly, the benefits of novel online interventions to alleviate this impact have rarely been evaluated for this population despite known problems with access to effective family interventions. In order to address this gap we developed a world-first online moderated online social therapy for carers entitled Altitudes which integrates online psychoeducation, expert moderated social networking, and peer moderation within a single web-based application. Altitudes was designed to encourage emotional support between carers and to facilitate problem solving related to caring for a young person recovering from early psychosis. We sought to test whether the benefits of face-to-face family interventions for reducing stress in first-episode carers can be achieved through Altitudes. The primary hypothesis is that carers randomised to Altitudes will experience significantly less stress at 12 months follow up compared with carers randomised to specialist family treatment as usual (STAU). The trial includes three assessment time points namely, baseline, 6 months, and 12 months follow up. Participants are carers who are residing with a young person (age 15-25 years inclusive) within the first 12 months of treatment at EPPIC in Melbourne. We present the trial design and method, showcase the online application, present qualitative feedback from carers on the application, and report on the trial progress. The application shows promise in terms of acceptability and usability for carers seeking an accessible source of psychoeducation and support from other carers and from early psychosis clinicians.
Feasibility and effectiveness of CBT for individuals at ultra-high risk of psychosis: a pilot study

Yumiko Hamaie,1,2 Emi Sunakawa,3 Noriyuki Ohmuro,4 Masahiro Katsura,1 Chika Obara,1 Tatsuo Kikuchi,1 Hiroo Matsuoka,1,2 Michio Suzuki,1 Masafumi Mizuno,1 Kazunori Matsumoto,1,2
1Toho University Hospital, 2Tohoku University Graduate School of Medicine, 3University of Toyoama Graduate School of Medicine and Pharmaceutical Sciences, 4Toho University School of Medicine, Japan

Background: The importance of psychological intervention for individuals with at-risk mental state (ARMS) has been globally acknowledged, and the effectiveness of cognitive behavioral therapy (CBT) indicated. However, since CBT is inadequately understood and not prevalent in ordinal clinical settings in Japan, the development of a system to provide CBT for ARMS is required. We present a research protocol for an open-label pilot study designed to explore the feasibility of CBT for ARMS in Japan.

Methods: We plan to develop treatment guidelines based on French and Morrison's manual (2004) and organize a workshop to train therapists. Fifteen individuals with ARMS will be recruited from 4 university hospitals, most of which have an ARMS service. CBT will be provided by trained therapists in addition to standard psychiatric treatment, and limited to a maximum of 25 sessions over 6 months. All CBT sessions will be recorded and a sample of the audio data rated with the Cognitive Therapy Scale-Revised (CTS-R). Therapy supervision will be periodically provided. The main outcome will be measured using the Positive and Negative Syndrome Scale. Participants will be monitored at 3, 6, and 12 months following initial assessment.

Results and discussion: If successful, this model could be extended to other specialized services in Japan: aim to examine it further using a more rigorous multi-site study. Development of a training and supervision system for therapists and securement of the financial resources to employ them seem critically important for the dissemination of a CBT-based approach for ARMS in Japan.

Feasibility and effectiveness of cognitive behavioral therapy for Japanese patients at ultra-high risk for psychosis: a pilot study

Naomi Inoue,1 Naohisa Tsujino,1 Miki Tobe,1 Kazunori Matsumoto,2 Takahiro Nemoto,1 Masafumi Mizuno1
1Toho University School of Medicine, 2Tohoku University Graduate School of Medicine, Japan

Introduction: Despite evidence supporting the efficacy and safety of Cognitive Behavioral Therapy (CBT) for individuals at ultra-high risk (UHR) of developing psychosis, few Japanese CHR patients to date have received this therapy. This study aimed to evaluate the feasibility of CBT for UHR individuals in a Japanese psychiatric outpatient setting and assess potential effectiveness of CBT.

Methods: Participants were 3 help-seeking outpatients (2 males and 1 female aged 15–21 years) with attenuated psychotic symptoms. CBT sessions were provided every 1 or 2 weeks over 6 months by a psychiatrist or a clinical psychologist. Treatment fidelity was assessed using the Cognitive Therapy Rating Scale by the supervisor and therapists. Outcomes for symptoms, social functions, and patient satisfaction were measured at the baseline, end of treatment, and a 12-month post-treatment follow-up.

Results: All participants completed the 6-month CBT program; however, there were significant differences in the number of sessions attended. All 3 patients had social communication difficulties and poor self-monitoring skills. Two participants showed symptom improvement at the end of the therapy, whereas the other showed almost no improvement. The 2 participants who showed symptom improvement rated the program highly, whereas the other rated it very low. Treatment fidelity was not related to symptom improvement or patient satisfaction.

Conclusion: These results suggest that CBT for UHR individuals can feasibly be implemented in a Japanese psychiatric outpatient setting. However, the program needs to be modified to meet the communication skills of individual patients.

Opportunities in improving access to psychological therapies for people with severe mental illness (IAPT-SMI) within early intervention (EI) teams: findings from the South London and Maudsley (SLaM) demonstration site for psychosis in the UK

Louise Johns,1,2 Miriam Fornells-Ambrojo,2,3 Philippa Garety,1,2 Juliana Onwumere,1,2 Emmanuelle Peters,1,2 Suzanne Jolley1,4
1King’s College London, 2South London and Maudsley NHS Foundation Trust, 3University College London, UK

Cognitive Behavioural Therapy and Family Intervention for psychosis (CBTf and Flip) are clinically and cost effective (Bird et al, 2010), and are recommended by international clinical guidelines (Gaebel et al, 2011; NICE, 2014). However, access to these therapies in routine practice remains low, even within EI services. The UK National Health Service (NHS England) IAPT-SMI initiative aims to address this problem, with a systematic approach to improving access to high quality evidence-based therapy, across a range of demographics, and with regular assessments of progress. The SLaM IAPT-SMI service includes EI and Recovery teams. Within EI, access to therapy has increased by 75%, with extra therapist provision. The accepted referrals are representative of the local demographic, with referrals of black and minority ethnic (BME) service users around 1.7 times higher than non-BME referrals, for both males and females. In addition, the rates of therapy completion (e’5 sessions) are similar across gender and BME group. Paired completion rates of patient reported outcomes, collected before and after therapy, are very high (94% of closed cases). Initial CBTf pre-post outcomes show clinical improvement on the WEMWBS, WSAS, CORE-10 and CHOICE, plus reduced service use, with medium/high effect sizes. The outcome data show similar positive outcomes for BME and non-BME clients. User-rated satisfaction is very high. We conclude that psychological interventions for people with early psychosis can be successfully delivered in routine services using an IAPT approach. High completion rates for paired outcomes demonstrate good user experience, clinical improvement, and potential future cost savings.
Conclusion: Although homelessness is associated with increased mental and physical morbidity and mortality, data in first episode psychosis (FEP) is sparse. To compare baseline characteristics and 2 years symptomatic and functional outcome of FEP homeless youth to those who did not experience homelessness.

Method: Longitudinal prospective cohort study of 169 FEP treated in Early Intervention Services (EIS) in Montreal, Canada between 2006 and 2011.

Results: About 30% of the cohort had a history of homelessness. The participation to research and the attrition rates were not different between the two groups. At admission, homeless patients were more likely to be male, unemployed, less educated, have more legal problems, lower premorbid functioning, to suffer from non-affective psychosis (vs affective psychosis), substance use disorder and cluster B personality traits or disorder, have more negative symptoms and lower baseline functioning. They showed high rates of traumatic history. At 2 years, they had poorer symptomatic (positive and negative) and functional outcomes (QOL, SOFAS, autonomy in living arrangements, employment), more persisting substance misuse and legal problems despite receiving care from EIS. They were more likely to be admitted to hospital and have more emergency room visits. Medication adherence were similar between the 2 groups although homeless youth were more likely to be prescribed intramuscular injectable antipsychotic and community treatment orders.

Conclusion: Homelessness is a serious and frequent problem among urban FEP youth. Interventions focusing on potentially modifiable factors such as substance use disorders and lack of social support need to be studied in this population.

A87

Promoting ability, overcoming disability: recovery through lived experience

Nicole Lucier, Sherri Skipper, Paula Reaume Zimmer

Chatham Kent Health Alliance, Canada

Objective: Describe the experience of engaging individual’s as active participants in the TNT First Episode Psychosis Program at the Chatham Kent Health Alliance.

Background: The TNT first episode psychosis program offers a holistic and novel approach to encouraging the individual’s active participation in the recovery process. The purpose of the poster presentation is to provide clinicians with an understanding of several of the opportunities utilized to promote attendance by and satisfaction of group participants.

Description: Multiple modalities are being utilized to support client involvement and skill development. An open peer support group occurs weekly for a 2 hour session. This group is co-facilitated by an occupational therapist and client who identifies himself as recovered. The group incorporates leisure, life skill development and psychoeducation in a youth friendly environment. A program newsletter is distributed monthly to clients and families and staff within the mental health and addictions program. The newsletter is prepared by client volunteers and staff with an emphasis on education through information as well as stories of lived experiences. Volunteers within the program further assist with the maintenance of the peer area, job board and recovery oriented materials for the inpatient unit.

Conclusion: Being affirmed in a therapeutic setting enables individuals to recognize abilities and anticipate their potential. Such actualized potential can provide the impetus for pursuing higher education and paid employment. Empirical research to validate such clinical observations is necessary.
**A90**

**Crucial elements in treatment of first-episode psychosis patient, psychosocial aspects**

Merete Nordenoft, 1, 2 Marianne Melau 1

1 Mental Health Services – Capital Region of Denmark, Mental Health Centre, 1 Institute of Clinical Medicine, University of Copenhagen, Denmark

**Background:** Schizophrenia is associated with very high rates of substance abuse, suicidal behavior, violence and legal problems. The focus on first-episode psychosis is important because converging evidence suggests that the underlying illness process that affects biological, psychological, and social domains can undergo a major deterioration around the onset phase of the illness. Therefore it is of utmost importance to identify possibilities for the prevention and treatment in early psychosis, given that the evidence base for the psychosocial treatment of psychotic disorders is still underdeveloped.

**Methods:** The recent literature was reviewed, including the updated Cochrane review on Early intervention in psychosis, the NICE guidelines about schizophrenia and the Port recommendation about psychosocial treatment in schizophrenia.

**Results:** The most crucial elements identified in the reviews were: early intervention services, assertive approach, family interventions, social skills training, cognitive behavioral therapy, specialized treatment for substance use, cognitive remediation, supported employment and weight management. Examples of the strongest evidence for each of these interventions will be presented.

**Discussion:** The agreement between PORT recommendations, NICE guidelines and Cochrane review is substantial. However, very few services include all recommended elements. It will be discussed how implementation of evidence-based intervention can be ensured.

**A91**

**Effects of cognitive remediation therapy on cognition in young people at clinical high risk of psychosis**

Daniela Piskulic, 1, 2 Maria Paola Barbato, 1, 2 Lu Liu, 1, 3 Jean Addington 1

1 Centre for Youth Mental Health, Orygen Youth Health Research Centre, University of Melbourne, Melbourne, Victoria, Australia, 2 Hotchkiss Brain Institute, Department of Psychiatry, Faculty of Medicine, University of Calgary, 3 Matheson Centre for Mental Health Research & Education, Calgary, Alberta, Canada

Individuals at clinical high risk (CHR) of psychosis evidence cognitive deficits. Given suggestions that deficits in cognition are related to poor functional outcome, cognition is a good treatment target. The aim of this study was to test the efficacy of cognitive remediation therapy (CRT) in improving cognition of CHR individuals. Participants were randomised to either the BF treatment or a control treatment consisting of commercial computer games (CG). The 40 hours of BF intervention or computer game activity was expected to occur 4 days a week, for an hour each day, over a period of 10–12 weeks. Participants were tested at baseline, immediately following CRT and 9 months post-baseline. The mixed effects modelling demonstrated no differences in cognition between the experimental group and the control group at any time point. For the experimental group, however, there was a trend towards improvement in speed of processing between baseline and 9-month follow-up (t(29) = −2.91, P = 0.06) and at post-CRT compared to 9-month follow-up (t(29) = −2.99, P < 0.05). In the control group, significant improvements in working memory were observed between post-CRT and 9-month follow-up (t(28) = −3.06, P < 0.05). Despite significant improvements in social functioning in the intervention group between baseline and 9-month follow-up (t(28) = −3.26, P < 0.05), these improvements were not correlated with cognition. There were trends towards improvement and no trends of decline in the two groups. While CRT may be valuable for individuals at CHR, the type of intervention employed needs to be carefully considered.

**A92**

**Prescribing IPS in education to minimize drop out rates among young people with severe mental illness**

Rune Salvesen, 1 Lisa Edland Albrighten, 1 Wenche ten Velden Hegelstad 1, 2

1 The School Prescription Project, Stavanger University Hospital, Division of Psychiatry, 2 Regional Center for Clinical Research in Psychosis, Stavanger University Hospital, Norway

**Background:** Onset of severe mental illness (SMI) in adolescence or early adulthood increases the risk of dropping out of education. The experience of this limited project is that supported education at the outset of severe mental illness can decrease drop out rates at all levels of education.

**Objective:** To adapt Individual Placement and Support (IPS) to educational trajectories for youth between 13–25 SMI.

**Methods:** Participants are recruited through early detection of psychosis and ultra high risk teams (TIPS and POP) at Stavanger University Hospital, Norway. They are offered a variety of interventions including supportive counselling, pep talks, attendance at exams and whatever else participants need. Meanwhile, monitoring symptoms and easy access to treating clinicians are crucial.

**Results:** Starting February 2014, 14 participants have been included. 10 have so far managed to complete their educational programmes on time.

**Discussion/conclusions:** The School Prescription Project reaches out to participants in a way suitable their age, interests and needs, thus building strong and sustainable relations. The offices have a walk-in function and are popular places to visit. Finally, clinical experience and close cooperation with clinicians allow us to monitor and timely treat symptom exacerbations if they occur. We believe this flexible approach to be an important step towards bridging the gap between health care and education for young people with SMI.

**A93**

**Clinical challenges in improving wellness among early onset psychosis consumers: an example and results of a seven-year naturalistic evaluation of the CHU de Québec-IUSMQ Mieux-Être Wellness Program**

Christian Shriqui, Ariane Aubin, Isabelle Paradis, Pierre Desgagné, CHU de Québec-IUSMQ Mieux-Être Wellness Program Collaborative Group

CHU de Québec-IUSMQ Mieux-Être Wellness Program, Canada

Mental health consumers with early onset psychosis often present comorbid conditions such as substance or alcohol abuse, lack of insight into their psychiatric condition, poor lifestyle habits and are frequently non-compliant to treatment. Metabolic side effects of several psychotropic drugs, including those of atypical and typical antipsychotics, compound the many challenges in treating this patient population. Lifestyle modification programs exert positive effects on metabolic health parameters among mental health consumers. The results of a seven-year ongoing naturalistic evaluation of the CHU de Québec-IUSMQ Mieux-Être Wellness Program are presented. The program’s holistic approach, which includes a wide spectrum both in age and psychiatric diagnoses of participants, offers a variety of group and individual activities aimed at increasing overall health, quality of life (QOL), treatment compliance and empowerment which could appeal to and foster the recovery of early onset psychosis consumers. Periodic monitoring of metabolic, psychopathology and QOL parameters are conducted at the start of the program and every three months thereafter for one year then annually. SPSS 20.0 was used for descriptive statistics and repeated measures ANOVA between baseline and follow up. Of 227 participants, metabolic results show statistically significant (p < 0.05) reductions in weight (0.71 kg), BMI (0.33 kg/m2), waist circumference (1.48 cm), systolic blood pressure (2.59 mmHg), total cholesterol (0.16 mmol/L) and LDL cholesterol (0.12 mmol/L) after three months of participation. Other study results will also be presented.
A94
The effects of physical activity on positive and negative symptoms in schizophrenic individuals
Kristjana Sturludottir,1 Rafn Rafnsson,1 Gunnar Andrésson,1 Sunna Gestsdottir,1 Baldur Sigurdsson,1 Erlingur Johannsson2
1The National University Hospital of Iceland, 2Center of Sport and Health Sciences, School of Education, University of Iceland, Reykjavik, Iceland
Introduction: Schizophrenia is one of the most severe mental illness found because of its duration and disability. Individuals with schizophrenia are more likely to live an unhealthy life and suffer from higher risk of morbidity compare to general population, due to their lack of exercise and lifestyle habits. Studies have shown that physical activity can have positive effects on patients with schizophrenia. The aim of this intervention study was to evaluate the effects of physical activity (PA) on positive and negative symptoms of patients with schizophrenia.
Method: Participants (N = 17) between the age of 18 and 31, diagnosed with early psychosis participated in the intervention study where they exercised under supervision of professional exercise and health scientists, at minimum of 3 training session a week for 20 weeks. The participants answered standardized questionnaires on mental well-being (PANSS, DASS, Rosenberg, CORE-OM, BHS, QOL, SWLS) both before and after the intervention. Physical measurements (weight, height, BMI, resting blood pressure, waist circumference and resting heart rate) were taken before and after intervention. A few participants were interviewed after the intervention and asked about their experience of the intervention.
Results: Depression, anxiety and stress scores decreased significantly while their (overall) well-being and life satisfaction increased (p < 0.05). Participants lost weight, their BMI and waist circumference decreased as well as their blood pressure and resting heart rate.
Conclusion: Results indicated that implementing PA interventions are possible in young individuals with schizophrenia. In addition, the participants improved on the physical, mental and well-being factors.

A95
Improved wellbeing through contemporary dance in early intervention
Matthew Taylor
Institute of Psychiatry, King’s College London, UK
Full recovery after episodes of psychosis is a common goal of early intervention services. Subjective measures of mental wellbeing provide an important insight into how well this is achieved. It has often proved challenging to demonstrate improved wellbeing after interventions for people with a history of psychosis. Recently a pilot project took place in South London offering contemporary dance training and performance. 25 people from the caseloads of Early Intervention teams in South London were considered for inclusion in the project. 18 participants attended a four-week full-time dance-led intervention with Dance United (http://www.dance-united.com/). Wellbeing was assessed by the Warwick-Edinburgh Mental Wellbeing Scale at baseline and on completion Wellbeing scores improved over the course of the project. Mean scores increased from 43.6 ± 2.1 at baseline to 53.9 ± 2.5 at endpoint. This dance-based intervention appears an effective means of increasing wellbeing in EI populations. Further evaluation within controlled studies will be necessary to confirm this effect.

A96
Cognitive behavioral therapy-based programs in the communities affected by the Great East Japan Earthquake
Ikki Ueda,1 Yoko Takahashi,2 Miyuki Tajima,3 Ayami Nagao,4 Hiro Matsuoka,1,2,3 Yutaka Ono,4 Kazunori Matsumoto4
1Department of Psychiatry, Tohoku University Graduate School of Medicine, 2Department of Preventive Psychiatry, Tohoku University Graduate School of Medicine, 3Department of Psychiatry, Tohoku University Hospital, Sendai, 4National Center for Cognitive Behavior Therapy and Research, National Center of Neurology and Psychiatry, Tokyo, Japan
Background: The prevalence of depression may increase following a large-scale disaster. Programs based on Cognitive Behavioral Therapy (CBT) are effective for preventing depression in high risk or subsyndromal populations. In the present study, we conducted a CBT-based intervention program with people who live in the area affected by the Great East Japan Earthquake of March 11, 2011.
Methods: We conducted a series of workshops focusing on problem-solving skills, increasing positive activities, and altering thinking; three 6-week sessions were held. The participants, 49 individuals (5 male and 44 female; mean age = 49.3 ± 14.0 years), were recruited from disaster-stricken areas in Miyagi prefecture. Pre- and post-workshop measures included the health-related quality of life (SF-8) and self-efficacy (Self-efficacy Scale); a participant survey was conducted after the workshops.
Results: Most participants reported being satisfied with the program. To quantitatively measure the effect of the program, we analyzed data of 23 participants who attended 5 or more sessions. Although the quality of life of the participants was unchanged after the program, self-efficacy improved from 67.1 ± 10.5 to 71.7 ± 9.4 (P = 0.008).
Conclusion: The present report of preliminary data suggests that the CBT-based program was viable for community members in the areas affected by the Great East Japan Earthquake and may be effective for improving self-efficacy. More research is required to develop an effective community-based psychosocial approach to prevent mental health problems after large-scale disasters.

A97
Preference and reaction of ASD children in conversation with three types of human-like robots
Yuichiro Yoshikawa,1 Hirokazu Kumazaki,2 Yoshio Matsumoto,3 Sakaе Mizushima,1 Mitsuko Nakano,4 Akemi Tomoda,2 Hiroshi Ishiguro,1 Masutomo Miyao1
1Osaka University, 2University of Fukui, 3National Institute of Advanced Industrial Science and Technology, National Center for Child Health and Development, Japan
Background: Research into applying robots as therapy tools has shown that robots seem to improve engagement and elicit social behaviors from people with autism spectrum disorder (ASD). A variety of robots have been proposed as possible therapeutic or educational tools for children. But little experimental data is available on which robotic designs are most suitable for a particular group of children.
Objectives: We investigated preference and reaction of ASD children toward three types of robots: (1) an android robot resembling an existing adult female, (2) a mascot robot with humanoid form as well as cartoonish appearance, (3) a mechanical robot with humanoid form which attached to many visible mechanical parts.
Methods: Twenty ASD children aged 8–22 years old willingly participated in this study. Each subject carried out three sessions of about 2 minutes conversation with three robots at random order, each of which is designed to be roughly similar. After the conversations, they were asked which robots they prefer and dislike at most.
Results: Five participants preferred the humanoid robot, 4 participants preferred mechanical robots, and 9 participants preferred mascot robots. The preference pattern was analyzed in terms of Autism-Spectrum Quotient (AQ) score and age. The reaction time for gazing-drawing by the mechanical robot with pointing gesture is correlated with AQ score (r = 0.51, p < 0.05).
Conclusion: Considerable variation appeared in individual preferences and reactions for three robots while AQ and age was implied to be candidates of their classifier.
Service System Development and Reform

A98 Clinical outcomes of people with first episode psychosis presenting to the OASIS prodromal clinic in South London
Rashmi Patel, 1 Covadonga M. Diaz-Caneja, 1,2 Lucia Valmaggia, 1,3 Majella Byrne, 1,2 Steve Badger, 2 Philippa Garety, 1 Hitesh Shetty, 2 Matthew Broadbent, 2 Robert Stewart, 1 Philip McGuire, 1 Paolo Fusar-Poli 1 1Institute of Psychiatry, King’s College London, UK, 2Hospital General Universitario Gregorio Marañón, ISGM, CIBERSAM, School of Medicine, Universidad Complutense, Madrid, Spain, 3South London and Maudsley NHS Foundation Trust, UK

Background: Around one third of people referred to prodromal clinics for the diagnosis and treatment of ultra-high-risk symptoms present with overt first episode psychosis (FEP). We investigated clinical outcomes among this group compared to those presenting to standard mental health services in South London.

Method: 164 people with FEP presenting to the OASIS prodromal clinic were compared with 2,779 presenting to standard mental health services. Outcome data on number of hospital admissions, number of inpatient days and compulsory hospital admission were obtained from electronic clinical records. Age, gender, ethnicity, marital status, employment status, diagnosis, borough of residence and antipsychotic therapy were entered as covariates in multivariable analyses.

Results: People with FEP presenting to OASIS were more likely to be male (68.3%), younger (mean age 23.6 years) and from a Black and Minority Ethnic (BME) group (68.9%) compared with FEP people in standard mental health services (59.8% male; mean age 25.1 years; 53.5% BME). Presentation to the prodromal clinic was associated with reduced frequency of hospital admission (IRR 0.49, 95% CI 0.39–0.61), fewer days spent in hospital (B coefficient −17.0 days, 95% CI −33.7, −0.3) and reduced likelihood of compulsory hospital admission (OR 0.52, 95% CI 0.34–0.81) at 2 year follow-up.

Conclusions: Presentation with FEP to a prodromal clinic was associated with better clinical outcomes compared to standard mental health services. These findings suggest a potential role for prodromal clinics to facilitate access to healthcare for people with FEP who may otherwise face difficulties in engaging with traditional mental health services.

A99 Field-testing the early intervention paradigm in Emilia Romagna: the Reggio Emilia At Risk Mental States (Re-ARMS) project
Andrea Raballo, 1,2 Luigi Rocco Chiri, 1,2 Lorenzo Pelizza, 1,2 Francesca Fontana, 1,2 Rosanna Favazzo, 1,2 Luana Pensieri, 1,2 Michela Fabiani, 1,2 Leonardo Cioncolini, 1,2 Ilaria Scazza, 1,2 Federica Paterlini, 1,2 Enrico Semrov 1,2 1Department of Mental Health, Reggio Emilia, 2Reggio Emilia At Risk Mental States (Re-ARMS) Project, Italy

An increasing number of studies have shown that intervening in the at risk phase can reduce prodromal symptoms and prevent or delay the biopsychosocial consequences of transition to psychosis. Therefore new clinical services are being set up to identify and manage young help-seekers in the early phase of psychosis. The Reggio Emilia At Risk Mental States (Re-ARMS) project, started in 2012 as part of a comprehensive regional platform (Progetto Esordi Psicotici della Regione Emilia Romagna) addressing the translational issues of early identification and intervention in psychosis. After a conceptualization and implementation phase, Re-ARMS was set up as an overarching program across existing child-adolescent and adult Community Mental Health Services (CMHS) in Reggio Emilia province (catchment area about 520,000 inhabitants). Core aim of Re-ARMS was testing a diffuse service delivery model that could: 1) capitalize on existing, available community MH resources and clinical-care pathways, 2) fill the gaps in current youth mental health delivery, 3) improve accessibility and early differential evaluation, 4) provide appropriate, person-centered pathways for young help-seekers specifically supplementing the standard integrated treatment with psycho-education, CBT, case-management. Over 18 months, Re-ARMS: 1) received above 90 referrals (about one third of aged 13–18), with polymorphic symptomatology and tangible psychosocial suffering, 2) contributed to bridge the gap between child-adolescent and adult CMHS, 3) raised awareness regarding the strategic value of empowering existing non-tertiary level youth-oriented services. The clinical and service development implications of will be discussed.
A101 Standards implementation and systems change: phase two in Ontario’s early psychosis intervention
Janet Durbin,1 Aura Selick,1 Gord Langill,1 Chiachen Cheng1,3
1Centre for Addiction and Mental Health, 2Canadian Mental Health Association Haliburton Kawartha Pine Ridge, 3Canadian Mental Health Association-Thunder Bay Branch, Canada

Background: Following an initial province-wide survey (2012) of Early Psychosis Intervention (EPI) programs, a second survey was conducted in 2014. The first survey focused on care delivery (e.g., assessment, treatment, support). The second focused on support strategies, investigating four domains: training, use of data for improvement, responsiveness to diverse communities and clients, and formation of program networks to enable smaller programs to provide the full complement of EPI services.

Approach: Survey development was informed by the literature and the multi-stakeholder Standards Implementation Steering Committee, with feedback on draft versions from selected front line staff. Per domain, items inquired about current strategies, support needs, successful practices. Data was collected in January–March 2014, with one informant per program. All 56 surveyed program sites completed the online survey.

Results: Programs reported active efforts across all domains to support high quality care but also noted areas where more supports were needed. Among these were training and supervision in conducting psychotherapies with EPI clients, participation in communities of practice to share knowledge and experiences, support for using common data sets to identify areas for improvement, and outreach to engage Aboriginal communities and clients. Network support was well used, particularly by small program sites.

Conclusions: The Ontario Standards embed strategies to support delivery of high quality care. Programs are actively using many of these strategies. availability of core mechanisms (policies, budget, written plans) to implement these strategies was variable and may affect sustainability. Next steps include stakeholder consultation to review results and plan follow-up projects.

A102 Duration of untreated psychosis and pathway to care in first-episode psychosis: A qualitative study within the Danish TOP project – preliminary findings
Jens Einar Jansen,1,2 Ulrik Helt Haahr,1,2 Erik Simonsen1,4,5
1Early Psychosis Intervention Center, Region Zealand Psychiatry, Roskilde, 2Department of Psychology, University of Copenhagen, 3Faculty of Health and Medical Sciences, University of Copenhagen, 4Psychiatric Research Unit, Region Zealand Psychiatry Roskilde, 5Institute of Clinical Medicine, University of Copenhagen, Roskilde, Denmark

Background: Long delays in initiating treatment for first episode of psychosis (FEP) are associated with poor clinical and functional outcomes. The modes and routes by which patients access care are complex. An early detection team was implemented in 2012 in Region Zealand, one of five Danish regions, in order to help patients with first-episode psychosis to access mental care treatment. Before implementing the new system, we explored the patient’s views of their illness and their help-seeking behavior.

Aim: To describe service-users experiences with and understanding of their illness and pathway to care, including their need for treatment, the role of their relatives and experience with the treatment service.

Method: We conducted a qualitative descriptive approach with 11 patients (mean age 20 (15–24), 6 males, 5 females) recruited from OUPS team without specific aims to offer early detection. Data was organized in NVivo and will be analyzed thematically (Braun & Clarke, 2006).

Results: When describing barriers and help with regard to help-seeking, four primary themes were evident in the preliminary analyses: 1) lack of knowledge of symptoms/normalizing psychotic symptoms; 2) stigmatization; 3) support from significant others; and 4) the use of internet as a source of information about psychosis and treatment service.

Conclusions: Patients lack of knowledge regarding symptoms of psychosis and availability of services, as well as self-stigma and lack of support from relatives, seem to be important barriers to help-seeking.

A103 If you’re gonna do it, do it right: developing fidelity measures for the rollout of Early Psychosis headspace Services (EPPS) in Australia
Eoin Killackey,1,2 Patrick McGorry,1,2,3 Debra Rickwood1,4
1Headspace, The National Youth Mental Health Foundation, 2Orygen Youth Health Research Centre, 3Centre for Youth Mental Health, University of Melbourne, 4University of Canberra, Australia

Many services are developed and launched in health generally and mental health more specifically, with little thought given to the degree to which the elements that comprise those services are faithfully implemented. This is a problem for two reasons. Firstly, evidence bases are generally developed through research that has relied upon strict protocols. Secondly, implementation research shows that the less adherence there is to the components of a model, the less likely the results produced in practice will match those produced in research. In Australia, the Federal Government through headspace is developing a national system of early psychosis services. In consultation with international experts, a list of 16 core components of early psychosis services was developed. In order to ensure consistency of service as well as ascertain that services are providing evidence based early intervention for first episode psychosis, a fidelity tool is being developed. The fidelity tool is being developed through incorporating existing measures where feasible and developing new measures for those components where no valid pre-existing measure is available. The development of the fidelity tool is currently underway and a preliminary version will be discussed in this presentation, along with plans for its further development and implementation in the new early psychosis services. The development of a fidelity scale will allow for individual services to identify areas in need of further development as well as aiding the delivery of more consistent and higher quality services to young people with first episode psychosis.

A104 Are we there yet? Review of a youth early psychosis service within an adult mental health service
Lee Allen,1,2 Lesley Matthews,1 Jenny Kornblum,1 Christina Pead-Ebrederis,1 Carrie Stanford,1 Catherine Kelly,1 Ilias Katis,1 Christina Lambros,1 Aileen Shuey1
1Austin Health, 2The University Of Melbourne, Australia

The North East Youth Early Psychosis Service (NEYEPS) was one of the last funded and developed services of this type in Metropolitan Melbourne, established in July 2008. Service reform and developments including Child and Youth Services and Headspace have led to a range of service reforms but to date have had limited impact on the NEYEPS service delivery. We wish to outline our model of care which whilst working closely with our local CHILD and adolescent service has evolved such that we remain part of the adult mental health service. Though the opportunity for future reform remains on the horizon, some of the strengths and weaknesses of our current model will be presented. Results of an audit of our service over the previous 6 years will be presented and compared to published results of other services with a range of service delivery methods.
Suicide risk assessment and documentation in early psychosis

Tyler Black
University of British Columbia, Canada

Globally, suicide is a major cause of death, accounting for 0.8% of all deaths worldwide. Prominent risk factors such as sex, history of attempts, and family history are well known, and psychosis has long-standing evidence as a major risk factor. As well, the peak age of suicide onset coincides, in most nations, with the peak of suicide risk. For this reason, documenting suicide risk in people with early psychosis is very complicated. Suicide risk assessment is one of the most important procedures in all psychiatric assessments, and its importance is only increased in psychosis. Components of a complete suicide risk assessment will be broken down and attendees will gain confidence in this difficult aspect of medico-legal and patient-centred care. The author will present a systemic approach to suicide risk assessment in early psychosis, and the rationale behind a standardized suicide risk documentation process. This presentation includes access to a free-to-use clinical tool that assists in suicide risk assessment documentation, developed and accredited as a leading practice by Accreditation Canada.

An early psychosis service comes of age: challenges and solutions after 21 years of EPPIC, Melbourne

Shona Francey, Jane Edwards, Linda Kader
Orygen Youth Health, Australia

Established in 1992 in Melbourne, Australia, the Early Psychosis Prevention and Intervention Centre (EPPIC) has now been in operation for over 21 years within the local context of the state-funded mental health system and the broader context of the rapidly evolving national and international youth mental health movement. Over this period of establishment and development, many decisions have been required and operationalised including how to define psychosis, what early intervention for psychosis means in practice, and how best to ensure appropriate clinical governance across a rapidly expanding geographical catchment area. This presentation will describe the criteria that have been developed for intake into EPPIC (thus an operational definition of psychosis), parameters for asserting early intervention, and guidelines for early discharge from a service with limited resources and competing demands. In addition, clinical governance structures and manageable caseload targets within a service that has more than 200 new cases of psychosis each year will be discussed. The occurrence of co-morbidities and diagnostic uncertainty in young people with early psychosis, has presented challenges. EPPIC has been part of the Orygen Youth Health Clinical Program, which also has other specialised clinics offering and refining treatments for specific nonpsychotic conditions.

Clinical staging in an early intervention youth mental health service: patient characteristics, treatment patterns and clinical outcomes

Shane Cross, Daniel Hermens, Ian Hickie
Brain and Mind Research Institute, University of Sydney, Australia

Evidence is accumulating that supports clinical staging as a useful adjunct to the traditional diagnostic system to better guide management decisions in young people with emerging serious disorders, including psychotic disorders. Using recent evidence gathered from a number of clinical staging studies in young people with emerging serious disorders, a clinical staging model for early intervention services has been developed. The current paper reports on service data from 890 young people over a twelve-month period that justifies the use of the model in these settings and shows that patients with attenuated syndromes (stage 1b) use significantly more services than help-seeking (stage 1a) patients, including significantly higher rates of psychotropic medication prescription [9.3% vs 43.6%]. Stage 1a patients typically enter care with significantly lower levels of psychological distress and significantly higher levels of functioning and showed improvement only in psychological distress over 10 sessions. Despite using significantly more services, stage 1b patients remained impaired on both measures after 10 sessions, however they showed some modest improvements in their levels of psychological distress and functioning over this time. Patients with attenuated syndromes have treatment patterns and clinical outcomes not dissimilar to those with more severe mental disorders, and therefore require more intensive interventions provided over a longer time period in order to achieve recovery. This model is currently being tested in an early intervention service and preliminary data obtained from stage 1b patients followed up three monthly will also be presented.

A blueprint for establishing a referral and research center of early psychosis in Taiwan

Chen-Chung Liu, Chih-Min Liu, Tsung-Jeng Hwang, Ming H. Hsieh, Yi-Ling Chien, Yi-Ting Lin, Hai-Gwo Hwo
National Taiwan University Hospital and College of Medicine, Taiwan

To catch up with contemporary trends of early recognition and intervention of psychosis, a sound infrastructure is the key to bridge service and research in terms of quality and efficiency. In Taiwan, the first wave is a special clinic for thought and perception disturbance, mainly serving for research purpose during 2006 to 2010. A second wave is under construction based on what have been done and what to do next. The blueprint of such a referral and research center will be consisted of several parts. First, referral networks, including understanding primary care psychiatrist’s attitude, knowledge, and common practice while facing subjects with suspected pre-psychotic state or early psychosis, how these subjects perceive their first-contact with psychiatry, priorities of their needs, barriers to referrals, channels and campaigns for facilitating referrals, and if screening tools available and feasible. Second, a case registration system, including establishing cohorts based on different clinical stages, follow-up schedules, checklists of follow-up, and a walk-in service if any unexpected changes happen. Third, an algorithm for translational researches comprised of neurobiological profiles, including neurocognitive inventory, electrophysiology, neuroimaging studies, inflammatory markers, genetic studies, and biomarker identifications, and intervention programs, including pharmacological and non-pharmacological approaches via naturalistic observational studies, and open-label and randomized controlled trials. All parts will complement with each other and need collaborative works with public sectors, clinical tracks, allied researchers, and funding resources. In the future, a third wave is to form a consortium and make this center the hub for all early psychosis researches in Taiwan.
A109
Pathways to care for those with attenuated psychotic symptoms in Japan
Ryo Okubo,1 Naoki Hashimoto,1 Kahori Itou,2 Tomohiro Shirasaka,3 Naohumi Kusaka,4 Masaru Tateno,1 Ichiro Kusumi1
1Department of Psychiatry, Hokkaido University Graduate School of Medicine, 2Sinsapporo Mental Clinic, 3Department of Neuropsychiatry, School of Medicine, Sapporo Medical University, 4Miyanosawa Mental Clinic, Japan

Objective: To improve the prognosis of schizophrenia and reduce stigmatization, knowledge of the pathways to care for At Risk Mental State (ARMS) patients would be very important. The aim of this study was to clarify the pathways to psychiatric care for ARMS patients in Japan.

Methods: 157 patients aged between 16 and 30 who visited mental health services for the first time were enrolled in a multisite survey that measured patient pathways using a semi structured questionnaire based on an encounter form developed in the WHO collaborative study and q) attenuated psychotic symptoms using the PRIME screen-Revised item self-reported instrument for prodromal symptoms of psychosis.

Result: Among all participants, 25 (15.9%) patients were ARMS. The majority of contacts were made directly (48.0%). Various symptoms of concern were reported among ARMS patients, the most common being depression (32.0%) followed by anxiety (28.0%). Pathway diagrams, the patterns and duration of care seeking were not significantly associated with ARMS.

Conclusion: Our findings showed that attenuated psychotic symptoms do not contribute significantly to the difference of pathways to care and duration of care seeking. Therefore, for early detection and the effective treatment of first episode of psychosis, professionals should make asking about attenuated psychiatric symptoms as routine in young people who are presenting with concerns.

A107
Development of a specialty inpatient unit for young persons with early psychosis in Singapore
Lye Yin Poon, Swapna Verma
Institute of Mental Health, Singapore

The International Clinical Practice Guidelines for Early Psychosis recommended that specialised inpatient units should consider patients ages and developmental stages, and be kept small with adequate staffing, to ensure patient management in least restrictive circumstances. This abstract outlines the setting up of such a unit in Singapore. The Early Psychosis Intervention Programme (EPIP) is one of Asia’s first early intervention services, and pioneered psychiatric case management in Singapore. We have expanded our care model and service offerings, however, a dedicated inpatient unit remained lacking; EPIP patients are admitted in the Institute of Mental Health’s acute wards with patients of different diagnoses and illness severity. EPIP was recently awarded funding for a specialty inpatient unit, which will address service gaps and improve patient experience. To start, we conducted focus groups with patients and caregivers. Many highlighted the importance of good patient care to complement these new facilities. Our patients, caregivers and management joined us in lean management workshops, analysing and designing the flow of information and materials, and brainstorming product and process break throughs. None value-adding processes were reviewed. We then built a 3D to-scale model incorporating these new facilities and processes. The team visited inpatient units of local general hospitals and inpatient services of early psychosis initiatives in Australia. We are currently refining the design and piloting new work processes. The unit will be completed in 2015. It is important to consider key stakeholders needs when developing services or facilities. Intangibles like workflows and service quality should also be reviewed.

A110
The who, how and why of primary care in early psychosis: general practitioners – the key to the delivery of holistic health care in mental health services for young people
Alexandra Parker,1 Claudio Villella2
1Orygen Youth Health Research Centre, 2Headspace National Youth Mental Health Foundation, Australia

Significant reform has occurred in Australia over the past 8 years, resulting in a new mental health service system. Headspace operates as Australia’s National Youth Mental Health Foundation and is the nation’s largest provider of mental health services to young people. More than 65 headspace centres operate across the country, primarily providing treatments for high prevalence mental health conditions. A key aspect of the service model has been the integration of primary care with mental health services, providing a comprehensive and holistic approach. During 2014–2015, headspace is expanding its services by establishing 9 specialist early psychosis programmes across Australia, making it the world’s largest provider of early psychosis services. The opportunities and challenges are immense. The lessons learned to date highlight the critical and central function of GPs in the service framework. This paper will describe how GPs will operate in headspace early psychosis centres. In close partnership with a specialist mental health workforce, GPs are at the forefront of ensuring the provision of a genuinely holistic approach to young people’s treatment and recovery. The model of care includes a unique proactive approach to the prevention, monitoring and early intervention of the metabolic consequences of medical treatment. This extends beyond psychiatry and psychology to include dieticians and exercise physiologists in co-ordinated care. Key aspects of the GP’s role, including the planned collaborative approach, will be discussed. Additionally, the current evidence base and headspace experience of the broader impacts of GPs on young people’s health will be described.

A111
“At least 50% of young people experiencing a first episode psychosis should be engaged in age-appropriate physical activity” – Achieving a healthy active lives target for physical activity participation
Simon Rosenbaum,1,2 Philip B Ward3,4
1Early Psychosis Programme, The Bondi Centre, South Eastern Sydney Local Health District, 2School of Psychiatry, University of New South Wales, 3Schizophrenia Research Unit, South Western Sydney Local Health District, Liverpool, Australia

Physical inactivity is a critical, modifiable risk factor contributing to the scandal of premature mortality for people experiencing psychotic illness. Despite the numerous physical, and mental health benefits of physical activity (PA) including a reduced burden of cardiometabolic disease, and improved symptomatology, people experiencing psychosis are less likely to be physically active. The accurate assessment of PA among people experiencing psychosis is pivotal to the evaluation of both the Healthy Active Lives 5-year targets, and the effectiveness of interventions designed to increase PA participation among this population. People experiencing psychosis face unique barriers to the adoption of PA such as the sedative effects of medication, psychiatric symptoms, access to facilities, hospitalization and high rates of cardio-metabolic disease. Measurement of physical activity in psychosis may be unreliable due to poor adherence with objective monitoring devices, and illness-related problems affecting response to self-report questionnaires. Whilst new measurement technology may provide more accurate data, the cost of such devices often prohibits use in routine clinical settings. There is growing recognition of the need for a valid, cost-effective measure of PA within this population. Following an international meeting in Padua, Italy (April 2014), a working group was established to commence designing a self-report questionnaire more appropriate for people experiencing psychosis and other mental disorders. Results from a survey to identify international consensus will be discussed, in addition to how such a tool can be validated will be outlined. This will be an important step towards providing a framework for achieving a critical HeAL target.
A113
A closer look at early and late onset first episode psychosis presenting to an adult area mental health service
Ajit Selvendra, 1, 2 Dominiek Baetens, 1 Tom Trauer, 2 Melissa Petrakis, 1, 3 David Castle 1, 2
1 St. Vincent’s Hospital, 2 University of Melbourne, 3 Monash University, Melbourne, Australia

Objective: To review the characteristics of all patients between the ages of 16 and 65 years presenting to a first episode psychosis program within an adult area mental health service.

Method: The early psychosis program at St. Vincent’s Hospital Melbourne treats all patients presenting in the early stages of psychosis between the ages of 16 and 65 years. A database was developed to capture the demographic and diagnostic characteristics of the group. The characteristics of those presenting under 26 years were compared with those presenting at or after 26 years of age.

Results: A large proportion (55%) of those presenting with first episode psychosis presented at or after 26 years. There were a higher number of cases of depression with psychotic features in the older onset patients (notably so for those over 40) and a trend toward greater metabolic morbidity.

Discussion: Older patients presenting with a first episode of psychosis are relatively understudied but appear to have certain distinguishing qualities. Understanding the profile of these patients is important in developing optimal treatment packages and service responses.

A114
Development of early crisis intervention measures with psychiatric advance directives for patients who discharged from a psychiatric acute care unit
Osamu Watanabe, 1 Chiyo Fujii, 2, 3 Kei Sakuma, 1, 2, 4 Masafumi Mizuno, 1, 3 Masaru Mimura 4
1 Asaka Hospital, 2 National Institute of Mental Health, National Center of Neurology and Psychiatry, 3 Department of Neuropsychiatry, Toho University School of Medicine, 4 Department of Neuropsychiatry, School of Medicine, Keio University, Japan

Psychiatric advance directives (PADs) are documents detailing a patient’s preferences for future mental health treatment and care in advance of decisional incapacity. Previous studies have suggested that PADs improve patients medication adherence and autonomy, and they reduce symptoms from escalating in times of crisis. In the United States of America, PADs have been permitted by law since the early 1990s. In the past decade, twenty-five states have adopted specific PAD statutes. In Japan, there is no legislation regarding PADs. Alternatively, in the forensic psychiatric field, the joint crisis plan is prescribed in principle for each mentally disordered offender who is under outpatient treatment order, based on the Medical Treatment and Supervision Act, which has proven to function effectively as an early crisis intervention measure. However, in the general psychiatric field, neither the joint crisis plan nor the use of PADs has significantly spread. In this study, we developed early crisis intervention measures for patients discharged from the psychiatric acute care unit of Asaka Hospital, combining the joint crisis plan used in the forensic field and the patient's specific instructions for future treatments and their plans for a proxy decision maker. Before the instruction was given regarding the measures, the units re-admission rate was 26.7%, which is much higher than the national average of approximately 17.0% in Japan. In this presentation, we report the changes in the re-admission rates and in patients adherence to the plan, as well as the results of qualitative analysis regarding patients and family’s views of PADs.

A115
Mechanisms of formal thought disorder in first episode psychosis: the role of negative affect and cognitive load
Kyle S. Minor, 1, 3 Nicole F. Mehdijoun, 2, 3 Teresa C. Kulig, 2, 3 Emmalene Metzler, 2, 3 Matthew P. Marggraf, 1 Beshau Davis, 1 Alan Breier 2, 3
1 Department of Psychology, Indiana University – Purdue University Indianapolis, 2 Department of Psychiatry, Indiana University School of Medicine, 3 Prevention and Recovery Center for Early Psychosis, Indiana University School of Medicine, USA

Formal Thought Disorder (FTD) is associated with severe social and neurocognitive impairment. It affects individuals across the psychosis-spectrum, and is typically exhibited through disorganized speech. Pinpointing putative causes of FTD early may reduce long-term impairment; however, little is known about FTD’s underlying mechanisms. Two potential mechanisms are negative affect (i.e., inducing negative emotion) and cognitive load (i.e., reducing cognitive resource). In this study, we examined whether: 1) FTD increased from baseline to experimental (affective, cognitive) conditions in First Episode Psychosis (FEP); 2) increases, termed affective and cognitive reactivity, were specific to FEP; and 3) reactivity predicted social and neurocognitive impairment. To address these questions, a novel experimental paradigm was developed where FEP and control participants generated speech across baseline, affective, and cognitive conditions. FTD was rated using a validated, behaviorally-based speech content instrument. Psychotic symptoms, social functioning, and neurocognition were also assessed. Preliminary analyses revealed significantly greater cognitive reactivity in FEP compared to controls. Within the FEP group, affective and cognitive reactivity were significantly associated with disorganized symptom severity, and higher rates of both significantly predicted lower social functioning and neurocognition. This is the first known FEP study to test the role of negative affect and cognitive load in FTD. Initial results are promising, with affective and cognitive reactivity playing prominent roles in FTD, social functioning, and neurocognitive impairment. These findings signal the importance of identifying mechanisms of FTD early in the course of psychosis. Doing so may improve long-term outcomes at this critical stage of illness.
A116 Preemptive psychiatry based on serological detection of high-risk subjects after stress
Atsuo Sekiyama, Emiko Kasahara, Shin-ichi Tokuno, Haruki Okamura, Yo-ichi Nabeshima

1Department of Preemptive Medical Pharmacology for Mind and Body, Osaka University of Graduate School and Shoal of Pharmaceutical Sciences, Suita, Osaka, 2Department of Preemptive Medicine Research, Institute of Biomedical Research and Innovation, Kobe, 3Department of Psychiatry, Shiga Medical University, Seta, 4Department of Advanced Medicine, Tokyo University of Graduate School of Medicine, Tokyo, 5Department of Tumor Immunology, Hyogo College of Medicine, Japan

Background: We have demonstrated that a profile of plasma cytokines levels is perturbed in major depressive disease (MDD) and schizophrenia. This study aims to establish a biological means to evaluate the risk of MDD in stressed subjects for preemptive psychiatry.

Method: To reveal biochemical features of mental diseases, levels of signaling proteins in plasma were determined in healthy Mongoloid (Japanese) adults (N = 400), age and gender matched Mongoloid (Japanese) subjects with MDD (N = 200). Difference between MDD and control were analyzed by discriminant analysis to calculate Maharanobi’s distance, expressing alteration in the profile of levels of the molecules in MDD. Then correlation between the HAM-D score and the distance were analyzed. Addition, another groups of subjects exposed to severe psychological stress were also analyzed to survey biomarkers for evaluating the risk of onset of depression.

Results: It was found that levels of cytokines in plasma were distinct in MDD. Cytokines-based-segregation of MDD from control achieved over 80% ratio. Correlation between the HAM-D score and the distance were analyzed. Then correlation between the HAM-D score and the distance were analyzed. Addition, another groups of subjects exposed to severe psychological stress were also analyzed to survey biomarkers for evaluating the risk of onset of depression.

Conclusions: Cytokines are found to capable to classify MDD. It is suggested that severity of MDD could be evaluated by plasma levels of cytokines. Cytokines and related molecules may provide important information for psychiatric pathology and diagnosis even at early stages.

A117 Stress and psychosis: vulnerability, pathways and psychopathological expressions
Sibylle Metzler, Karsten Heekeren, Anastasia Theodoridou, Wulf Rössler, Mario Müller

Psychiatric University Hospital of Zurich, Switzerland

Background: Stress has been acknowledged as an important vulnerability factor in the etiology of psychosis. However, there is evidence that the individual’s reactivity to stress as well as neuro-cognitive functioning characterize distinct pathways within the association of stress and psychosis. Moreover, both pathways are suggested to contribute to different, largely distinct psychotic phenotypes in terms of their psychopathological expression as well as course and outcome of the syndrome. This study aimed to test the assumption that neuro-cognitive factors and stress reactivity competitively contribute to psychosis and, in addition, account for different psychiatric phenotypes.

Sampling and methods: N = 207 helpseeking individuals were assessed by clinician-rated as well as self-reported measures to gather information on psychopathology, neuro-cognitive functioning and exposure to life stress. A latent class analysis will be conducted to derive subtypes of psychopathological expressions. In order to explore the independency of pathways from life stress to different psychotic expressions path modeling will be conducted to estimate direct and indirect effects (via cognitive impairment and stress-responsiveness) simultaneously. Significance levels of potential mediators will be confirmed using bias-corrected bootstrap estimations.

Results and conclusion: Based on our results we expect get more insight into mechanisms that might alter the vulnerability for different psychotic endophenotypes.

Substance Use

A118 Early intervention in an inner city general hospital: treating the damage from alcohol and substance misuse
Peter Byrne
University College London, UK

Newham is an east London borough (population 1/3 million) with the UK’s poorest and most ethnically diverse population. Although half the population abstain from alcohol, the borough’s only district general hospital has the highest rates of alcohol related admissions in London, and is second in England only to Birmingham. In addition to multiple medical morbidities of alcohol and substance misuse, these patients present with the whole range of neuropsychiatric conditions. We describe the challenges of assessing patients who mostly do not request support for substance misuse, often have undiagnosed cognitive impairment despite their younger age, and have complex psychosocial problems. Within this group is a subgroup of young people whose emergency department (ED) diagnosis of behaving strangely is a frequent early manifestation of first episode psychosis. Given the incidence of alcohol/substance misuse, working with physicians and ED colleagues, we looked outside the hospital for partner organizations/people with common cause to agree early identification and other preventative strategies. National reforms in public mental health and UK Government policy of parity of esteem between mental and physical health both contributed to our efforts. We have not yet reversed the numbers of high incident cases but, drawing on core Early Intervention principles, have started multilevel interventions to address underlying causes.

A119 Recording of patterns of substance misuse documentation in an early intervention service
Debasis Das, Fiesal Jan, Shiraz Ahmed
Leicestershire Partnership NHS Trust, UK

Aims and hypothesis: The aim was to ascertain the standard of recording of substance misuse documentation in the clinical assessment protocols of the early intervention in psychosis service in Leicester, United Kingdom (PIER Team) and obtain patterns of substance misuse in the caseload. Substance misuse documentation allows a clear understanding of misuse or dependence and its impact on patient management.

Background: PIER serves a multi-ethnic population of 1 million and assesses patients with differing patterns of substance misuse. Documentation of various patterns of substance misuse impacts on patient diagnosis and management. The team follows approved organisational protocols to record this information.

Methodology: The assessment notes of patients assessed for a six month period between October 2013 and March 2014 were scrutinised. This included assessments carried out by all clinical staff members. 67 cases were chosen randomly.

Results: The recording of substance misuse was completed in 99% cases. In 86%, it was recorded in the clinical assessment sheets. Types of substances were recorded in 51% with indicators of dependence and misuse in 26%.

Conclusions: From the initial assessments, it is expected that the assessors will have an impression about the pattern of substance misuse and hence use that information to devise care-plans and further clinical management, especially looking at risk issues influenced by substance misuse. Using motivational models, like Prochaska & Di Clemente’s model will impact positively on patient management and improve staff understanding of these issues. The figures for recording patterns of substance misuse in the service needs further improvement.

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POSTER ABSTRACTS
A120
Methamphetamine and early psychosis
Nathan Hall, Shona Franco, Jane Edwards
Orygen Youth Health, Australia

The use of methamphetamine, commonly referred to as ice, has increased in Australia since the mid 1990s. This has had a significant impact on mental health services. Ice is an addictive substance that can cause some people to become aggressive and develop symptoms of mental illness. Psychosis can be induced by substances, and one of the serious consequences of methamphetamine use can be the development of a psychotic episode. 10–20% of people who use methamphetamine develop psychosis. Methamphetamine use has a number of negative health impacts, both short and long term. There is an urgent need to educate the community about the risks to mental and physical health posed by the ice epidemic and to develop effective treatment strategies for co-morbid psychosis and methamphetamine use. This paper will outline the extent of ice use in young people experiencing a first episode psychosis in the current EPPIC Orygen Youth Health client group and efforts towards developing psycho-educational material for this specific group.

A122
Anomalous self experience: time to look closely at the temporal course and stability
Lise Baklund1, Paul Møller2
1Vestre Viken Hospital Trust, Norway, 2Buskerud Central Hospital Lier, Norway

Background: Phenomenologically inspired research indicates that a disturbed sense of self anomalous self experience (ASE) is crucial in the early development of psychotic disorders/schizophrenia spectrum disorders. However, empirical knowledge about the temporal development, course and stability of ASE is lacking.

Aim: To identify and present empirical studies that have addressed the longitudinal course of ASE, and discuss the significance of expanding this knowledge.

Method: Electronic and manual literature searches.

Results: We did not find any study explicitly targeting the stability of ASE. We identified two studies with follow-up assessments after one year and five years, respectively. Both assessed ASE as a predictor of conversion to psychosis as the main focus. In the one year follow-up study assessments of ASE were limited to baseline and thus not repeated at follow-up. In the five-year follow-up study ASE were assessed at baseline and follow-up without any significant differences. However ASEs were examined with the Bonn Scale for the Assessment of Basic Symptoms and not by EASE which is specifically targeting ASE.

Conclusions: Currently, it is unclear if and to what extent ASEs might be regarded as state or trait features. These fundamental aspects of ASE must be addressed in order to qualify ASEs as valid and useful predictors of psychosis in broader clinical populations. Two ongoing follow-up studies in Norway are currently investigating the stability ASE. Another study will examine the weekly course of ASE phenomena over a one-year period. Details of the latter study will be presented at the conference.

A123
Metamemory biases and psychosis: from the at risk mental state to manifest schizophrenia
Sarah Eifler, Franziska Rausch,1, Schirrmbeck Frederike,1,2, Fabian Ainsier,1, Ruth Veckenstedt,1, Daniela Mier,1, Antje Lewien,1, Susanne Englsch,1, Andreas Meyer-Lindenberg,1, Peter Kirsch,1, Matthias Zink1
1Central Institute of Mental Health, Germany, 2University of Amsterdam, The Netherlands, 3University Medical Centre Hamburg-Eppendorf, Germany

Patients with schizophrenia (SCZ) display deficits in monitoring their memory processes. Especially, biases in the discrimination between correct and false memories in terms of confidence have been found. These metamemory biases are discussed to be associated with the emergence of delusions. So far, it is not known if they already occur in the at risk mental state (ARMS) and untreated patients with a first episode of psychosis (FEP), representing possible indicators for the early pathogenesis of schizophrenia. We explored metamemory functioning in 33 ARMS patients, 18 untreated FEP patients and 31 healthy controls (HC) and in a second study in 32 chronic SCZ compared to 25 HC. Study groups were matched on age, gender and education. We applied a verbal recognition task combined with retrospective confidence ratings and evaluated the ability to discriminate between correct and false answers (confidence gap) and the proportion of false answers with very high confidence (knowledge corruption index). Associations between metamemory performance and psychopathology were analyzed. ARMS performed in between FEP and HC. However, only FEP differed significantly from HC and ARMS, indicated by the highest confidence ratings. Furthermore, FEP showed a significantly lower confidence gap compared to both groups and a higher knowledge corruption compared to HC. SCZ had a significantly lower confidence gap compared to the HC. Correlations with positive symptoms differed across groups. These results suggest that metamemory biases are already present in the early pathogenesis of psychosis and aggravate during the progress of illness. They might reflect indicators of delusional beliefs.

Ultra High Risk/Prodromal Research

A121
The ASP project: do anxiety sensitivity dimensions differ across the stages of psychosis? Preliminary data from cross-sectional investigations across at-risk mental state, first-episode psychosis, chronic psychosis, and anxiety disorders
Anna Meneghelli,1,2 Luisa Amato,1,2 Angelo Cocchi,1 Sandro Domenichetti,3 Maria Meliante,1,2 Andrea Pozza,4 Davide Dettore1,6
1Programma 2000 Milano, 2Scuola Asipse Milano, 3Mental Health Services Florence, 4University Of Florence, 5Istituto Miller Florence, Italy

Aim:
The current study aimed to examine differences on AS dimensions across patients with at-risk mental state (ARMS), first-episode psychosis (FEP), chronic psychosis (ChP), anxiety disorders (AD), and non-clinical controls (NCCs).

Method:
The Anxiety Sensitivity Index-3 was administered to patients with ARMS (n = 20), FEP (n = 25), ChP (n = 20), AD without psychosis (n = 40), and NCCs (n = 30). The AD group included patients with a primary panic disorder, social anxiety or generalized anxiety disorder.

Results:
Similarly to FEP and ChP, the ARMS group reported lower panic concerns scores than AD, and comparable scores to NCCs (F = 7.93, p < 0.01). ARMS group had higher cognitive concerns than NCCs, but lower than AD group (F = 4.62, p < 0.01). In addition, ARMS group endorsed higher social concerns than NCCs (at a significance level), and than FEP and ChP (only at a trend level), and comparable to AD (F = 7.37, p < 0.01).

Conclusions:
Social Concerns seemed to be a cognitive dimension specific to ARMS. Case conceptualizations and therapeutic components specific to social anxiety could be incorporated in modular treatments for ARMS, targeting misinterpretations of social cues and fear of negative evaluation. Replications with larger samples are needed.

Background:
Anxiety sensitivity is a maintenance cognitive factor for anxiety disorders, consisting of physical concerns (eg, the belief that pal-pitations lead to a cardiac arrest), social concerns (the belief that observ-able anxiety reactions will elicit social rejection), and cognitive concerns (cognitive difficulties could lead to mental incapacitation). No study investigated whether specific AS dimensions could be related to stages of psychosis.

Objectives:
The current study aimed to examine differences on AS dimen-sions across patients with at-risk mental state (ARMS), first-episode psychosis (FEP), chronic psychosis (ChP), anxiety disorders (AD), and non-clinical controls (NCCs).

A122
Anomalous self experience: time to look closely at the temporal course and stability
Lise Baklund1, Paul Møller2
1Vestre Viken Hospital Trust, Norway, 2Buskerud Central Hospital Lier, Norway

Background: Phenomenologically inspired research indicates that a dis-turbed sense of self anomalous self experience (ASE) is crucial in the early development of psychotic disorders/schizophrenia spectrum disorders. However, empirical knowledge about the temporal development, course and stability of ASE is lacking.

Aim: To identify and present empirical studies that have addressed the lon-gitudinal course of ASE, and discuss the significance of expanding this knowledge.

Method: Electronic and manual literature searches.

Results: We did not find any study explicitly targeting the stability of ASE. We identified two studies with follow-up assessments after one year and five years, respectively. Both assessed ASE as a predictor of conversion to psychosis as the main focus. In the one year follow-up study assessments of ASE were limited to baseline and thus not repeated at follow-up. In the five-year follow-up study ASE were assessed at baseline and follow-up without any significant differences. However ASEs were examined with the Bonn Scale for the Assessment of Basic Symptoms and not by EASE which is specifically targeting ASE.

Conclusions: Currently, it is unclear if and to what extent ASEs might be regarded as state or trait features. These fundamental aspects of ASE must be addressed in order to qualify ASEs as valid and useful predictors of psychosis in broader clinical populations. Two ongoing follow-up studies in Norway are currently investigating the stability ASE. Another study will examine the weekly course of ASE phenomena over a one-year period. Details of the latter study will be presented at the conference.
A124  Infl uence of expressed emotion on clinical status of at-risk mental state in Japan

Tomoyuki Funatogawa, Takahiro Nemoto, Junichi Saito, Yoko Baba, Miki Tobe, Hiroko Hasuya, Kiyoko Takeshi, Taiju Yamaguchi, Naoyuki Katagiri, Naohisa Tsujino, Hidehito Niimura, Masafumi Mizuno
1 Department of Neuropsychiatry, Toho University Faculty of Medicine, 2 Department of Neuropsychiatry, Keio University School of Medicine, Japan

Objectives: The Expressed Emotion (EE) of parents is thought to be an important socio-familial factor infl uencing interventions for At-Risk Mental State (ARMS). This study examined the relationship between the clinical status of individuals with ARMS and the EE of their parents.

Methods: The participants were patients aged 15–30 years who visited the Toho University Omori Medical Center, Tokyo, and were diagnosed as having ARMS with SIPS/SOPS. We assessed the Social Functional Scale (SFS), the Clinical Global Impressions (CGI), and the Global Assessment of Functioning (GAF) at the initial visit. Following these assessments, we assessed the EE status of their parents using the Five-Minute Speech Sample (FMSS). We then compared the clinical status scores (i.e., SFS, CGI, and GAF) between a high-EE and a low-EE group.

Results: Eight patients (2 males and 6 females) participated: the mean age was 17.0 years (S.D. = 2.4 years), the mean SFS was 97.5, the mean CGI was 3.9, and the mean GAF was 34.6. All the patients were diagnosed as having Attenuated Positive Symptoms with SIPS/SOPS. Five of the 15 parents (8 mothers and 7 fathers) had a high-EE according to the FMSS. No significant differences in the clinical status scores were seen between the high-EE and the low-EE groups.

Discussion: In this study, the rate of parents with a high-EE, as assessed using the FMSS, was similar to that of a previous study (Meneghelli et al., 2011). The relationships between the clinical status and the EE of the parents seem to vary.

A125  Toward the early screening for the risk of schizophrenia in children

Yukiko Hamasaki, Takatoshi Hikida
1 Kyoto Women’s University, 2 Kyoto University, Japan

Aim: The subclinical behavioral and psychological characteristics of schizophrenic children have not been sufficiently investigated to present specific evidences. To elucidate the picture of them and to find out indicators which predict later development of schizophrenia, the behaviors of the adult schizophrenia subjects were investigated in a questionnaire-based retrospective study.

Method: Schizophrenia outpatients in his/her twenties and normal healthy subjects were investigated. All patients are diagnosed according to DSM-IV-TR as schizophrenia, and who present now mainly negative symptoms after passing an acute stage. By modified use of the CBCL (Child Behavior Checklist) as a retrospective assessment questionnaire, the parents of the patients and of control subjects rated their childhood (aged 6-8 years) behaviors.

Results: Among the eight CBCL syndrome subscale T-scores, those of Withdrawn, Anxious/Depressed, Social problems and Attention problems were significantly associated with schizophrenia, although any of these scores were not in clinical range. Patients also showed a significantly attenuated aggression. The hit-rate when classifying the schizophrenic and normal subjects by logistic regression analysis using the eight CBCL syndrome subscale T-scores totaled 87%.

Conclusion: The results suggest that subclinical behavioral and psychological characteristics of schizophrenia already exist in the patients’ childhood. With some assessment tool using obtained logistic regression formulas, the early screening for the risk of schizophrenia in children could be possible.

A127  Gender differences in the role of childhood abuse on psychotic symptoms and co-morbid psychopathology

Tamar Kraan, Eva Velthorst, Lieuwe de Haan, Mark van der Gaag
1 Department of Psychiatry, Early Psychosis Section, Academic Medical Centre, University of Amsterdam, 2 Department of Clinical Psychology, VU University, Amsterdam, 3 Parnassia Psychiatric Institute, The Hague, The Netherlands

Background: Among UHR patients axis-I disorders such as depression or anxiety disorders are highly common. They have been found to impact on global functioning, ongoing psychopathology and longitudinal outcome and have been found to be related to transition to psychosis in UHR subjects. Another risk factor that has been related to psychosis is childhood abuse. In patients with psychotic disorders prevalence rates of childhood abuse were found to differ between men and women. This suggests that there might be gender differences in the pathways underlying the relationship between abusive events and psychosis. In this study we aim to examine the association between childhood trauma, psychotic symptoms and co-morbid psychopathology and investigate whether there are gender differences in this association. We will compare the co-occurrence of childhood trauma, UHR symptoms and general symptomatology in an UHR sample with a history of childhood trauma to an UHR sample without a history of childhood trauma and healthy controls. Examining gender differences in the association between abusive events and psychotic symptoms and co-morbid psychopathology may help in understanding the etiology of psychosis.

Method: In this study 280 UHR subjects and 24 healthy controls from the EUropean network of schizophrenia networks studying Gene-Environment Interactions (EU-GEI) will be examined. Gender differences in the relationship between childhood trauma and psychotic symptoms and co-morbid psychopathology for UHR patients and healthy controls will be analyzed by logistic regression.

Results and conclusions: The first results are currently being analyzed and will be presented at the IEPA conference.
Opinions regarding stigma associated with labels for clients with an At Risk Mental State (ARMS)

Bridget Molle, 1 Barnaby Nelson, 2 Andrea Polari, 1 Patrick McGorry, 2 Lucy Power, 3 Sung-Wan Kim 1
1 Orygen Youth Health, 2 Orygen Youth Health Research Centre, Australia
3 Chonnam National University Medical School, South Korea, 4 Royal College of Surgeons in Ireland, Dublin, Ireland

Aim: There has been increasing interest in the field of At Risk Mental State (ARMS) for Psychosis, with Attenuated Psychosis Syndrome (APS) included in Section 3 of the DSM-V. However there is limited knowledge regarding the stigma associated with the various labels used in this area. This exploratory study aimed to assess the opinions of practitioners and clients identified as being at Ultra High Risk (UHR) of psychosis about potential stigma associated with the labels UHR, ARMS, and APS.

Method: 18 UHR clients (mean age = 18.89 years, SD: 3.07 years, 61.1% female) and 39 practitioners (mean age 36.58 years, SD: 11.10, 39% female) from Orygen Youth Health in Melbourne, Australia completed questionnaires regarding their opinions of the stigma associated with the labels UHR, ARMS, and APS.

Results and discussion: Data collection is ongoing, however preliminary analysis suggested that, in comparison to clients, practitioners associated more stigma with the UHR and APS labels. There was also a correlation between practitioners’ opinions about stigma associated with the terms ARMS (A = 0.45, p = 0.017) and UHR (A = 0.21, p = 0.030) and clients’ experience of stigma but not for APS (A = 0.45, p = 0.071). Full analysis of the data set will be presented at the conference. The current findings may have implications for future discussions regarding the APS diagnosis.

History of childhood physical trauma has a negative impact on cognitive functioning in individuals at ultra high risk for psychosis

Alp Uçok, Üjür Çıkrıkçı, Çağdaş Yokuşçulu, Ceylan Ergül, Can Uşurpala, Hatice Kaya, Öznur Bülbul
Istanbul Faculty of Medicine, Department of Psychiatry, Turkey

In our previous studies we reported that there were more childhood trauma (CT) 1 and cognitive deficits (2) in UHR group compared to controls. The aim of this study is to measure the relationship between CT and cognitive functioning in UHR group. Sixty-one individuals at UHR for psychosis were applied a neuropsychological battery assessing attention, processing speed, verbal learning and memory, working memory, interference inhibition and sustained attention. CT was assessed by short version of Childhood Trauma Questionnaire (CTQ). We dychotomized the sample by using cut off scores for the existence of emotional, physical and sexual trauma, physical and emotional neglect. Physical trauma scores were negatively correlated with WCST-completed categories and composite score for executive functions. We did not find any difference in cognitive performances of those with and without other kinds of trauma/neglect. Physical trauma scores were negatively correlated with CTQ score test-forward.

References

Reported rates of criminal offending and victimisation in young people with emerging psychotic symptomatology

Rosemary Purcell, 1 Alison Yung 2
1 Centre for Forensic Behavioural Science, Swinburne University of Technology, Victoria, Australia, 2 Institute of Brain, Behaviour and Mental Health, University of Manchester, UK

The overwhelming majority of individuals who experience psychosis are never violent. Nonetheless, meta-analysis indicates that the rates of violence are 4–5 times greater in those with psychosis compared to the general population. A substantial proportion of violence and offending is known to occur during the first episode of psychosis, but the extent to which such behaviour is also evident in the earlier pre-psychotic stage of illness is unclear. We examined the rates of self-reported criminal charges and convictions, as well as crime victimisation, in a large prospective cohort study of young people who were seeking help for mental health problems in youth mental health services in Australia. This paper compared the rate of forensic outcomes in participants who had experienced positive psychotic symptoms (PPS) in the past 12 months (n = 273), with those without any psychiatric symptomatology (n = 440). Analysis showed that the rate of both criminal charges and convictions for non-violent offences was significantly higher in the PPS group compared to the non-PPS participants, but there were no group differences for violent offences. The PPS group was also significantly more likely to report having been a victim of violent and non-violent crime compared to their non-PPS counterparts. The results will be further discussed in terms of the mediating effects of illicit substance use, gender and unemployment status, however this research suggests that young people with positive psychotic symptomatology are already at higher risk of deleterious forensic outcomes relatively to their non-psychotic (but otherwise help-seeking) counterparts.

Understanding the different stages of psychosis among people incarcerated in New South Wales (NSW), Australia

Natalia Yen Lin Yee, 1,2 Kimberlie Dean 1,2
1 University of New South Wales (UNSW), 2 Justice Health & Forensic Mental Health Network (JH&FMHN), Sydney, Australia

The association between psychosis and criminal offending is well-known with factors such as substance use, active psychotic symptoms of physical illness are unclear. We examined the rates of self-reported criminal charges and convictions, as well as crime victimisation, in a large prospective cohort study of young people who were seeking help for mental health problems in youth mental health services in Australia. This paper compared the rate of forensic outcomes in participants who had experienced positive psychotic symptoms (PPS) in the past 12 months (n = 273), with those without any psychiatric symptomatology (n = 440). Analysis showed that the rate of both criminal charges and convictions for non-violent offences was significantly higher in the PPS group compared to the non-PPS participants, but there were no group differences for violent offences. The PPS group was also significantly more likely to report having been a victim of violent and non-violent crime compared to their non-PPS counterparts. The results will be further discussed in terms of the mediating effects of illicit substance use, gender and unemployment status, however this research suggests that young people with positive psychotic symptomatology are already at higher risk of deleterious forensic outcomes relatively to their non-psychotic (but otherwise help-seeking) counterparts.

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B1
Canadian cardiometabolic risk management algorithm
Sharman Robertson,1,4 Tony Cohn,2,5 Gretchen Conrad,1 Margaret Hahn,2,5 Jason Moores1
1The Ottawa Hospital, 2The Centre for Addictions and Mental Health, 3Ontario Shores, 4University of Ottawa, 5University of Toronto, Canada

Metabolic monitoring has become a standard recommendation for individuals who are prescribed antipsychotic medication. More recently efforts are being made to encourage health care providers to expand from only monitoring into prevention and intervention. Given the high numbers of over the last six years Worcestershire Early Intervention Services have been working to improve the physical health of young people with a first episode of psychosis. We present haematological data from 2008, 2010, 2012 and 2014 that demonstrates the improving metabolic profiles in patients being exposed to metabolically active medications at younger ages and for a greater proportion of their lives. Without appropriate management this can result in increased morbidity and mortality, with a ten to fifteen year reduction in life expectancy. We present an algorithm that synthesizes Canadian adult monitoring and intervention guidelines for the detection and management of obesity, diabetes, hypertension and metabolic syndrome into an easy to use graphic aimed at psychiatrists, family physicians and nurses. We believe that this algorithm, based on similar versions adopted in Australia and the UK will improve the early intervention for metabolic derangement in vulnerable populations with mental illness. Furthermore this monitoring and intervention tool encourages psychiatrists, nurses and family physicians to work together to improve health care in those with mental illness. Future versions could be adapted for the use of patients and their families.

B2
Collaboration and culture shifts – improving metabolic profiles in young people with first episode psychosis (six years of data from Worcestershire Early Intervention Services)
Alan Farmer, Lammas Matt, Sheen Ruth

Early Intervention Services, Worcestershire NHS Health and Care Trust, UK

Over the last six years Worcestershire Early Intervention Services have been working to improve the physical health of young people with a first episode of psychosis. We present haematological data from 2008, 2010, 2012 and 2014 that demonstrates the improving metabolic profiles for young people engaged with our service – data from 2008 and 2010 have previously been presented as posters at the IEPA. How did we achieve this? We discuss our collaboration with primary care physicians and secondary care based ‘health trainers’ that can support people in developing healthier lifestyles, sometimes in a family setting. We also present data on our use of the ‘HEALTH passport’, a collaborative tool that allows the identification of problem areas and the setting of health related goals. Most importantly we discuss a change in team culture to one where physical health and mental wellbeing are both valued as important goals, the activity groups that we have run and our links with the local community. The role of medication is also discussed and the leadership role for psychiatrists and nurse prescribers to avoid or minimise side effects and promote monitoring and appropriate interventions.

B3
Young, suicidal and on the internet: is help or harm just one click away?
Abbie Lane, Jane Gilhooley, Monika Bolger, Kevin M. Malone

Department of Psychiatry, Psychotherapy & Mental Health Research, St Vincent’s University Hospital and School of Medicine & Medical Science, University College Dublin, Ireland

Overview: The internet provides immediate and constant on-line access, and is reportedly linked to an increased risk of suicide amongst vulnerable adolescents. We investigated Google to identify immediate channels for help or harm for young people who key in common search terms of suicidal distress.

Methods: Utilizing an empathy-led enquiry, we placed ourselves in the shoes of a suicidal adolescent, and keyed common search terms into Google, ie, such as suicide; suicidal; depressed; very depressed; and investigated the top responses for content, level and consistency of response, help or harm. We also examined commonly known suicide-help websites, and those of the most relevant Professional Medical organizations, and conducted an international comparison.

Results: Voluntary Suicide help websites accounted for 8/10 Page 1 hits. Ehelp facilities were variable in cost, content and availability (24/7). Statutory websites referred help-seekers largely to the voluntary sector. The front page included a link to painless methods to complete suicide. Professional organizations had absent or inconsistent help links. Ehelp in UK and Australia is more co-ordinated, advanced and tailored.

Conclusions: Immediate Ehelp on Google for suicidal young people in Ireland is highly variable in cost, content and care, and competes with signposting for harm/suicide. Statutory agencies frequently refer to (unregulated) voluntary agencies. All agencies and professional bodies should work together to generate an enhanced and co-ordinated efront page presence, tailored for young people, especially young men, as evidenced in other countries, which should be evaluated. We are conducting further research consulting the views of young people.

Diagnosis and Phenomenology

B4
Understanding individual and family experiences associated with duration of untreated psychosis (DUP) in Oregon, USA: Early Assessment and Support Alliance (EASA)
Ryan Melton,1 Shannon Blajeski2
1Portland State University, 2University of Washington, USA

Research shows that a longer duration of untreated psychosis (DUP) is associated with worse outcomes. DUP research reveals a longer DUP is associated with negative symptoms (Perkins, et al, 2005, Compton, et al, 2011), grey matter volume reduction (Malla, et al, 2010), social withdrawal, and societal factors (Perkins, et al, 2005, Marshall, et al, 2005). Malla, et al (2010) argues that the critical period in the early course of psychotic disorders extends out to a maximum of 5 years from onset of illness and interventions are likely to have the greatest effect during this time. The authors argue for reducing treatment delay and outline examples of help-seeking and engagement delays. The Oregon EASA (Early Assessment and Support Alliance) program was developed in 2001 modeled on the Early Psychosis Prevention and Intervention Center (EPPIC) in Melbourne (Melton, et al, 2012). EASA teams are based on the Family Aided Community Treatment (FACT) model integrating multifamily psychoeducation within a specialized team (McFarlane, et al, 1992, McFarlane, Lynch & Melton, 2012). EASA blends the following services: “ \tTherapy. “ \tMedica- tions. “ \tNursing. “ \tAssertive Outreach. “ \tMultifamily Psychoeduca- tion. “ \tSupported Employment. “ \tSupported Education. “ \tOccupational therapy. Researchers developed a grounded theory from the contextual experiences of EASA clients and their caregivers using semi-structured interviews. Themes included client and caregivers perception of initial psychosis changes and experiences reaching EASA (e.g. hospital- ization, police involvement, etc.) as well as the social implications of this overall process. We will also discuss themes about engagement into the program.
85 Identifying risk of psychosis in young people: reliability, concurrent and discriminant validity of the PRIME screen – revised

Andrea Raballo,1,2,4 Elisa Pintus,3,4 Dontalla R. Petretto,1,4 Antonio Preti1,4
1 Department of Mental Health, 2 Reggio Emilia At Risk Mental States (Re-ARMS) Project, Reggio Emilia, 3 Department of Education, Psychology, Philosophy, University of Cagliari, 4 Cagliari Psychosis Investigation on Risk Emergence (CAPIRE), Cagliari, Italy

Aim: The PRIME screen is a 12-item self-report screening tool that was derived from the SIPS/SOPS interview to detect people with sub-threshold signs of an ongoing psychosis or ultra-high-risk people. In the PRIME screen-revised version (PS-R), the duration of symptoms is taken into account. This study set out to investigate the prevalence of UHR/CHR people in a non-help-seeking population, by concurrently ascertaining the general psychometric properties of the Italian PS-R.

Methods: This study is part of the Cagliari Psychosis Investigation on Risk Emergence (CAPIRE), which in Italian language means to understand). The sample included 305 male (47%) and 344 female (53%) undergraduate students. Participants had an average age of 24 years old (SD = 3.4).

Results: The PS-R had optimal reliability (internal consistency = 0.89; test-retest stability = 0.91 (95% CI = 0.89 to 0.93). Confirmatory factor analysis revealed an unidimensional structure, with excellent factor loading for all items (≥ 0.55). Scores on the PS-R were related to measures of psychopathology, with greater links with measures of psychotic-like experiences than with measures of general distress (General Health Questionnaire-12). In the sample, 29 participants (7.1%) were positive on any of the three criteria for risk of psychosis on the PS-R.

Conclusion: Reliability of the PS-R was excellent, with gold-standard values of interval coherence and stability at retest. Concurrent validity was in the expected direction. Factor analysis confirmed that a summary score can reliably be used to screen people at risk of psychosis.

86 Patterns of risk status in repeated measures over time: to what degree do they inform about conversion risk?

Frauke Schultze-Lutter,1 Stephan Ruhrmann,2 Benno G. Schimmelmann,1 Joachim Klosterkötter,2 Stefanie J. Schmidt1
1 University of Bern, Bern, Switzerland, 2 University of Cologne, Cologne, Germany

The basic symptom criterion cognitive disturbances (COGDIS) and ultra-high risk (UHR) criteria are commonly used for the prediction of psychosis. However, their predictive value has been assessed so far only by survival analyses using one-time baseline ratings and time-to-conversion. Thereby, potentially risk status-informative fluctuations in risk criteria ratings over time remained unaccounted for. Therefore we studied if and how the predictive value of COGDIS and the main UHR criterion attenuated psychotic symptoms (APS) and their combination might be influenced by their presence across different assessment times. In a naturalistic 24-month study, 146 patients at risk for cognitive-perceptual symptoms were repeatedly examined (monthly assessments until month 6, thereafter 3-monthly) for COGDIS and APS with the Schizophrenia Proneness Instrument, Adult version, and the Structured Interview of Prodromal Syndromes. Joint latent class analysis was applied to identify different patterns of risk criteria over time and to detect the degree of their association with risk for conversion to psychosis. The final model included 4 classes: no risk criteria, exclusively BS, exclusively APS and the combination of COGDIS and APS. Class-specific trajectories and survival functions were associated with an increased risk for the conversion to psychosis from a mild to an intense degree, demonstrating a superior performance of the combination of BS and APS. This result reinforces earlier results of a clearly superior psychosis-predictive value of this combination at baseline and shows that its stability over time. Thus, APS and COGDIS should be repeatedly monitored to assess shifts in risk status.

87 Childhood trauma as a risk factor in first episode psychosis

Monica Aas,1 Srdjan Djurovic,1 Unn Hauvik,2 Ole A Arendassen,1 Ingrid Agartz,1 Ingrid Melle1
1 NORMENT Centre for Psychosis Research, Oslo University Hospital and Institute of Clinical Medicine, University of Oslo, 2 Division of Mental Health and Addiction, University of Oslo, Norway

Background: There are strong indications of links between childhood trauma and psychosis, including a higher prevalence of trauma in patients as well as links to clinical features and severity indicators. Few studies have investigated how childhood trauma may interact with genetic risk markers or the potential effect of childhood trauma on the course of first episode psychosis.

Method: Patients with a DSM-IV schizophrenia spectrum disorder or bipolar disorder were consecutively recruited to the Thematically Organized Psychosis (TOP) research study. Diagnosis was assessed using the Structured Clinical Interview for DSM-IV Axis I disorders (SCID-I) and symptoms using the Global Assessment of Functioning (GAF) and the Positive and Negative Syndrome Scale (PANSS). Patients underwent a standardized neuropsychological test battery. DNA and RNA were analyzed using standardized procedures. 1.5 T T1-weighted MRI scans were acquired, and the FreeSurfer software (v 4.5.0) was used to automatically obtain measures of interest.

Results: Patients reported higher frequency of childhood trauma than controls from the same catchment area. In patients, childhood trauma was associated with higher symptom levels both at baseline and at 1-year follow-up with indications of a slower recovery rate. There were interactions between genes related to neurotrophic factors and stress response and childhood trauma on cognitive dysfunction and hippocampal structure.

Conclusion: Our data indicate that childhood trauma is associated with a more severe form of psychosis over the first year in treatment. Childhood trauma is also associated with more cognitive and structural changes in genetic vulnerable individuals.

88 Research on dicarbonyl accumulation and AGEs formation in schizophrenia

Makoto Arai,1,2 Mitsuhiro Miyashita,3 Akiko Kobori,1 Kazuya Toriumi,1 Yasue Horiiuchi,1 Naili Rabbanib,2 Paul J Tharmaley,3 Masanori Itokawa1
1 Tokyo Metropolitan Institute of Medical Science, Japan, 2 University of Warwick, UK, 3 Shinshu University School of Medicine, Japan

Specific biomarkers such as dicarbonyls and advanced glycation end products (AGEs) for schizophrenia have a potential to be useful for identifying patients at risk of developing the disease. Accumulation of toxic reactive dicarbonyls such as methylglyoxal, which are referred to as carbonyl stress, result in the modification of proteins and the formation of AGEs such as pentosidine. We reported idiopathic carbonyl stress in a subpopulation of schizophrenia, resulting a failure of metabolic systems with plasma pentosidine accumulation and serum pyridoxal depletion. Our findings suggest that two markers, pentosidine and pyridoxal, are beneficial for distinguishing a subgroup from patients of the disease. Cellular removal of dicarbonyls is dependent on the activity of glyoxalase I. In our study, we attempted to find bioactive for improving dysfunctions of glyoxalase metabolism, and investigate the effect of glyoxalase activity on human cells function in vitro for understanding molecular mechanisms associated with dicarbonyls/AGEs accumulation seen in schizophrenia. We found that astrocytoma is more sensitive to carbonyl stress compared to neuroblastoma indicating potential dicarbonyl accumulation. Our results also indicated that some bioactives have potential value for up-regulation of glyoxalase systems in the cell line. Bioactives able to inhibit dicarbonyl accumulation and AGEs formation may also prove to be of therapeutic value. Data regarding metabolites covering dicarbonyls and AGEs are in progress.
B9 Solving the dualism between mind and brain. The Human Birth Theory

Martina Brandizzi, 1, 2 Alice Maisillo, 2 Nella Lo Cascio, 2 Juliana Fortes Lindau, 1 Claudia Darío, 2 Ricardo Saba, 2 Valentino Righetti, 2 Elena Pappagallo, 3 Elena Monducci, 7 Ludovica Telesforo, 1 Martina Patane, 9 Paolo Fiori Nastro 2

1 Neurosciences, Mental Health and Sensory Functions (NEMOS) Department, Sapienza University of Rome, Faculty of Medicine and Psychology, Sant Andrea Hospital, 2 Department of Neurology and Psychiatry, Sapienza University of Rome, Faculty of Medicine and Odontology, 3 Community Mental Health Service, ASL Rome A, Rome, Italy

Introduction: In the last decades psychiatry research has become more interested in studying cognitive and behavioral manifestations of psychiatric illness, maximizing reliability. Not conscious functions of mind have been discarded as non-scientific. The early identification of psychosis has shown the blind spot of this scientific paradigm. The case of not including the APS in the DSM-5 main text due to a lack of specificity is an example. The aim of this study is proposing a change of paradigm to approach patients at early phase of illness, based not only on perceptible phenomena but also on not conscious aspects of life and relationship.

Method: The Human Birth Theory formulated by Fagioli in 1971, sew up the dualism between mind and brain. Fagioli theorized that at birth light retinal stimulation produces the activation of the cerebral cortex and the beginning of human thought, which, at this moment, cannot be conscious. The emergence of the first human thought arises from the brain capacity to react to light stimulus. This process is defined by the word transformation.

Results: Recent physiological findings strongly support this theory. An external agent, often represented by insane relationship at first months of life, can modify the human psychic health, producing mental illnesses.

Conclusions: This theory allows a new comprehension of human being, resolving the splitting between conscious and unconscious. The alteration of human psychic health, naturally current at birth, may elicit the development of mental illness. Studying not conscious contents allow early recognizing prodromal psychosis manifestations, despite the lack of clear psychotic symptoms.

B10 Diagnostic and trait overlap between psychosis and autism in a first episode psychosis population

Katharine Chisholm, 1 Ashleigh Lin, 1 Stephen Wood 1, 2

1 The University of Birmingham, UK, 2 Melbourne Neuropsychiatry Centre, Australia

Autism and psychosis have been reported to co-occur, but little research has investigated autism traits in individuals with psychosis. Trait co-occurrence is significant, as psychosis and autism both exist on extended phenomenological continua. It is important that research take into account similarities between the disorders, and ensures that measures are recording genuine traits of autism, rather than merely reflecting current symptomatology of psychosis. Individuals presenting with a first episode of psychosis to Early Intervention Services were invited to take part in the research. Current symptoms of psychosis were measured using the Positive and Negative Syndrome Scale. The Schizotypal Personality Questionnaire (SPQ) was used to measure underlying schizotypal traits. The SPQ has three subscales: cognitive perceptual deficits, interpersonal deficits and disorganisation. Traits of autism were measured using the Autism Quotient (AQ). Scores of above 32 on the AQ, although not diagnostic, may indicate that autism is present. Preliminary results from 55 participants found 5.5% had a previous diagnosis of autism, and 9.1% scored above the cut off for probable autism on the AQ. A moderate correlation was found between the AQ and the SPQ, even when controlling for current symptoms of psychosis, with the AQ total associated with interpersonal deficits (r = 0.4, p = 0.01) and disorganisation (r = 0.3, p = 0.04), but not with cognitive perceptual deficits (r = -0.09, p = 0.6). Autism traits and psychosis traits appear to be associated over and above current psychosis symptomatology. Understanding how and why these traits overlap will help to aid the development of a fundamental understanding of the disorders.

B11 Defining an ultra high risk state for bipolar disorder: systematic review

Kohsuke Kamoshida, Matthew J Taylor

King’s College London, UK

Successfully defining the ultra high risk state for psychosis was a key milestone in early intervention. For bipolar disorder the definition of a high risk clinical phenotype is less firmly established but equally warranted to guide clinical and research activity. Recent years have seen an explosion of activity from around the world to define putative prodromal features for bipolar disorder. Here we present a systematic review and meta-analysis of studies of clinical features preceding the onset of bipolar disorder. We report a rapidly growing literature with new studies – both retrospective and prospective – reporting within the last few years. Taken together, common themes emerge. While further validation is ongoing, it seems there are increasingly clear clinical features emerging across diverse studies that point to an at risk mental state for bipolar disorder.

Secondary theme: Ultra High Risk/Prodromal Research

B12 The recovery experience following early psychosis

W Joy Maddigan, 1 Kellie LeDrew, 1, 2 Kevin Hogan, 1, 2 Carole-Lynne LeNavene 2

1 Memorial University of Newfoundland, 2 Eastern Regional Health Authority, St John’s NL, 3 University of Calgary, Alberta, Canada

A descriptive phenomenological study of recovery based on the philosophy of Edmund Husserl and using the psychological phenomenological method of Giorgi (2009;1985) was conducted as part of a mixed methods investigation. Recognizing the subjective nature of recovery, the aim of the qualitative component was to illuminate the psychological constituents (meanings) essential to the lived experience of recovery following a first episode of psychosis. Interviews with six participants (three young men and three mothers) provided descriptions of the of the recovery experience for analysis (phenomenological reduction). A psychological structure of the phenomenon was intuited from the descriptions to illustrate the intentionality of the lived experience. Three constituents captured the enduring meanings contained in the recovery structure: 1) Exchanging one nightmare for another: recovery is the continuation of the nightmare that starts with the initial presence of psychotic features, includes contact with and intervention by the mental health system and quickly leads to daunting treatment decisions and unknown impacts; 2) Managing resistance and acceptance: to knowingly live with mental illness involves an intense emotional struggle. Angst and grief are deep but determination to meet the illness head on becomes paramount. The illness is not going away but can be accommodated; and, 3) Taking life back, slowly: Recovery is managing unpredictable illness activity (symptoms and medication side effects) while attempting to make decisions about a new way forward. Independence is threatened and life plans shift. Over time (three to five years) non-illness related activities and responsibilities grow and become more important than illness.
Remote monitoring of sleep-wake activity as an early warning sign in psychosis: a novel, exploratory approach

Nicholas Meyer,1, Amos Folarin,2 Richard Dobson,2 James MacCabe1
1Department of Psychiatry Studies, Institute of Psychiatry, King’s College London, 2NIHR Biomedical Research Centre for Mental Health, King’s College London, UK

Background: Sleep dysregulation is widely recognised as a frequent early sign of relapse in psychosis, and monitoring of sleep-wake activity therefore shows promise as a novel, objective marker of relapse. However, little evidence exists regarding the nature of the association, and existing approaches do not allow remote, real-time monitoring of sleep-wake activity in patients in the community. We report on the development of an innovative system that seeks to achieve these goals.

Technology: The sleep monitoring system is currently in development, and consists of three elements: 1) a proprietary wrist-worn actigraphy device with wireless capability, 2) a smart-phone application for collecting smart-phone sensor data and usage activity, together with a user-friendly interface for collecting patient-reported items on sleep and psychotic symptoms, and 3) a web-based platform for fusing and analysing rest-activity data from these streams and presenting this to the patient and care team.

Clinical and scientific potential: A feasibility study of the system in a clinical population is planned, and it is hypothesised that 1) long-term, remote monitoring of sleep patterns in a community setting is feasible and acceptable in patients with psychotic illness, and 2) the sleep monitoring system will detect significant within-subject variability in sleep patterns amongst patients, as well as intra-subject variability in sleep over time. Future substantive studies will aim to demonstrate that sleep perturbation is a useful marker for relapse in psychosis, and explore the role of sleep dysfunction in the aetiological pathway to relapse.

Symptom dimensions in recent-onset psychosis: naturalistic exploration with Brief Psychiatric Rating Scale (BPRS) 24-items

Manuel Tettamanti,1,2 Paolo Ghisletta,2 Maryse Badan Bâ,1,2 Panteleimon Giannakopoulos,2 Marco CG Merlo,2 Logos Curtis1,2
1Young Adult Psychiatry Unit, 2Department of Mental Health and Psychiatry, Division of General Psychiatry, University Hospitals of Geneva and University of Geneva, 3Department of Psychology and Educational Sciences, University of Geneva, Geneva, 4Department of Medicine, University of Fribourg, Fribourg, Switzerland

Background: Previous studies with the Brief Psychiatric Rating Scale (BPRS 24) suggested a four-factor solution with recent onset psychosis patients (e.g., Ventura et al., 2000). Limitations of these studies include exclusive use of Exploratory Factorial Analysis (EFA) and an absence of consideration for patterns of correlation among factors. The objective of our study was to investigate the factor structure of the BPRS 24 combining EFA and Confirmatory Factor Analysis (CFA) in a population of young adults with a first episode psychosis (FEP).

Methods: BPRS 24 data were collected from 164 young adults (17–31 years old) within a specialized inpatient care structure at their entry after an acute FEP.

Results: A five-factor solution was found with EFA (i.e., mania, depression/anxiety, negative symptoms, positive symptoms and [hostile]-suspiciousness), explaining almost 67% of variance. The most important factor was mania, confirming the importance of inclusion of a measurement of this dimension in FEP CFA confirmed that a five factor structure was adjusted to our data. However, order of dimensions importance and patterns of correlations (e.g., positive correlation between positive and negative symptoms) differed partly from those described previously in populations diagnosed with chronic psychosis.

Discussion: To our knowledge, our results are the first combining EFA and CFA to explore factorial structure of BPRS 24 on a sample of patients with FEP. Although we found an additional unstable fifth factor, we confirm the usefulness of the main four-factor model already found to assess the variety of recent onset psychosis symptomatology.
B16  
**Gamma synchrony changes in children and adolescents with early onset psychosis**

Jean Starling,1,2 Leanne M Williams,1,4 Annie Brennan,2,4 Cassandra Hainsworth,7 Anthony W Harris2,4

1Walker Unit, Concord Centre for Mental Health, Sydney Local Health District, Sydney, 2Discipline of Psychiatry, Sydney Medical School, University of Sydney, New South Wales, Australia, 3Psychiatry and Behavioral Sciences, Stanford, CA, VA Palo Alto (Sierra-Pacific MIRECC), USA, 4The Brain Dynamics Centre, Westmead Millennium Institute for Medical Research, Westmead, 5Department of Psychological Medicine, Children’s Hospital at Westmead, New South Wales, Australia

**Objective:** Gamma band (30–100 Hz) activity is posited to underlie aspects of the functional connectivity of the brain. As such it may represent a measure of the breakdown in cortical connectivity possibly underpinning psychotic disorders such as schizophrenia. We describe gamma synchrony findings during a resting auditory state and an auditory oddball task in 33 young people, mean age of 14.1 and psychotic disorders, compared to healthy controls.

**Methods:** An electroencephalogram (eyes open/closed) and response to an auditory oddball paradigm were recorded as part of a larger psychophysiological battery. Gamma synchrony (39–43 Hz band) was calculated between sites at baseline, over the 250–350 ms and the 350–500 ms window across eight regions of interest (left frontal, right frontal, left temporal, right temporal, left parieto-occipital, right parieto-occipital, left temporal-frontal and right temporal-frontal), based on previous findings.

**Results:** In the resting auditory state gamma synchrony was significantly increased at baseline \((F = 8.15, p = 0.006)\) and at both 250–350 ms \((F = 7.9, p = 0.007)\) and 350–500 ms \((F = 8.9, p = 0.004)\), particularly in the parieto-occipital region, bilaterally. During the auditory oddball task gamma synchrony was also significantly increased at baseline \((F = 8.15, p = 0.006)\) and absolute peak, at both 250–350 ms \((F = 15.61, p = 0.0002)\) and 350–500 ms \((F = 8.94, p = 0.006)\), again bilaterally in the parieto-occipital region.

**Conclusions:** These results are consistent with studies in older populations with schizophrenia, with an increase in absolute gamma synchrony; however, in the younger age group the parieto-occipital region demonstrates the most significant increase. These results suggest that measures of gamma synchrony may index cortical changes in young people with psychosis.

B17  
**Evidence of the electrophysiological of maternal speech understanding by 9-month-old infants**

Kingsley Chikere

University of Lagos, Nigeria

Early word learning in infants relies on statistical, prosodic, and social cues that support speech segmentation and the attachment of meaning to words. It is debated whether such early word knowledge represents mere associations between sound patterns and visual object features, or reflects referential understanding of words. By measuring an event-related brain potential component known as the N400, we demonstrated that 9-month-old infants can detect the mismatch between an object appearing from behind an occluder and a preceding label with which their mother introduces it. Differential N400 amplitudes have been shown to reflect semantic priming in adults, and its absence in infants has been interpreted as a sign of associative word learning. By setting up a live communicative situation for referring to objects, we demonstrated that a similar priming effect also occurs in young infants. This finding may indicate that word meaning is referential from the outset of word learning and that referential expectation drives, rather than results from, vocabulary acquisition in humans.

B18  
**Gamma synchrony elevation in first episode psychosis**

Anthony Harris,1,2 Annie Brennan,1,2 Jean Starling,1,2 Cherrie Galletley,1,3 Leanne Williams1,4

1Brain Dynamics Centre, Westmead Millennium Institute for Medical Research, Westmead, 2Discipline of Psychiatry, Sydney Medical School, University of Sydney, Camperdown, New South Wales, 3Department of Psychiatry, University of Adelaide, Adelaide, South Australia, Australia, 4School of Psychiatry and Behavioral Sciences, Stanford University School of Medicine, Stanford, CA, USA

**Background:** Synchronization of brain activity in the gamma band is a plausible mechanism for the fundamental processes of cortical communication and computation. In turn, changes in gamma synchrony have been hypothesized to be central to the pathophysiology of psychotic disorders such as schizophrenia, a disease that has been conceptualized as a breakdown in functional connectivity in the brain. In this study we examined if changes in gamma synchrony were present in a group of young people with their first episode of psychosis and if it was associated with symptom profile or neurocognition.

**Methods:** One hundred and twenty four subjects with first episode psychosis, were recruited from community and hospital services and compared to matched control subjects. All were assessed with a standardized battery of clinical, neurocognitive and psychophysiological tests. Gamma synchrony was measured during an auditory oddball component of this battery. Results are reported for synchrony at baseline, over the first 150 ms and then over the 250–350 ms window. The correlations between gamma synchrony and cognitive and clinical domains are reported.

**Results:** Raised gamma synchrony was observed in the subjects with first episode psychosis both centrally and fronto-temporally. These results were consistently observed at baseline, 0–150 ms and 250–350 ms. After correction for multiple comparisons no correlations were observed between gamma synchrony and either neurocognition or symptomatology.

**Conclusions:** Elevated gamma synchrony is evident from early in the course of a psychotic illness. However, it is not directly associated with neurocognition or symptom profile.
Epidemiology

B19
The epidemiology and associated phenomenology of formal thought disorder: a systematic review

Eric Roche,1 Lisa Creed,1 Donagh MacMahon,2 Daria Brennan,3 Brendan Kelly,4 Kevin Malone,2 Mary Clarke1

1 DETECT Early Intervention in Psychosis Service, Blackrock, 2 School of Health Science, University College Dublin, 3 St John of God Hospital, Stillorgan, 4 Mater Misericordiae Hospital, Dublin, Ireland

Background: Authors of the DSM-V have recommended to integrate dimensions into clinical practice. The associated phenomenology and epidemiology of formal thought disorder (FTD) have been described but not reviewed, to date. We aimed to carry out a systematic review of FTD to this end.


Results: 540 abstracts were reviewed and 136 articles met inclusion criteria; articles describing FTD prevalence and longitudinal course (n = 32), influence on outcome (n = 36), role in diagnosis (n = 27), association with age (n = 26) and factor structure (n = 15) were included. Prevalence estimates for FTD in psychosis range from 27–91%. It is rare in late-onset psychosis (~5%), and remains stable over time in those with early-onset psychosis. Dividing FTD into domains, by factor analysis, can accurately identify 91% of psychotic diagnoses. The severity and longitudinal course of FTD can also help distinguish between different diagnostic categories. FTD is associated with longer hospital admissions, greater likelihood of relapse, poorer insight and increased risk of transition to psychosis in the at-risk mental state. Substance abuse may exacerbate severity and course of FTD. Poorer social functioning and worse occupational outcomes have been predicted by negative FTD, more so than the typical construct of disorganised speech. Persistence of FTD is especially associated with worse outcome.

Conclusion: FTD is a common symptom of mental illness and may be considered a marker of illness severity. Detailed dimensional assessment FTD can clarify diagnosis and may help predict prognosis.

B20
Sex differences in schizophrenia spectrum disorders revisited: findings from the early psychosis and intervention centre long-term follow-up study

Claudia M. Klier,1 Simon Rice,1 Lisa P. Henry,2 Susy M. Harrigan,3 Meredith G. Harris,2 Helen Herrman,2 Henry J. Jackson,4 Patrick D. McGorry,2 G. Paul Amminger2

1 Medical University of Vienna, Austria, 2 Orygen Youth Health Centre for Youth Mental Health, 3 The University of Queensland, 4 The University of Melbourne, Australia

It has been suggested that in schizophrenia males may experience worse outcomes than females. The aim of this analysis is to describe the longer-term clinical and functional outcome of a large, epidemiologic representative cohort of individuals experiencing a first-episode of schizophrenia spectrum disorder, comparing male and females. We conducted a naturalistic, prospective follow-up (of an epidemiologic sample of 723 consecutive first-episode psychosis patients, followed between January 1998 and April 2005, at a median of 7.4 years after initial presentation to the Early Psychosis Prevention and Intervention Centre (EPPIC) in Melbourne, Australia. EPPIC is a frontline public mental health early psychosis program, servicing a geographically defined catchment area with a population of about 800,000 people. The main outcome measures included the Brief Psychiatric Rating Scale, the Schedule for the Assessment of Negative Symptoms, the Beck Depression Inventory, the Global Assessment of Functioning Scale, the Social and Occupational Functioning Assessment Scale, and the Quality of Life Scale. Follow-up interviews were conducted on 66.9% (484/723) individuals, of whom 75.6% (366/484) received a schizophrenia spectrum disorder diagnosis at baseline. In the with group schizophrenia spectrum disorder, no statistically significant difference was observed between males and females on any of the applied outcome measures. This is the first large follow-up study in an epidemiologic representative sample of individuals with schizophrenia spectrum disorder showing comparable outcomes in males and females. Early detection and specialised treatment for the first psychotic episode may specifically benefit the long-term outcome of males with schizophrenia spectrum disorder.

B21
Auditory hallucinations in Norwegian adolescents: a population-based study

Else-Marie Løberg,1,2 Kristina Kompus,2 Maj-Britt R. Posserud,1,3 Astri J. Lundervold1,3

1 Division of Psychiatry, Haukeland University Hospital, 2 Department of Biological and Medical Psychology, University of Bergen, 3 Regional Centre for Child and Youth Mental Health and Child Welfare, Uni Health, Uni Research, Bergen, Norway

Introduction: The presence of auditory verbal hallucinations (AVH) and attenuated AVH is important for the assessment of psychosis and psychosis risk. Knowing the prevalence, in addition to the clinical and demographic correlates, of AVH in the general adolescent population is useful for optimal diagnostics and targeted treatment. Thus, we present AVH prevalence data from a large population-based study, and outline the next stage of the study focusing on clinical and demographic correlates to AVH in this population.

Methods: A population-based cohort of Norwegian adolescents aged 16–18 (n = 9646, 46.4% male) completed a web-based questionnaire on mental health including demographic background variables. AVH was assessed by using two items from a self-report questionnaire. The relationship between endorsing AVH items and clinical variables (mental health, behavioral and developmental problems, risk factors for mental health problems) and demographic variables will be analyzed.

Results: The prevalence of hearing a voice speaking thoughts aloud was 10.6%. The prevalence of being troubled by voices was 5.3%. Female respondents had slightly increased risk for being troubled by voices (OR = 1.3).

Conclusion: The prevalence of AVH is consistent with earlier reports in smaller samples of adolescents, and indicates that AVH are not uncommon in this period of life. Being troubled by voices was less frequent than the experience of hearing voices. The next stage of the study will increase the clinical value of these findings by examining the relationship between the AVH items and clinical and demographic data.
B22 Differential predictive abilities of phenomenological at-risk states for psychosis and bipolar disorder

Aswin Ratheesh,1 Barnaby Nelson,1 Susan Cotton,1 Jennifer Betts,1 Andrew Channen,1 Patrick McGorry,1 Michael Berk,1,2 Andreas Bechdolf1,3
1Orygen Youth Health and Centre for Youth Mental Health, University of Melbourne, 2Deakin University and Barwon Health, Australia, 3Charite University, Berlin

Introduction: Unlike the at-risk states for psychosis (such as the Ultra High Risk or UHR criteria), the risk states for Bipolar Disorder (BD) are still in early stages of validation. A set of Bipolar At-Risk (BAR) criteria have been described that combine risk factors such as age of onset, genetic risk and sub-threshold affective symptoms. The relationship between UHR and BAR criteria in the prediction of BD and psychosis is not clear.

Methods: 35 participants who fulfilled BAR criteria and 35 controls were recruited from a clinically help-seeking population of young people in Melbourne, Australia and were followed up for 12 months. At baseline, Comprehensive Assessment of At-Risk Mental States (CAARMS) was utilized to establish the UHR status among the entire sample. Conversion to BD was established using the Longitudinal Interval Follow up Evaluation (LIFE) interview. Examination of the association between baseline BAR and UHR status and conversion to BD was undertaken using chi-square tests.

Results: Four participants developed DSM IV BD I or II while no participant developed psychosis. On follow-up, conversion to BD was associated with positive BAR status ($p = 0.04$) in the entire sample and negative UHR status that trended towards statistical significance ($p = 0.05$) in the entire sample and which was significant in the BAR subgroup ($p = 0.04$).

Discussion: Absence of UHR criteria was significantly associated with development of BD, especially among the BAR subgroup. The risk for psychosis and BD may be divergent based on similarly structured at-risk criteria that explore different phenomenology.

First Episode Psychosis

B23 The Super EDEN Lived Experiences Advisory Panel (LEAP): service users voices at the heart of research

Anna Lavis,1 Linda Everard,2 LEAP Members,2 Max Birchwood1
1Health and Population Sciences, University of Birmingham, 2Birmingham and Solihull Mental Health NHS Foundation Trust, 3Mental Health & Well-being, University of Warwick, UK

To ensure high quality research, service users and carers or their representative groups should be involved wherever possible in the design, conduct, analysis and reporting of research (Research Governance Framework for Health and Social Care, UK, 2005). The NIHR-funded Super EDEN programme is a multi-sited study exploring the illness and treatment experiences, as well as discharge trajectories, of service users in the DoH National EDEN cohort. With support from Dr John Larsen from RETHINK, the study team set up a Lived Experiences Advisory Panel, with whom we have now been working closely for over three years. This panel comprises young people from across the country who have lived with psychosis and received care from an Early Intervention Service (EIS). The members of the LEAP are an integral part of the super EDEN programme and their expertise has been key to the direction of its research and data analysis. Recently, members have worked with the programme team and EIS staff on exploring ways in which EIS could be improved, as well as on the analysis of the qualitative interview transcripts. In this latter, LEAP members voices have shaped the analysis of topic areas such as the physical healthcare of individuals with severe mental illness and transitions out of EIS. This poster tells the story of the Super EDEN Lived Experiences Advisory Panel (LEAP), showing how its members are at the heart of this research into first episode psychosis and Early Intervention Services.

B24 Psychotic symptoms, cognition and affect as predictors of psychosocial problems and functional change in first-episode psychosis

Luyken Stouten,1 Wim Veling,1,2,3 Winfried Laan,1 Mischa Van der Helm,1 Mark Van der Gaag1,4,5
1Parnassia Psychiatric Institute, Center for Early Psychosis, The Hague, 2Department of Psychiatry and Neuropsychology, University Medical Center Groningen, Groningen, 3Department of Psychiatry and Neuropsychology, Maastricht University, Maastricht, 4Department of Clinical Psychology, VU University, 5EMGO Institute for Health and Care Research, Amsterdam, The Netherlands

Objective: To enable further understanding of how cognitive deficits and psychopathology impact psychosocial functioning in first-episode psychosis patients, we investigated how these clinical domains were associated with psychosocial problems at baseline, and if they predicted psychosocial functioning at 12-months follow-up. Also, we tested whether baseline cognitive deficits were stronger predictors of change in psychosocial functioning in the first year after diagnosis than baseline psychotic symptoms.

Methods: 162 first-episode psychosis (FEP) patients completed assessment of eight neurocognitive (attention, problem solving, speed of processing, verbal fluency, verbal learning, visual learning, working memory, general cognition) and four social cognitive subdomains (emotion perception, theory of mind, social knowledge, social cognitive biases) and psychopathology (positive and negative symptoms, depression and anxiety) at baseline. Psychosocial functioning (work/study, relationships, self-care, disturbing behavior and general psychosocial functioning) was assessed at baseline and 12-months follow-up. Backward regression models were computed to test our hypotheses.

Results: At baseline, psychosocial functioning was associated strongest with positive and negative symptoms of all assessed clinical subdomains, followed by neurocognition and social cognition. In contrast, psychosocial functioning at 12-months follow-up was not predicted by psychotic symptoms, but rather by neurocognition, social cognition and depression. Change in social functioning in the first year after baseline was predicted by positive and negative symptoms, but to a similar degree by neurocognition and social cognition.

Conclusions: Whereas psychotic symptoms show marked impact on functioning at illness onset, cognitive deficits appear to be more accurate longitudinal predictors of psychosocial problems and functional recovery in the early stages of psychosis.
**B25**

**Insight over time in first generation immigrants with first episode psychosis**

Akiah Berg,1 Elizabeth Barrett,1,2 Ingrid Melle,1,3
1NORMENT; K.G. Jebsen Centre for Psychosis Research, Division of Mental Health and Addiction, Institute of Clinical Medicine, University of Oslo, and Oslo University Hospital, 2Section of Early Psychoses Treatment, Division of Mental Health and Addiction, Oslo University Hospital, 3Department of Research and Development, Division of Mental Health and Addiction, Oslo University Hospital, Oslo, Norway

**Objectives:** Immigrants have heightened risk of psychosis but little is known about their prognosis and outcome. Insight into illness is an important predictor of outcome in first episode psychosis (FEP), and may be prone to cross-cultural variations. The aim of this study was to explore insight in first generation immigrants (FGI) in FEP patients, and change in insight over time compared to a reference group.

**Method:** Two-hundred-and-fifty FEP patients were included at baseline, 160 at 12-month follow-up. Of these 58 (24%) were FGI; 17% European, 52% Asian and 29% African. Insight was assessed with the Birchwood insight scale, self-report (subscales treatment compliance, awareness of illness), and an observed measure of insight from the PANSS (item G12).

**Results:** There were no significant differences on any insight scores between FGI and the reference sample at baseline; however post-hoc analysis revealed that FGI from Africa had significantly lower awareness of illness than all other groups (F (4,1023/3,132, p < 0.01). This difference was no longer significant at follow-up. All participants showed a significant increase in awareness of illness (F (5,245/1,122, p < 0.05) and observed PANSS insight (F (5,467 1,157, p < 0.05) at 12-month follow-up.

**Conclusion:** We found only subtle variations in insight in FGI compared to the reference sample at baseline and follow-up. FGI from Africa were less aware of their symptoms representing illness at baseline but this improved at 12-month follow up, suggesting movement towards a medical model of psychotic symptoms over time in this group.

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**B26**

**Recovery from first episode psychosis and recovering self: a qualitative study**

Melissa Connell,1 Robert Schweitzer,2 Robert King2
1University of Queensland Centre for Clinical Research (UQCCR), 2Queensland University of Technology, Australia

**Objective:** The objective of this study was to explore the subjective factors associated with the experience of first-episode psychosis (FEP) and the very first stages of recovery to develop our understanding of this process and improve treatment outcomes.

**Method:** Interpretive Phenomenological Analysis was used to explore the experiences of 20 young people who had recently experienced FEP.

**Results:** Two broad superordinate themes captured essential thematic trends in the data: experiences of self-estrangement and self-consolidation. The concept of dialogical self was used to understand the effect of psychosis on self and the process of resuming familiar social positions to facilitate recovery. The concept of making meaning after traumatic events was also applied to the narratives of personal growth that participants formed. Those who reported subjective improvements in recovery were more likely to have developed a meaningful interpretation of their psychosis, strengthened relationships with others, and forged a stronger sense of self.

**Conclusions and implications for practice:** The experience of self-consolidation was strongly associated with the person’s resumption of familiar social roles and their ability to make meaning from their experience in a way that promoted personal growth. Although these processes are known to be part of personal recovery, this study highlights their importance in the very early stages of recovery immediately after the experience of FEP.

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**B27**

**Family factors in first-episode psychosis in Chennai, India and Montreal, Canada: a mixed-method study**

Srividya Iyer,1 Heleen Louhuis,1 Megan Pope,1 Thara Rangaswamy,2 Ashok Malla1,2
1Prevention and Early Intervention Program for Psychosis (PEPP), Douglas Mental Health University Institute, Montreal, 2Department of Psychiatry, McGill University, Canada, 3Schizophrenia Research Foundation, Chennai, India

That outcomes of schizophrenia are better in developing than developed countries is an oft-cited finding in cross-cultural psychiatry. While this conclusion has been criticized, even re-examinations have found evidence for better outcomes at least in India. Yet, little is known about what contributes to these outcome differences. Family factors may play a role in India where a large majority of persons with psychosis live with their families. Our cross-cultural study of first-episode psychosis (FEP) aims at understanding the role of families in Chennai (India) and Montreal (Canada) and the factors influencing family involvement. FEP provides a useful context for cross-cultural research as it reduces confounds of previous treatment and allows an examination of influences on outcomes early in the illness course. Our mixed methodology study involves patients, families and treatment providers. Focus groups revealed the key role that families play in both contexts; and different moral languages of caregiving, emphasizing duty in Chennai and personal choice in Montreal. Variations in values; perceptions of the relative role of families versus patients, treatment providers and the state; and trust in treatment providers may underlie these differences in moral language. The Family Involvement Questionnaire showed significant differences in types of family involvement (e.g., accompaniment during appointments); and perceptions about family involvement between contexts and within each context between patients and families (e.g., families desired more involvement in treatment than patients). Findings help explain how sociocultural context influences the family’s role in the context of psychosis and advance our understanding of family factors in FEP in general.

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**B28**

**Short term effectiveness of haloperidol vs risperidone in first episode schizophrenia**

Ashwin Chee, Swapna Verma, Lye Yin Poon, Edimansyah Abidin
Institute of Mental Health, Singapore

**Aim:** The supposed superiority of second-generation antipsychotic medication over first-generation antipsychotic medication has been challenged recently by several studies. This naturalistic retrospective study aims to compare outcomes between patients admitted for the first time with first episode schizophrenia-spectrum disorders who were started on either haloperidol or risperidone. Would choice of antipsychotic affect length of admission and 3 month outcome?

**Methods:** Seventy seven (77) patients from the Early Psychosis Intervention Programme at the Institute of Mental Health were included in this study. Length of stay was obtained from hospital electronic records. PANSS and GAP scores at 3 months were used to assess severity of psychopathology and level of functioning respectively. A secondary analysis was also done to measure time to discontinuation for any reason.

**Results:** There was a significant reduction in PANSS total, positive, negative and general psychopathology scores in both groups at 3 months, with the patients on risperidone showing a greater reduction in PANSS negative scores compared to the patients on haloperidol. However, there were no statistically significant differences between length of hospitalization and total PANSS score at 3 months between the two groups. Time to discontinuation was longer in the risperidone group compared to the haloperidol group.

**Conclusion:** The findings of this study suggest that risperidone has a better effect on negative symptoms and is better tolerated, resulting in a longer time to discontinuation. Thus, starting a patient with first-episode schizophrenia-spectrum disorder on risperidone would result in a better short term outcome as compared to starting the same patient on haloperidol.
Does it really matter if young adults with early psychosis don’t follow the prescribed treatment?

Jean-Gabriel Daneault,1,2 Amal Abdel-Baki1,3
1Université de Montréal, 2 Centre Hospitalier de l’Université de Montréal, Hôpital Notre-Dame, 3 Centre de recherche du CHUM, Montréal, QC, Canada

Introduction: The first few years of a psychotic illness are decisive for outcomes. Despite effective treatments, adherence and engagement are problematic.

Objectives: Review the frequency and the predictors of poor adherence to medication and disengagement from services in early psychosis population. Review the impacts of poor adherence to medication on symptomatic and functional outcomes and use of health services among this population.


Results: 31 studies were included (21 on poor adherence to medication and 10 on disengagement from services). The frequency of poor adherence to pharmacological treatment varies between 30 and 50% (after 6 to 24 months). The frequency of disengagement from services varies between 20 and 30% (after 12 to 60 months). Factors associated with poor adherence and disengagement and impacts of poor medication adherence are presented schematically. The methodology of the included studies varies greatly.

Discussion and conclusion: It appears that the sickest patients and those with a difficult familial environment are the least adherent to medication. The patients who initially disagree with taking medication find themselves readmitted more often. Although less symptomatic, patients with persistent substance use, possibly associated with legal problems, are more likely to disengage from services. It could be beneficial to implement early targeted outreach interventions. No long-term (>2 years) study was made to assess the impact of poor adherence on the outcome of first-episode psychosis. Further studies are needed.

Glasgow Antipsychotic Side-effects Scale for clozapine (GASS for clozapine) a new clozapine-specific Side-effects Scale

Carolyn Hynes,1 Dolores Keating,1 Stephen McWilliams,1 Kevin Madigan,2 Mary Clarke2
1Saint John of God Hospital, 2Cluain Mhuire Family Services, 3DETECT Early Intervention Service, Ireland

Introduction: Evidence supports the use of clozapine in the early treatment of first-episode psychosis in those whose illness does not remit with other antipsychotics. However, clozapine is associated with a range of subjectively-unpleasant side-effects that can impact negatively on patients self-esteem and medication adherence. As we cannot rely on clinician opinion of side-effects, clozapine dose or concerns raised by patients to recognise side-effects of clozapine, systematic assessment using a side-effects scale is required to identify them. The Glasgow Antipsychotic Side-effects Scale (GASS) is a self-rating side-effects scale for atypical antipsychotics. However, it lacks specificity to clozapine, thus, in order to elicit accurately the side-effects of clozapine, an adapted version of the GASS is required.

Aim: To modify the GASS making it more clozapine-specific and to validate it in a target population.

Methodology: The GASS for clozapine was adapted from the GASS and reviewed by a group of mental health professionals to establish face validity. Eligible clozapine out-patients from two sites completed the GASS for clozapine, the original GASS and a repeat GASS for clozapine. The level of agreement between the GASS for clozapine and the GASS was assessed using Spearman’s correlation coefficient and Cohen’s Kappa. Test-retest reliability was determined using Cohen’s Kappa and Cronbach’s alpha.

Results: The GASS for clozapine was shown to have construct validity and strong test-retest reliability.

Conclusion: The GASS for clozapine is a valid clinical tool enabling thorough systematic assessment of the subjectively-unpleasant side-effects of clozapine, thus improving patient experience through side-effect detection and minimisation.
Mismatch negativity is associated with plasma levels of D-serine in patients with first-episode psychosis

Daisuke Koshiyama,1 Tatsuya Nagai,1 Mariko Tada,1 Kenji Kirihara,1 Shin Fuse Koike,1 Motomu Suga,1 Tsuyoshi Araki,1 Kenji Hashimoto,3 Kiyoto Kasai1
1Department of Neuropsychiatry, Graduate School of Medicine, University of Tokyo, 2Department of Youth Mental Health, Graduate School of Medicine, University of Tokyo, Tokyo, 3Division of Clinical Neuroscience, Center for Forensic Mental Health, Chiba University, Chiba, Japan

Background: Mismatch negativity (MMN) is one of the event-related potentials. Many studies have shown that MMN amplitude is reduced in early stages of psychotic disorders. Reduced MMN may reflect dysfunction of NMDA receptors in early stages of psychotic disorders because NMDA receptor antagonists reduce MMN amplitude. Another measure of NMDA receptor function is D-serine that is a co-agonist of NMDA receptor and decreased in blood and cerebrospinal fluid of patients with schizophrenia. In this study, we examined MMN amplitude and plasma levels of D-serine to investigate NMDA receptor function in early stages of psychotic disorders.

Methods: Participants consisted of 16 patients with first-episode psychosis (FEP), 15 ultra-high risk (UHR) individuals, and 10 healthy control (HC) subjects. We measured MMN amplitude and plasma levels of D-serine.

Results: MMN amplitude showed significant difference among the three groups (F2,38 = 4.39, p = 0.02). Post-hoc analyses revealed significant reduction of MMN amplitude in FEP compared to HC (p = 0.02). Plasma levels of D-serine showed no significant difference among the three groups (F2,40 = 1.10, p = 0.35). MMN amplitude was significantly correlated with plasma levels of D-serine in FEP (r = -0.33, p = 0.03), but not in UHR (r = 0.39, p = 0.15) or in HC (r = -0.20, p = 0.50).

Conclusion: MMN amplitude was reduced in FEP. Reduced MMN amplitude was associated with low plasma levels of D-serine in FEP. These findings suggest dysfunction of NMDA receptors in FEP.

Social recovery following psychosis: the role of negative symptoms and motivation

Megan Maidment,1 Joanne Hodgkins,1 Claire Stubbins,1 David Fowler1,2
1University of East Anglia, 2University of Sussex, UK

Impairment in social functioning following psychosis is associated with negative symptoms, particularly reduced motivation (Foussias & Remington, 2010). Cognitive models of negative symptoms propose that expectancy appraisals play a role in the expression and maintenance of negative symptoms (Rector, Beck, & Stolar, 2005). Theories of motivation (e.g., expectancy-value theory; Eccles & Wigfield, 2002) describe how expectancies of success (i.e. self-efficacy), appraisals of task value, and self-schema may influence behaviour, but minimal research has applied such models to the understanding of negative symptoms and functional outcomes in psychosis. This was the aim of the current study. A cross-sectional, correlational study was conducted to explore relationships between negative symptoms and appraisals of self-efficacy, task value and self-schema in a clinical sample of individuals with first episode psychosis, recruited from Early Intervention in Psychosis services in the East Anglia region of the UK. All participants completed measures examining psychotic symptoms, functioning, and appraisals. Bivariate correlations and multiple regressions were conducted to analyse relationships between variables. It was hypothesised that appraisals of self-efficacy, task value and self-schema would be significantly related to negative symptoms, particularly amotivational symptoms, and that negative symptoms would mediate the association between these appraisals and social functioning. The findings are discussed in relation to cognitive models of negative symptoms (Rector, Beck, & Stolar, 2005), and theories of motivation (Eccles & Wigfield, 2002). Implications for treatment and recovery of individuals attending Early Intervention in Psychosis teams are also discussed.
Objective: Gamma oscillation, which may index GABAergic interneuron dysfunction, will be a useful biomarker in early stage of schizophrenia. We focused on the baseline gamma-band response during auditory steady-state response (ASSR). Baseline activity may reflect different pathophysiology from stimulus driven activity. Some animal studies reported the alteration of baseline gamma-band response by pharmacological modulation (e.g. ketamine, MK801). While previous study (Spencer et al., 2012) reported that patients with chronic schizophrenia have increment of gamma-band ASSR, it is still unknown its characteristics in the early stage of illness.

Methods: Ten patients with first-episode schizophrenia and 10 normal controls participated in this study. We used the ASSR paradigm in each subject. Click stimuli were presented at a frequency of 40Hz. We analyzed the pre-stimulus baseline data of ASSR. This study was approved by the ethical committee of the University of Tokyo.

Result: We found a significant decrease of the baseline gamma-band (43.0–74.2 Hz) power in patients with first-episode schizophrenia at the right frontal electrode (p < 0.001 uncorrected). There was no significant correlation between medication dosage and baseline gamma-band response.

Discussion: We found the reduction of baseline gamma-band response during auditory steady-state response in patients with first-episode schizophrenia. Our results may inconsistent with the previous study. However, the differences of the clinical stages or methods of analysis may affect this result. Moreover, the number of subjects was still small in this preliminary study. We will add more subjects and show more clear data on the day of the session.

Reduced energy intake and increased aerobic capacity following 12-week lifestyle intervention in first episode psychosis

Scott Teasdale,1,2 Simon Rosenbaum,1,2 Andrew Watkins,1,3 Jackie Curtis,1,2 Megan Kalucy,1 Katherine Samaras,4,5 Philip Ward1,4

1Early Psychosis Programme, The Bondi Centre, South Eastern Sydney Local Health District, 2University of New South Wales, 3University of Technology Sydney, 4Department of Endocrinology, St Vincent’s Hospital, Darlinghurst, 5Diabetes and Obesity Program, Garvan Institute of Medical Research, Darlinghurst, 6Schizophrenia Research Unit, South Western Sydney Local Health District, Liverpool, Australia

People experiencing psychosis consume more calories and saturated fat, and eat less fruits and vegetables compared to the general population. Combined with lower levels of physical activity, poor dietary habits are modifiable risk factors for the development of cardiometabolic disease. The aim of this study was to assess the impact of the Keeping the Body In Mind (KBIM) lifestyle intervention on dietary intake, exercise capacity and physical activity participation of young people experiencing a first episode psychosis. The 12-week intervention comprised weekly individual dietary consultations, including educational modules and goal setting, plus weekly shopping tours and cooking groups. The exercise intervention included access to an onsite gym and individualised exercise programming. The primary outcome was energy intake assessed at baseline and 12-weeks post-intervention. Secondary outcomes included saturated fat and sodium intake, glycaemic load, fruit and vegetable consumption, physical activity levels (IPAQ) and aerobic capacity (VO2 max). In total, 16 participants (7 males and 9 females; mean age 20.0 ± 2.3 years) completed the intervention. Mean number of dietetic sessions was 7.5 ± 2.1, and mean exercise attendance was 11.5 ± 7.6. There was a significant reduction in energy intake at follow-up compared to baseline [Mean = −508 kcal 95% CI −752 to −264, p < 0.001]. There were significant reductions in saturated fat as a percentage of overall caloric intake (p = 0.012) and sodium intake (p = 0.001) in addition to clinically significant increases in VO2 max (p = 0.009) and self-reported physical activity (p = 0.018). The KBIM intervention resulted in significantly improved diet and exercise outcomes.

Neuroanatomical correlates of EEG and cognitive deficits in first-episode psychosis

Daniel R. Westfall,1,2,4 John D. West,1 Brenna C. McDonald,1 Amanda R. Bolbecker,2,4 Brian F. O’Donnell,2,4 Michael M. Francis,3,4 Nicole F. Mehdiyoun,2,4 William P. Hetrick,2,3,4 Andrew J. Saykin,1 Alan Breier1,4

1Center for Neuroimaging, Department of Radiology & Imaging Sciences, Indiana University School of Medicine, Indianapolis, 2Department of Psychological and Brain Sciences, Indiana University, Bloomington, 3Department of Psychiatry, Indiana University Psychotic Disorders Program, Indiana University School of Medicine, Indianapolis, 4Larue D. Carter Memorial Hospital, Indianapolis, IN, USA

Studies of schizophrenia and first-episode psychosis (FEP) have reported abnormalities in brain gray matter as well as on EEG and in cognitive functioning. The aim of this study was to investigate differences in gray matter density (GMD) between individuals with FEP and healthy controls (HC), as well as explore relationships with electrophysiological and cognitive tests. T1-weighted scans were acquired on 43 FEP subjects and 23 HC. GMD differences were investigated using voxel-based morphometry (VBM). GMD reductions were found in the FEP group relative to HC in the right cerebellum and thalamus, and left temporal and occipital lobes. Mean GMD values for each subject were extracted from the significant clusters in these regions and examined for correlations with 40-Hz EEG frequency and Brief Assessment of Cognition in Schizophrenia (BACS) cognitive scores. Within the HC group, significant positive correlations were found between 40-Hz EEG frequency or BACS performance and GMD in brain regions including the superior temporal gyrus (STG), inferior semi-lunar lobule of the cerebellum, and cuneus. In the FEP group only trend-level associations were apparent. These between-group differences in brain-behavior relationships are particularly interesting given prior research implicating temporal and cerebellar regions in abnormalities of neural circuitry associated with schizophrenia.
Mood Disorders

B39 Is the Psychotic Depression Assessment Scale a useful diagnostic tool?: The CRESCEND study
Seon-Cheol Park, 1 Joonho Choi, 2 Jae-Min Kim, 3 Min-Soo Lee, 4 Jung-Bum Kim, 5 Hyeyeon-Woo Yim, 6 Yong Chon Park, 2 Tae-Youn Jun 7
1Department of Psychiatry, Yong-In Mental Hospital, Yongin, 2Department of Psychiatry, College of Medicine, Hanyang University, Guri Hospital, Guri, 3Department of Psychiatry, Chonnam National University School of Medicine, Gwangju, 4Department of Psychiatry, College of Medicine, Korea University, Seoul, 5Department of Psychiatry, Keimyung University School of Medicine, Daegu, 6Department of Preventive Medicine, College of Medicine, Catholic University of Korea, 7Department of Psychiatry, College of Medicine, Catholic University of Korea, Seoul, Republic of Korea

Background: The Psychotic Depression Assessment Scale (PDAS) has been validated as a method of assessing the severity and treatment outcomes of psychotic depression (PD). We aimed to compare the results of the PDAS in PD and non-psychotic depression (non-PD) patients and validate the PDAS as a diagnostic tool for PD.

Methods: We included 53 patients with PD and 441 with non-PD who participated in the Clinical Research Center for Depression study in South Korea. In addition to the PDAS, psychometric tools including the HAMD17, HAMA, BPRS, CGI-S, SOFAS, SSI-Beck, WHOQOL-BREF, AUDIT, and FTND were used to assess, respectively, depression, anxiety, overall symptoms, global severity, social functioning, suicidal ideation, quality of life, alcohol use, and nicotine use.

Results: After adjusting for age and total HAMD17 score, PD patients had higher scores for depressive mood, hallucinations, unusual thought content, suspiciousness, blunted affect, and emotional withdrawal on the PDAS and higher total scores on the SSI-Beck than non-PD patients. Binary logistic regression identified hallucinatory behavior and emotional withdrawal as predictors of PD. Receiver operating characteristic analysis showed that emotional withdrawal could be used to differentiate psychotic from non-psychotic depression.

Limitations: The inter-rater reliability for psychometric assessments was not evaluated.

Conclusions: In addition to assessing the severity and treatment outcomes of PD, PDAS can help in the diagnosis of PD.

B40 Young people presenting with emerging mood and psychotic disorders: neurobiological similarities and differences
Daniel Hermens
Brain & Mind Research Institute, University of Sydney, Australia

Our longitudinal research programme is located in the critical adolescent and young adult life stages. We have undertaken a series of cross-sectional studies utilising data-driven approaches in order to profile young outpatients (12–30 year olds) presenting with anxiety, depressive, manic or psychotic syndromes. Such studies have focused on neuropsychological, neuroimaging and neurophysiological measures. Across these studies we have found three distinct clusters of patients who had similar levels of symptomatology and did not differ in the proportions of diagnostic categories. Importantly, this research highlights that while significant subgroups of patients may show the expected (often global) impairments there are other notable subgroups with contrasting profiles (despite diagnosis) suggesting different pathophysiological pathways and, therefore, treatment implications. In a series of structural magnetic resonance imaging (MRI) studies we have evidence to suggest that illness trajectory better explains gray matter reduction in prefrontal, insula and parietal-temporal structures. In neuropsychological testing our samples consistently show a range of cognitive impairments (especially in learning and memory) that are independent of specific diagnosis. However, social cognition measures tend to distinguish patients with psychotic and psychotic symptoms traits. Most importantly, in an early longitudinal study, we found that neuropsychological functioning (executive, memory) was the best predictor of later socio-occupational outcome. With regards to longitudinal MRI data we have pilot data that is consistent with the cross-sectional findings summarised above providing strong support for one of our key assumptions, namely that brain changes are progressive in those who have reached an important illness threshold, despite diagnostic typology.

B41 Early interventional use of atypical antipsychotics as mood stabilizers
Toshio Iwase
Kokushinkai Musashino-mori Hospital, Japan

Objectives: Recently, bipolar disorder has been treated using numerous atypical antipsychotics as augmentation and even by their monotherapy. I argue that atypical antipsychotics also have mood-stabilizing effects.

Methods: Pharmacological actions of some blockbuster atypical antipsychotics were reviewed and categorized into three types: serotonin-dopamine antagonists (SDA), multi-acting receptor-targeted agents (MARTA), and third-generation antipsychotics including aripiprazole and amisulpride. I examined the structural relationships among some MARTAs. Furthermore, I suggested a model of the mechanisms of action of atypical antipsychotics by evaluating dopamine D2 receptor binding affinities of some substituted benzamides.

Results: Quetiapine and olanzapine have similar structures to carbamazepine and amoxapine. These pine-type antipsychotics are expected to work not only as mood stabilizers but also as antidepressants. The third-generation antipsychotics have quite different mechanisms of pharmacological actions to MARTAs. In particular, although amisulpride, a pure D2/D3 receptor antagonist, has almost no binding to other receptors, the drug acts as an antidepressant at low dose and as an antipsychotic/antimanic agent at high dose. I suppose that the dose-dependent manner of amisulpride results in a similar effect to aripiprazole, a dopamine system stabilizer, by affecting presynaptic D2/D3 receptors in the prefrontal cortex. The pine-type antipsychotics would also have effects somewhat similar to the mechanisms of stabilization of dopamine systems (Iwase, T., 11th WFSBP Kyoto, 2013). Some researchers propose a hypothesis that bipolar disorder is a dopamine dysregulation syndrome (Berk, M. et al., Acta Psychiatr Scand 2007; 116, Suppl. 434: 41–49).

Conclusion: The pine-type antipsychotics and the dopamine system stabilizers could act as mood stabilizers.

References
Iwase, T., 11th WFSBP Kyoto, 2013.
While attention to the mental health aspects of early intervention is evident, far less emphasis has been placed on the reduction of long-term physical health morbidity. This is despite evidence of increased rates of all-cause mortality in those with psychological distress and, most notably, increased rates of premature cardiovascular disease. Importantly, young people presenting for specialist mental health care have evidence of increased rates of abnormal body mass or impaired metabolic function early in the course of their illness. In the context of developing new primary-care based mental health services for young people (who typically have anxiety, mood or psychotic disorders) we are examining body mass as well as glucose and lipid profiles, largely before periods of prolonged exposure to illness or consequent medical therapies. Such data is critical to understanding the pathways to later development of increased metabolic and cardiovascular risk and planning both the population-based and individual care systems required to reduce these risks. In a cohort of 1000+ young outpatients (aged 12–30 years) with an admixture of anxious, depressive or psychotic symptoms there was a higher proportion of underweight males and females compared to their peers in the general population. However, male subjects had significantly higher levels of fasting glucose and high-density lipids compared to females. Importantly, in both sexes there was no significant association between body mass index (BMI) and fasting glucose levels. This was true even when those with low BMI were removed from the analysis.

### Neurocognition

#### B42 Body mass and metabolic characteristics of young persons presenting for mental health care

Elizabeth Scott1,2

1Brain & Mind Research Institute, University of Sydney, 2School of Medicine, University of Notre Dame, Australia

Posters on neurocognition are critical to understanding the pathways to later development of increased metabolic and cardiovascular risk and planning both the population-based and individual care systems required to reduce these risks. In a cohort of 1000+ young outpatients (aged 12–30 years) with an admixture of anxious, depressive or psychotic symptoms there was a higher proportion of underweight males and females compared to their peers in the general population. However, male subjects had significantly higher levels of fasting glucose and high-density lipids compared to females. Importantly, in both sexes there was no significant association between body mass index (BMI) and fasting glucose levels. This was true even when those with low BMI were removed from the analysis.

#### B44 The FOCUS trial: an RCT evaluating the effectiveness of cognitive remediation therapy for patients at ultra-high risk of psychosis

Louise Birkeadal Glenthøj1,2, Birgitte Fagerlund2,2, Lasse Randers1,2, Carsten R. Hjorthøj1, Christina Wennenberg1,2, Kristine Krakauer1,2, Astrid Vosgerau1,2, Janus C. Jakobsen1, Christian Glud1, David L. Roberts4, Merete Nordentoft1,2

1Mental Health Centre Copenhagen, Copenhagen University Hospital, Copenhagen, 2Centre for Clinical Intervention and Neuropsychiatric Schizophrenia Research, CINS, Glostrup, 3Centre for Neuropsychiatric Schizophrenia Research (CNSR), Mental Health Centre Glostrup, Copenhagen University Hospital, Glostrup, 4Centre for Rehabilitation for Brain Injury, Copenhagen, Denmark, 5Department of Psychiatry, Division of Schizophrenia and Related Disorders, University of Texas Health Science Center, San Antonio, TX, USA

**Background:** The pervasive cognitive impairments seen in schizophrenia become manifest in the Ultra-High Risk (UHR) state of psychosis. The cognitive impairments pose a significant barrier to functional recovery. Insufficient evidence exists on how to ameliorate these cognitive deficits in UHR patients and hence improve daily living and quality of life.

**Method:** The FOCUS trial is a prospective, parallel group, observer-blinded clinical trial enrolling 126 patients age 18–40 years meeting the UHR criteria of the instrument CAARMS. Patients will be allocated to standard treatment plus intensive cognitive remediation therapy (CRT) or standard treatment alone. The CRT consists of 24 weekly group-based, manualised sessions targeting neurocognition and social cognition. Additionally, the patients will be offered 12 individual sessions aiming at transferring the effect of the CRT to their everyday lives.

**Outcome:** The primary outcome will be the composite score on the BACS battery at cessation of treatment after 6 months. Secondary outcomes are social and daily functioning, psychosis-like symptoms, negative symptomatology, and depressive symptomatology as measured with PSP, BPRS-E, SANS, SCORS and MADRS respectively.

**Results:** The inclusion of patients began in April 2014. A pilot group has been conducted testing the feasibility of the CRT in the trial. It showed an overall positive rating on the Client Satisfaction Questionnaire.

**Discussion:** This is the first trial to evaluate the effect of neurocognitive and social cognitive remediation in UHR patients. Our trial results will provide evidence on the effect of targeted and comprehensive cognitive rehabilitation in improving cognition, daily living and symptomatology in UHR patients.

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B45 Visual perception, processing speed and short-term memory based on the Theory of Visual Attention: deficits in 7-year-old children at high risk of developing schizophrenia or bipolar disorder in The Danish High Risk and Resilience Study – VIA 7
Nicoline Hemages, 1 Jens Richardt Jepsen, 2 Sineg Vangkilde, 3 Anne Amalie Elgaard Thorup, 1 Camilla Austa Jerlang Christiani, 1 Ditte Eltlersgaard, 1 Katrine Seborg Spang, 1 Ole Mars, 4 Merete Nordenfelt, 1, 5 Kerstin J. Plessen 4, 6
1 Mental Health Services – Capital Region of Denmark, Mental Health Centre Copenhagen, 2 Mental Health Services – Capital Region of Denmark, Center for Neuropsychiatric Schizophrenia Research and Center for Clinical Intervention and Neuropsychiatric Schizophrenia Research, 3 University of Copenhagen – Department of Psychology, 4 Mental Health Services Capital Region of Denmark, Mental Health Centre for Child and Adolescent Psychiatry, 5 University of Aarhus Faculty of Health Sciences, 6 University of Copenhagen – Faculty of Health and Medical Sciences, Denmark

Background: Offspring at genetic high risk for developing schizophrenia spectrum psychosis (SZ) show attention deficits and increased prevalence of ADHD compared to children of parents without this disorder. However, the evidence for attention deficits in offspring of parents with bipolar disorder (BD) has been mixed.

Objectives: The aim of this sub study is to measure attentional functioning – specifically visual processing speed and capacity of visual short-term memory – in children at genetic high risk for developing SZ or BD. We expect that children at genetic high risk for SZ will show more severe impairments compared with children at genetic high risk for BD. Whereas the latter group may show more deficits in visual attention than children of parents without BD and SZ.

Methods: We are establishing a stratified cohort of 500 children aged 7 with either 0, 1 or 2 parents with SZ or BD. In this sub study of 30 children from each of the three subgroups we assessed visual attention using the instrument TVA-based Whole Report based on Bundesen’s Theory of Visual Attention.

Results: Data collection in this sub study has been completed by April 2014 and data analyses will commence in May 2014.

B46 The effect of cognitive function on occupational rehabilitation in schizophrenic patients
Dongwook Jeon, 1 Sungjin Kim, 2 Hyunju Kim, 1 Bogeum Kong, 1 Jungjoon Moon, 1 Doun Jung 1
1 Inje University Busan Paik Hospital, 2 Sancheong Medical Center, Korea

Objectives: This study was performed to assess the effect of cognitive function on occupational rehabilitation in patients with schizophrenia.

Methods: Total fifty eight patients enrolled in this study. There were three groups in this study: group of rehabilitation (n = 19), out-patient care (n = 21) and occupational activity (n = 18). We assessed the clinical symptoms and cognitive functions analyzed the statistical correlation between the characteristics of groups and cognitive function. For the cognitive function assessment, the Korean version of the MATRICS Consensus Cognitive Battery (MCCB) and the Korean version of the UCSD Performance-based Skills Assessment (UPSA) were performed. For the clinical symptoms, the Positive and Negative Syndrome Scale (PANSS), the Korean version of the Personal and Social Performance Scale (PSP) and the Clinical Global Impression Schizophrenia scale (CGI-SCH) were performed.

Results: On the MCCB, the out-patient and the occupational activity groups showed higher score than the rehabilitation group in verbal learning and social cognition domains. Similarly, on the UPSA, the out-patient group showed higher score than the other two groups in communication domain. Total score of the two cognitive function tests showed no significant difference between groups. On the CGI-SCH and the PSP score, occupational activity group revealed better outcome than other groups.

Conclusions: In this study, schizophrenic patients with occupational activity have higher cognitive function in social cognition and communication than the patients with rehabilitation. We also found that the higher CGI-SCH and PSP score associated to the occupational activity in patients with schizophrenia.

B47 Association study of cognitive impairment with carbonyl stress in schizophrenia patients
Akiko Kobori, 1, 2 Mitsuhiro Miyashita, 1 Sachiko Hatakeyama, 1 Kazuya Toriumi, 1 Makoto Arai, 2 Hei Arai, 2 Masanari Itokawa 1
1 Tokyo Metropolitan Institute of Medical Science, 2 Juntendo University School of Medicine, Japan

We investigated association between cognitive impairment and carbonyl stress; high plasma pentosidine and low serum vitamin B6 (pyridoxal) in schizophrenia. We divided 29 subjects with schizophrenia into 4 groups by their plasma pentosidine and serum pyridoxal levels (Group I: normal pentosidine & pyridoxal, Group II: normal pentosidine & low pyridoxal, Group III: high pentosidine & normal pyridoxal, Group IV: high pentosidine & low pyridoxal), and assessed the symptom severity by the Manchester Scale Japanese version and the cognitive function by Wechsler Adult Intelligence Scale 3rd (WAIS-III) and Wisconsin card sorting test (WCST). The schizophrenic symptoms in patients with enhanced carbonyl stress (Group IV) were severer in terms of incoherence of thought with large effect size, but not statistical significance, than that in the other groups. Furthermore, the cognitive functions, such as working memory and immediate memory, in Group IV were more impaired with large effect size, as compared to the other groups. In the future, we continuously recruit the patients and will show more accurate results by larger sample size.

B48 Language and communication disturbances in at risk mental state, first episode individuals and healthy controls.
Agnesieszka Pawelczyk, 1 Jolanta Rabe-Jabłośka, 1 Tomasz Pawelczyk, 1 Emilia Łojek, 2 Magdalena Kotlicka-Antczak 1
1 Medical University of Łódź, 2 University of Warsaw, Poland

There is evidence that patients with schizophrenia have impairments in language functions mediated by the right hemisphere.

Aim: The aim of the present study was to assess language and communication disturbances mediated by right hemisphere in At Risk Mental State (ARMS), First Episode of Schizophrenia (FE) individuals and healthy controls (C).

Methods: Seventy three people: ARMS group: n = 33, FE group n = 20, C n = 20 were enrolled to the study; ARMS individuals met CAARMS (the Comprehensive Assessment of at Risk Mental State) criteria whereas FE schizophrenia was diagnosed the ICD 10 criteria for schizophrenia. Groups were matched by age, sex and education level. Language and communication functions (e.g. discourse, understandinh humor, irony, metaphors, indirect requests or understanding of prosody) mediated by the right hemisphere were assessed with Polish Version of the Right Hemisphere Language Battery (RHLB-PL).

Results: ARMS individuals scored significantly lower than controls in Perceptual and Logical Thinking Factor and the Discourse Analysis. FE individuals scored significantly lower than controls in the Cognitive Factor. ARMS subjects scored significantly lower compared to Controls and higher in comparison to FE in the Written Metaphor Explanation test.

Conclusions: The current study suggests that ARMS, FE and control individuals differ significantly in language and communication functions, locating ARMS subjects in the middle.
B49 Relationship of psychiatric symptom and cognitive function with global functioning in recent onset and chronic schizophrenia
Shun Takahashi, Satoshi Ukai, Kazumi Satogami, Shinichi Yamada, Kazuhiro Shinosaki
Wakayama Medical University, Japan
Background: It is suggested that psychiatric symptom and cognitive function are related with global functioning in schizophrenia, but little is known about their relationship in the early course of the disease. In this study, we examined relationship of psychiatric symptom and neurocognitive function with global functioning in recent onset and chronic schizophrenia.
Methods: The subjects were 29 patients with recent onset schizophrenia (RS group, duration of illness was less than 3 years) and 31 patients with chronic schizophrenia (CS group, duration of illness was more than 3 years). We examined correlations of the positive and negative symptom scale (PANSS) and the Brief Assessment of Cognition in Schizophrenia (BACS) with the Global Assessment of Functioning (GAF) scale using Pearson’s correlation coefficient in the RS and CS groups.
Results: There was no significant difference in scores of the PANSS, BACS, and GAF scale between the groups. The GAF scale showed significantly negative correlation with the PANSS positive, negative and general psychopathological scores in the CS group, but not in the RS group. The GAF scale was not significantly correlated with the BACS composite score in both groups, but significantly correlated with subtest scores of motor speed and executive function in the CS group.
Conclusion: Our results suggest that the recent onset schizophrenia may have less influence of psychiatric symptom and neurocognitive function on global functioning compared with the chronic schizophrenia. The further study is needed to explore the clinical domain which regulates the global functioning in the early course of schizophrenia.

Neurodevelopmental

B50 Social cognition, language, and social functioning in offspring with familial risk for developing schizophrenia and bipolar disorder
Camilla Christiani,1 Jens Richardt Jeppsen,1 Anne Thorup,1 Nicole Hemager,1 Ditte Ellersgaard,1 Birgitte Klee Burton,1,2 Katrine Seborg Spang,1 Aja Greve,1 Ditte Giantris,1 Ole Mors,1,4 Kerstin J Plessen,2,3 Merete Nordentoft1,1
1Medical Health Center Copenhagen, 1Mental Health Centre for Child & Adolescent Psychiatry, Bispebjerg Hospital, 2Department of Neurology, Psychiatry & Sensory Sciences, University of Copenhagen, 3Department of Clinical Medicine, Aarhus University, 4Centre for Psychiatric Research, Aarhus University Hospital, Risskov, Denmark
Objective: The main objective is to characterize the relationship between children with familial high risk for developing schizophrenia (SZ) and bipolar disorder (BD), and possibly impairments in their social cognition, language, and level of social functioning. Further, we want to understand, if social cognitive and language impairments, and psychopathological impulsivity in the child predicts the level of social functioning in the child. Also, possible associations between social cognition and neurocognitive functions; i.e. speed of processing, verbal memory; verbal working memory, and the speed of emotion recognition, will be assessed.
Methods: A stratified cohort of 500 children, age 7, with 1, 2, or 0 parents with SZ or BD will be drawn from the Danish Civil Registration System/ Danish Psychiatric Central Register: Cohort 1: Children with two parents (SZ) (N = 20) Cohort 2: Children with one parent (SZ) (N = 180) Cohort 3: Children with two parents (BD) (N = 20) Cohort 4: Children with one parent (BD) (N = 80) Cohort 5: Children with parents with no contact with the MHS ever (N = 200) Social cognition will be assessed with Animated Triangles, Happé’s Strange Stories – Revised, and Emotions Recognition Task. Language will be assessed with Test for Reception of Grammar 2, and Children’s Communication Checklist- II. Social functioning will be assessed with the Vineland Interview and the Social Responsiveness Scale.
Results: Data collection started December 2012. By May 2014 we have included 210 families.

Neuroimaging

B51 Relation between child maltreatment and emotion recognition
Michiko Koizumi, Hirokazu Kumazaki, Sakae Mizushima, Akemi Tomoda
Research Center for Child Mental Development, University of Fukui, Japan
Childhood abuse experience is known to be a risk factor for schizophrenia. Schizophrenic patients exhibit difficulty in ascertaining the facial expressions of others. Therefore, this study of non-abused children and abused children who do not suffer from schizophrenia was conducted to compare their capabilities of inferring others’ emotions from their facial expressions. We used the reading “Mind in the Eyes” test (Baron-Cohen et al., 2001) as a scale of ability to ascertain others’ facial expressions.
No difference was found between “Negative” and “Neutral” tasks. Results suggest that abuse experiences affect children’s ability to ascertain others’ positive emotions from facial expressions. Three hypotheses were inferred as causes of difficulty in understanding positive facial expressions: (1) lack of experience related to positive expressions of others or their own positive emotions; (2) adaptation to a family abuse environment because of the many dangers to which children must react sensitively; and (3) abnormality of brain function or volume because of abuse. Nevertheless, such a behavior task test was inadequate to ascertain which explains the difficulty. A brain science approach or physiological study must be used.

B52 Brain structure changes in healthy people with childhood adversity: a meta-analysis
Maria Calem, Philip McGuire, Craig Morgan, Matthew J Kempston
Institute of Psychiatry, King’s College London, UK
Background: Childhood adversity (including abuse, neglect and bullying) may increase risk for psychosis via dysregulation of the Hypothalamic-Pituitary-Adrenal (HPA) axis, which moderates the stress response. In psychosis, childhood adversity is associated with altered volume of HPA-related structures such as the hippocampus and amygdala. This meta-analysis will investigate associations between childhood adversity and hippocampal and amygdala volume in psychiatrically healthy adults. This will help clarify the impact of childhood adversity on brain structure, unconfounded by the effects of psychosis and its treatment.
Methods: The MEDLINE database was searched for magnetic resonance imaging studies that had measured brain structure in healthy adults with and without childhood adversity. We identified seven eligible papers (1,322 participants) reporting hippocampal volumes and three (803 participants) reporting amygdala volumes. Effect sizes were calculated and pooled using a random effects meta-analysis.
Results: No significant differences in hippocampal (effect size = −0.011; 95% CI −0.375 to 0.043; p = 0.119) or amygdala volume (effect size = −0.002; 95% CI −0.168 to 0.163; p = 0.984) were found between healthy participants with and without childhood adversity. When a study determining hippocampal volume in elderly participants was excluded, a history of childhood adversity was significantly associated with smaller hippocampal volume (effect size = −0.228; 95% CI −0.436 to −0.019; p < 0.05).
Discussion: People who experienced childhood adversity and did not develop a psychiatric illness may have a greater neurobiological resilience to stress. However, childhood adversity was associated with decreased hippocampal volume in working-age healthy controls, suggesting some vulnerability to the effects of childhood adversity.
B53
Altered thalamo-cortical white matter connectivity: probabilistic tractography study in ultra-high risk for psychosis and first episode psychosis
Kang Ik Kevin Cho,¹ Wi Hoon Jung,²,³ Tae Young Lee,⁷ Je-Yeon Yun,⁷ Martha Shenton,⁴ Marek Kubicki,⁴ Sung Nyun Kim,³ Joon Hwan Jang,⁷ Do-Hyung Kang,⁷ Jun Soo Kwon¹,²
¹Seoul National University College of Natural Sciences, ²Institute of Human Behavioral Medicine, SNU-MRC, ³Seoul National University College of Medicine, Seoul, South Korea, ⁴Harvard Medical School, Boston, MA, ⁵University of Pennsylvania, Philadelphia, PA, USA

Objective: Disrupted thalamo-cortical connectivity is regarded as one of the core psychopathology in patients with schizophrenia. However, whether the thalamo-cortical white matter connectivity is disrupted before onset of psychosis is still obscure.

Method: A total of 38 individuals at ultra-high risk (UHR) for psychosis, 22 patients with first-episode psychosis (FEP) and 37 age-, gender-matched healthy controls underwent diffusion-weighted and T1-weighted magnetic resonance imaging. The number of probabilistic tractography count between thalamus and eight parcellated cortical regions, which represent white matter connectivity, was examined. We also investigated the relationship between the white matter connectivity and their psychopathology.

Results: The numbers of white matter track between the thalamus and orbitofrontal cortex were significantly reduced in FEP compared to healthy controls and UHR, whereas the numbers of white matter track between the thalamus and parietal cortex were significantly increased in FEP compared to healthy controls. Interestingly, UHR presented the similar pattern as FEP but in reduced magnitude, showing significantly reduced in thalamo-orbitofrontal white matter track and significantly increased in thalamo-parietal white matter track compared to the healthy controls. Also the numbers of thalamo-orbitofrontal white matter track were correlated with the general Global Assessment of Functioning score in UHR.

Conclusion: This unbalanced pattern of the white matter connection in psychosis and its prodromal stage suggests this change occurs early in UHR and could be utilized to estimate the function in UHR thus being a possible marker for the early detection of psychosis.

B55
Disrupted thalamo-frontal but not fronto-temporal white matter connectivity in patients with schizotypal personality disorder
Tae Young Lee,¹ Ji-Won Hur,¹ Sun Nyun Kim,³ Joon Hwan Jang,² Do-Hyung Kang,³ Kang Ik Kevin Cho,³ Sohyeon Kwak,³ Jun Soo Kwon¹,²,³
¹Institute of Human Behavioral Medicine, SNU-MRC, ²Seoul National University College of Medicine, ³Seoul National University College of Natural Science, Seoul, Republic of Korea

Objective: Although patients with schizophrenia show deficits in the fronto-temporal and thalamo-frontal connectivity, the white matter connectivity in patients with schizotypal personality disorder has not been systemically investigated.

Method: A total of 29 neuroleptic-naïve patients with schizotypal personality disorder, 15 patients with schizophrenia, and 41 healthy controls underwent 3T diffusion-weighted and T1-weighted magnetic resonance imaging. Deterministic tractography was performed to investigate fronto-temporal and thalamo-frontal pathways. The target brain regions (bilateral lateral frontal, medial frontal, orbitofrontal, superior temporal, thalamus) were extracted from the automated segmentation and cortical parcellation. Cross-sectional comparisons in mean fractional anisotropy (FA) and radial diffusivity (RD) were performed on the thalamo-lateral frontal, thalamo-medial frontal, thalamo-orbitofrontal, thalamo-superior temporal, lateral frontal-superior temporal, medial frontal-superior temporal and orbitofrontal-superior temporal pathways. We also analyzed the relationship between the white matter pathways and the Positive and Negative Syndrome Scale.

Results: The diffusion tensor imaging showed that the patients with schizotypal personality disorder had significantly increased RD in left thalamo-lateral frontal cortex pathway. However, there was no alteration in any of the fronto-temporal pathway. In contrast the patients with schizophrenia showed decreased FA in the pathway connecting right lateral frontal cortex and superior temporal gyrus. RD value in patients with schizotypal personality disorder showed significant positive correlation with negative and general symptom subscores of Positive and Negative Syndrome Scale.

Conclusions: These results suggest that the deficits in thalamo-frontal connectivity may be a trait marker of schizophrenia spectrum disorder, and the deficits in fronto-temporal connectivity may play a key role in the vulnerability of psychosis.
B56 Diffusion tensor imaging and first episode psychosis: a systematic review of diffusion tensor imaging studies

Graziella Orrù,1 Giuseppe Sartori2
1International University Centre (CUI), 2University of Padua, Department of Psychology, Padua, Italy

Background: There is an increasing evidence suggesting that the normal integration of cerebral connectivity may be compromised in schizophrenia. White matter (WM) abnormality seems to have a key function of the underlying neural correlates in schizophrenia. Diffusion tensor imaging (DTI) is an MRI application, sensitive to microstructural abnormalities of the brain WM. It offers the opportunity to study the brain in vivo and allows the exploration of WM alterations in all stages of the illness. Fractional anisotropy (FA) is the most frequently used measure of WM integrity.

Methods: The literature search was conducted with the search engine PubMed with the searches DTI and early psychosis, without setting a limited period. Only studies on first episode and clinical high-risk of psychosis were included. The reference list of these studies were used to identify additional studies.

Results: DTI abnormalities in first-episode patients are less robust than in chronic patients, suggesting that the progression to more extensive abnormalities occurs after the illness onset. DTI studies suggest that structural dysconnectivity may be already present in the recent-onset and in individuals at high risk for developing schizophrenia. Across DTI studies, WM tract integrity deficits in specific connections (i.e., frontal, fronto-temporal, fronto-limbic) seem to be the most consistent findings. Studies in antipsychotic drug-naïve first episode patients have shown extensive FA differences.

Conclusions: these findings also suggest the possibility that early interventios may help to preserve WM integrity, to a certain extent. Identifying WM differences early may assist in prevention, early diagnosis and identification of treatment targets.

B57 Cortical thickness changes in subjects at risk for developing psychosis

Yoichiro Takayanagi,1 Daiki Sasabayashi,1 Mihoko Nakamura,1 Tsutomu Takahashi,2 Atsushi Furuchi,1 Mikio Kido,1 Yumiko Nishikawa,1 Naoyuki Katagiri,2 Kazumori Sakuma,2 Kazunori Matsumoto,2 Masafumi Mizuno,2 Michio Suzuki1
1University of Toyama Graduate School of Medicine and Pharmaceutical Sciences, 2Toho University School of Medicine, 3Tohoku University Graduate School of Medicine, Japan

Background: To date, relatively few studies have examined cortical thickness in individuals with at-risk mental state (ARMS).

Methods: 1.5-T 3D MRI scans were obtained from 75 ARMS patients, 43 healthy controls at three different scanning sites (Tohoku University, Toho University and University of Toyama). ARMS subjects were followed up at least for one year to confirm whether or not these patients subsequently developed overt psychosis. We compared cortical thickness among groups using FreeSurfer software suit. Potential confounders including scanning sites were controlled in the statistical model.

Results: Of 82 ARMS patients, 15 developed psychosis. Compared with controls, ARMS patients showed cortical thinning in the bilateral paralimbic-prefrontal cortex, the bilateral orbitofrontal cortex, the right insular cortex and the right lateral orbitofrontal cortex. Patients had thicker cortices in posterior regions than controls (p < 0.05, corrected). There were no significant differences in cortical thickness between patients who later developed psychosis and who did not.

Conclusion: Our data suggest that these cortical changes predominantly observed in ventral temporal cortices in ARMS patients may be associated with prodromal symptoms of psychosis.

B58 Choice of antipsychotic medication in first episode schizophrenia

Dolores Keating,1 Cara Behan,1 Stephen McWilliams,1 Judith Strawbridge,2 Mary Clarke2
1Saint John of God Hospital, Stillorgan, 2DETECT, Early Intervention for Psychosis Services, Blackrock, 3Royal College of Surgeons in Ireland, Dublin, Ireland

Antipsychotic medication is a key intervention for most people experiencing a first episode of schizophrenia and numerous guidelines have been written internationally to aid treatment choice. Currently, there are no national guidelines for the pharmacological treatment of first episode schizophrenia in Ireland. The National Clinical Programme for Mental Health is charged with implementing a programme plan for early intervention in psychosis. One component of this programme plan will be the dissemination of evidence-based recommendations for the pharmacological treatment of first episode schizophrenia. However, it is recognised that treatment recommendations for schizophrenia are often not implemented. Prescribing patterns for first episode schizophrenia have not been evaluated in Ireland. In this audit we review antipsychotic choice for the initial treatment of a first episode of psychosis. The aim of the audit process is ultimately to measure the impact of a local Irish treatment algorithm on the choice of therapy for first episode schizophrenia. The standards used in this audit were derived from the NICE guideline that existed at the time of prescribing. Future audit standards will be based on the Irish guidelines.

B59 Positive cardiometabolic health for adolescents: a practical guide for prevention and early intervention

Mona Asghari-Fard,1 Jackie Curtis,1,2 Philip Ward,1,5 Katherine Samaras1,4
1School of Psychiatry, University of New South Wales, 2Early Psychosis Programme, The Bondi Centre, South Eastern Sydney Local Health District, 3Department of Endocrinology, St Vincent’s Hospital, 4Diabetes and Obesity Program, Garvan Institute of Medical Research, Darlinghurst, 5Schizophrenia Research Unit, South Western Sydney Local Health District, Liverpool, Australia

The use of second generation antipsychotics (SGAs) for the treatment of psychiatric illnesses in children and adolescents has increased dramatically in recent years. Although well-recognized, adverse effects of SGAs including weight gain, obesity and metabolic disturbances are frequently not monitored or treated effectively. Several authors have described monitoring guidelines for the cardiometabolic side effects of SGAs (including monitoring for familial risk factors, weight gain, lipid and glucose abnormalities, etc). The benefits of a range of interventions to prevent or manage these adverse drug effects continue to be documented. The "Positive Cardiometabolic Health algorithm1 was developed to promote an early intervention framework for young adults experiencing psychosis. The algorithm was extended to include adolescents prescribed antipsychotic medications. A multi-disciplinary expert group audited existing monitoring and intervention practices in adolescent services in New South Wales, reviewed international best-practice, and developed the revised resource. The adolescent version of the algorithm provides guidance for early detection, prevention and intervention strategies targeting antipsychotic-induced cardiovascular risk factors. Implementation of the algorithm will be supported by targeted educational activities for clinicians working across inpatient and community-based adolescent services, including a smartphone app for clinician use.

Funding for this project was provided by MH-Kids, New South Wales Health.

Reference

9th International Conference on Early Psychosis

B61
Pattern of antipsychotic medication change for first-episode psychosis
Chika Obara,1 Noriyuki Ohmuro,2 Masahiro Katsura Katsura,2 Tatsuo Kikuchi,1 Atsushi Miyagawa,1,2 Shunsuke Kagaya,3 Hiroo Matsuko,2,3 Kazunori Matsumoto2,3
1Department of Psychiatry, Tohoku University Graduate School of Medicine, 2Department of Psychiatry, Tohoku University Hospital, 3Department of Preventive Psychiatry, Tohoku University Graduate School of Medicine, Sendai, 4Miyagi Psychiatric Center, Miyagi, 5Yamagata Sakuratyou Hospital, Yamagata, Japan

Introduction: Although many guidelines for treating for first-episode psychosis (FEP) recommend several first-line antipsychotics and alternatives in case of inefficacy or intolerance of the first-line drugs, few studies have investigated the percentage of patients who continue the initially prescribed drugs and how the prescription pattern of antipsychotics changes with time.

Methods: We analyzed the pattern of antipsychotics prescription for 60 patients who were treated for FEP at Tohoku University Hospital. At the time of initial treatment, 24 (40%) of them were inpatient and 36 (60%) were outpatient. We retrospectively analyzed their medical records for 12 months from the initial treatment. All treatment decisions were made by the treating psychiatrist.

Results: Of the 60 patients, 20 (33%) continued the initially prescribed antipsychotics for 12 months, 25 (42%) switched to alternative drugs, and 15 (25%) were lost to follow-up. The prescribed first-line drug was risperidone for 22 (37%) patients, aripiprazole for 15 (25%), and blonanserin for 12 (20%). Among the 41 patients taking antipsychotics at 12 months, 8 (20%) were taking olanzapine; 8 (20%), aripiprazole; 8 (20%), blonanserin; 6 (15%), risperidone; 5 (12%), perospirone; 4 (10%), quetiapine; and 2 (5%), paliperidone. Four (7%) patients were being treated without antipsychotics at 12 months.

Discussion: Three antipsychotics account for 82% of the first-line drugs prescribed for FEP. The risk of adverse metabolic effects seems to affect the choice of the initial drug. In contrast, the initial drug is switched with diverse antipsychotics, probably because the prescription is optimized according to the specific needs of each patient.

B62
How Japanese herbal medicine (Kampo) can be a part of early intervention of psychosis?
Kimiko Sugimoto1,2
1Department of Mind-Body Medicine, Tenri Hospital, 2Department of Mind-Body Medicine, Kansai Medical University, Japan

We Japanese doctors can prescribe both Western medicine and Japanese herbal medicine (Kampo). Japanese herbal medicine (Kampo) is not major part Japanese medical society yet, but we can utilize such situation. We can improve physical symptoms psychotic patients, and also can reduce side effects of antipsychotics with Kampo. Western medicine. It also makes easier to Japanese patients to start treatments of psychosis or other mental disorders.

Psychosocial Interventions

B63
Development of the Danish OPUS-teams fidelity-scale
Marianne Melau, Merete Nordentoft
Mental Health Centre Copenhagen, Copenhagen University Hospital, Denmark

Background: The efficacy of the OPUS treatment has in a randomized clinical trial proved to be very strong compared to treatment as usual. Proliferation of Specialized Early Interventions (SEI) (OPUS-teams) is increasing in Denmark. However, a prerequisite for upholding positive effects along with the creation of new teams is to preserve the critical components from the concept that was tested in the randomized trial. However, there is a lack of validated fidelity-scales for SEI services, and thus currently it is not possible to measure presence or absence of the critical components in current and future OPUS teams.

Aim: To establish an OPUS fidelity-scale.

Methods: Based on essential evidence-based components of SEI services we interviewed experts from five Danish OPUS-teams, an adapted version of the Delphi Consensus method.

Results: A preliminary 15-point scale was conducted. The scale was divided into two dimensions: one concerning the structure of the OPUS-team and the other concerning the character and content of the treatment. Each component can be rated either 1 or 0 (1 point = fulfilling the requirements for the components; and 0 point = the requirements were not met). The maximum score was a total of 15 points, and in order to pass the OPUS-fidelity scale, the total score must be between 13 to15points of which 5 of the components are mandatory.

Discussion: Development of a fidelity scale can be an important tool for securing the quality of OPUS treatment and may serve as inspiration for an internationally accepted and common fidelity scale.
Therapeutic adventure: a new tool in the recovery from first episode psychosis. Preliminary findings of a pilot study

Clarïélaine Ouellet-Plamondon,1,2,3 An Nguyen,4 Jean-Philippe Leblanc,4 Amal Abdel-Baki1,2,3
1Centre Hospitalier de l’Université de Montréal (CHUM), 2Département de psychiatrie Université de Montréal, 3Centre de de recherche du CHUM, 4Face aux vents, Montréal, Qc, Canada

Objectives: Early intervention services for first episode psychosis (FEP) help improve outcome after a FEP. However, there are still many patients who have difficulty to engage or who get less benefit from the treatment modalities currently offered. Therapeutic adventure is a type of intervention that provides a normalizing experience to help people in their recovery process. Literature review, although scare, showed positive results for FEP. The aim of this study is to develop and study the impact of therapeutic adventure for FEP.

Methods: A pilot study is taking place since 2012 in FEP Services in Montréal, Canada, looking at the outcome of young adults with FEP participating to therapeutic adventure. Data collection was done before the project (T0), after (T1) and 6 months later (T2), and included sociodemographic characteristics, body mass index, diagnosis, Alcohol Use Scale (AUS), Drug Use Scale (DUS), Global Assessment of Functioning (GAF), Social and Occupational Functioning Assessment Scale (SOFAS) Clinical global impression (CGI), self-esteem scale (SERS-SF), therapeutic alliance scale (WAI-SF), self-efficacy scale, and First episode social functioning scale (FESFS).

Results: We will present our program and the results from the first groups who will complete the therapeutic adventure program in fall 2014, looking if there is any difference from T0 to T1.

Conclusions: Preliminary results show potential benefits of therapeutic adventure as a tool in the recovery process from a FEP. Collaboration with an organism specialized in therapeutic adventure is essential.

E-health intervention for siblings of people with first episode psychosis

Jacqueline Sin,1 Claire Henderson,2 Ian Norman1
1King’s College London, Florence Nightingale School of Nursing & Midwifery, 2Institute of Psychiatry, King’s College London, UK

Objectives: The E Sibling Project aimed to develop and evaluate an online intervention targeting siblings of young people affected by first episode psychosis, since conventional family and carer support resources are under-used by siblings given their busy life-style and expressed desire for flexible delivery using e-health technology (Sin et al, 2012).

Design/methods: Mixed method design embedded within the Medical Research Council complex intervention framework (MRC, 2008) which included: 1. Systematic reviews on psychoeducational interventions targeting family members/carers (Sin & Norman, 2013); and siblings specifically (Sin et al, submitted) to establish the effectiveness of such interventions for siblings, and identify the key ingredients and implementation strategies for successful interventions: 2. Focus group study with brothers and sisters to explore their views on the optimal design and implementation considerations for an ehealth intervention (Sin, 2013).

Results: Findings from the above studies were meta-synthesised to inform the design and development of the E Sibling Project online intervention (http://siblingpsychosis.org). Siblings supported the development of an online intervention and suggested content specific to their needs, in particular an interactive peer to peer support and discussion forum. Siblings also raised concerns over security, anonymity and access issues, for which professional inputs and moderation were identified as crucial in enhancing credibility. Ehealth interventions have the potential to widen access but also have specific usability and engagement issues to consider.

What is best practice for parent/family work and psychosis?

Andrew Wake,1,2 Hamish Alker-Jones1,3
1North East Child and Adolescent Mental Health Service – AWH, 2Royal Australian and New Zealand College of Psychiatrists, 3Australian College of Nurse Practitioners, Australia

An overview of current knowledge and best practice around parent work with psychosis/early psychosis. This will consider the parent’s (and by extension the family’s) understanding of their child's needs as the foundation for an alliance and further work. This is especially relevant to the Ultra High Risk (UHR) and First Episode Psychosis cohorts especially when the interventions may include medication or psychotherapy or both. Having a positive experience of mental health services is likely to allow successful re-engagement should there be relapses, or at the very least, discuss the concerns that may arise in the initial stages of illness, ideally minimising the duration of the untreated psychosis.

Developing a physical health program at Orygen Youth Health

Gina Woodhead, Dianne Alibston
Orygen Youth Health, Australia

Curtis (2011) notes the negative impact of increasing weight gain in young people with first-episode psychosis. As a result, the Early Psychosis programme at Bondi in NSW, Australia, developed a physical health stream as part of their psychosocial recovery programme. Inspired by the positive outcomes for young people participating in this programme, OYH Psychosocial services decided to develop their own. Philanthropic support was sort to assist the funding of equipment and meetings were organised with local universities to negotiate possibilities for exercise physiology and dietetic/nutrition students to complete supervised field work placements at OYH. As a result, this programme will begin twice weekly, mid-year, 2014. A room has been allocated for a small gym and individual consultations for young people and students supervised by qualified exercise physiologists will commence. Individual and small group sessions will also be offered on the inpatient unit. Currently no dietetic/nutrition students will be available on-site, however with the support from exercise physiologists a “youth friendly”, nutritional based cooking group will be included. Young people will also be encouraged to attend a community based gym group and other recreational activities facilitated by clinicians from the psychosocial recovery group programme. An evaluation of this project in its first 6 months will provide recommendations for the future development of these services.

Using arts-based methods to explore pathways to care for young people experiencing psychosis

Katherine Boydell,1,2 Brenda Gladstone,2,3 Elaine Stasiulis2
1Department of Psychiatry, University of Toronto, 2The Hospital for Sick Children, Toronto, 3Dalla Lana School of Public Health, University of Toronto, Canada

Dance. Photography. Mural Installation. Digital Storytelling. How can these art genres be used to share research results on pathways to care in early psychosis with a wide variety of audiences? What are the unique issues faced by researchers, artists and youth working together? This poster presentation will focus on three exemplars of the use of arts-informed methods in early psychosis – a choreographed research-based dance production, a mural art installation, a photo-elicitation project and digital storytelling – not only to contribute to our understanding of pathways to mental health care, but also to explore the arts as an effective knowledge translation vehicle for communication of qualitative research and engaging with and informing multiple audiences.
B70
Engagement with psychosocial interventions within an early intervention for psychosis service
Mary Clarke,1,2 Felicity Fanning,1 Roisin Doyle,1 Eric Roche,1 John Lyne,1 Maurice Bonar,1 Elizabeth Lavlor1
1Detect Early Intervention for Psychosis Services, Avila House, Blackrock Business Park, Blackrock, Co Dublin, 2School of Medicine and Medical Sciences, University College Dublin, Ireland

Background: Disengagement from treatment in patients with serious mental illness is a major concern for services. The aim of this study was to examine the levels of engagement within an EI service.

Methods: We examined the rates of engagement with a prospectively identified epidemiological cohort of patients with a first episode of psychosis (FEP) referred to an EI service.

Results: The number of suspected cases for (FEP) referred to Detect between 2006 and 2012 was 1,131. Of that number, 9.6% (n = 109) did not engage with the assessment process and were considered true non-engagers. Of the 1,022 people who engaged with the assessment, 49.4% (n = 505) had a confirmed diagnosis of FEP 80% (n = 400) of this group was invited to avail of psychosocial interventions. Overall, 31.6% (n = 131) did not engage with any psychosocial intervention, 68.4% (n = 283) engaged with at least one intervention: 42% (n = 174) engaged with at least two interventions and 39.2% (n = 111) engaged with just one intervention. 49.3% (n = 154) people who were offered the Carer Education engaged with the intervention. 50% of those offered group CBT engaged with the intervention and 60% (n = 130) of people offered individual Occupation Therapy engaged with the programme.

Discussion: This study reports an overall disengagement rate of a third from psychosocial interventions within an EI service. Our findings are consistent with international rates that approximately 30% of individuals with FEP disengage from services. Thus, even when receiving specialised treatment from an EI service, the risk of an individual disengaging remains high.

B71
How to care for the homeless – intensive community care team dedicated to homeless youth with psychosis
Virginie Doré-Gauthier, Didier Jutras-Aswad, Clairelaine Ouellet-Plamondon, Amal Abdel-Baki
Université de Montréal, Montréal, Canada

Background: Homelessness carries an increased risk of developing severe mental disorders and conversely psychosis is associated with homelessness. In Montreal, approximately 15% of homeless people suffer from psychosis. The young ones are even more at risk. It hits them at a crucial time of their development while they should consolidate their personality and life choices. This population's life conditions make it more difficult for mental health teams to engage them in treatment. In 2012, an intensive community care team (EQIIP SOL) was set up to address the specific needs of young homeless adults (YHA) suffering from psychosis.

Objectives: To determine functional and symptomatic outcome of YHA suffering from early psychosis and treated by a specialized assertive outreach community care team in Montreal Canada.

Method: Prospective longitudinal study of the impact of the addition of an assertive outreach team to a specialised early psychosis intervention clinic. Symptomatic (eg. PANSS, CDS, CGI) and functional outcome (eg. GAF, SOFAS, QOL) as well as service utilisation data has been collected at 3, 6 and 18 months.

Results: About 40 young adults have enrolled in the project EQIIP SOL. The preliminary data on demographic, symptomatic and functional evolution of this sample will be discussed as well as challenges in implantation of such a team.

Conclusion: YHA psychotic patients can be helped by a specialized team offering intensive integrated treatment in the community, which increases accessibility of mental health services and its effectiveness. Further research is warranted to compare this treatment team to treatments already available.
POSTER ABSTRACTS

B73
The present conditions of public stigma in psychiatry in Japan 2014
Takahiko Inagaki, Takao Nakabayashi, Ayaka Tamura, Satomi Marukawa, Tsunehiko Tanaka, Naoto Yamada
Department of Community Psychiatric Medicine, Shiga University of Medical Science, Department of Psychiatry, Shiga University of Medical Science, Japan

Introduction: In order to achieve an early intervention in psychiatric illnesses, reducing public stigmas is thought to be of great importance. Although some investigations about stigmas in Japan were performed, most of them did not include the person who was not cooperative with the research group, or who might be with big stigmas against the psychiatric surviving. The results might not be reflective of the public stigmas.

Methods: Starting March, 2014, a free access questionnaire survey on the web, in Japanese language, has been opened. The subject’s stigma was assessed by the Devaluation-Discrimination Scale (DDS). The questionnaire about their experiences to psychiatric consultation and their conception about psychiatric services was performed simultaneously. The study was performed without any information concerning the research group. Our investigation was approved by the ethical review board of our university.

Results: By April, 2014, 65 subjects answered the questionnaire, 28 of them had received psychiatric consultation. The mean of DDS was 35.3 (SD=6.13); that for those with and without psychiatric consultation was 37.6 (SD=6.11) and 33.5 (SD=5.60), respectively. The DDS with psychiatric consultation was significantly higher than without consultation (t=2.80, p=0.007).

Discussion: It had been already shown that the patients with low stigma come to psychiatric consultation earlier than those with high stigma. It was a much unexpected result.

Conclusion: We will discuss the reason of the unexpected result in detail at the congress from the various points of view which happened in Japan.

B74
Learning and earning get you more than a job: impact of employment and education on mental health and other functional variables
Eoin Killackey, Susan Cotton, Kelly Allott
Oxgen Youth Health Research Centre, Centre for Youth Mental Health, The University of Melbourne, Australia

Background: Apart from the obvious financial and knowledge benefits of employment and education, it is well known that participation in these endeavours is associated with a range of other positive outcomes in the general community. The impact of education and employment on the mental health of young people with psychosis has not been examined.

Method: Utilizing results from a large RCT of individual placement and support for young people with first episode psychosis, analyses were conducted to examine the impact of participation in vocational activities on a range of mental health and other functional outcomes across 3 follow-up time points.

Results: The study was able to examine the impact of participation in vocational activities on a range of mental health indices. In addition, data will be presented examining health service utilization, changes in welfare benefits recipient status, social inclusion and substance use.

Conclusion: While employment and education are related to increased health, social participation, and more and better relationships in the general community, the impact of engaging in vocational activities is not well understood for young people with FEP. As a consequence, there is a gap in the knowledge we have around the recommendation of pursuit of vocational activities as an intervention in mental health recovery. This presentation will present data from a large study that addresses this issue.

B75
Group cognitive behavioral therapy for Korean patients with early psychosis
Sung-Wan Kim, Ji-Eun Jang, Ga-Young Lee, Hye-Young Yu, Jin-Hee Hong, Hyang-Hee Kim, Da-Hye Ban, Ji-Hyun Park, Yo-Han Lee, Jin-Sang Yoon
Chonnam National University Hospital, Gwangju Buk-gu Mental Health Center, St. John Hospital, South Korea

Background: The efficacy of cognitive-behavioral therapy (CBT) for schizophrenia has been well established. However, there is less evidence regarding group CBT for people in the early stages of psychosis, particularly in Asian countries. This study aimed to develop a Korean model of group CBT for early psychosis and to evaluate the effectiveness of this model.

Methods: We developed a Korean version of group CBT consisting of meta-cognitive training, cognitive restructuring, stress management, and psychoeducation. The Subjective Wellbeing under Neuroleptics (SWN-K) scale, Ambiguous Intentions Hostility Questionnaire (AIHQ), Drug Attitude Inventory (DAI), Beck Depression Inventory (BDI), and Perceived Stress Scale (PSS) were administered before and after 13 sessions. Changes in the scores on these self-rated scales were analyzed with paired t-tests.

Results: A total of 17 patients with early psychosis participated in group CBT between September 2012 and December 2013. Of the 15 patients who completed more than 70% of the total sessions completed scales both before and after group CBT. Scores on the SWN and AIHQ increased significantly (p=0.017 and <0.001, respectively) and those on the AIHQ and PSS decreased significantly (both p-value=0.002) after group CBT. Scores on the BDI did not change significantly. Increased SWN scores were significantly associated with decreased PSS scores but not with changes in the scores on the other scales.

Conclusion: Group CBT had a positive effect on the quality of life, insight, suspiciousness, and perceived stress of patients with early psychosis in Korea. Controlled trials with larger samples are warranted.

B76
Multifamily group in early psychosis outpatient clinic: new approach in Finland
Jukka Anto, Marja Pirinen, Teija Putkonen, Anne-Mari Kämppä
Helsinki University Central Hospital, Department of Psychiatry, Finland

Background: There is a growing interest for multifamily groups in clinical practice. This kind of intervention model is totally new in Finland. The multifamily group intervention in early psychosis outpatient clinic at Helsinki University Central hospital, Finland, was founded in 2013.

Aim: The purpose of the group is to provide patients and their families psychoeducational information. The group is for patients aged 18-30 experiencing their first psychotic episode and for their family members. The goal of the multifamily group is psychoeducation and peer support. This kind of early intervention model is new to Finland.

Method: The multifamily group meets once a week for 90 minutes for a 6-week period. Two months after the group sessions have ended, the group meets once more for a booster session. Group sessions involve information about psychosis, medication, substance use, social security, psycho-physical wellness, becoming independent and meeting people who are expert through experience. Half of each session is spent with the experts introducing a topic, after which the multifamily group divides into family member and patient groups to discuss the topic for the day with group tutors.

Results: We have systematically gathered written feedback from every three periods of multifamily group sessions. The feedback has been extremely positive and very encouraging. Members of the multifamily group have received better and more varied information in greater quantities than they did their usual treatment. It seems that most meaningful aspect is that families have had an opportunity to share experiences about life with psychosis.
Perpetrator families and trauma treatment in early psychosis: case study and exploration

Nerida Barclay
Orygen Youth Health, Australia

The final presentation in this symposium explores an issue we have discovered in our intervention for TRIPP. We have found that several young people in our trial are being cared for by the perpetrators of the past traumas they have experienced. One of the central tenets of cognitive behaviourally based post-traumatic stress disorder (PTSD) treatment is that the symptoms are arising from a trauma that is in the past. The assumption is that the client is safe from continued abuse, and consequently the therapy addresses the post-traumatic memory. When the past perpetrator is now a caregiver, it raises major issues for how the therapy should be practiced. This is a particularly important issue in early psychosis because the debilitating nature of a psychotic illness may impede a young person’s ability to leave the family home even in an abusive situation. This creates a range of psychological issues for the young person and the focus of TRIPP therapy is altered to negotiate these issues. In particular, the first phase of therapy; the safety, assessment and formulation phase becomes the focus of therapy. This will be discussed in detail in relation to young people from the TRIPP study. It is important to note that this is an issue only in the small minority of cases: most young people with psychosis are not abused by their family members. However, this is an extremely important issue for the young people who are.

Early Intervention in Psychosis: a map of Latin America Initiatives clinical and research

Rodrigo Bressan, Elisa Brietzke, ARY Gadelha Araripe Neto, Alvaro Dias, Rodrigo Barbachan Mansur

Objective: To review Early Intervention Services in Latin America (EIS) in psychosis and to shed light sobre seus challenges and particularities.

Method: A survey based on the Internet that includes websites, published articles, and major universities of medical societies sites was performed and results were critically discussed.

Results: Latin American countries are profoundly deficient in specialized EIS. Nossa Pesquisa found 7 target services, among which 4 are based in urban areas of Brazil, within universities or tertiary hospitals. Among the initiatives advanced by these centers, there are partnerships with the public school system and other community-based efforts in relation to knowledge transfer. On the other hand, many challenges remain to be performed, especially in relation to its extension and expansion, which is needed to match the current demand.

Study on the effect of a “Recovery Program for Youth and Families” to provide early support

Kaoru Fujishima
Tokyo University and Graduate School of Social Welfare, Japan

Early adolescence is a time in which both mind and body become unstable and the slightest stress or event can often trigger a mental disorder. However, youth can be expected to improve their situation by acquiring access to appropriate support or by learning to control their conditions, or to ultimately lead a wonderful life afterward in their own way by overcoming such stress. In addition, concerning the environment surrounding the youth, support from an ecological perspective such as family, friends, school and community is necessary; and among these, family carries the most important role. The “Recovery Program for Youth and Families” has been developed by focusing on the strength between the youth and their families for early support. The purpose of this study is to verify its effect and further improve the program. Specifically, a six-day concentrated youth program was carried out on four youth between the ages of 12 and 14 (two girls and two boys), and their mothers were interviewed three times throughout the duration of the program. The program mainly consisted of activities focused on the benefit of the group including communication skills, how to control their emotions, cognitive training, story writing and exercise. A counselor and a psychiatric social worker provided advice to the mothers for issues that the mothers had and addressed their concerns on how to deal with their children. As a result, both the youth and their mothers were able to recognize their strengths and felt that their sense of self-esteem had improved.
Identity development in emerging adults with psychosis and schizophrenia

Katherine Hayden-Lewis

Oregon State University Early Assessment and Support Alliance Center for Excellence, Portland, OR, USA, Deschutes County Health Services, Bend, Oregon, USA

Young adults comprise 25% of the world’s population. A key developmental task of young adulthood is to develop a sense of identity. Mental health problems are most likely to develop during adolescence. Young adults identify development is likely impacted by mental health illnesses like psychosis and schizophrenia. These young people are vulnerable to the development of a devalued or stigmatized identity. Identity development is a highly complex social process. Social feedback processes are an important part of identity development. Individuals who develop psychosis and schizophrenia likely experience stigma that impacts their sense of identity. People in the young person’s social support network and mental health treatment providers likely send unintended stigmatizing messages. Young people who develop psychosis and schizophrenia may internalize stigmatizing messages. That internalized stigma is likely detrimental to the identities of these young people. There is a need to augment current mental health treatment frameworks, interventions, and support to meet the developmentally typical and unique needs associated with the identity formation of these emerging adults and the need to reduce the impact of stigma on their identities. Specific clinical interventions and targeted professional training opportunities drawn from an intersection of the literature on stigma, emerging adult identity development, and schizophrenia will likely address the identity needs of this group of young people.

Clinical service for young people at risk for developing psychosis in Uchinada

Yasuhiro Kawasaki, Reiko Hashimoto, Sachio Takamoto, Takamitsu Shimada, Hiroaki Kihara, Yukihisa Matuda, Masuhiko Tunoda

Kanazawa Medical University, Ishikawa Prefectural Mental Health Center, Japan

Introduction: Intervention in the prodromal phase of schizophrenia may prevent or delay onset of psychosis, reduce severity of illness, or improve long-term outcome. Promoting efficacious intervention requires implementation of optimal services, as well as developing better diagnosis and treatments specialized for at-risk individuals.

Method: The Outpatient clinic for Assessment, Support and Intervention Services in Uchinada (OASIS-Uchinada) for at-risk mental state (ARMS) is a newly established specialized clinical setting to study and treat young people (aged 15–30 years) at risk for developing psychosis. The OASIS-Uchinada was launched in October 2012 by the Kanazawa Medical University Hospital in cooperation with the Ishikawa Prefectural Mental Health Centre. We opened a website on the Internet (http://www. kanazawa-med.ac.jp/~psy/psych/oasis/). Specific aims of the service are: (i) to provide young people suspected at risk with opportunities of being assessed by specialists and receiving specific intervention, (ii) to reduce the delays for persons already psychotic in accessing evidence-based treatment, (iii) to contribute to elucidation of the biological basis for risk of schizophrenia, and (iv) to develop innovative and optimized approaches for diagnosing and treating people at risk for psychosis.

Results: The number of referrals to the OASIS in the first half year was 2 (1 woman, 1 man; age 16 years). They are not individuals with ARMS and have problem in completing the developmental task.

Conclusion: All referrals were help-seeking, distressed and would otherwise have had difficulty accessing mental health services. It may be possible that amelioration of prodromal symptoms aborts or defers the onset of psychosis.

Variables influencing subjective well-being in patients with schizophrenia

Seung-Hyun Kim, Young-Hoon Ko, Jinseung Oh, Moon-Soo Lee, Changsu Han, Jong-Woo Park, Hyun-Gang Jeong

Department of Psychiatry, Korea University College of Medicine, Department of Psychiatry, School of Medicine, Kyung Hee University, Seoul, Republic of Korea

Objectives: Subjective well-being in patients with schizophrenia is increasingly being recognized as an important clinical outcome. The purpose of this study was to analyze the relationship between subjective well-being and other clinical parameters such as sociodemographic and clinical variables, which include positive and negative symptoms, depressive symptoms, insight, and side effects.

Methods: Fifty-one outpatients diagnosed with schizophrenia were recruited in this study. Subjective well-being was assessed using a self-rating scale, the Subjective Well-being under Neuroleptics-Short form (SWN-K). Sociodemographic variables were also evaluated and other evaluations were conducted using the Positive and Negative Syndrome Scale (PANSS), Calgary Depression Scale for Schizophrenia (CDS), Liver- pool University Neuroleptic Side Effect Rating Scale (LUNSER), Korean Version of the Revised Insight Scale for Psychosis (KISP), and Multidimensional Scale of Perceived Social Support (MSPSS). The relationship between subjective well-being and these clinical variables was assessed.

Results: Education years and social support scores were positively correlated with the total SWN-K scores, but severity of illness, severity of depression, severity of side effect, and the scores on insight were negatively correlated. The stepwise multiple regression analyses indicated that the total SWN-K score of the patients with schizophrenia was associated with negative symptoms and insight.

Conclusions: Better insight and more severe negative symptoms in patients with schizophrenia may be associated with worse subjective well-being. Results indicate that careful evaluation of subjective well-being is essential for proper management of patients with schizophrenia.
**B86**

**Association between subclinical psychotic experiences and daily functioning is not moderated by coping style: evidence from two independent adolescent samples from the general population**

Ashleigh Lin,1 Alison Yung,2,3 Johanna Wigman,4 Danielle Hallert,1 Tamara Woodall,3,4 Katharine Chisholm,5 Eoin Killackey,1 Jaymee Ryan,2 Gennady Baksheev,5 Stephen Wood1,5

1Telethon Kids Institute, The University of Western Australia, Australia, 2Institute of Brain, Behaviour and Mental Health, University of Manchester, UK, 3Orygen Youth Health Research Centre, Melbourne, Victoria, Australia, 4University of Groningen, University Medical Center Groningen, Department of Psychiatry, ICPE, The Netherlands, 5School of Psychology, University of Birmingham, Edgbaston, Birmingham, UK

**Background:** Psychotic experiences are associated with reduced functioning, increased non-adaptive coping and reduced adaptive coping along all levels of the extended psychosis continuum. Recent evidence from a non-psychotic psychiatric adolescent sample showed that the association between positive psychotic experiences and functioning was moderated by coping. We tested whether this was also true at the general population level in two independent adolescent samples.

**Methods:** Two samples were recruited from secondary schools in (1) Birmingham, UK (N = 239; mean age = 16.10, SD = 0.75) and (2) Melbourne, Australia (N = 723; mean age = 15.51, SD = 0.41). Psychotic experiences were assessed on the Community Assessment of Psychic Experiences. Task-, emotion- and avoidance-oriented coping was measured on the Coping Inventory for Stressful Situations. The Multidimensional Adolescent Functioning Scale measured general, peer and family functioning.

**Results:** Results were similar for both samples. There were significant positive associations between psychotic experiences and functioning (all p < 0.001; with the exception of peer functioning in the Birmingham sample). Task- and emotion-oriented coping was associated with functioning, positively and negatively, respectively (p < 0.001; with the exception of peer functioning in the Birmingham sample). Avoidance-oriented coping was significantly and positively associated with peer functioning in the Melbourne sample. There were no significant interactions between psychotic experiences and coping on functioning.

**Conclusions:** Although both psychotic experiences and coping were associated with functioning at a subclinical level, the impact of these psychotic experiences on daily functioning is not moderated by the coping style used by the individual. The association between greater avoidance-oriented coping and better peer functioning warrants further investigation.

**B88**

**The psychosocial factors on occupational rehabilitation in patient with schizophrenia**

Jungjoon Moon,1 Sungjin Kim,2 Jungmin Kim,1 Bogeum Kong,1 Dongwook Jeon,1 Doun Jung1

1Inje University Busan Paik Hospital, 2Sancheong Medical Center, Korea

**Objectives:** This study was performed to assess the psychosocial factors that may affect the occupational activity in patients with schizophrenia.

**Methods:** Fifty-eight patients were enrolled in this study. There were three groups in this study: rehabilitation group (n = 19), outpatient group (n = 21) and occupational activity group (n = 18). We assessed the clinical symptoms and psychosocial factors. For the clinical symptoms, the Positive and Negative Syndrome Scale (PANSS), the Korean version of the Personal and Social Performance Scale (PSP) and the Clinical Global Impression Schizophrenia scale (CGI-SCH) were performed. For the psychosocial factors assessment, the Korean Insight Scale for Psychosis (KESP), the Korean version of Drug Attitude Inventory (KDAI-10), the Korean version of 4th Revision of Schizophrenia Quality of Life Scale (SOLQ), the Korean version of the Family Adaptability and Cohesion Evaluation Scale II and the Korean version of the Meaning in Life Questionnaire (MLQ) were performed.

**Results:** There was no significant difference among three groups on the PANSS. On the CGI-SCH and the PSP score, occupational activity group revealed better outcome than other groups. (p = 0.03). In psychosocial factors analysis, the occupational activity group showed poor insight, family adaptability and cohesion than other groups. KDAI-10, SOLQ and MLQ were no significant difference.

**Conclusions:** In this study, schizophrenic patients with occupational activity had higher CGI-SCH and PSP score. And some psychosocial factors were associated to occupational activity.

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**B87**

**THORN: educating the global workforce in psychosocial interventions**

Fiona Martin,1 Denise Bodley,2 John Crowley,2 David O’Loughlin,4 Mandy Reed,3 Anita Savage-Grainge4

1Queen’s University Belfast, 2Kingston University London, 3University of Greenwich, 4Bournemouth University, 5University of West of England, 6University of York, UK

**THORN** is a psychosocial education programme for practitioners. The focus of THORN is on learning outcomes that explicitly match contemporary evidence in the field of psychosocial interventions for individuals with early psychosis. This is highly significant as early intervention provides the optimum outcome for progressive improvement and sustained recovery of the individual (NICE, 2013; 2014; Friss, 2010). The THORN education programme is acknowledged by the UK National THORN Steering Group (NG) and is equipped with appropriate competencies capable of promoting, improving and sustaining early intervention in early psychosis (WHO, 2013).
POSTER ABSTRACTS

B89 Successful aging in subjects with schizophrenia dwelling in the community: protective aspects of preparing for aging
Hidehito Niimura,1,2 Takahiro Nemoto,2,3 Yuya Mizuno,1 Kei Sakuma,2 Masaaki Murakami,1 Masaru Mimura,1 Masafumi Mizuno2
1Department of Neuropsychiatry, School of Medicine, Keio University, 2Asaka Hospital, 3Department of Neuropsychiatry, School of Medicine, Toho University, 4Department of Sociology, Meiji Gakuin University, Japan

Purpose: In today’s aging society, preparing for aging during young or middle age is important. We examined two factors that seem to be related to successful aging among schizophrenia patients: attitude toward aging and preparing behavior for old age.

Methods: Forty-nine schizophrenia patients dwelling in the community after their discharge from a hospital in 2002 were examined using the Attitude Toward Aging scale and the Preparing Behavior for Old Age scale in 2008, 2010, and 2012; assessments of social functioning and quality of life (QOL) were also conducted. We examined the changes over four years using the t-test and analyzed the related factors using the Pearson correlation coefficient. Sufficient ethical considerations were made during the study.

Result: The patient demographics in 2008 were as follows: age, 57.6±8.7 years; disease duration, 36.4±10.8 years; and chlorpromazine equivalent, 729.8±489.6 mg. After four years, no significant changes in the attitude toward aging, QOL, or social functioning were observed, but an increase in preparing behavior was seen. In 2008, the preparing behavior was inversely correlated with the attitude toward aging, QOL, and social functioning, but in 2012, preparing behavior was positively correlated with these parameters.

Conclusion: Aging schizophrenia patients are enjoying their independent life, connecting with friends and family, and exercising, working, and saving money. After four years, an increase in preparing behavior was seen, possibly reflecting an improvement in the reality testing of the patients. Therefore, preparing behavior for old age can have a preventive effect for young or middle-aged patients with schizophrenia.

B91 The role of psychological factors in enhancing the impact of supported employment initiatives
Miles Rinaldi,1 Tom Craig,2 Swaran Singh,3 Jo Smith,4 Geoff Shepherd5
1South West London & St George’s Mental Health NHS Trust, London, 2King’s College, Institute of Psychiatry, London, 3Warwick Medical School, Warwick, 4Worcestershire Early Intervention Service, Worcestershire, 5Centre for Mental Health, London, UK

Background: Supported employment (SE) has been shown in numerous controlled trials to be the most effective intervention for helping patients return to paid employment but is poorly implemented in practice because of scepticism and ambivalence of clinical staff.

Objectives: To see whether a motivational intervention directed at clinical staff can improve occupational outcomes for patients following a first episode of psychosis

Methods: Two of four early intervention teams in the UK that offer supported employment (SE) as part of their clinical service were randomised to receive additional motivational training (MT) for clinicians focused on attitudinal barriers to employment. Occupational outcomes of patients in these teams were evaluated at 6 and 12 months.

Results: 159/300 patients in these teams consented to the research. Occupational outcomes were obtained for 149 (94%) at 6 months and 136 (85%) at 12-month follow-up. More patients in the MT intervention teams than in the SE only teams achieved employment by 6 months (25/76 vs. 9/73). A random effects logistic regression accounting for clustering by care co-ordinator and adjusted for the participant’s sex, ethnicity, educational and employment history, PANSS and GAF scores confirmed superiority of the MT+MI intervention (OR 4.5; 95% CI 2.2–12.4). Comparable results were obtained for 12-month outcomes.

Conclusions: Occupational outcomes of an SE programme were enhanced by addressing clinical ambivalence about supporting their patients back into work.

B90 Psychosocial intervention – challenges with family work in early psychosis: a qualitative study of professionals’ experiences
Irene Norheim,1 Liv Nilsen,2 Jan Frich,3 Svein Frisø,4 Jan Ivar Resberg2
1Division of Mental Health and Addiction, Vestre Viken Hospital Trust, 2Centre of Competence for Early Intervention in Psychosis, Division of Mental Health and Addiction, Oslo University Hospital, 3Institute of Health and Society, University of Oslo, 4Division of Mental Health and Addiction, Oslo University Hospital and Institute of Clinical Medicine, University of Oslo, 5Centre of Competence for Early Intervention in Psychosis and KG Jebens Centre for Psychosis Research, Division of Mental Health and Addiction, Oslo University Hospital and Institute of Clinical Medicine, University of Oslo, Norway

Psychoeducational family interventions are well documented for patients with schizophrenia and their family members. However, there are only few studies concerning first-episode psychosis, and the results of these studies are contradictory. Professionals working with family intervention in a first-episode psychosis, both single and multifamily groups, are present in situations that give them insight into the participants’ progress and potential. This knowledge can give input to make the family intervention more beneficial for the patients and their families. The aim of this study was to explore mental health challenges working with family intervention in a first-episode psychosis patients. A qualitative explorative study was performed based on digitally recorded in-depth interviews and a focus group interview with nine mental health professionals. The interviews were transcribed in a slightly modified verbatim mode and analyzed by systematic text condensation. The results show that professionals’ challenges were related to: motivating patients and family members to participate, facilitating rewarding family interventions, considering the benefits of the intervention compared with the patients‘ need for autonomy and spending time with patients. Flexibility in working within the frames of a manual-based intervention, and creating a good learning and communication climate during problem solving. Awareness of professionals’ challenges with family work in a first-episode psychosis can guide us in developing interventions which are more suitable for the patients and their families. The results are also useful for the education of group leaders in family work for patients with psychosis.

B92 The new psychoeducational and rehabilitation program specialized for early psychosis aiming at encouraging patients to participate in social activities
Minako Sato,1 Ryoko Yamazawa,1 Hidehito Niimura,2 Naomi Nakajo,1 Kanako Kikuchi,1 Riho Yoshimura,1 Masaru Mimura,2 Masafumi Mizuno2
1Oizumi Hospital, 2Department of Neuropsychiatry, School of Medicine, Keio University, 3Department of Neuropsychiatry, School of Medicine, Toho University, Tokyo, Japan

Long stay in mental hospitals has been a serious problem in Japan. Recently, the length of hospital stay has been shortening progressively. In consequence, we are confronted with increased needs for developing rehabilitation programs in the acute stage of psychosis. The aim of this study is to assess the outcome of the rehabilitation program in Oizumi Hospital in Tokyo. Oizumi Hospital functions mainly for psychosis patients’ treatment in their acute stage. We established a psychoeducational program, named “Anshin (reassuring) Club,” specialized for the patients in the acute phase in 2011, and examined the outcome of participants. After investigating the outcome, a new rehabilitation program was started in 2013. One hundred and sixty-nine patients took part in the Anshin Club from September 2011 to February 2013. Ninety of 169 patients had been followed up for 6 months after their discharge from the acute ward. Fifty-four patients saw the doctors regularly; however, 35 patients had no social activity after the program. The outcome of social participation of the Anshin Club was not enough. In order to improve this matter, the new rehabilitation program called “Fontana Café” was launched in 2013, aiming to prevent relapse, improve their lives, and help start working. The Fontana Café seems functioning well and some patients already have succeeded in participating social activities. Although enormous medical and social resources are required for performing such intensive support systems, our new rehabilitation programs for early psychosis may enable some patients to engage in social activities.
Physical health problems are common in young people with psychosis who experience poor health and a significant reduction in life expectancy. This is mainly due to premature cardiovascular disease (CVD), underpinned by metabolic disorders like diabetes and tobacco smoking. Moreover, the mortality gap compared to non-psychotic peers is widening. Yet in many UK EI services, physical health monitoring is not systematic and care plans fail to routinely address the physical health risks for young people with psychosis. This poster will describe one of the first UK real-world service evaluations of a bespoke EI physical health monitoring and intervention programme for young people with early psychosis called SHAPE. SHAPE employs nutritionists, exercise physiologists and health trainers to offer a co-ordinated, multi-professional week wellbeing and exercise programme in a youth-focused, socially inclusive setting. Its clinical impact is evaluated at 12 weeks and 12 months. This poster will provide preliminary data on the baseline physical health status of an initial cohort of young people who have accessed the SHAPE Programme to date. It will also describe early outcome data on the clinical impact of SHAPE at 12 weeks on key physical health risk markers and in promoting healthy lifestyle behaviours. It will discuss the acceptability of SHAPE in engaging young people with psychosis to address their physical health needs and in supporting adherence to a structured physical health monitoring and intervention programme. Notes: SHAPE has been funded through The Health Foundation (UK) SHINE Award 2014 Programme.

Methods: First-episode psychosis (FEP) patients aged 15–65 are referred by TIPS early detection and randomised to treatment as usual or JobPrescription. Single blind assessments are carried out at baseline, 3 and 24 months. Primary outcome measures are employment/study status. Secondary outcomes are quality of life and psychological well-being. Symptom levels and neuropsychological function are analysed as covariates.

Results: By April 2014, 20 patients were included. Four of 8 in the control and 9 of 12 in the experimental arm are engaged in employment or studies. Preliminary results on symptoms, quality of life, and (neuro)psychological factors will be presented. Study inclusion continues until 60 participants.

Discussion: Experiences from JobPrescription seem to indicate favourable results. However, threats to the RCT include a 50% refusal rate, possibly due to the risk of randomisation to the wait-list condition; and treatment as usual increasingly making use of IPS methods and thus contaminating the control arm.

Peer support is the process of providing encouragement, instilling hope and sharing recovery narratives, to others going through hardships of similar nature. Peer support has its roots in the consumer movement in US, gaining momentum after 1990s. Intentional peer support took place within Singapore’s mental health field only in recent years. EPIP first introduced peer support through group work, paving way for the development of structured peer support service. Utilising their lived experience, Peer Support Specialists (PSS), who are clients-in-recovery, are trained and engaged to offer peer support to clients in earlier stages of recovery. As implementation is in its infancy, an exploratory research was embarked to explore what it meant for PSS to render their service. The study design was descriptive. Four semi-structured, qualitative interviews with purposive sampling were conducted. Thematic analysis yielded insiders’ perspectives. Peers providing early support were true to fundamentals of peer support and clear about their roles. The benefits accrued by PSS reinforced that mutual growth can take place. PSS identified their personal challenges. While reservations were expressed about taking on leadership roles, some PSS showed interest in establishing more formal career or training pathways. The creation of peer support within a psychiatric setting requires methodical efforts to foster peers engagement. Reflections on sustaining peers engagement and recommendations for future research will be made. A PSS will share about personal experiences of the journey of peer support. This is a first-hand narrative of recovery, and resilience while making inroads to greater user representation in Singapore.

TRIPP therapy has been designed to accommodate a range of types of trauma and severity of symptomatology including severe childhood trauma, post-traumatic stress disorder (PTSD) from the experience for psychosis, positive psychotic symptoms, dissociative symptoms, and borderline personality disorder traits. The optional prolonged safety module within the first phase of TRIPP has been developed to manage young people with more complex problems. This paper presents the baseline data of the TRIPP cohort in order to describe the range and interrelationship of presenting symptoms in this group. Preliminary results from our current n of 13 show that the most severe past trauma(s) experienced by participants were: bullying (n=7); sexual abuse (n=4); physical abuse (n=4); emotional abuse/neglect (n=2); other (n=3). Nine participants met the criteria for PTSD for these traumas according to the Clinician-Administered PTSD Scale. Ten participants met the criteria for PTSD for their experience of acute psychosis. Psychosis diagnoses were: schizophrenia (n=4); bipolar (n=2); schizoaffective (n=2); psychosis not otherwise specified (n=2); delusional disorder (n=1); major depressive disorder (n=1). According to Brief Psychiatric Rating Scale cut-offs, one participant was mildly ill; five were moderately ill; six were markedly ill; and one was severely ill. Participants had an average of 2.5 borderline personality disorder traits (BPD) traits with 2 (of 13) meeting criteria for BPD. Participants had an average of 1.2 anti-social personality disorder traits. Six (of 12) participants scored above 25 on the Dissociative Experiences Scale. Updated data will be presented and clinical implications will be explored.
Service System Development and Reform

B98
Early intervention for psychosis in Canada: what is the state of affairs?

Marie Nolin,1 Amal Abdel-Baki,1 Philip Tibbo,2 Ashok Malla3
1Université de Montréal, 2Dalhousie University, 3McGill University, Canada

Objectives: Early intervention (EI) for psychosis programs have been implemented in Canada without national standards of care. Other countries have developed clinical guidelines, and literature highlights several elements considered as essential. Investigations in other countries have described slow implementation of services and the frequent absence of important components. The Canadian Consortium for Early Intervention in Psychosis was formed in 2012: one of its objectives being the development of standards of care, better knowledge of Canadian practices was needed.

Methods: An online benchmark survey was administered in 2013 to 11 academic EI programs. Questions covered administrative, clinical, education and research topics

Results: Three Canadian provinces have guidelines: clinics in those areas follow most of their provincial recommendations. Most of the surveyed programs offer similar services, including case management and various integrated psychosocial interventions, in line with expert recommendations. Differences are observed in admission and discharge criteria, services for patients at ultra-high risk (UHR) for psychosis, patients to clinician ratios, accessibility of services and existence of specific inpatient units. Recommendations on those topics are sometimes not followed. Where provincial guidelines exist, programs are more likely to follow recommendations in terms of accessibility, initial assessment of patients, community interventions for early detection, evaluation of program quality and outcome.

Conclusion: Although Canadian EI programs are following most expert recommendations on clinical components of care, some lack administrative and organizational elements considered essential in the literature. Programs following provincial guidelines perform better in some domains, pointing to the importance of establishing national standards.

B99
Early intervention for psychosis: what do clinical guidelines recommend?

Marie Nolin,1 Amal Abdel-Baki,1 Philip Tibbo,2 Ashok Malla3
1Université de Montréal, 2Dalhousie University, 3McGill University, Canada

Objectives: Early intervention (EI) for psychosis programs have been implemented in Canada without national standards of care, although 3 provinces have developed their own. Some countries with EI services have clinical guidelines, and several elements have been considered essential. The Canadian Consortium for Early Intervention in Psychosis was formed in 2012, one of its main objectives being the setting of standards for service delivery in EI, requiring better knowledge of international standards of care and expert recommendations.

Methods: An electronic database search (with PsycINFO and Ovid Medline as well as regular internet searching tools (ex. Google Scholar)) was conducted to find existing national guidelines for EI and studies on EI programs components. Clinical guidelines and studies on programs organization were reviewed; the main recommendations of the different international and national guidelines were compared.

Results: Guidelines emphasize the importance of flexible admission criteria, program accessibility and timely assessment of new patients, provision of pharmacotherapy, integrated psychosocial interventions, family interventions and outreach services by multidisciplinary teams, and a case management model of care with low caseloads. Hospital beds specific to the program should be available. Recommendations regarding duration of program usually vary between 2 and 5 years, and efforts should be made to maintain engagement of patients. Programs should undertake community interventions to increase awareness and decrease stigma.

Conclusion: Clinical, administrative and organizational elements considered essential in the literature will be discussed, as well as obstacles to implementation of EI programs and the pertinence of establishing national standards of care.

B100
To be or not to be? Is parental consent necessary for informed consent from minors, especially in Canada’s northern Aboriginal context?

Chiachen Cheng,1,2,4 Shevaun Nadin,1,3 Mae Katt,3 Carolyn S Dewa,4 Bruce Minore5
1St. Joseph’s Care Group, 2Canadian Mental Health Association-Thunder Bay Branch, 3Lakehead University, 4Centre for Addiction and Mental Health, Canada

Background: Northern Ontario is 87% of the land mass in Ontario, with only 6% of the population. It is an expansive geography with many Aboriginal communities. Ethical practice compels researchers to obtain informed consent during recruitment. However, what if the participants are minors? When is it necessary to obtain guardian assent? Can ethical protocols vary between cultural contexts, including Aboriginal communities? This presentation will describe the recruitment challenges and strategies to address the ethical and legal implications of parental assent for a study of minors with first-episode psychosis.

Approach: NorthBEAT is a three-year descriptive study about the mental health service needs of Aboriginal and non-Aboriginal youth in Northern Ontario. Recruitment was from 10 sites across all of Northern Ontario. Participants are youth, family and service providers. The youth are 18 years and have experienced psychosis. Informed by the literature and in consultation with stakeholders, an informed consent protocol was developed that does not require parental consent.

Results: We will discuss our approved protocol (passed 6 Research Ethics Boards, 4 community agencies and/or Aboriginal communities) in the context of the provincial laws, ethical considerations, cultural sensitivity, and pragmatic realities. We will review research evidence about informed consent with minors without parental assent and discuss our evidence-informed protocol.

Conclusions: The convention is to require parental consent and child assent. However, the context of NorthBEAT shows that circumstances can make obtaining parental consent impractical, and more importantly, unethical. We will show a feasible and ethical template for similar research in the future.
B101

The implementation and development of early intervention in psychosis services in Italy: a national survey promoted by the Association Italiana Interventi Precoci nelle Psicosi (AIPP)

Angela Cocchi,1 Lucio Ghiio,2 Anna Cavicchini,1 Marzia Collavo,1 Sara Macchi,1 Anna Meneghelli,1 Antonio Preti1

1Programma2000, Center for Early Detection and Intervention in Psychosis, Department of Mental Health, Niguarda Ca Granda Hospital, Milan, 2Department of Neuroscience, Ophthalmology and Genetic, Psychiatry Section, University of Genoa, Italy

Aim: This is the second national survey aimed at collecting evidence about the process of implementation and development of early intervention in psychosis (EIP) services in Italy following the establishment of the pilot Programma2000 in 1999 and the publishing of Italian National Guidelines in 2007. This survey updates a past investigation of 2009 and covers the majority of the Departments of Mental Health (DMH) in Italy.

Methods: Using a purpose-designed form for assessing EIP implementation, adult public mental health service directors throughout Italy were asked about EIP relevant local service activities. The initial delivery was followed by appropriate contacts (by phone and e-mail) to solicit response.

Results: Out of 216 enquired DMH, 103 provided computable answers to the survey (response rate = 47.6%). Among respondents, 45 (43.7%) reported an EIP active in the DMH (1 of 4 DMH active in Italy). About half of the active EIP also targeted patients at ultra-high risk (UHR) of psychosis (n=27). Strict application of guidelines for drug prescription was reported in 35% of EIP. Conversely, 90% provided some kind of structured psychotherapy and psychoeducation. A majority of the EIP reported willingness to provide initial assessment/contact at patient’s home.

Conclusion: Albeit slowly, the implementation of EIP is spreading within the Italian public network of mental health. There is still a wide variability in the distribution of EIP services across the national Italian territory. Further efforts are necessary to stimulate policy endorsement and resources allocation, and to support the poorer zones.

B102

Metabolic monitoring and antipsychotic prescribing in an early intervention service

Debasis Das, Julia Kestelman, Rashid Khan
Leicestershire Partnership NHS Trust, UK

Introduction: Patients with severe enduring mental illness and on psychotropic medication have increased risk of metabolic and cardiovascular disorders, associated with reduced life expectancy. Early intervention in psychosis represents an important window of opportunity to minimise long-term cardiovascular risk. PIER is an early intervention in psychosis team serving a population of 1 million in Leicestershire, UK.

Aim: To assess adherence to Trust (LPT) metabolic monitoring guidelines for patients treated with antipsychotic medication and assess adherence to NICE guidance on antipsychotic prescribing.

Methods: A retrospective case note review of new cases treated for at least 12 months under the care of PIER Team between April 2011 and September 2012 was undertaken.

Results: Metabolic monitoring compliance with criteria, in first 12 months of care, was below 50% in all areas. Baseline personal and family history of diabetes and cardiovascular disease was recorded in less than 30% of cases. Monitoring of blood parameters was less than 45%. Monitoring of blood pressure, BMI, and waist circumference was recorded in less than 25% with baseline weight recorded in 25%. Documentation of information in case notes was poor: LPT Metabolic Monitoring form was present in 20%; investigation results were present in less than 50%. Antipsychotic prescribing practice was good. High-dose antipsychotic prescribing, individually or in combination, was rare demonstrating 98% compliance with NICE guidance.

Discussion: The development of the innovative Physical Health Register initiative and database, which will include all PIER patients, may help towards a sustainable solution and improve outcomes in the future.

B103

From provincial standards to program improvement: EPION’s cross sector collaboration

Janet Durbin,1 Deborah Hieley,2 Gord Langili,3 Catherine Ford,4 Karen O’Connor,1 Gretchen Conrad,1 Chiachen Cheng2
1Centre for Addiction and Mental Health, 2Oriole Research and Design Inc., 3Canadian Mental Health Association Haliburton Kawartha Pine Ridge, 4The Ontario Ministry of Health and Long-Term Care, 5Canadian Mental Health Association, Toronto Branch, 6The Ottawa Hospital, 5Canadian Mental Health Association-Thunder Bay Branch, Canada

Background: In 2011, the Ontario Ministry of Health and Long-Term Care (MOHLTC) released Early Psychosis Intervention (EPI) Program Standards to support consistent, high-quality EPI program delivery. The MOHLTC initiated a collaboration to support implementation and evaluation of the Standards. A Standards Implementation Steering Committee with representation from EPION (Early Psychosis Intervention Ontario Network), MOHLTC, LHN (Local Health Network), family caregivers, youth with lived experience, and researchers was created. This presentation will reflect on the first project of the collaboration.

Approach: The first project was a province-wide needs assessment survey to provide a foundation for future program improvement. Feedback was sought on current program practices about six of 13 Standards, implementation challenges and needed supports. The focus of EPION work in 2013–2014 was to respond to the needs identified in the survey for EPI programs to implement and meet Program Standards.

Results: The survey had 90% response rate. Uniformly challenging was community outreach for early detection and referral. Use of standardized, evidence-based protocols was low. Although prescription of low-dose medications had high implementation, systematic follow-up care including metabolic monitoring was variable. Knowledge exchange (KE) activities focused on various audiences but follow-up indicated little individual program use of results for improvement or advocacy and limited LHN engagement. Two province-wide think tank meetings were held: public education and outreach, and metabolic monitoring.

Conclusion: This first project of the collaboration between government, program stakeholders, and researchers’ aims to encourage uptake of evidence-based program Standards through sector-driven quality improvement initiatives.

B104

Early Psychosis clinics in the US: strengthening services through partnership

Kate Hardy,1 Jessica Hua,2 Shobha Pais,2 Marta Rose,1 Will Chapman,1 Robert Bennett,2 Rachel Loewy1
1University of California, San Francisco, 2Felton Institute, Family Service Agency of San Francisco, 3East Bay Community Recovery Project, USA

PREP (Prevention and Recovery from Early Psychosis) is a community-academic partnership providing evidence-based early intervention for psychosis. Operating across five counties in the San Francisco Greater Bay Area, PREP aims to return clients with a recent onset of psychosis to the highest possible level of functioning. Funded by Federal (a Center for Medicaid Services grant), State (Mental Health Services Act Prevention and Early Intervention funds, and Medical funds) and County funding sources, PREP embodies the health care reform focus on promoting prevention and early intervention in community settings. There is international consensus (Bertolote and McGorry, 2005) on the inclusion of evidence-based interventions that should be routinely offered within early psychosis service delivery. In line with these recommendations, PREP offers a roster of evidence-based interventions to target symptomatic and functional recovery. These interventions are provided by community clinicians with a variety of training backgrounds including both professionals-by-training and professionals-by-experience. Unlike clinical staff operating in an academic setting, drawing upon clinical and non-clinical staff embedded within community sites allows for greater engagement with community resources and provision of clinical interventions in locations accessible to clients and their families. However, a challenge associated with this is the need to train a workforce, to competence, in interventions shown to be effective when delivered to fidelity. This presentation will review the evidence-based treatments integral to the PREP model, the challenges associated with training community clinicians in evidence-based practice, and the training partnerships formed to facilitate this practice.
B105  
Maintaining fidelity on a national scale: a comprehensive, specialist approach to early psychosis education and training  
Frank Hughes, Chris Livermore, Heather Stavely, Kerryn Pennell, Caroline Crlenjak, Rebecca Creek, Ally Hughes, Helen Osman  
Orygen Youth Health Research Centre, Australia  
Effective workforce development is seen as crucial to maintaining fidelity to early psychosis models and guidelines, promoting evidence-based practice and supporting the recruitment and retention of clinicians. The roll-out of early psychosis services at a national level around Australia has highlighted this imperative. A number of challenges arise related to providing easy access to training to a new workforce across a huge geography as well as providing evidence-based activities which translate specialist knowledge and skills learned into sustained clinical practice. This paper presents the comprehensive and specialist training and education approach taken by the EPPIC National Support Program in providing workforce development activities to early psychosis clinicians around Australia. It describes an array of learner-centred strategies to overcome these challenges including the development of an online community of practice. Methods to ensure training fidelity to evidence-based clinical interventions and the EPPIC model are also presented.

B106  
Access and use of mobile technologies, Internet, and social media among young people receiving services for a first episode of psychosis  
Shalini Lal, Ashok Malla  
McGill University, Canada  
Introduction: The purpose of this study is to explore access and use of mobile technologies, Internet, and social media among young people recently diagnosed with a first episode of psychosis and their perspectives of using these technologies for receiving mental health information, services and supports.  
Methods: Interviewer-administered survey with an estimated sample of 60–100 young people between the ages of 18 and 35 recruited from two specialized early psychosis programs.  
Results: This study is currently underway and complete results will be available at the time of the presentation. Preliminary results are: 29 participants with a mean age of 25 (SD=3.8), of which two thirds are males (69%, 20/29) have been recruited into the study. Most (72%, 21/29) have access to cell phones, the majority of which have access to smart phones (20/21, 95%) and most have access to a laptop computer (79.3, 23/29). The top three Internet activities were: watching videos (100%, 29/29), listening to music (96.6%, 28/29), and searching for information (93.1%, 27/29). Approximately 55% of the sample had searched for mental health information online in the past year. The most visited social media site was YouTube (96.6%), followed by Facebook (82.8%). All participants agreed or strongly agreed that technology could be used to provide various types of services and activities.  
Conclusions: Preliminary results suggest that young people are interested in receiving mental health services via technology. This research can help inform the development and testing of Internet interventions for the first episode psychosis population.

B107  
Australia’s innovation in youth mental health service delivery headspace  
Kathleen Alonso, 1 Chris Tanti, 1 Debra Rickwood, 1,4 Sandra Radovini, 1 Cassie Redlich, 1 Patrick McGorry 1,2,3  
1 headspace, The National Youth Mental Health Foundation, 2 Orygen Youth Health Research Centre, 3 Centre for Youth Mental Health, University of Melbourne, 4 University of Canberra, Australia  
headspace Youth Mental Health Foundation was initiated in 2006 as the Australian Government’s response to high levels of need for mental health care and low levels of service use among adolescents and young adults aged 12–25 years. headspace represents an innovative reorientation of youth mental health service delivery, designed as highly accessible, youth-friendly, integrated service hubs and networks providing evidence-based interventions across the four core streams of mental health, alcohol and other drugs, general health and vocational support services. Since commencement, headspace has grown to incorporate 64 centres across the country, with 90 projected to be open by 2015. The headspace online and telephone service, eheadspace, increases the reach of headspace centres by providing young Australians access to evidence-based mental health services in a time, space and place that suits them. To date, headspace has provided services to over 100,000 young people, and has successfully engaged vulnerable groups including Aboriginal and Torres Strait Islander young people. In 2014, the headspace platform will extend to young people experiencing early psychosis or who are at risk of developing psychosis, delivering the Australian government’s national early psychosis initiative. This paper will provide an overview of the headspace model, service streams and programs, as well as present data highlighting the numbers of young people accessing services, demographic information and the types of difficulties with which they present. The aim is to provide an overview of the context in which the implementation of a national early psychosis initiative will occur.

B108  
TempoZero: establishment and development of an early intervention service in a defined catchment area of north Italy  
Chiara Bombonato, 1,2,3 Marco Ponteri, 2 Federico Galvan, 2 Tiziana Baruffini, 2 Corrado Meraviglia, 1 Mario Ballanti 1  
1 ASIPSE School, Milan, 2 Mental Health Department, A.O. Valtellina and Valchiavenna Hospital, Sondrio, 3 AIAMC Italian Association of Behaviour Analysis and Modification and Cognitive-Behavioural Psychotherapy, Milan, Italy  
Aim: To present the development of an early intervention service for psychosis in an alpine catchment area of 140,000 inhabitants, its structure and the results of its operation 5 years after its establishment.  
Method: Our early intervention service called TempoZero starts in the wake of Programma 2000, the first service specifically targeting the early detection and intervention with individuals experiencing first-episode psychosis in Italy. TempoZero is an outpatient service, established in 2009 following the Italian National Guidelines for early intervention in schizophrenia. The first three years of operation, it has developed into a service for young people including all the situations of mental disease at risk of severe impact on social and personal functioning. Description of selection criteria, intervention procedures and patients’ sociodemographic and symptomatic characteristics.  
Results: Between 2009 and 2011, TempoZero retained 27 patients: 6 at-risk individuals, 10 individuals with first-episode psychosis and 11 adolescents with different disorders. From 2011, TempoZero, with a team of professionals involved with both adults and minors, implements psychiatric service for children and adolescents, changes selection criteria including adolescents from 14 to 18 years old and provides a variability of treatment options, retaining 61 patients, 37 males, 24 females, 18 adolescents are younger than 18.  
Conclusions: Given the five-year period of our operation, we believe that now TempoZero meets the needs of patients, even younger ones, with different psychopathologies and helps them deal effectively with their disabling mental illness.  
Key words: Early intervention, first-episode psychosis, mental health service for adolescents, service development.
B109 Group-based interventions as an adjunct to individually based care in early psychosis

Hella Demunter, Ludi Van Bouwel, Inez Heleven, Lut De Rijdt, Liesbeth De Coster, Bart Goossens, Jef Liseaerd, Tineke Stuyven, Martine Lambrechts, Marc De Hert

UPC KULeuven, Campus Kortenberg, Belgium

VRINT, an early intervention project in Belgium, serves since 5 years a semi-urban population of 550,000 inhabitants. Early detection of at-risk mental states and early intervention for first-episode patients and their families are the aims of the project. Phase-specific needs adapted to treatment with psychosocial interventions, psychotherapy, psychiatric care and FACT, with attention for continuity of care, are the cornerstones of the interdisciplinary teamwork. The project targets clients between fourteen and thirty-five years old and offers assessment and treatment for at least five years. Care is outpatient organized to avoid disruption from the home environment and stigmatization. If necessary, there exists a flexible cooperation with the inpatient first-episode ward. The outpatient care offers individually based therapy. Group therapy only exists on the first-episode ward. Based on literature, the hypothesis grew that an outpatient modular group therapeutic offer on indication can be an alternative to (day-)hospitalization and adjunct to individual treatment especially for those patients who lost social integration and day routine, and show co-morbidity with substance abuse, and psycho and health education, social skills training, cognitive and interpersonal therapy, and recreational activities are examples to enhance social contacts, coping mechanisms with symptoms and social problems, and organization will be in cooperation with the first-episode ward to provide continuity of care and to reach enough patients to organize needs-specific therapy groups. The results of a designed questionnaire to the expectations of the patients, as well as the composed program based on these results and literature, will be presented and discussed.

B110 Internalized stigma and expectation of psychiatric nursing role in the society: a study of psychiatric nurses as a hospital staff working in Japan

Setsuko Hanzawa,1 Kayomi Yatabe,2 Akiko Nosaki,3 Yoko Nagai,1 Goro Tanaka,1 Hideyuki Nakane,1 Yoshibumi Nakane4

1School of Nursing, Jichi Medical University, Tochigi, 2Kenama Hospital, Tochigi, 3Graduate School of Nursing, Chiba University, Chiba, 4Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan

Aims: Internalized stigma is a construct that reflects the degree to which a person has internalized societal endorsed stigmatizing beliefs about mental illness. In Japan, there are many advanced mental healthcare inpatient facilities, a long-term hospitalization system and a hospital detention policy. However, little is known about internalized stigma among service providers, especially psychiatric nurses as a hospital staff working in Japan. Therefore, in the present study, we investigated the correlation between internalized stigma and beliefs about the most appropriate form of hospitalization among psychiatric nurses.

Methods: The subjects were 215 psychiatric nurses employed in psychiatric hospitals who completed the personal stigma scale, perceived stigma scales, and the Difficulty of Community Living Scale (DCLS) with respect to a chronic schizophrenia case vignette.

Results: Analysis revealed that internalized stigma (defined as minimal differences between personal attitudes and beliefs about other people’s attitudes toward persons with schizophrenia) was positively correlated with higher beliefs about the most appropriate form of hospitalization among psychiatric nurses. It was also revealed that internalized stigma was positively correlated with higher beliefs about the social disadvantage with schizophrenia patients in the community.

Conclusions: The present findings suggest effect size differentiation of education programs toward psychiatric nurses. Especially, nurses’ training should address not only treatment and nursing for schizophrenia inpatients, but also outpatient nursing, home- visiting nursing for patients living in the community, and beliefs about the dependant relationship among patients and families due to the Confucian value.

B111 Early intervention for psychosis in Canada: what is the state of affairs?

Ashok Malla,1 Marie Nolin,2 Amal Abdel-Baki,3 Philip Tibbo2

1McGill University, 2Université de Montréal, 3Dalhousie University, Canada

Objectives: Early intervention (EI) services for psychosis have been implemented in Canada without national standards of care. Investigations in other countries have described slow implementation of such programs and the frequent absence of components considered important in the literature. The Canadian Consortium for Early Intervention in Psychosis was formed in 2012 as a nonprofit organization composed of clinicians and researchers in the EI field. Among its several objectives is a better understanding of how EI services function and development of national standards of care vis-à-vis current international consensus guidelines.

Methods: An online benchmark survey was administered in 2013 to 11 EI services based in academic centres. Questions covered administrative, clinical, education and research topics.

Results: Three Canadian provinces have guidelines; clinics in those areas follow most of their provincial recommendations. Most of the surveyed programs offer similar services, including case management and various integrated psychosocial interventions, in line with expert recommendations. Differences are observed in admission and discharge criteria, services for patients at ultra-high risk (UHR) for psychosis, patients to clinician ratios, accessibility of services and existence of specific inpatient units. Recommendations on those topics are sometimes not followed. Where provincial guidelines exist, programs are more likely to follow recommendations in terms of accessibility, initial assessment of patients, community interventions for early detection, evaluation of program quality and outcome.

Conclusion: Similarities and differences in Canadian practices will be discussed, as well as obstacles to implementation of EI services, and the importance of establishing national standards of care.

B112 Enhancing clinician competence in working with young people experiencing early psychosis

Helen Osman,1 Anthony Jorm,2 Dianne Mulcahy,3 Frank Hughes,3 Shona Francey2

1Orygen Youth Health Research Centre, 2University of Melbourne, Australia

Background: Specialist training of clinicians is central to providing effective early intervention (Bertolote & McGorry, 2005). The need for training in specialist psychosocial interventions has been specifically highlighted (IEPA Writing Group, 2005). In light of the importance of training in the effective provision of psychosocial interventions, the development of a more structured approach is required. As competency-based approaches are seen as best practice in mental health workforce development (Hoge et al., 2004), there is a need to identify the core competencies expected of clinicians working in the early psychosis field.

Methods: The Delphi method was used to establish expert consensus on the core competencies required of clinicians in the early psychosis field. An extensive literature search was conducted to generate competency items. An expert panel consisting of clinicians from around the world was formed. Panel members then rated each of the competency items on how essential they are to clinical practice.

Results: The study generated a set of core competencies required of clinicians working in the early psychosis field. An overview of the core competencies will be presented.

Implications: The implications of the findings as a strategy to support the dissemination of evidence-based psychosocial interventions will be discussed.
**B113 Using the model of human occupation to identify conceptual need within an EIS caseload**

Jackie Parsons
CNWL NHS Foundation Trust, UK

**Aim:** To establish the level of strengths and challenge in each of the conceptual areas of the Model of Human Occupation (MOHO) in an Early Intervention Service caseload.

**Background:** Occupational therapy assists individuals to regain meaningful occupations and activities after illness, such as returning to school, work or leisure activities. MOHO is a conceptual model used by occupational therapists to understand and explain occupational strengths and challenges in the core domains of self-care, productivity and leisure (Kielhofner, 2008). The six conceptual areas are: motivation, routine, communication, processing, motor skills, and environment. A literature search identified no exiting MOHO profiles related to early intervention service (EIS) caseloads. This audit was undertaken to establish a baseline level of the strengths and weaknesses in the conceptual areas. This information is vital to inform service delivery, and ensure limited occupational therapy resources are targeted appropriately in EIS to improve functional outcomes and clinical effectiveness.

**Methods:** Using a positivist approach, care coordinators were supported to rate each of the service users on their caseloads about performance in each of the conceptual areas. A simplified MOHOST assessment format, adapted for the purpose of interviewing care coordinators, was used to illicit quantitative data.

**Findings:** A total of 99 service user’s cases were discussed and the data analysed. Results suggest motivation, routine and processing are most affected by the onset of psychosis.

**References**


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**B114 Evaluation innovation for Early Psychosis headspace Services**

Debra Rickwood,1,4 Nic Telford,1 Patrick McGorry,2,3 Sarah Hetrick,2,1 Eoin Killackey2

1headspace, The National Youth Mental health Foundation, 2Orygen Youth Health Research Centre, 3Centre for Youth Mental Health, University of Melbourne, 4University of Canberra, Australia

The development and implementation of early psychosis services within the headspace platform is a major investment by the Australian government that requires rigorous evaluation. This substantial innovation in service delivery for young people at risk of or with emerging psychosis and their families requires an equally innovative evaluation strategy. A novel evaluation framework has been instigated at the outset, which is necessarily complex and multi-faceted, comprising complementary and overlapping components appropriate to the progressive national roll-out of the initiative. Each evaluation component has a distinct purpose and methodology relevant to the different stages of implementation. Components include: mapping the process of service development and the establishment of each of the nine hubs (and associated spokes), including identifying areas requiring adaptation; assessing level of implementation against the 16 EPPIC core components, and identifying barriers and facilitators to achieving full fidelity; determining level of attainment of service objectives according to headspace best practice principles of accessibility, acceptability, appropriateness and sustainability; and achieving outcomes for young people and their families. This presentation describes the evaluation framework and its components, including the approach being taken to embed ongoing data collection within the services through regular collection of a minimum data set. The evaluation is world-first opportunity to build an evidence base to inform implementation of a national network of early psychosis services, the effectiveness of the initiative in achieving outcomes for young people at risk of or with emerging psychosis and their families, and whether this is an appropriate investment for the Australian government.

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**B115 Sensory characteristics of youth at ultra-high risk of psychosis**

Sean Roush,1 Donna Downing,2 Diane Parham3

1Pacific University, 2Early Detection and Intervention for the Prevention of Psychosis Program, 3University of New Mexico, USA

The Early Assessment and Support Alliance (EASA) was one of six geographical sites across the United States participating in the Early Detection and Intervention for the Prevention of Psychosis Program (EDIPPP) study. One aspect of that study focused on determining the sensory processing characteristics of young people at ultra-high risk (UHR) for psychosis in comparison to those with moderate risk and the normative population using the Adolescent/Adult Sensory Profile (AASP), a standardized self-report questionnaire that identifies respondent’s behavioral responses to sensations in everyday life. The AASP describes sensory processing patterns using four descriptive quadrants: low registration, sensation seeking, sensory sensitivity, and sensation avoiding. 256 clients participated in the study and significant differences were found across the quadrants when comparing the clients in the UHR group to both the moderate risk group and normative data from the assessment tool. UHR subjects had higher scores in low registration, sensory sensitivity, and sensation avoiding with lower scores in sensation seeking than the low-risk group or normative sample. This session will define the four quadrants of the AASP outline the statistical data from the study, and explore the implications of these findings for the identification of those at UHR for psychosis and treatment of this population. Although a promising practice that is being integrated into the EASA model, further study is required to determine whether or not a focus on sensory processing in early psychosis will develop into a best practice that should be adopted by other early psychosis programs.

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**B116 From little things big things grow: the development of an Early Psychosis service in regional Queensland – 6 years on**

Kimberley Trainor, Lindsay Moncrieff

Queensland Health, Australia

Early intervention in psychosis brings with it hope for young people and their families. In April 2008, the Townsville Hospital and Health Services, formerly Townsville District Mental Health Service, made a commitment to the delivery of such services with the implementation of the Early Psychosis Intervention Team. This poster aims to describe the evolution of our service, originally comprised as two clinicians delivering early psychosis services while embedded in the Acute Care Team to a stand-alone Young Peoples Early Intervention Team. The principles underpinning service development include early detection and intervention, individualised care and recovery, integrated care, collaboration and partnerships, and allowing opportunities for development of staff capacity and skill. Our overall vision has been to provide timely evidence-based interventions which are easily accessible, optimise outcomes for overall health and mental health, and promote interpersonal, recreational, educational and vocational functioning. Discussion includes: Development of Model of Service; Development of resources; Clinical partnerships: headspace, employment agencies and the Mental Illness Fellowship of North Queensland; Initiatives for family support and education; Development of early psychosis clinic and group program; Consumer and Carer participation including DVD for mental health literacy program for high schools; Development of Early Psychosis Checklist; Introduction of Early Psychosis Research Variable; Staffing resources and training; Statewide Advisory Group and Funding bids; The development of a functionally integrated youth service between adult and child and adolescent services; Challenges faced; Beyond the horizon: Future direction.
**Stress Responsivity**

**B118**

Symptoms of post-traumatic stress disorder among Brazilian people living in Japan following the Great East Japan Earthquake

Akiko Nosaki,1 Koichiro Otsuka2

1Graduate School of Nursing, Chiba University, 2School of Nursing, Jichi Medical University, Japan

**Background:** The number of Brazilian people living in Japan has been over 200,000 since 1996. Most of them are Japanese-Brazilian and live with their families. The aim of this study is to clarify symptoms of PTSD as psychological impacts among Brazilian people who experienced the Great East Japan Earthquake and subsequent nuclear power plant accident on March 11, 2011.

**Methods:** Subjects were adult Brazilian people living in Kantō and inland area in Japan who experienced the earthquake. Symptoms of PTSD were evaluated with Portuguese version of the Impact of Event Scale-Revised (IES-R) (Cauby et al., 2012) from March to May 2014. Changes of their daily lives after the earthquake were interviewed. Demographic data were also collected.

**Results:** Subjects were 13 females and 6 males and their mean age was 38.9 (SD = 8.9). Mean length of stay in Japan was 17.2 (SD = 5.2) years. Mean score of IES-R was 13.8 (SD = 10.5), mean of females score was 17.6 (SD = 9.9) and males was 5.5 (SD = 6.0). Three female subjects showed higher score than the cut-off point (24/25) and highest score was 33. Many of them experienced electricity outage and feared radioactive contamination following the earthquake.

**Conclusions:** Even 3 years elapsed from the earthquake, Brazilians, especially female, have symptom of PTSD remarkably.

**B119**

Stress evaluation by voice: a novel stress evaluation technology

Shin-ich Tokuno,1,2 Shunji Mitsuyoshi,1 Go Suzuki,1 Gentaro Tsumatori2

1Department of Advanced Medicine, Tokyo University of Graduate School of Medicine, Tokyo, 2National Defense Medical College, Saitama, Japan

Self-administered questionnaire is used to screen for stress in general. However, questionnaire is not able to be excluded reporting bias, which means that registrant changes the nuance of answers consciously. Indicators to know objectively the effect of medicine is required. Additionally, when screening a large number of subjects, inspection simple and rapid method is needed. Recently, the technology of emotion recognition has been developed rapidly and highly. Therefore, we have developed software for stress evaluation using speech emotion recognition technology. We used Sensibility Technology ST Emotion (AGI Japan, Inc.) as base software for stress analysis system. This software determines emotional elements as including anger, joy, sorrow, and calmness. It also measures feeling of excitement and mood of depression. To evaluate the performance of the program, we compared with the psychological test (GHQ-30) or interviews. The subject is 1004 soldiers dispatched to the Great East Japan Earthquake and 444 soldiers to do a routine mission in Japan Ground Self-Defense Forces. All of them had taken the stress analysis by voice and psychological testing by questionnaire. The evaluation by interviewing was carried out for 225 soldiers who showed an abnormal psychological testing, and obtained the consent. 29 of 225 soldiers were diagnosed to need medical intervention or counseling. GHQ-30 detected 27 of them and its sensitivity was 0.931. Voice analysis detected 26 of them and its sensitivity was 0.897. The sensitivity of stress evaluation by voice was similar to that of the GHQ-30, and was able to eliminate the reporting bias.

**B120**

‘Does substance use really matter in FEP?: impact on 2 years symptomatic and functional outcome’

Amal Abdel-Baki,1,2,3 Clairelaine Ouellet-Plamondon,1,2,3 Emilie Salvat,4 Stéphane Potvin,5 Kwathar Grar,6 Luc Nicole7

1Centre Hospitalier Université de Montréal (CHUM), 2Université de Montréal, 3Centre de Recherche du CHUM, 4Institut Universitaire en Santé Mentale de Montréal, 5Centre de Recherche Fernand-Séguin, 6CSSS Gatineau, Canada

**Background:** Prevalence of substance use disorders (SUD) in first-episode psychosis (FEP) is high (30% to 70%) and it is usually associated with poor clinical outcome. Our study examined the impact of the course of SUD on symptomatic and functional outcomes in a FEP sample.

**Methodology:** A prospective longitudinal study of 2 years follow-up of 212 FEP aged between 18 and 30 years old, admitted to an early psychosis program in Montreal.

**Results:** Cannabis is the first substance abused (42.9% at baseline), followed by alcohol (19.3%). The SUD rate decreases over time by approximately 30%, essentially the first year (cannabis use disorder shows a more dramatic decrease). Subjects with persistent SUD at 1 and 2 years follow-up have more symptoms (PANSS total, negative and positive sub-scale) and have a worse functional outcome (QOL, SOFAS, autonomy in living arrangements, employment) than those who never had a SUD. Patients with an active SUD during follow-up were heavier users of emergency and hospitalization services. Subjects with persistent SUD were more likely to have substance dependence diagnosis, to be homeless and to have cluster B personality traits or disorders.

**Conclusion:** The course of SUD seems to be more important than the fact of having a SUD at admission; persistent SUD is associated with a worse outcome. SUD decreased during a general early psychosis intervention program but with no SUD-specialized treatment. A specific intervention for co-morbidity during the first years could increase the proportion of patients who stop substance abuse/dependency and possibly improve their outcome.
B1121 Mortality attributable to alcohol and substance use disorders in people with schizophrenia

Carsten Rygaard Hjorthøj, 1,2 Marie Louise Drivsholm Østergaard, 1,2 Nanna Gilliam Toftdahl, 1,2 Michael Eriksen Benros, 1,2 Jon Trærup Andersen, 1,4 Merete Nordenfelt 1,2

1 Copenhagen University Hospital, Mental Health Center Copenhagen, 2 The Lundbeck Foundation Initiative for Integrative Psychiatric Research, IPSYCH, 3 Copenhagen University Hospital, Rigshospitalet, Laboratory of Clinical Pharmacology, 4 Q7642, Bispebjerg Hospital, Department of Clinical Pharmacology, Denmark

Introduction: People with schizophrenia have higher rates of misuse of alcohol, cannabis, and other illicit substances than the background population. They are also at severely increased risk of early death. The association between substance use and mortality in schizophrenia, however, is not well-established.

Methods: We linked nationwide Danish registers for people born in Denmark from 1955 onwards. Hazard ratios (HR) for both all-cause and cause-specific mortality attributable to different substance use disorders were estimated using Cox regression.

Results: There were 41,470 incident cases of schizophrenia in the sample, and 4,616 deaths. For all-cause mortality, all types of substance use disorders increased risk of dying, HR = 1.79 (1.56–2.05) for exclusive misuse of hard drugs, followed by HR = 1.53 (1.41–1.66) for exclusive misuse of alcohol, and HR = 1.24 (1.04–1.79) for exclusive misuse of cannabis. Combinations of two/three types of misuse increased the HR further. Associations with suicide were less clear, with perhaps a reduced risk of suicide in people with misuse of alcohol. Risk of deaths from accidents or respiratory organs illnesses was increased for all types of substance misuse. Alcohol increased the risk of dying from causes in the cardiovascular or digestive organs. None of the three types of misuse increased the risk of dying from malignant tumors outside the respiratory system.

Conclusion: All types of substance use disorder increased the risk of death in people with schizophrenia, accounting for a potentially large proportion of the reduced life expectancy in this population. This highlights the importance of identifying and treating substance-related problems in this population.

B1122 Substance abuse patterns and ten-year outcome in FEP

Melissa Weibel, 1,3 Jan Olav Johannessen, 1,2 Tor Ketil Larsen, 1,3 Wenche ten Velden Hegelstad, 1 Inge Joa, 1,2 Svein Friis 1

1 Stavanger University Hospital, 2 University of Stavanger, 3 University of Bergen, 4 University of Oslo, Norway

The study investigated different patterns of substance use in an epidemiological first-episode psychosis (FEP) sample, hypothesizing that persistent use would predict poorer outcomes compared to never users or stop users. Patients may use substances on-off or stop using. Little is known about the effect of different patterns of substance use on outcomes. 301 patients aged 16–65 with first-episode non-affective psychosis were included in the sample. We defined four patterns of substance use: never used (N = 153), persistent use (N = 43), stop use (N = 36), and on-off use (N = 48) during the first 2 years of follow-up. 114 patients were followed up at 10 years and compared on symptom levels (PANSS, GAF) and remission status. Patients who used substances on-off or stop using had similar 10-year outcomes as patients who had never used.

Conclusion: In this large sample of individuals at CHR, anxiety is common, and often associated with more severe attenuated psychotic symptoms. It is possible that those with severe anxiety may be at risk of later psychosis and thus considering treatment for anxiety may be important.

Ultra-High Risk/Prodromal Research

B1123 Maladaptive coping strategies, self-esteem, life events and the development of mood disorders: findings from a longitudinal high-risk study

Emilie Magaud, 1 Sarah Doucette, 2 Anne Duffy

1 Hotchkiss Brain Institute, Mathison Centre for Mental Health Research & Education, University of Calgary, Alberta, 2 Dalhousie University, Halifax, Nova Scotia, Canada

Bipolar disorder (BD) is a devastating, highly heritable, psychiatric illness that onset in adolescence. Several psychological factors have been implicated in the development of mood disorders; however, it remains unclear if these constructs are preceding risk factors, reflect a burden of past psychiatric diagnosis or a genetic vulnerability. This study examined the association between coping strategies, self-esteem, recent life events and mood disorders in HR offspring compared to offspring of well parents (control offspring) using data from a 17-year prospective cohort study. A sample of 240 HR offspring (12–19 y.o.) with 1 parent with BD I or II and the other parent well, and 87 control offspring was studied. Offspring were assessed using KSADS_PL/SADS-L format interviews, and DSM-IV diagnoses were confirmed by blind consensus review. The following self-report measures were administered: the Children’s Coping Strategies Checklist, the Rosenberg Self-Esteem Scale and the Recent Life Events Questionnaire. HR offspring had significantly more life events than controls (p = 0.003) and HR offspring with a mood disorder had significantly worse self-esteem and reported more avoidance strategies compared to those unaffected for lifetime mood disorder (p = 0.042) and (p = 0.048), respectively. The longitudinal analysis of these risk factors before and after mood disorder onset is in progress. Findings from this preliminary analysis suggest that undesirable life events may reflect an additional burden for this HR population. In addition, maladaptive coping strategies could be a relevant target for psychological interventions in this high-risk population and require further systematic study.

B1124 Anxiety in youth at clinical high risk for developing psychosis

Laina McCausland, 1 Carrie Bearden, 2 Kristin S Cadencehead, 4 Tyrone Cannon, 4 Barbara A Cornblatt, 5 Thomas H McGlashan, 4 Diana O Perkins, 4 Larry J Seidman, 1 Elaine F Walker, 2 Scott W Woods, 4 Lisa Buchy, 1 Jean Addington 1

1 University of Calgary, Canada, 2 University of California, Los Angeles, 3 University of California, San Diego, 4 Yale University, 5 Zucker Hillside Hospital, 6 University of North Carolina, 7 Harvard Medical School, 8 Emory University, USA

Background: High rates of anxiety have been observed in youth at clinical high risk (CHR) of developing psychosis. In CHR, anxiety often co-occurs with depression and in particular, obsessive compulsive disorder (OCD) has been reported in CHR individuals who ultimately develop a psychotic illness. The aim of this study was to examine (i) the prevalence of anxiety disorders in individuals at CHR and (ii) clinical differences between those with and without anxiety.

Methods: The sample consisted of 765 CHR individuals and 280 healthy controls (HC). CHR status was determined with the Structured Interview of Prodromal Syndromes (SIPS), mood and anxiety diagnoses with the SCID, and severity of anxiety was measured with the Social Interaction Anxiety Scale (SIAS) and Self-Rating Anxiety Scale (SAS).

Results: Fifty-one percent of the CHR sample met criteria for an anxiety disorder with social phobia being the most common. Those at CHR demonstrated significantly more anxiety than HC in terms of DSM-IV diagnoses (X² = 191.25, p < 0.001) and in SIAS and SAS severity (t = −19.16, p < 0.001; t = −21.72, p < 0.001). CHR participants with OCD exhibited more severe attenuated psychotic symptoms (U = 14390.50, p = 0.01), and those with anxiety had significantly more trouble with focus and attention than those with depression only (U = 10626.07, p < 0.001) or with neither depression (U = 18426.00, p < 0.05).

Conclusion: In this large sample of individuals at CHR, anxiety is common, and often associated with more severe attenuated psychotic symptoms. It is possible that those with severe anxiety may be at increased risks at later psychosis and thus considering treatment for anxiety may be important.
B125 Social functioning in individuals at risk for psychosis

Anastasia Theodoridou,1,2 Karsten Heekeren,1,2 Lea Wyder,1 Diane Dvorsky,1,3 Sibylle Metzler,1 Nicolas Rüscher,1,3 Mario Müller,1 Susanne Walti,1,4 Wulf Rösler1,2

1 University Hospital of Psychiatry Zurich, The Zurich Program for Sustainable Development of Mental Health Services (ZInEP), Switzerland, 2 University Hospital of Psychiatry Zurich, Department of Psychiatry, Psychotherapy and Psychosomatics, Switzerland, 3 Department of Psychiatry II, University of Ulm, Germany, 4 University Hospital of Child and Adolescent Psychiatry, University of Zurich, Switzerland

Disability associated with impaired psychosocial functioning is often persistent even in individuals at risk for psychosis, who do not convert to psychosis. These deficits can entail considerable social and economic burden. Negative symptoms, neurocognitive and social cognitive deficits, are known to contribute to disability in psychosis. This approach aims to identify the underlying mechanisms of poor functioning in at-risk states.

This study is part of an ongoing prospective longitudinal high-risk study with a multi-level approach. Socio-demographic, health-related, developmental, genetic factors as well as quality of life and stigma-related variables and measures of functioning were obtained. Descriptive statistics were provided to characterize the study sample. Bivariate associations between all considered measures were analyzed using Spearman’s correlation. Simultaneous associations of clinical and socio-demographic variables with outcome variables will be analyzed using path-modeling. N = 221 persons entered the study group. 60.2% subjects were male. Mean age was 20.99 (± 6.0) years (range 13–35, median 20). From those, 36.7% fulfilled high-risk and 48.4% ultra-high risk criteria for psychosis, and 70% fulfilled risk criteria for bipolar disorder. The mean of general assessment of functioning (GAF) was 56.17 ± 13.8. The dichotomized (median-split) GAF group differed regarding the psychopathology (C 2 test: COGDIS p < 0.033, APS p < 0.0001) and the genetic risk (p = 0.055). Social functioning was positively related to self-efficacy expectation, self-esteem and quality of life (Spearman’s ρ = 0.155, p = 0.028). A great majority of the help-seeking persons at risk for psychosis suffer from deficits in their functioning. Knowing more about the mediators of functioning will help develop effective intervention strategies.

B126 Prodrome in schizophrenia – a concept analysis

Chieh Cheng, Karen Schepp
School of Nursing, University of Washington, USA

Purpose: The purpose of this poster is to provide a concept analysis of prodrome in schizophrenia. Schizophrenia is the severe and debilitating mental illness. In recent 15 years, the focus has been shifted from medication treatment to early recognition, prevention and intervention. Before first psychosis onset, prodrome period involves increasing negative or positive symptom, cognitive decline, emotional deficits and social impairment. However, different terminologies such as ultra-high risk, attenuated psychosis syndrome, and clinical risk for psychotic disorder are used interchangeably and the defining attributes are not specific for health providers or caregivers to identify. A clear delineation of prodrome will promote understanding and encourage communication of the phenomenon. Clarification of the concept will establish a common understanding of the concept, and advance the practice, education, and research of this phenomenon.

Methods: A review of the literature was conducted using several databases: CINAHL, PsycINFO, PubMed, and Cochrane library. The databases were searched using the following key words: prodrome, schizophrenia. Rodgers’ evolutionary method of concept analysis was used to help identify and analyze the antecedents, attributes and consequences of the concept. The analysis was conducted in June 2014 and literatures within the past 10 years were included. Only those that focused on prodrome in schizophrenia were selected for review.

Future implications: This concept analysis including synthesis of the definition of prodrome will be illustrated.

B127 Setting up a new prodromal service in South London: feasibility study

Harriet S. Fennes,1,2 Elizabeth Pillai,1,2 Steven J. Badges,1 Aleksandra Kralj,1,2 Charles Keeford,1,2 Jean C. Ajagbaj,1 Rashmi Patel,1,2 Giulia Spada,1,2 Andre Zugman,1,2 Paolo Fusar-Poli,1,2 Philip K. McGuire,1,2 Ilaria Bonoldi1,2
1 OASIS Prodromal Clinic, SLaM NHS Foundation Trust, 2 Department of Psychosis Studies, Institute of Psychiatry, King’s College London, London, UK

Background: Providing intervention for individuals at clinical high risk (HR) of developing psychosis is helpful. However, the feasibility of setting up new prodromal services with limited resources requires evaluation.

Aims: To assess the feasibility of providing such a service in a deprived urban area with high incidence of psychosis.

Method: Two full-time members of staff (a clinical psychologist and a care co-ordinator) were employed to establish a clinical service for HR individuals in the London Borough of Lewisham. Service promotion and liaison with local agencies was undertaken with support from honorary staff. Activity was monitored over the first six months.

Results: Each clinician spent an average of 10 hours per week on service promotion activities. All 44 general practitioner (GP) practices and 23 other agencies in Lewisham were contacted. 38 Early Detection training sessions were provided. In total, 32 referrals were received (~5 referrals/month). Referral rates tended to increase over time. Most referrals were from adult mental health services (59%). GPs referred 9 (28%) individuals and child and adolescent mental health services 4 (13%). 4 (12.5%) referrals were accepted, 6 (18.8%) are ongoing, 1 (3.1%) was not help seeking, 6 (18.8%) met threshold for first-episode psychosis, and 15 (46.9%) had other mental health difficulties and were referred on. 1 (3.1%) accepted referral transitioned to psychosis.

Conclusion: Setting up a HR Service is feasible with limited resources. Results of the current study were comparable to other well-established prodromal clinics. Service sustainability needs to be evaluated; increasing referral rates are likely to require more staff to manage effectively.
B128 Home environment in families with parents diagnosed with schizophrenia or bipolar disorder: a cross-sectional cohort study

Ditte Lou Gantrix,1,2 Anne Thorup,3,7 Susanne Harder,4 Kerstin Plessen,5,6,7 Merete Nordentoft,5,6 Ole Mors1,2,7

1Research Department P, Aarhus University Hospital, Risskov, 2Faculty of Health and Medical Sciences, University of Aarhus, 3Mental Health Services, Mental Health Centre, Capital Region of Denmark, 4Department of Psychology, University of Copenhagen, 5Faculty of Clinical Medicine, University of Copenhagen, 6Mental Health Services, Mental Health Centre for Child and Adolescent Psychiatry, Capital Region of Denmark, 7The Lundbeck Foundation Initiative for Integrative Psychiatric Research, Ipsych, Denmark

Background: Inadequate home environment has been reported to increase risk of developing psychopathology in children of parents diagnosed with schizophrenia or bipolar disorder. However, few studies have focused on the home environment among children at high risk.

Aim: The aim is to elucidate the correlation between offspring exposure to parental mental illness and level of inadequate home environment as well as level of expressed emotions in the relation between parent and child.

Method: This blinded, cross-sectional, cohort study comprises 500 seven-year-old children with one, two or none of the parents registered with a diagnosis of schizophrenia or bipolar disorder. The cohort is established using Danish registries. Parents with schizophrenia or bipolar disorder are matched to healthy controls based on gender and geography. Exposure to parental mental illness is quantified as number of months the child has been living with the affected parent. The ongoing data collection commenced in December 2012 and is expected complete by January 2016. At present, 195 families are included and 154 have completed the assessment. Level of support and stimulation in the home is assessed with a semi-structured interview with child and primary caretaker (Middle Childhood-Home Observation for Measurement of the Environment). Level of expressed emotions in the relation between the parent and the child is explored through descriptions of emotions concerning the child (Revised-Five Minute Speech Sample).

Perspective: Characterization of home environment among children at high familial risk of developing severe mental illnesses will elucidate families in need of support and intervention.

B129 The analysis of outcomes by differences in duration of untreated psychosis among admitted schizophrenia patients in a psychiatric emergency service

Hana Hasegawa,1 Mio Ishi,1,2 Naoya Sugiyama1

1Numazu-cho Hospital, Numazu, Shizuoka, 2Yokohama-City University of Medicine, Yokohama, Kanagawa, Japan

Objectives: The aim of this study was to analyze the duration of untreated psychosis (DUP) among patients with schizophrenia in a psychiatric emergency service. To better understand differences in outcomes by DUP differences, we investigated potential ways to improve prognoses.

Methods: Participants were 48 patients (24 males) with schizophrenia who were admitted to a psychiatric emergency service from April 2010 to March 2014. We used the clinical indicator database (eCODO; Coercive Measures Database for Optimization), which includes patients’ demographic information, Brief Psychiatric Rating Scale scores, and so on. We collected DUP information from consenting patients’ medical records. We analyzed the indicators of demographic factors and hospital treatment outcomes by DUP differences. T-tests and chi-squared tests were used to examine group differences in these factors. We also investigated prodromal symptoms. This study adequately conformed to ethical requirements and was approved by the hospital’s ethics committee.

Results: The average DUP was 25.94 (± 54.16 months), and the median DUP was 3 months. The longer DUP group (>=3 months) showed the following significant differences from the shorter DUP group (<3 months): (1) higher suicidal ideation, (2) longer admission duration in an emergency ward, (3) more severe levels of emotional withdrawal. In addition, 26 participants (54.2%) had nonspecific symptoms during the prodromal period.

Conclusions: The shorter DUP group showed better outcomes and less severe emotional withdrawal than the longer DUP group, which is consistent with previous research. Furthermore, we should note the nonspecific prodromal symptoms to avoid missing the timing of treatment.

B130 Quality of life in individuals with at-risk mental states and its relationship with psychiatric symptoms

Yuu Ishii,1 Noriyuki Ohmuro,1 Masahiro Katsura,1 Chika Obara,2 Yumiko Hamaie,1 Emi Sunakawa,1 Shiori Sato,1 Tomohiro Uchida,1 Kazunori Matsumoto,1,2 Takashi Ueno,1 Hiroo Matsuoka1,2

1Tohoku University Hospital, 2Tohoku University Graduate School of Medicine, 3Tohoku University Graduate School of Education, 4Shokei Gakuin University, Sendai, Japan

Introduction: The direct relationship between positive and negative symptom severity and quality of life (QOL) in patients with schizophrenia is well documented. However, the exact relationship between QOL and psychiatric symptoms in at-risk mental state (ARMS) individuals remains unclear. Since ARMS individuals are susceptible to comorbid depression and anxiety, we hypothesized that the severity of depression and anxiety, rather than positive or negative symptoms, would be related with decreased QOL.

Methods: We administered the World Health Organization Quality of Life scale (WHO-QOL26) to 41 ARMS patients at the Sendai At-Risk Mental State and First Episode (SAFE) clinic and to 136 healthy controls (HCs). The Positive and Negative Syndrome Scale (PANSS) assessed ARMS patients’ psychiatric symptoms. T-tests were used to calculate the differences in mean WHO-QOL26 scores between the two groups of interest. Furthermore, we examined correlations between the ARMS group’s WHO-QOL26 and PANSS positive, negative, anxiety, and depression scores.

Results: The ARMS group’s mean WHO-QOL26 score was significantly lower (t = 10.29, p < .001). We also found significant correlations between anxiety severity and psychological QOL (r = –0.33, p = 0.04) and between depression severity and physical QOL (r = –0.36, p = 0.02) in this group. By contrast, their mean WHO-QOL26 score was not correlated with either positive or negative symptom severity (r = –0.10, p = 0.55; r = 0.03, p = 0.84).

Discussion: Severity of depression and anxiety were related to decreased QOL for ARMS individuals. Implementing interventions focusing on non-psychotic symptoms might improve their QOL.
B131
Physical activity, physical fitness and sleep quality in youth with at-risk mental states: a cross-sectional study
Oscar Lederman,1,2 Simon Rosenbaum,1 Chris Maloney,1 Louise Treen,1 Sam Wilson,2 Jackie Curtis,2,3 Philip B Ward,4
1Exercise Physiology, School of Medical Sciences, UNSW, 2School of Psychiatry, UNSW, 3Youth Mental Health, South Eastern Sydney Local Health District, 4Schizophrenia Research Unit, South Western Sydney Local Health District, Australia

Low levels of physical activity, fitness and poor sleep quality are highly prevalent among people experiencing psychotic illness, and are key modifiable risk factors contributing to a 20% reduction in life expectancy in this population. Despite the high prevalence of such factors among those with psychosis, few studies have assessed these factors among individuals at ultra-high risk (UHR) of psychosis. Assessing the physical health and sleep quality of individuals at UHR can help determine if cardiometabolic risk factors are already prevalent prior to the development of psychotic disorders in help-seeking youth with at-risk mental states. The current study aimed to investigate physical activity, fitness and sleep quality in young people with at-risk mental states, as assessed using the CAARMS, compared to 30 healthy controls matched for age and socioeconomic status. Physical activity profile was assessed using the International Physical Activity Questionnaire Short Form and Actigraph accelerometers, and physical fitness was assessed via a sub-maximal aerobic exercise test, upper body strength, and hamstring flexibility. Anthropometry (weight, physical fitness was assessed via a sub-maximal aerobic exercise test, physical activity profile was assessed using the International Physical Activity Questionnaire Short Form and Actigraph accelerometers, and physical fitness was assessed via a sub-maximal aerobic exercise test, upper body strength, and hamstring flexibility. Anthropometry (weight, body mass index, waist circumference, resting blood pressure and heart rate) and metabolic profile (fasting blood glucose and lipids) were also obtained. Sleep behaviour was assessed via objective (wrist-worn accelerometers) and subjective (Pittsburgh Sleep Quality Index) measures. Based on prior research with people experiencing psychotic illness, it is hypothesized that physical activity levels, fitness and sleep quality will be impaired among youth with at-risk mental state, potentially predisposing this population to increased cardiovascular and metabolic morbidity later in life.

B133
Anomalous self-experience as an add-on perspective to the UHR criteria for psychosis in late childhood and adolescence: development of a two-perspective screening instrument
Paul Møller, Lise Baklund, Roar Fosse, Dag V Skjelstad
Vestre Viken Hospital Trust, Norway

Background: A small and decreasing proportion of those who fulfill the UHR criteria develop psychosis. Thus, effective close-in strategies are needed to identify more true positive risk markers. Converging evidence suggests that anomalous self-experiences (ASE) are core clinical phenotypes that can contribute significantly to the risk of developing schizophrenia spectrum disorders.

Aim: The long-term aim is to investigate prospectively the potentials of ASE as an add-on risk perspective for psychosis and schizophrenia in children and adolescents by expanding the knowledge about the nature, course and outcome of ASE, specifically in this population. As a first step, we now evaluate our newly composed screening instrument.

Method: The main study (starting 2015) will use a two-step procedure. First, all patients aged 12–17 (catchment area 465,000 people), referred to general second-line Child mental health services (approx. 1,200 per year), are screened utilizing our new 30-item questionnaire. This instrument combines two scientific perspectives, posing questions addressing ASE-phenomena along with UHR-based features (PQ-16) and tentative precursors of bipolar disorder. Each item is validated with a 0–3 rating of level of distress. In the second step, all patients scoring above cut-off are further assessed with full EASE and SIPS interviews, and other measures. Individuals who are confirmed to be at increased risk of developing psychosis will be followed up yearly for several years to record psychosis conversion and other diagnostic outcomes.

Results: Results regarding the general feasibility of the self-report instrument, and a preliminary cut-off for further interview-based at-risk assessments will be presented at the conference.

B134
Sources of clinical distress in young people at ultra-high risk of psychosis
Marta Rapado-Castro,1,2,3 Patrick D. McGorry,1 Alison Yung,4 Ana Calvo,4 Barnaby Nelson1
1Orygen Youth Health Research Centre, Centre for Youth Mental Health, University of Melbourne, Victoria, Australia, 2Melbourne Neuropsychiatry Centre, The University of Melbourne, Victoria, Australia, 3Child and Adolescent Psychiatry Department, Hospital General Universitario Gregorio Marañón School of Medicine, Universidad Complutense, IISGM, CIBER-SAM, Madrid, Spain, 4Institute of Brain, Behaviour, and Mental Health, University of Manchester, Manchester, England

Objective: There was a recent proposal to include an Attenuated Psychosis Syndrome, formerly Psychosis Risk Syndrome, in DSM-5 based on research criteria used to identify young people at ultra-high risk (UHR) for psychosis. The syndrome was ultimately included in the section for further research. The criteria specified that the person experienced attenuated psychotic symptoms (APS) that were sufficiently distressing to seek help. Although APS are the main means of determining whether a person meets UHR criteria, clinical experience suggests that such symptoms are often not the main source of clinical distress in this patient group. We aimed to assess the main sources of clinical distress in UHR patients at time of referral to a specialized UHR clinic.

Method: Sources of distress from 71 UHR patients and their associated intensity of distress were gathered from treating clinicians. The association with transition to psychosis was explored.

Results: Of the total sample, 89.04% fulfilled the APS UHR criteria. APS symptoms were reported to be distressing for 52.1% of this subsample, but social and functioning difficulties (78.1%) and depressive symptoms (58.9%) were the highest sources of distress in terms of frequency and intensity that led UHR patients to seek help. Intensity of distress associated with APS, anxiety and substance use was associated with transition to psychosis.

Conclusions: Even though APS were reported to be distressing to only a subgroup of UHR patients, the findings suggest that the intensity of distress associated to these symptoms may be an important indicator of risk for psychotic disorder.
C1

Metabolic profiles of 430 patients with schizophrenia and increased waist circumference: baseline data from the CHANGE Trial

Hans Christian Brix Nargaard,1,4 Helene Speyer,2,3 Merete Nordentoft,2,3 Niels Peter Ole Mors1,4

1 Aarhus University Hospital Risskov, 2 Psychiatric Center Copenhagen, 3 Copenhagen University, 4 Aarhus University, Denmark

Background: People suffering from schizophrenia have a reduced life expectancy, with cardiovascular disease being the major cause of the empirical studies into the treatment, overlap or association between these psychotic and risk factors of cardiovascular disease (CVD), have been proposed as potential explanations.

Objective: To describe the proportion of subjects with risk factors above or below clinical recommendations.

Method: Baseline data for 429 patients with schizophrenia and increased waist circumference (WC). For women >88 cm, for men >102 cm. Smoking was assessed self-reported. We measured lipid profiles, HbA1c and blood pressure. Laboratory tests were non-fasting. Blood pressure was measured 3 times after 5 minutes of rest.

Results: Mean age 38 (SD 12.4). 54% females. WC was 114 cm (SD 16.6). 50% were daily smokers. Total cholesterol: 50%+5; LDL: 53%+3.0; HDL: 56%+1.2. From the cohort, 13.5% was diagnosed with type 2 diabetes and 0.5% with type 1; 9.7% had HbA1c<7.3; 14% had systolic blood pressure>140 mm Hg. 17.4% was treated with a cholesterol lowering drug. 9.14% was treated with an antihypertensive drug.

Conclusion: The alarming high proportion of subjects suffering from metabolic disturbances call for immediate action regarding primary and secondary prevention of CVD in people with schizophrenia. It is important with an increased attention on the somatic co-morbidities in this group of vulnerable patients. Further research should investigate if primary care can be more integrated in the care of this population.

C2

Psychotic symptoms and borderline personality disorder in youth

Martina Jovev,1,2 Louise McCutcheon,2 Jennifer Betts,1 Andrew Chanen1,2

1 Orygen Youth Health Research Centre, University of Melbourne, 2 Orygen Youth Health Clinical Program, North West Mental Health, Australia

One of the criteria for diagnosing Borderline Personality Disorder (BPD) is the presence of transient, stress-related paranoid ideation or severe dissociative symptoms (criterion 9). This criterion suggests possible overlap with first-episode psychosis. However, the relationship between psychosis and BPD is not conceptually clear, nor have there been many empirical studies into the treatment, overlap or association between these two disorders. Participants (n=23) were selected from a clinical file audit study conducted at the HYPE Clinic that is part of Orygen Youth Health Clinical Program (OYH-CP) in Melbourne, Australia. The HYPE Clinic specialises in treatment of young people aged 15–24 with first presentation of BPD symptoms. The present study compared individuals with BPD symptoms to those without (n=13). Perceptual abnormalities were the most common symptoms identified. Individuals with psychotic symptoms were more likely to reside in residential care, hostel or inpatient unit at the time of entry into the service. These individuals were also more likely to report affective instability, have a history of aggression toward people or animals, more current antisocial traits and to have been in contact with a mental health professional prior to coming to OYH-CP. Treatment within the HYPE Clinic and implications of this will be discussed.

C3

Early intervention in eating disorders based on the study of the relationship between developmental characteristics and coping styles in Japanese patients with eating disorders

Eri Kigawa,1 Tuyoshi Takeda,1,2 Chinatsu Takehisa,1 Teruko Ikuno1

1 Naniwa Ikuno Hospital, Osaka University, Japan

Objective: To describe the proportion of subjects with risk factors above or below clinical recommendations.

Method: Forty-one patients with eating disorders filled out Japanese versions of Tri-Axial Coping Scale (TAC-24), Autism-Spectrum Quotient (AQ), Conners Adult ADHD Rating Scale (CAARS), and Eating Disorder Examination Questionnaire (EDE-Q). They received feedback with the results and commented on some of the developmental characteristics and coping styles specific to each patient during an individual interview.

Results: Among AQ factors, Attention Switching was negatively correlated to Distraction and Positive Interpretation, factors of Tac-24. Also, Attention Switching and Communication were related to some EDE-Q subscales. Positive Interpretation was negatively related to some EDE-Q subscales. During the interview, some patients said that they tended to engage in disordered eating under much stress, though they gradually gained more coping skills. Patients also expressed various concerns about communication.

Discussion: There was a relationship between autistic tendencies and specific coping styles. Those coping styles were then associated with eating pathology. Taken together, it is important to assess patients by enabling them to understand their developmental challenges and coping styles, and support them so that they may develop interpersonal skills and coping mechanisms during the early stages of treatment.

C4

The usefulness of early intervention to prevent comorbidities in children with pervasive developmental disorders

Yukie Tabata

Prefectural University of Hiroshima, Japan

Objective: To investigate what early intervention to prevent comorbidities in children with pervasive developmental disorders (PDD) brings to their mothers with a diagnosis of mental disorders other than PDD.

Method: Case study. Case 1: a 10-year-old boy with Asperger’s syndrome (AS). When he first visited, he was 8 years old and showed hyperventilation and abdominal pain. His mother, suffering from panic disorder, was referred to our clinic from a municipal counseling center where she received advice on child-raising. Case 2: a 10-year-old girl with childhood autism. When she first visited, she was 3 years old and didn’t want to go to a nursery. Because her elder sister with AS was referred to our clinic from a garden for children with special needs, her mother with a mild intellectual disability resorted to us for advice about problems.

Results: The short-term prognosis was good for both children; no comorbidities developed, and the symptoms ceased. Both mothers became aware that they themselves had PDD, like their children, and saw a psychiatrist for adult. The anxiety and symptoms were alleviated, and solutions to problems with child-raising and other areas were found.

Conclusion: Early intervention for high-risk children proved to be also an early intervention for mothers to make them aware that they themselves had the same disorders, and to consider an appropriate response.
Diagnosis and Phenomenology

C6 Aberrant salience and psychosis risk symptoms in Italian undergraduate students: further validation of the Aberrant Salience Inventory

Andrea Raballo, Rosanna Scano, Donatalla R. Petretto, Antonio Preti

Department of Mental Health, Reggio Emilia, Italy, Reggio Emilia At Risk Mental States (Re-ARMS) Project, Department of Education, Psychology, Philosophy, University of Cagliari, Cagliari, Italy, Cagliari Psychosis Investigation on Risk Emergence (CAPIRE)

Aim: Aberrant salience is the attribution of excessive importance to otherwise neutral stimuli and has been proposed to be the first step in the formation of psychotic-like experiences. The Aberrance Salience Inventory (ASI) is a 29 yes-no questionnaire aimed at measuring different aspects of aberrant salience, from feelings of increased significance to sharpening of senses until heightened emotionality and cognition. This study set out to investigate general psychometric properties of the Italian ASI.

Methods: The study is based on the first two waves of the Cagliari Psychosis Investigation on Risk Emergence (CAPIRE), which in Italian language means to understand). Participants were 305 male and 344 female undergraduate students (mean age: 24.3±3.4 years).

Results: The Italian ASI had excellent reliability (internal consistency= .91; test-retest stability=.94 (95%CI: .92 to .95)). Confirmatory factor analysis provided evidence for the original five factors structure, converging onto a general second-order factor of aberrant salience. Cases identified as at risk of psychosis on the basis of a screening tool (7.1%) reported statistically significantly higher scores on the ASI than the comparison group.

Conclusion: Reliability, factor structure, concurrent and discriminant validity of the ASI were replicated in a different culture than the one where the tool was developed, providing some support for its cross-cultural applicability. People at risk of psychosis are prone to experience aberrant salience, which should be considered a factor involved in the onset of psychosis and a potential target of therapeutic interventions.

C7 Functional capacity and formal thought disorder in first-episode psychosis

Eric Roche, Aisling McClenaghan, Maurice Bonar, Anthony Kinsella, Mary Clarke

DETECT Early Intervention in Psychosis Service, Blackrock, Co Dublin, Ireland

Background: Formal thought disorder (FTD) has been found to be a marker of illness severity, associated with poor occupational functioning and social skills, in hospitalised and institutionalised samples. It is not known whether these findings are applicable to community dwelling individuals, or those in the early stages of psychotic illness.

Methods: Assessment of functional capacity, measured with UCSD Performance Based Skills Assessment UPSA-Brief (UPSA-B), in an epidemiological first-episode psychosis (FEP) sample. FTD was assessed with the Scale for Assessment of Positive Symptoms. Diagnosis, depressive symptoms, somatic symptoms, duration of untreated psychosis (DUP), premorbid adjustment and premorbid IQ were assessed with structured instruments.

Results: 63 cases of affective and non-affective FEP were included. The mean UPSA-B score was 70 (SD 19). UPSA-B scores were correlated with estimated premorbid full scale IQ (r = .44, P < .005), educational level (r = .37, P < .005) and negative symptoms (r = -.24, P = .06). UPSA-B scores were not correlated with FTD, any other symptom area, premorbid adjustment or DUP. In a sub-analysis, no correlation was found between the Communication Domain of the UPSA-B and FTD. 37% of the total variance of FC was explained by premorbid IQ and gender, when controlling for age, negative symptoms and DUP, on regression analysis.

Conclusion: FTD was unrelated to FC in this FEP sample. The UPSA-B is the recommended measure of FC in psychosis and appears to be more influenced by cognitive functioning and educational level than psychopathology. These results are supportive of previous findings on the UPSA in samples of patients with more established psychosis.

C8 Measurement invariance of the Schizotypal Personality Questionnaire in Asian, Pacific Islander, White, and multietnic populations

David Cicero

University of Hawaii at Manoa, USA

A long line of research suggests that people with schizotypal personality characteristics (e.g., attenuated psychotic symptoms) are at an increased risk for the development of psychosis. In recent years, research on self-reported schizotypal symptoms has spread across the world to diverse cultures. One of the most commonly used measures of schizotypal personality is the Schizotypal Personality Questionnaire (SPQ; Raine, 1994). Previous work suggests that the SPQ has a four-factor structure, but most of this work has been done with European or European-American participants. Little is known about the psychometric properties of the scale in Pacific Islander populations, and some evidence suggests scores may differ between Caucasian and Asian participants in the United States. To accurately interpret these differences, it is necessary to evaluate the measurement invariance of the questionnaire in samples from diverse populations. The current study included 396 Asian, 928 Caucasian, 151 Pacific Islander, and 292 multietnic nonclinical participants from the mainland United States and Hawaii. The four-factor model (cognitive-perceptual, paranoid, negative, and disorganized symptoms) fit the data well in the total sample and in each of the four ethnic groups. The SPQ was found to have configural and metric, but not scalar, invariance across the four groups. This suggests that the SPQ scales are measuring the same latent construct in each sample, but some cross-cultural analyses, such as mean score comparisons, may not be appropriate for SPQ scores. In addition to the SPQ, these results may have implications for our understanding of other self-reported psychotic symptom scales.
C11  Transition to psychosis and the experience of revelation: looking at the “The Trial"
Peter Handest
Mental Health Center Ballerup, University of Copenhagen, Denmark
The filmic transposition of Kafka’s novel The Trial (director David Jones; screenplay Harold Pinter) directly transfers the spectator in the protagonist’s (i.e. Joseph K.) eyes allowing him to experience the plunging into a disturbing pre-delusional atmosphere. Joseph K does not only feel that everything in the surrounding world has a certain meaning attached to it, but also that this peculiar, often supernatural, meaning has something to do with him. Nothing seems to be coincidental any more. Such sudden, intuitive perception of meaning resembles the experience of a personal disorganizing atmosphere. Similar atmospheres can be found in popular movies, such as The Truman Show, The Matrix, Beautiful Mind, and several others. Thus, it is not surprising that they have inspired countless help-seekers and their families as well as many health professionals and educators. Selected video clips illustrating the first personal experience of at-risk mental states will be presented.

C12  ‘A Beautiful Mind’ and beyond film and schizophrenia
Mark Hankir,1 Ahmed Hankir2
1Clare College, Cambridge University, Cambridge, 2National Institute for Health Research, Manchester University, Manchester, England
Movies can provide a qualitative insight into the subjective experience of psychosis, portray the role of psychiatry and reveal how society reacts to either or both. Inaccurate portrayals of schizophrenia can perpetuate stigma and propagate myths, but when correctly presented they can educate the public, inform employers and empower service users. There are numerous films in which the protagonist suffers from schizophrenia. An example would be the 2001 award winning motion picture, A Beautiful Mind, directed by Ron Howard. A Beautiful Mind focuses on the life of John Nash who was the recipient of the Nobel Prize in Economics and who also suffered from paranoid schizophrenia. Film can be utilized as an educational tool to teach different subjects to healthcare students such as psychology and developmental psychopathology. A recent Turkish study revealed that an educational intervention incorporating social contact with a schizophrenia sufferer and the projection of A Beautiful Mind to first year medical students caused a reduction in stigmatizing views. The aim of this presentation is to explore how psychosis is portrayed in film and how these portrayals influence healthcare professionals and the general public.

C13  Anomalous self-experience, childhood trauma and depression in first-episode schizophrenia
Elisabeth Haug,1 Merete Øie,1 Monica Aas,2 Urnni Bratlien,1 Barnaby Nelson,1 Ole Andreassen,2 Paul Møller,4 Ingrid Møller4
1Innlandet Hospital Trust, Division of Mental Health, Norway, 2NORMENT Centre for Psychosis Research, Oslo University Hospital and Institute of Clinical Medicine, University of Oslo, Norway, 3Orygen Youth Health Research Centre, Centre for Youth Mental Health, University of Melborne, Australia, 4Division of Mental Health and Addiction, Vestre Viken Hospital Trust, Norway
Objective: Anomalous self-experiences (ASEs) are viewed as core features of schizophrenia. Childhood trauma (CT) has been postulated as a risk factor for developing schizophrenia. The aim of the study was to investigate the relationships between CT and ASEs in schizophrenia.

Method: ASEs were assessed in 55 patients in the early treated phases of schizophrenia by the Examination of Anomalous Self-Experience (EASE) instrument. Data on CT were collected using the Childhood Trauma Questionnaire, short form (CTQ-SF). This consists of 5 subscales: physical abuse (PA), sexual abuse (SA), emotional abuse (EA), emotional neglect (EN), and physical neglect (PN). Assessment of depression was based on the Calgary Depression Scale for Schizophrenia (CDSS).

Results: We found significant associations between EASE total score and CTQ total score and between EASE total score and EA, EN and PN subscores in women, but not men. We also found significant associations between depression (CDSS total score) and CTQ total score and between CDSS total score and SA, EA, EN, and PN subscores in women, but not men. In men, we did not find any significant associations between EASE total score, CDSS total score and any CTQ scores.

Conclusion: CT was significantly associated with higher levels of ASEs in women in the early treated phases of schizophrenia, but not in men. This was again associated with an increase in depressive symptoms.

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C14  “Attenuated psychosis syndrome” versus “endangered reality-testing syndrome”: a community-based experimental vignette study of their effect on stigma, hope and help-seeking
Danny Koren,1,3 Shulamit Radin,1 Yulia Libak1
1Psychology Department, University of Haifa, 2Psychiatry Division, The Rambam Medical Center, Haifa, Israel
Background and goal: There is a wide consensus that an official inclusion of an at-risk syndrome in the DSM has important potential benefits (e.g., facilitate access to care) and risks (e.g., iatrogenic stigma and unnecessary exposure to antipsychotic drugs). The goal of this study was to test the hypothesis, recently put forward by our group (Koren, 2013), that a diagnosis label that promotes a view of the at-risk state as a loss in a universal human function (as opposed to an attenuated pathology) has the potential to address the above risks.
Method: One hundred and twenty adults from the community were randomized to read either one of two vignettes depicting an at-risk adolescent, and were then asked to rate the degree to which that adolescent is likely to seek help for and to feel stigmatized and hopeless because of his/her symptoms. The two vignettes were completely identical except that in one the symptoms were labeled as psychosis risk syndrome and in the second as endangered reality-testing syndrome.
Results: As hypothesized, ratings of help-seeking likelihood were higher in the endangered reality-testing condition, whereas ratings of anticipated stigma and hopelessness were higher in the psychosis risk condition. However, only the first difference reached statistical significance.
Conclusions: These pilot results provide first empirical support for the clinical usefulness of endangered health formulations in improving help-seeking and to a lesser degree in reducing stigma among adolescents at clinical high risk for psychosis. Future studies should assess the impact of the new label on the condition’s perceived severity.

C16  Interviewing on sensitive topics at risk mental states and the “Kinsey Report”
Julie Nordgaard
Psychiatric Center Hvidovre, University of Copenhagen, Denmark
Research into the psychiatric, diagnostic interview has shown that the very way the interview is conducted is of the greatest importance. This is particularly true when a person is experiencing dramatic, yet difficult to report changes such as those occurring in at-risk mental states. Indeed, for early intervention purposes, it is crucial to be able to detect symptoms that might not be fully developed or that patients do not realize as relevant to report. The movie Kinsey, Let’s Talk About Sex (2004, director Bill Condon), based on the famous report by Alfred Kinsey from 1948, offers important insights in this respect. Kinsey and his assistants interviewed 12,000 people about their sexual behavior and it was of paramount importance to obtain honest stories from the interviewees. Kinsey wrote: One is not likely to win the sort of rapport which brings a full and frank confession from a human subject unless he can convince the subject that he is desperate anxious to comprehend what his experience has meant to him. Kinsey’s insights on interviewing are substantial also when exploring at-risk mental states: the interview shall preferably be performed in a semi-structured and conversational way, where the interviewee is allowed to speak as freely as possible, and where the interviewer secures the relevant focus on the meaning and nature of the interviewee’s experiences.

C15  Severe psychic crises involved in the context of the Pentecostal and Neo-Pentecostal religions: repercussions in the religion that have contributed to the formation of psychotic type episodes
Raquel de Paiva Mano,1 Elisra Brietzke,1,2,3 ARY Gadilha Arapine Neto,1,2,4 ALVARO Dias,2 Rodrigo Mansur Barbachan2,3
1 Universidade de Brasilia, 2 Program for Recognition and Intervention in Individuals in At-Risk Mental State (PRISMA), Department of Psychiatry, Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 3 Interdisciplinary Laboratory of Clinical Neurosciences (LINC), Department of Psychiatry, Universidade Federal de Sao Paulo, Sao Paulo, Brazil, 4 Program of Schizophrenia (PROQES), Department of Psychiatry, Universidade Federal de Sao Paulo, Sao Paulo, Brazil
The spiritual and religious dimensions are considered to be essential factors in the psychic constitution and they act with complexity in structuring the human experience. Since this is a vast and complex topic, this study narrowed down to exploring the impact of the neo-Pentecostal and Pentecostal Protestant religious environment in the formation of the first kind of psychotic crises. This survey was conducted from the study of cases where three patients presented serious psychological distress. The patients were in the therapeutic monitoring period of at least six months, carried out in GIPSI – Group of Early Intervention in the First Few Crises of the Psychotic Type – The University of Brasilia. With a broad approach where the strands present were clinical, phenomenological, and psychodynamic, this is an exploratory and descriptive study of qualitative approach. Among the various instruments used for data collection, we emphasize the spiritual genogram and eco-map that provided a broad overview of the religious and spiritual relationships throughout the patients live up until the constitution of the crises. The differentiation between the aspects and characteristics of a psychotic crisis and a mystical religious experience was factors of reflection. At last, it was found that the diagnosis process of the psychosis failed and that it is of utmost importance that there is an early intervention in understanding the severe psychic crisis before it necessarily becomes a process of evolving into a psychotic illness.

Key words: Religion, spirituality, Pentecostal, Neo-Pentecostal, severe psychic suffering, crisis of the psychotic type, early intervention.

C17  Distress in relation to attenuated psychotic symptoms in the ultra-high risk for psychosis population: is this related to transition to psychosis?
Andrea Polani,1 Lucy Power,2 Alison Yung,3 Patrick McGorry,4 Barnaby Nelson4
1 Orygen Youth Health Clinical Program, Melbourne Health, Parkville, Victoria, Australia, 2 Royal College of Surgeons in Ireland, Ireland, 3 Institute of Brain, Behaviour and Mental Health, University of Manchester, UK, 4 Orygen Youth Health Research Centre, Centre for Youth Mental Health, University of Melbourne, Parkville, Victoria, Australia
Background attenuated psychosis syndrome (APS) is part of DSM-5 as a condition for further study. It requires that attenuated psychotic symptoms are the main source of distress that motivates help-seeking. One criterion of APS reads: Symptom(s) is sufficiently distressing and disabling to the individual to warrant clinical attention. To date, no studies have investigated the correlation between APS distress and transition to psychosis. This is the aim of the present study. Method intensity scores (0–6) on the Comprehensive Assessment of At-Risk Mental State (CAARMS) and CAARMS Distress scores (0–100) were collected for 70 individuals at ultra-high risk (UHR) for psychosis at the time of their referral to the PACE Clinic, Orygen Youth Health, Melbourne. Transition to psychosis was assessed over a 12-month follow-up period. Results of the 70 UHR individuals: 15 transitioned to psychosis within 12 months (21.4%). Of all 4 CAARMS subscales, perceptual abnormalities was rated as the most distressing (45.7%). No difference in the transition rate was observed when distress in relation to the 4 separate CAARMS subscales was analysed (p = 0.804). When considering the highest symptom distress rating for each participant (regardless of the subscale), there was still no association with transition (p = 0.926). Discussion results suggest that distress due to APS is not related to transition to psychosis in the UHR population. This may have important implications for how APS is evaluated and treated in clinical practice. Replication of the results in a larger sample is necessary in order to better conceptualise and operationalise the APS concept.
Do youth at high risk for psychosis identify themselves as at risk?
Kirsten A Woodberry,1 2 Caitlin Bryant,1 3 William R McFarlane,1,4 Larry J Seidman,1 5 Bruce G Link,1 3 Cheryl M Corcoran,1,3 4 Mary B Verdli,4 Donna T Downing,4 Huijun Li,1 Lawrence H Yang5
1Beth Israel Deaconess Medical Center, 2Harvard Medical School, 3Tufts University School of Medicine, 4Maine Medical Center, 5Columbia University, 6New York State Psychiatric Institute, 7Florida A & M University, USA

Introduction: The labels psychosis and schizophrenia are associated with significant stigma. Identifying an adolescent or adult as at high risk for psychosis (HRP) to facilitate early intervention may have unintended negative consequences. Yet, help-seeking youth may already intuit their risk or be given these labels prior to formal HRP identification.

Methods: Individuals meeting HRP criteria based on the Structured Interview for Psychosis-Risk Syndromes (SIPS) were asked, prior to clinical feedback, which of several diagnostic labels they had been told or thought applied to them.

Results: Roughly half of HRP participants endorsed having been told they were at risk for or developing psychosis or schizophrenia. However, a majority did not think they were at risk for psychosis or schizophrenia. For those who endorsed being at HRP, the degree to which they did varied widely (M=33%, SD=28), including 10% who thought they already [had] schizophrenia. Most identified as having or being at risk for depression or anxiety.

Conclusions: The degree to which young people at HRP identify as such varies widely with some believing they are already psychotic and others not identifying any risk, even after being told they are HRP. HRP symptoms emerge during a period important to the development of adult identity with 10–40% of HRP converting to psychosis over time. A better understanding of how these young people think about their potential HRP status will be important to discussing this with them and to balancing the benefits and risks of early identification and intervention in psychosis.

C19
Mismatch negativity and P3a/reorienting complex in subjects with schizophrenia or at-risk mental state
Yuko Higuchi,1 Tomonori Seo,1 Tomohiro Miyashita,1 Yasuhiro Kawasaki,2 Michio Suzuki,1 Tomoki Sumiyoshi1
1University of Toyama Graduate School of Medicine and Pharmaceutical Science, Toyama, 2Kanazawa Medical University, Ishikawa, 3National Center ofNeurology and Psychiatry, Tokyo, Japan

Introduction: In this study, we measured duration mismatch negativity (dMMN), P3a, and reorienting negativity (RON), an event-related potential in subjects with at-risk mental state (ARMS), patients with first-episode or chronic schizophrenia, and healthy volunteers. The main interest was to determine if these neurophysiological measures provide a biomarker associated with progression to overt schizophrenia in ARMS subjects.

Methods: Nineteen ARMS subjects, meeting the criteria of the Comprehensive Assessment of At-Risk Mental State, 38 schizophrenia patients (19 first-episode and 19 chronic), and healthy controls (N=19) participated in the study. dMMN, P3a, and RON were measured with an auditory odd-ball paradigm at baseline.

Results: During the follow-up period (2.2 years), 4 of the 19 ARMS subjects transitioned to schizophrenia (Converters) while 15 did not (Non-Converters). dMMN amplitudes of Converters were significantly smaller than those of non-Converters at frontal and central electrodes. Amplitude of non-Converter did not differ from those of healthy controls, while Converter showed significantly smaller dMMN amplitudes compared to control subjects. RON amplitudes were reduced at frontal and central electrodes in subjects with schizophrenia but not ARMS. Converter subjects tended to show smaller RON amplitude than non-Converters.

Conclusions: Our data confirm that diminished amplitudes in dMMN/ RON provide a biomarker which is present before and after the development of psychosis. In this respect, RON amplitudes may also be a useful tool, as suggested, for the first time, in this study.

Electrophysiology

C20
Impaired self-referential processing in first-episode schizophrenia patient: an ERP finding
Yu-Jin Jeong,1 2 Minji Bang,1 3 Kyoungr Park,1 2 Jin Young Park,1 3 Suk Kyoon An1 2 3
1Section of Affect and Neuroscience, Institute of Behavioral Science in Medicine, Yonsei University College of Medicine, 2Graduate Program in Cognitive Science, Yonsei University, 3Department of Psychiatry, Yonsei University College of Medicine, Seoul, Republic of Korea

Backgrounds: To reflect oneself or others was considered to be a key factor of human psyche. We investigated whether first-episode schizophrenia patients would show the deficits in the self-relevance processing of trait adjectives, especially positive ones.

Methods: Nineteen healthy participants (21.8±2.3 years) and 9 first-episode schizophrenia patients (23.4±3.5 years) were asked to evaluate the self or other relevance of trait adjectives encompassing positive and negative valences (self-relevance of positive adjectives, self-relevance of negative ones, other relevance of positive ones, and other relevance of negative ones). Event-related potentials were continuously recorded from scalp electrodes. The peak amplitude of late positive potential (LPP 200–500 ms) was used as dependent measures.

Results: Repeated measures ANOVA of LPP amplitudes showed a main effect of channels (F=6.94, p<0.005) and of conditions (F=2.89, p<0.05). More importantly, there was interaction effect of conditions by group (F=2.66, p=0.073). Subsequent analysis revealed that first-episode patients showed lower amplitude of LPP for evaluating the self-relevance of positive adjectives than healthy controls did at Fz channel (t=2.02, p=0.053).

Conclusions: These findings suggest that first-episode schizophrenia patients may have difficulty to evaluate themselves as positive persons.

Key words: Self-reference, event-related potentials, late positive potentials, first-episode, schizophrenia.
Mortality 15 years after specialist early intervention treatment for the first episode of psychosis

Sue Cotton, 1,2 Andrew Mackinnon, 1,2 Debra Foley, 1,2 Philippe Conus, 3 Martin Lambert, 4 Benno Schimmelmann, 5 Michael Berk, 1,2,6 Victoria Rayner, 1,2 Kate Filia, 1,2 Patrick McGorry 1,2

Center Hamburg-Eppendorf, Germany, 5 University Hospital of Child and Psychotherapy, Centre for Psychosocial Medicine, University Medical Detection and Intervention Centre (PEDIC), Department for Psychiatry and Psychotherapy, Centre for Psychosocial Medicine, University Medical Center Hamburg-Eppendorf, Germany, 6 University Hospital of Child and Adolescent Psychiatry, University of Bern, Switzerland, 6 Deakin University, Australia

Background: There is clear evidence that psychosis elevates morbidity and mortality risk beyond the symptoms of the disorder itself. Mortality outcomes of those individuals who have been treated for psychosis as specialist early intervention (SEI) centres are less well known, especially over the long term. Thus, the aim of this study was to delineate the mortality rate for the FEPOS15 cohort 15 years after registration with a SEI centre for the treatment of a first episode of psychosis. Predictors of mortality will also be examined.

Method: Between January 1998 and December 2000, 661 patients between the ages of 15 and 29 years were treated at the Early Psychosis Prevention and Intervention Centre, Melbourne, Australia. The 18-month treatment characteristics of this cohort have been extensively examined in the First Episode Psychosis Outcome Study (FEPOS). The 15-year outcomes of this cohort are now being examined in a new study (known as FEPOS15). Data linkage of the FEPOS dataset to key national mortality databases within Australia occurred.

Results: 40 of the 661 individuals were deceased. The all-cause mortality rate, and mortality rates pertaining to deaths due to unnatural and natural causes will be presented. Predictive outcome models of mortality will also be presented.

Discussion: The FEPOS15 study is one of the largest studies of an epidemiological cohort from a defined catchment area who were treated for a first episode of psychosis at a SEI. This study offers an opportunity to explore important issues such as what are predictors of premature mortality that are potentially modifiable.

Maternal depression association with infant development

Hirokazu Kumazaki, 1 Takashi Fujisawa, 1 Michiko Koizumi, 1 Masafumi Mizuno, 2 Sakae Mizushima, 1 Akemi Tomoda 1

1 Research Center for Child Mental Development, Fukui University, Fukui, 2 Departments of Neuropsychiatry and Social Medicine, Toho University School of Medicine, Tokyo, Japan

Increasing recognition is being given to the relation between maternal psychological distress and infant development. This study was undertaken to investigate whether the maternal mental state affects infant development. In the Eiheiji-cho Birth Cohort Study (ERCS), a prospective cohort study, almost all Eiheiji-cho-origin infants and mothers participated. Study participants were 70 mothers and their infants enrolled in the ERCS, who were followed up from birth to four months and from birth to ten months of age. At each stage, infant development was assessed using the Japanese edition of the Denver Developmental Screening Test. The maternal mental state was assessed using the self-rating depressive scale (SDS). Pearson product moment correlation coefficients (r value) were calculated for comparison of the maternal mental states at the fourth and tenth months of infancy versus the infant's developmental state. All infants were classified into either a developmentally delayed group (n=27) or a normal group (n=43) at the age of four months. Mothers were classified into a Depressive group (SDS score = 45) or a Non-Depressive group at the fourth month of their child's infancy. Of the 70 subjects, 15 (21.4%) were in the Depressive group. Maternal depression at the fourth month of infancy was found to be significantly related to infant development at the tenth month. Infant development at the fourth month was not significantly related to infant development at the tenth month. Delayed infant development might be related to maternal depression at the fourth month of infancy. Further research is necessary to elucidate the various mechanisms by which maternal depression affects infant development.

The incidence rate of first-episode psychosis in a defined catchment area of Nagasaki in Japan

Shunsuke Nonaka, 1 Shinji Kanegae, 1 Hirohisa Kinoshita, 2 Akira Imamura, 1 Hiroki Ozawa, 2 Yoshihumi Nakane, 2 Yui Okazaki, 1 Hideyuki Nakane 1

1 Nagasaki University Graduate School of Biomedical Sciences, 2 Nagasaki University Hospital, 3 Dejima Clinic, 4 Tokyo Metropolitan Matsuwasa Hospital, 5 Michino Hospital, Japan

Background: Incidence rates of first-episode psychosis (FEP) are essential for establishing early intervention services. However, there has been a wide variation among previous studies concerning that. The aim of this study was to evaluate the incidence rate of FEP in Nagasaki.

Methods: We conducted a cohort study over a 2-year period (from August 2011 to July 2013). The catchment area was Nagasaki City, located in western part of Japan. The city's population is approximately 440,000. Subjects were individuals with psychosis who visited psychiatric facilities for the first time. The exclusion criteria were: (a) sixty-five years or older; (b) psychoses with mental retardation or other organic mental disorders; and (c) sub-threshold psychoses. We contacted frequently all psychiatric facilities located in the area to collect information about patients with psychotic symptoms and interviewed them directly to assess psychiatric conditions if consent to participate in this study was obtained.

Results: A total of 43 individuals were identified as novel FEP. The estimated annual incidence rate was 0.65 per 10,000 persons (total statistical analysis has not been completed). The median and mean duration of untreated psychosis (DUP) was 27 days and 1073 days, respectively. We could not assess and register 27 individuals reported to be psychotic because they refused to participate in this study.

Conclusions: Compared to findings of recent studies, the incidence rate of our study was low. Difficulty to obtain consent of patients might bring leakage of FEP and reduce the incidence rate. Methodological improvement on case identification and retrospective survey for leakage cases are needed.

Interplay between childhood adversity and familial risk in the onset and the course of psychotic disorders

Antonella Trotta, 1 Marta Di Forti, 1 Conrad lyegbe, 1 Anna Kolliakou, 1 Jennifer O Connor, 1 Paola Dazan, 1 Carmine Pariante, 1 Anthony David, 1 Robin M Murray, 2 Helen L Fisher 1

1 Psychosis Studies, Institute of Psychiatry, King’s College London, 2 Biomedical Research Centre Nexus, King’s College London, 3 Psychological Medicine, Institute of Psychiatry, King’s College London, MRC Social, Genetic and Developmental Psychiatry Centre, Institute of Psychiatry, King’s College London, UK

Background: The relationship between childhood adversity and psychosis in adulthood is well established. However, genetic factors might influence the association between adversity and the onset and course of psychosis. The aim of this study was thus to explore the interplay between childhood adversity and family psychiatric history in the onset and one-year outcomes of psychosis.

Methods: Data were available on 165 first-presentation psychosis cases and 235 community controls from South London, UK. Childhood adversity was assessed retrospectively using the Childhood Experience of Care and Abuse Questionnaire and occurrence of psychotic and affective disorders in first-degree relatives with the Family Interview for Genetic Studies. Data on the course of psychosis (symptomatic remission vs. relapses/chronic illness) and number of days in hospital (median split of ≤253 days) over 1 year from presentation to services were collected from clinical records using the Personal and Psychiatric History Schedule.

Results: Parental psychosis was more common among psychosis cases than controls (adjusted OR = 5.11, p = .001). Nevertheless, adjusting for parental psychosis did not measurably impact on the adversity-psychosis association (adjusted OR = 2.40, p < .001). Childhood adversity was found to be more strongly associated with psychosis caseness in the absence of family psychiatric history (adjusted Interaction Contrast Ratio = 3.12, p = .035), but no interaction was found for illness course. Childhood adversity was associated with longer psychiatric hospital stays (≥253 days) regardless of family liability (adjusted OR 2.79, p = .006).

Conclusion: Our results extend previous research by suggesting that childhood adversity is independently associated with the onset of psychosis and its clinical course.
First-Episode Psychosis

C26
Dimensional profiles of psychopathology as differential predictors of psychosocial functioning in Dutch and immigrant first-episode psychosis patients
Luyken Stouten,1 Wim Velgman,1,2,3 Winfried Laan,1 Mischa Van der Helm,1 Mark Van der Gaag1,4,5
1Parnassia Psychiatric Institute, Center for Early Psychosis, The Hague, 2Department of Psychiatry and Neuropsychology, University Medical Center Groningen, Groningen, 3Department of Psychiatry and Neuropsychology, Maastricht University, Maastricht, 4Department of Clinical Psychology, VU University, Amsterdam, 5EMGO Institute for Health and Care Research, Amsterdam, The Netherlands

Objective: The aims of this study were twofold. Firstly, we examined if there were marked differences in symptom expression between Dutch (ND), first- (GEN1) and second-generation immigrants (GEN2) with a first-episode psychosis (FEP). Secondly, we assessed if symptom dimensions impacted psychosocial functioning differently across ethnic subgroups in the first year after diagnosis.

Methods: A total of 46 ND, 60 GEN1 and 56 GEN2 FEP patients completed assessment of six symptom dimensions (Positive symptoms, Negative symptoms, Neurocognition, Social cognition, Excitement and Emotional distress) at baseline. Further, five domains of psychosocial functioning were assessed at baseline and 12-month follow-up (general functioning, work/study, relationships, self-care and disturbing behaviour). Cross-sectional and longitudinal regression models predicting psychosocial functioning were compared between groups.

Results: Symptom dimensions between subgroups showed significant differences only on the two cognitive dimensions. Strongest predictors of psychosocial functioning at baseline were Negative symptoms (11.3% explained variance on average across the five domains) and Neurocognition (10.6%) in ND, Excitement in GEN1 (14.9%) and Negative symptoms in GEN2 (28.2%). Strongest baseline predictors of psychosocial functioning at 12-month follow-up were Positive symptoms in ND (11.6%), Neurocognition in GEN1 (8.9%) and Negative symptoms in GEN2 (19.4%). The six symptom dimensions explained on average 41.0% of psychosocial functioning at baseline and 33.6% at 12-month follow-up.

Conclusions:Symptom dimensions are comparable between ethnic subgroups, excluding Neurocognition and Social cognition. Furthermore, current and future psychosocial functioning can be predicted with these symptom dimensions with moderate accuracy in all subgroups; however, impact per symptom dimension varies markedly between ethnic subgroups.

C27
Smoking as predictor of relapse at 3 years following first-episode psychosis: a retrospective cohort study in Hong Kong
Christy Hui, Jennifer YM Tang, Wing Chung Chang, Sherry KW Chan, Edwin HM Lee, Eric YH Chen
Department of Psychiatry, The University of Hong Kong, Queen Mary Hospital, Hong Kong

Objective: Relapses in psychosis are costly and may have irreversible consequences. Relapse prevention is therefore one of the most important and challenging targets in the treatment of psychotic disorder. Medication non-adherence is at present the only consistent relapse predictor with high prognostic power. However, other consistent predictors have not been identified due to limitations in previous studies. We aim to investigate relapse predictors in a large cohort of patients with first-episode psychosis.

Method: This is a retrospective cohort study designed to evaluate relapses in first-episode psychosis patients in 3 years. A total of 1400 patients’ case records were retrieved from a hospital database. Potential relapse predictors including demographic variables, baseline clinical measures, medica-

tion adherence, and residual positive symptoms upon clinical stabilization were collected.

Results: The cumulative relapse rates were 19.3% by year 1, 38.4% by year 2, and 48.1% by year 3. Multivariate Cox-proportional hazards regression analysis revealed that medication non-adherence, smoking, schizophrenia diagnosis, younger age, and shorter baseline hospitalization were associated with an increased risk of relapse in 3 years.

Conclusions: Nearly half of patients relapsed after 3 years following their first-episode psychosis. Smoking as a predictor of relapse is an intriguing finding having support from a link between nicotine receptors and the dopamine system. Their relationship deserves further investigations with potential clinical implications for relapse prevention.

C28
Clinical profile of antipsychotic-naïve schizophrenia in India: a report on 15-year cohort
Anekal C Amresha,1 Venkataram Shivakumar,1 Sunil V Kalmady,1 Boban Joseph,1 Basavaraj Srinivas,1 Janardhanan C Narayanaswamy,1 Naren P Rao,1,2 Rishikesh V Behere,2 Shivarama Varambally,1 Ganesan Venkatasubramaniam,1 Matcheri S Keshavan,4 Bangalore N Gangadhara1
1National Institute of Mental Health and Neurosciences, Bangalore, 2Indian Institute of Science, Bangalore, 3Kasturba Medical College, Manipal University, Manipal, India, and 4Harvard Medical School, Boston, Massachusetts, USA

Background: Research studies increasingly emphasize the need and clinical utility of early intervention in schizophrenia. Earlier reports have indicated reversal/lack of sex difference in age-at-onset (AAO) of psychosis in Indian schizophrenia patients. There is paucity of literature from India that has specifically examined large sample of first-episode, antipsychotic-naïve schizophrenia (FANS) patients on illness parameters relevant for early intervention.

Methods: In this study, we examined the socio-demographic and clinical characteristics of antipsychotic-naïve schizophrenia patients (N=400; 235 men) that sought treatment at the National Institute of Mental Health and Neurosciences over the past 15 years (1999–2014). The AAO of symptoms and duration of untreated psychosis (DUP) were evaluated using a semi-structured instrument. Clinical symptoms scores were calculated using Scale for the Assessment of Positive Symptoms (SAPS) and Scale for the Assessment of Negative Symptoms (SANS) for the symptom severity.

Results: The median DUP was 51.4 weeks and mean±SD was 129.9±148.6 weeks; there was no significant sex difference in DUP. Longer DUP was associated with greater negative syndrome (rs=0.02; p=0.003). Men (26.8±6.9 years; median=26 years) had an earlier AAO than women (29.4±6.9 years; median=29 years) [p=0.001]. There was a significant greater number of men in early AAO patients (d^21 years) (M:F = 18:4) in 2008–2014 cohort in comparison with 1999–2002 cohort (M:F = 11:10) [p=0.039].

Conclusion: Evaluation of a large sample of FANS from a tertiary center in India replicates certain established clinical observations in contemporary psychiatry. There is a potential cohort effect on sex difference in AAO of psychosis. Long DUP emphasizes the need for development of early intervention programmes for schizophrenia in India.
C30

Early Intervention in Psychosis: the Icelandic model
Nanna Briem, Magnus Olafsson, Halldora Fridjurgerd Víðisdóttir
Landspitali-The National University Hospital of Iceland, Psychiatric Department, Iceland

In 2010, an early intervention service opened in Reykjavik at Landspitali – The National University Hospital of Iceland. The service provides specialized care for young people aged 18-30 who have suffered first-episode psychosis. The service centers around a day center that offers a varied program tailored to individual needs and rehabilitation program for young adults in an urban community hospital. The service provides a drug addiction program, and improving physical health.

C31

Baseline outcomes of prevention, education, evaluation, rehabilitation program for young adults in an urban community hospital treatment setting
Anna Costakis, Susan Palmgren, Monica Brooker, Aimee Campbell, Nahima Ahmed, Jesse Barglow, Tia Dole, Michael Birbaum
Mount Sinai St. Luke’s Hospital, North Shore-Long Island Jewish Medical Center, OnTrackNY, Mental Health Association of Westchester County, USA

Outcome trajectories of psychotic-related illnesses among young adults vary greatly. A better understanding of phase-specific interventions can aid in early psychosis intervention treatment models. This baseline paper presents (1) baseline demographic characteristics and symptomatology, (2) psychotic symptom clusters, including substance abuse, and (3) subjective experiences of psychosis among young adults in a community hospital treatment setting. Thirty-two participants were recruited. Participants were diagnosed with psychotic disorders or identified as ultra-high risk (UHR), and all were within the first five years of their illness. Participants were administered a number of clinical and cognitive measures at clinic admission. Participants’ mean age was 19.84 years (SD=3.35). The sample was 62.5% male. Most frequent diagnosis was psychotic disorder NOS (28.1%). The mean WASI FS IQ score was 85.38 (SD=12.09). At baseline, participants reported moderate levels of depression on the BDI (M=16.97, SD=11.51), high levels of anxiety, guilt, hallucinatory behavior, and unusual thought content on the BPRS, and high levels of cannabis use (50% of participants; AUDIT). Participants reported decreased levels of functioning in social, work, and family domains (Sheehan Disability Scale). Initial findings indicate that patients in the early stages of psychosis present with a variety of mood and substance use problems. This presentation will provide preliminary findings related to psychosocial factors that influence remission and recovery trajectories among young adults with a psychosis-related illness. Our baseline findings also suggest that specialized early intervention programs can be effective in reducing symptomatology within this population.

C32

Trust and attachment in early psychosis
Anne-Kathrin Fett, Sukhi Shergill, Niki Korver-Nieberg, Paula Gromann, Lydia Krabbendam
VU University Amsterdam, Department of Educational Neuroscience and LEARN! Research Institute for Learning and Education, The Netherlands, King’s College London, Department of Psychiatry Studies, UK, Academic Psychiatric Centre, Department of Early Psychosis, The Netherlands

Distrust and problems with interpersonal functioning are frequent characteristics of psychosis. Both have been suggested to arise from attachment insecurity, which is also associated with the illness and its core symptoms, in particular paranoid delusions. We used two trust games with a cooperative and an unfair counterpart to investigate the associations between trust, attachment style and psychotic symptoms in real-time social interactions in a sample of 39 adolescents with early psychosis and 100 healthy controls (aged 13-19). Patients had lower basic trust towards anonymous others than controls, as indicated by lower initial trust game investments. During the unfair interactions, patients decreased their trust less than controls. However, they increased their trust towards similar levels as controls during cooperation. Attachment style differed between groups, but did not account for group differences in trust. In patients, lower levels of basic trust were associated with higher negative symptoms, but not with paranoia or positive symptoms. The development of trust during repeated trust game interactions was unrelated to symptoms. Reduced basic trust in adolescent patients is line with previous findings in adults with psychosis. However, unlike adults, adolescents were able to adapt their level of trust in response to trustworthy others, suggesting that this deficit might be associated with chronic illness states rather than with psychosis per se.

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C33
Duration of untreated psychosis and pathways to care in Denmark: the TOP study
Lene Halling Hastrup, Ulrik Haahr, Erik Simonsen
Region Zealand, Psychiatric Research Unit, Tøfthakken, Roskilde, Denmark

Background: The focus on early detection and reduction of treatment delay in first-episode psychosis has led to an interest in the pathways by which patients with psychotic symptoms access help. This is important since earlier findings from literature reviews have suggested that delays in treatment of first-episode psychosis are associated with poor clinical and functional outcome. Although there are some few studies of the determinants of the pathways to care, further investigation is needed. An early detection team was implemented in 2012 in Region Zealand (816,000 inhabitants) in order to help patients with first-episode psychosis to easy access mental health care treatment. The early detection team was accompanied by an information campaign.

Aim: The present study has three aims: (i) to analyze duration of untreated psychosis in Denmark before implementation of the early detection team in Region Zealand. The study includes all Danish patients who came in contact with mental health services with a first-episode psychosis between 2009 and 2011; (ii) to analyze the pathway to care by identifying the type and sequence of contacts that the patient sought help from; and (iii) to analyze the association between duration of untreated psychosis and socioeconomic characteristics such as age, gender, diagnosis, ethnicity, civil status and region in Denmark.

Methods: The study combines data from the Danish National Indicator Project a national schizophrenia registry (DNIP) with data drawn from official Danish registers.

Conclusion: The data analysis is under preparation.

Funding: The TOP project is financed by Region Zealand and the Lundbeck Foundation.

POSTER ABSTRACTS

C34
The causal relationship of the objective assessment with subjective report for clinical symptoms and psychosocial function in individuals with ultra-high risk and first-episode psychosis
Eriko Ichikawa,1 Shinske Koike,2 Takeshi Araki,1 Kiyoto Kasai1
1The University of Tokyo, Tokyo, Japan, 2University College London, London, UK

Introduction: Since 2000, early intervention for psychosis has spread worldwide and provides better clinical outcome such as lower hospitalization rate, higher recurrence rate and better recovery rate. However, how subjective reports change under their recovery process has been fully investigated. The aim of the present study is to explore the causal relationship of the changes of objective assessment and subjective report for one year.

Methods: The participants were help-seekers recruited from the outpatient and inpatient units of the University of Tokyo Hospital (First-episode Psychosis [FEP]; n=20, male=16, age=22.5±5.4, female=4; age=24.8±6.7; Ultra-high risk [UHR]: n=19, male=8; age=18.5±2.4, female=11; age=21.9±3.8). We measured PANSS (the Positive and Negative Syndrome Scale) and GAF (the Global Assessment of Functioning) scales as clinical assessments, and CES-D (the Center for Epidemiologic Studies Depression Scale) and WHO-QOL26 (the 26-item of the WHO Quality of Life Scale) as subjective reports. This study was approved by the ethics committee of the University of Tokyo Hospital (2226-4), and all participants gave written informed consent before measurement.

Results: Both symptomatic and functional assessments by objective and subjective measurements improve significantly in both groups for 12 months (PANSS total: baseline=67.3±15.1 months=55.2±14.1, p<.001; GAF: 43.8±10.7, 54.6±13.5, p<.001; WHO-QOL26: 3.2±0.6, 3.3±0.6, p=.038; CES-D: 16.0±13.0, 14.1±11.6, p=.023, respectively).

Discussion and conclusion: In this session, we will present and discuss causal relationship of these findings in each group.

C35
Rate and risk factors for aggressive behavior in young people presenting with first-episode psychosis in Hong Kong: a three-year follow-up study
Emily Sin Ki Lau,1 Wing Chung Chang,2 Lai Ming Hui,2 Kit Wa Chan,2 Ho Ming Lee,1 Eric Yu Hai Chen2,3
1Department of Psychiatry, Queen Mary Hospital, 2Department of Psychiatry, The University of Hong Kong, 3State Key Laboratory of Brain and Cognitive Sciences, The University of Hong Kong, Hong Kong, China

Accumulating evidence has indicated that early psychosis patients have an elevated risk of violence, but the prevalence and risk factors varied across studies. The present study aimed to examine the rate and predictors of aggressive behavior in a large representative Chinese young people with first-episode psychosis (FEP) in Hong Kong. Seven hundred patients aged 15–25 years consecutively enrolled in a territory-wide specialized early intervention service for FEP from July 2001 to August 2003 were studied. Socio-demographics, pre-treatment characteristics, baseline and three-year follow-up variables were collected via systematic medical file review. Of the 700 patients, 73 (10.4%) exhibited aggressive behavior during three-year treatment period, and 23 (3.2%) engaged in more than one attempt. Occurrence of aggressive behavior was associated with male sex (p<.001), lower educational level (p<.001), pre-treatment violence (p<.001), history of substance abuse (p<.005) and smoking (p<.005), and baseline unemployment status (p<.005). Multivariate regression analysis controlling for length of service revealed that male sex (p=0.01), educational attainment (p<0.001) and pre-treatment violence (p<0.001) independently predicted aggressive behavior during three-year follow-up. In a large cohort of Chinese FEP patients, one in ten displayed aggressive behavior in the initial three years of treatment. Our findings confirmed predictive role of male sex, past aggressive behavior and lower educational attainment for heightened violence risk at follow-up. Frequent clinical monitoring, comprehensive risk assessment and more intensive case management should be provided to those patients with identified violence risk factors so as to minimize later aggressive behavior.

Key words: Aggressive behavior, first-episode psychosis, violence, prediction, risk factors.

C36
The prognostic significance of early remission of positive symptoms
Rahul Manchanda, Deborah Windell, Raj Haricharan, Sandra Northcott, Ross MG Norman
Western University, London, Ontario, Canada

Background: Time to remission of positive symptoms has frequently been used as an important indicator of treatment outcome for patients with a psychotic disorder, but there has been little investigation of its significance for longer term outcomes. In this presentation, we test the hypothesis that earlier remission of psychotic symptoms is associated with better symptoms and functioning outcomes at five-year follow-up.

Method: Time to remission of positive symptoms, other early characteristics and five-year outcomes were assessed in a prospective study of 132 patients being treated for the first time for a psychotic disorder.

Results: Just under 60% of patients showed remission of positive symptoms within 3 months. In comparison to later remitters, they showed lower levels of positive symptoms, greater likelihood of competitive employment and less likelihood of collecting a disability pension at five years.

Discussion: Early remission of positive symptoms may have prognostic significance for longer term symptoms and functioning outcomes.

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C37 Early Detection and Intervention Center for Schizophrenia (EDICS): development of a personal handbook for patients with first-episode schizophrenia

Michi Shibaoka, Noriomi Kuroki, Naoki Yoshimura, Tomiki Sumiyoshi, Kazuyuki Nakagome
National Center of Neurology and Psychiatry, Japan

Introduction: In 2013, we launched the Early Detection and Intervention Center for Schizophrenia (EDICS), affiliated with National Center of Neurology and Psychiatry (NCNP) Hospital. The main purpose of this disease-oriented center is to facilitate early intervention and longitudinal observations of patients with first-episode schizophrenia. As part of activities of the EDICS, certified nurse specialists in psychiatric mental health nursing regularly administer psycho-educational intervention. In this presentation, we report some of the issues related to the development of a personal handbook, or EDICS Handbook (EDICS-HB), intended to promote the missions of the EDICS.

Methods: The EDICS-HB was created through collaborative efforts by psychiatrists, nurses, clinical psychotherapists, occupational therapists and psychiatric social workers. To facilitate shared decision making, the Handbook features self-assessment sheets and check boxes to monitor symptoms, adverse effects, medical history, and so on.

Results: As of May 1, 2014, six patients using the EDICS-HB are receiving psycho-education. Since the start of EDICS, we have encountered a couple of issues that may affect the maintenance and refinenment of our clinical psycho-education. Since the start of EDICS, we have encountered a couple of issues that may affect the maintenance and refinenment of our clinical psycho-education.

Conclusions: Our endeavor in the NCNP discussed above, is expected to advance effective and personalized interventions into early psychosis nationwide.

C39 Sociodemographic and clinical factors associated with clozapine use in first-episode psychosis

Charmaine Tang, Swapna Verma, Mythily Subramaniam, Boon Tat Ng, Edimansyah Abdin, Lye Yin Poon
Institute of Mental Health, Singapore

Symptomatic non-remission or treatment resistance is fairly common in first-episode psychosis (FEP). To date, there have not been any studies directly examining the rates and predictors of non-remission or treatment resistance in an Asian FEP population.

Methods: Clinico-demographic data from all consecutive patients who were accepted into the Singapore Early Psychosis Intervention Programme (EPIP), from April 2001 to June 2012, and were prescribed clozapine during the course of their follow-up were included. We aimed to identify the baseline sociodemographic and clinical factors associated with clozapine use.

Results: Of 2108 patients who were accepted into EPIP, data from 1603 (77.7%) patients were available for baseline analysis. The prevalence of clozapine use in patients who had completed at least 2 years of follow-up with EPIP was 4.3% (n = 69). There were statistically significant differences between those who were prescribed clozapine and those who were not prescribed clozapine in terms of baseline employment status, SCID diagnosis, PANSS total score and GAF disability score. Patients who were prescribed clozapine were significantly more likely to be unemployed and economically inactive (students and homemakers) rather than employed (p = 0.04); have schizophrenia spectrum and delusional disorder rather than affective psychosis (p = 0.03); have higher PANSS total scores at baseline (p = 0.04); and lower GAF disability scores at baseline (p = 0.05).

Discussion: Our study has enabled us to establish a profile of patients with FEP who require clozapine. This will allow clinicians to pay closer attention to the characteristics of this group of vulnerable patients, so that early treatment with clozapine may be considered.

C38 Investigating the relationship between negative symptoms, autobiographical memory and the concept of self in people recovering from psychosis

Claire Stubbins,1 Joanne Hodgetkins,1 Megan Maidment,1 David Fowler2
1University of East Anglia, 2University of Sussex, UK

This study brings together findings from both post-traumatic stress disorder (PTSD) and first-episode psychosis (FEP) research, attempting to identify similarities in cognitive processes across the two disorders. In light of the evidence that a significant proportion of people who experience FEP display symptoms indicative of PTSD, it seems plausible that current theories derived from PTSD research may be useful in explaining some of the mechanisms involved in FEP. The study initially explored the idea that negative symptoms of psychosis are a reaction to the potentially traumatic experience of a psychotic episode. Previous research has shown that possible traumatic elements of psychosis might include the distressing nature of the psychotic symptoms (e.g., the hallucinations or delusions, or fear of losing one's mind), or the treatment a person receives (e.g., involuntary hospitalisation or being forced to take medication). In addition, the study investigated whether a particular finding in PTSD, the association between a discrepant self-concept and a tendency to recall more trauma-related memories, is also seen in psychosis, and whether this is related to the level of negative symptoms a person experiences. The study recruited 51 individuals from across East Anglia, England, who had experienced FEP. These individuals were aged between 18 and 37 and were considered to be in recovery from psychosis. Correlational analyses were used to investigate the relationships between these variables and the clinical implications of the study's findings were considered.

C40 Discontinuation of antipsychotic medication following symptom remission in first-episode psychosis: views of UK Early Psychosis clinicians

Andrew Thompson, Swaran Singh, Maximillian Birchwood
Division of Mental Health and Wellbeing, University of Warwick, UK

Introduction: The evidence guiding practice regarding discontinuing antipsychotic medication following remission in first-episode psychosis is limited and continued prescription of antipsychotics following remission is a contentious area of practice. We aimed to investigate the views of early psychosis clinicians on this subject.

Methods: We devised an online survey comprising of 10 questions relating to medication discontinuation following remission of symptoms in first-episode psychosis. The questionnaire was distributed to early intervention teams and team workers in the UK via members of the national early psychosis network.

Results: We received 170 questionnaire responses. 33% of the participants were doctors and 67% other health professionals; the average years of experience was 16.9. Only 31.4% of respondents thought that medication should be continued for over 1 year following remission. 60% of respondents felt that the quality of life of individuals was better in those who stop medication following remission. There was a significant difference between the responses of different professionals to this question. 69.6% of doctors responded that quality of life was better in those who stop medication following remission. 82.6% of respondents said they would be happy to support their remitted patients in participating in a randomised trial of reducing/discontinuing antipsychotic medication versus continuing medication.

Conclusions: There appears to be variation in practice in this area and the views of individual professions are divergent on a number of themes. This survey has implications for current practice, as clinician’s views appear discordant with current guidelines.
C41 Clinical features of patients with untreated schizophrenia and suicidal behavior
Tajiu Yamaguchi,1 Chiyu Fuji1,2 Shinya Ito,1 Naohisa Tsujino,1 Takahiro Nemoto,1 Masafumi Mizuno1
1Department of Neuropsychiatry, Toho University School of Medicine, 2National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan

Introduction: Patients with schizophrenia are at a significant risk for suicide throughout the course of their disease, including the pre-treatment period. This study was aimed at examining the clinical features of patients with untreated schizophrenia and suicidal behavior.

Methods: Using a cross-sectional design, 298 patients experiencing their first episode of schizophrenia were divided into two groups based on their history of suicidal behavior: 13 patients who consulted psychiatrists due to the suicidal behavior (suicidal group) and 285 patients without a history of suicidal behavior (non-suicidal group). Assessments were carried out using PANSS, GAF, CGI, and determining the duration of untreated psychosis. Qualitative analyses were also conducted in the suicidal group to investigate help-seeking behavior and the family members' level of recognition of the patients' psychiatric state.

Results: The suicidal group had a significantly higher grandiosity (P5) score on the PANSS as compared to the non-suicidal group. Eleven patients from the suicidal group had severe subjective distress due to psychotic symptoms, and four of these patients followed commands from hallucinations. Their help-seeking behaviors for the psychotic symptoms were inappropriate, and 9 of 13 family members did not recognize the necessity for psychiatric treatment.

Discussion: The findings suggest that the subjective distress level arising from the psychotic symptoms, rather than the severity level of such symptoms, is associated with the risk of suicidal behavior among patients with schizophrenia. Given patients' inappropriate help-seeking behavior, the general public should be informed on schizophrenia to increase awareness of help-seeking behavior among patients with schizophrenia.

C42 Distinctive clinical correlates of psychotic major depression: the CRESCEND study
Seon-Cheol Park,1 Hwa-Young Lee,2 Jeong-Kyu Sakong,2 Min-Soo Lee,3 Jae-Min Kim,3 Hyeon-Woo Yim,4 Yong Chon Park,4 Jung-Bum Kim,4 Tae-Youn Jun4
1Department of Psychiatry, Yong-In Mental Hospital, Yongin, 2Department of Psychiatry, College of Medicine, Soonchunhyang University, Asan, 3Department of Psychiatry, College of Medicine, Dongguk University, Gyeongju, 4Department of Psychiatry, College of Medicine, Korea University, Seoul, 5Department of Psychiatry, College of Medicine, Catholic University of Korea, Seoul, 6Department of Psychiatry, College of Medicine, Hanyang University, Seoul, 7Department of Psychiatry, Keimyung University School of Medicine, Daegu, 8Department of Psychiatry, College of Medicine, Catholic University of Korea, Seoul, Korea

Objective: The purpose of this investigation was to identify the distinctive clinical correlates of psychotic major depression (PMD) as compared with non-psychotic major depression (MDD) using a large cohort of Korean patients with major depressive disorder (MDD).

Methods: We recruited 966 MDD patients of age over 18 years from the Clinical Research Center for Depression of South Korea (CRESCEND) study. Diagnoses of PMD (n = 24) and NPMD (n = 942) were made with DSM-IV and confirmed with SCID. Psychometric scales were used to assess overall psychiatric symptoms (BPRS), depression (HAM-D), anxiety (HAMA), global severity (CGI-S), suicidal ideation (SSI-Beck), functioning (SOFAS) and quality of life (WHOQOL-BREF). Using independent t-tests or Ç 2 tests, we compared the clinical characteristics of patients with PMD and NPMD. A binary logistic regression model was constructed to identify factors independently associated with increased likelihood of PMD.

Results: PMD subjects were characterized by a higher rate of inpatient enrollment, and higher levels of many items of the BPRS (somatic concern, anxiety, emotional withdrawal, guilt feelings, tension, depression, suspiciousness, hallucination, motor retardation, blunted affect and excitement) and suicidal ideation (SSI-Beck). The explanatory factor model revealed that high levels of tension, excitement and suicidal ideation were associated with increased likelihood of PMD.

Conclusions: Thus, our findings partly support the view that PMD has its own distinctive clinical manifestation and course and may be considered a diagnostic entity separate from NPMD.

Mood Disorders

C43 Developmental trajectories of adolescent-onset mood and psychotic disorders: dimensions, clusters and stage of illness
Ian Hickie
Brain & Mind Research Institute, University of Sydney, Australia

It is an open question as to whether differential developmental trajectories, potentially representing specific pathophysiological processes, can form the basis of a more useful clinical typology in young persons who present for mental health care. Within a cohort of over 600 young people attending a primary care-based youth mental health service, individuals were assigned on the basis of clinical presentations to one of three clinical subtypes: anxious-depression (50%); mania-fatigue (25%); or developmental-psychotic (25%), according to putative developmental trajectories. We found key differences in demographic, clinical, family history and neuropsychological characteristics, which persisted after controlling for stage of illness. In a separate analysis, the same cohort was subjected to two-step cluster analysis utilising current symptomatology to determine the number of likely underlying groups. A five-cluster solution was derived and relied most heavily on syndromal flags (i.e. symptoms of depression, mania or anxiety), then negative symptoms subscales, and finally illness duration. The potential validity of such a data-driven solution was tested by comparison with various independent cross-sectional or retrospective features (e.g. family history, childhood risk factors, patterns of comorbidity, functional impairment, neuropsychological performance). This cross-sectional evaluation provides preliminary support for differing developmental trajectories in young persons presenting for mental health care. Prospective follow-up is needed to examine the predictive validity of this approach and its relationships to underlying pathophysiological mechanisms.
C44
Childhood trauma, temperament and character in subjects with major depressive disorder and bipolar disorder
Giampaolo Perna,1,2 Giovanna Vanni,1 Nunzia Valentina Di Chiaro,1 Paolo Cavedini,1 Luisa Amato,1,2 Daniela Cadirola1
1Villa San Benedetto Menfi Hospital-Provincia Italiana della Congregazione delle Suore Ospitaliere del Sacro Cuore di Gesù, FORIPS/ONLUS, 2AIAMC Associazione Italiana di Analisi e Modificazione del Comportamento e Terapia Comportamentale e Cognitiva, Italy
In non-clinical samples, childhood trauma (CT) negatively affected temperament/character traits. In major depressive disorder (MDD) and bipolar disorder (BD), abnormal personality traits were found to impair clinical course/treatment outcome. Although a link between CT and MDD/BD has been firmly established, no previous studies have been explored the relationship between CT and temperament/character in these populations. We investigated this issue in a preliminary sample of inpatients with MDD (n=29) or BD (n=50) hospitalized for a 4-week psychiatric rehabilitation program. We assessed CT (sexual/physical/emotional abuse, physical/emotional neglect) by the 28-item self report Childhood Trauma Questionnaire; personality traits by the 240-item self-report Temperament and Character Inventory-Revised version; illness severity by the Brief Psychiatric Rating Scale. We found significant (p<0.01) associations between emotional neglect, emotional abuse, physical neglect and low self-directedness (SD). Childhood trauma might induce persistent changes in brain areas crucial to the regulation of emotion and behaviors, thus impairing the abilities to integrate emotions, cognition and behaviors into the development of a mature concept of the self, expressed by a low SD in adulthood. Since low SD has been previously associated with illness severity and poor outcome, the relationship between CT and low SD might partly explain the well-known negative impact of CT on course and outcome of MDD/BD. Our preliminary results suggest that early detection and interventions on CT might contribute to better outcome in MDD and BD. Further studies on larger samples are needed.

Key words: Childhood trauma; temperament; character; major depressive disorder, bipolar disorder.

C45
Subjectively perceived cognitive deficits in psychosis among first-episode and ultra-high risk groups
Srividya Iyer,1,2 Gerald Jordan,1,2 Gina Marandola,1 Marita Pruessner,1,2 Martin Lepage,1,2 Ashok Malla1
1Prevention and Early Intervention Program for Psychosis (PEPP), Douglas Mental Health University Institute, 2Department of Psychiatry, McGill University, Montreal, Canada
Cognitive deficits, as perceived by persons with psychosis, remain poorly explored. Patient-perceived cognitive deficits have been examined to a limited extent in chronic psychosis and almost not at all in early psychosis. We addressed this gap by investigating differences in subjective deficits among persons with first-episode psychosis (FEP), persons at ultra-high risk (UHR) for psychosis, and healthy controls; examining relationships between self-perceived and objectively measured cognitive functioning; and identifying influences on self-perceived cognition. The study involved 164 FEP, 37 UHR and 51 healthy participants in Montreal, Canada. Upon entering treatment, patients completed the SSTICS, a six-factor self-report measure of subjective cognitive deficits and a neuropsychological battery objectively assessing cognition. Clinical/psychological variables were measured using the Brief Psychiatric Rating Scale, Calgary Depression Scale and Self-Esteem Rating Scale. Subjectively, FEP and UHR individuals perceived significantly more difficulties in attention, explicit memory, executive functions and SSTICS total (range=1–1.5 SDs), with no significant difference between FEP and UHR on these. SSTICS scores were unrelated to objectively measured cognition in FEP and UHR. Poorer self-perceived cognition was associated with lower self-esteem, and higher levels of positive symptoms and depression (r=-.39, .20 and .24, respectively; p<.05) in FEP; and with positive symptoms in UHR (r=-.49; p=.05). To our knowledge, this is the first investigation of subjective deficits in UHR. Persons with UHR and FEP perceive more cognitive deficits than their peers. The lack of association between self-perceived and objectively assessed cognition mirrors findings in chronic psychosis. Finally, self-perceived cognitive deficits may be influenced more by clinical/psychological variables.

C46
Social cognition in schizophrenia, first-degree relatives
Fernando Contreras,1,2 Aurora Albacete,1,2 Nuria Custal,1,2 José M Menchón1,2,3
1Psychiatry Department, Bellvitge University Hospital, Bellvitge Biomedical Research, 2Department of Clinical Sciences, Bellvitge Campus, University of Barcelona, 3CIBERSAM (Centro de Investigación Biomédica en Red en Salud Mental), Carlos III, Spain
Background: Social cognition seems to be impaired in schizophrenic patients, which affects their daily life’s functionality. Deficits in their healthy relatives might suggest social cognition as a new endophenotype in schizophrenia.
Aims and objectives: To compare social cognition between schizophrenic patients, first-degree relatives and controls using an emotional intelligence test.
Methodology: 28 schizophrenia outpatients (DSM-IV-TR criteria), 30 first-degree relatives and 34 controls completed the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). Total score and four subtests were assessed (Identifying, Using, Understanding and Managing Emotions). Participants were matched by gender, age, education and handedness. Statistical analysis used sociodemographic and MSCEIT scores were compared across groups using the ANOVA test for continuous variables and chi-square test for categorical variables. Four linear regression models were performed for the MSCEIT scores. Statistical analysis was performed using the statistical package SPSS Version 18.0.
Results and discussion: Significant differences were found between groups on the total MSCEIT score and the subtests Understanding and Managing Emotions. Patients and relatives performed worse than controls, although relatives obtained better results than schizophrenic patients, suggesting a continuum between groups. Moreover, among the three groups, higher level of education significantly correlated with higher MSCEIT scores, which could mean that education might be working as a positive factor.
Conclusion: Schizophrenic patients show impairments in different emotion processing domains as well as their first-degree relatives, supporting the hypothesis of a new cognitive endophenotype. Further research is required to understand its link with general cognition, clinical variables and global functionality.
C47 Social cognition and neurore cognition as predictors of social and role functioning in first-episode psychosis: a prospective follow-up study

Sian Lowri Griffiths,1 Stephen Wood,1 Max Birchwood2
1 University of Birmingham, 2 University of Warwick, UK

Background: Impairments in social functioning are considered to be a defining feature of psychosis. Neurocognition and social cognition are closely linked to social impairments and are considered as potentially modifiable treatment targets. However, this evidence is mostly based on cross-sectional studies of chronic populations. Thus, prospective studies of individuals at the onset of their illness may provide more information on the origin of social impairment, potentially leading to earlier identification and intervention.

Objective: This study investigates the predictive values of baseline neurocognition and social cognition on social and role functioning in individuals with first-episode psychosis within the context of other clinical, socio-demographic and premorbid variables.

Methods: Recruitment is due to conclude in June 2014. To date, 91 individuals (64 males; mean age = 24) from ethnically diverse backgrounds have been recruited from an Early Intervention for Psychosexual service (mean time in service = 7 months; median DUP = 8.4 weeks) and followed-up after 12 months. 58% of participants are unemployed and all live in urban areas; 89% have non-affective psychosis, and 11% affective psychosis. Functioning is assessed using the Global Functioning Social and Role Scales. A battery of assessments has been administered at baseline, assessing neurocognition, social cognition, premorbid functioning and clinical factors. 24 healthy matched controls have so far been recruited for comparative purposes.

Results: Statistical modelling will be used to examine predictors of functioning at follow-up. Longitudinal analysis of available data will be presented (n=50 approx.), alongside cross-sectional information relating to the baseline sample.

C48 Applying a cognitive training program using a brain training game to patients with schizophrenia: study protocol for a randomized trial

Kunio Izuka,1 Kazunori Matsumoto,1,2 Rui Nouchi,1 Yasuyuki Taki,1 Hikaru Takeuchi,1 Takayuki Nozawa,1 Hiroshi Hashizume,2 Ryochi Yokoyama,3 Yukako Sasai,1 Chika Obara,1 Hiroyo Matsuoka,2,3 Ryuta Kawashima1
1 Tohoku University, 2 Tohoku University Hospital, 3 Japan Society for the Promotion of Science, Japan

Background and design: Cognitive impairment is an important target for early intervention in schizophrenia, because it emerges from before onset to early stage of psychosis, and significantly impacts patients’ social outcomes. Cognitive remediation is a promising approach to improve such deficits. However, some young patients with psychosis have difficulties in receiving cognitive remediation, because they may be too busy or too hesitant to attend frequent sessions outside. A cognitive training program using a brain training video game (Brain Age, Nintendo) enables participants to conduct cognitive training at home and previous studies have demonstrated that such an approach improved executive functions and processing speed in healthy elderly and in young students (Nouchi et al., 2012, 2013). We therefore aimed to apply this approach to patients with schizophrenia.

Method: Participants with schizophrenia, aged 18-39 years, are randomly assigned to either training or control group. Training group engage in cognitive training using video games (Brain Age 1/2) for 30 minutes/day, 4 times/week, for 8 weeks at home, while control group play visuospatial puzzle games. Before and after the intervention, comprehensive assessment of symptoms, social functioning, and cognitive function, structural brain imaging is conducted.

Discussion: Although the present study targets not only early but also chronic and schizophrenia with schizophrenia, a cognitive remediation program available in patients’ daily life situations would be helpful to introduce this approach to young patients with early psychosis. If successful, this program could be combined with other interventions, including social skills training and social cognitive training, to increase efficacy.

C49 A comparative study of face recognition bias in the ultra-high risk for psychosis population major depressive disorder

Hong-Xiao Jia,1,2,3 Jin-Min Yang,1 Hong Zhu,1 Men-Ya Yin,1 Jia Liu1
1 Beijing An Ding Hospital, Capital Medical University, 2 State Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, 3 Center of Schizophrenia, Beijing Institute for Brain Disorders, Beijing, China

Objective: Phenomenological research indicates that disturbance of the basic sense of self may be a core phenotypic marker of prodromal schizophrenia. The purpose of this study was to test the proposal that basic self-disturbance is a particular characteristic in the ultra-high risk for psychosis population and not depression using self-face recognition (SFR).

Method: 22 subjects in the ultra-high risk for psychosis, 24 depressed patients and 22 healthy comparison subjects were administered SFR. 3×3×2 factorial design was used, with three group levels, including ultra-high risk for psychosis group, depressed patients group and health group; with three task levels, including self-famous task, self-stranger task, famous-stranger task; two hand levels, left hand and right hand. Threshold limit values in face recognition were analyzed.

Results: MANOVA finds main effects for group (F=5.477, p=0.007), and interaction effect between group and task is significant (F=2.534, p=0.044). One-way ANOVA finds main effect between groups in self-famous task (F=9.034, p=0.000), simple effect analyses showed that there is significant difference between ultra-high risk for psychosis and healthy control (p=0.001), depressed patients and healthy control (p=0.001); however, there is no difference between ultra-high risk for psychosis and depressed patients (p=0.932). No main effect between groups was found in self-stranger task, famous-stranger task (F=0.084, p=0.773; F=1.881, p=0.162).

Conclusion: SFR study reveals that there is self-disturbance both in two kinds of patients in behavioral level. This means that basic self-disturbance may not be a particular characteristic for the ultra-high risk for psychosis population at least from face recognition view.

C50 The association between cognitive insight and executive function in at-risk mental state

Noriyuki Ohmuro,1 Kazunori Matsumoto,1,2 Masahiro Katsura,1 Atsushi Sakuma,1 Kunio Izuka,1 Ikuo Kikuchi,1 Chika Obara,1 Hiroyo Uchida,2 Fumiaki Ito,1 Hiroo Matsuoka1,2
1 Tohoku University Hospital, 2 Tohoku University Graduate School of Medicine, 3 Tohoku University, 4 Tohoku Pharmaceutical University Hospital, Sendai, Japan

Introduction: Cognitive insight, defined as the ability to evaluate and correct one’s own distorted beliefs, is hypothesized to contribute to the development of delusional symptoms. However, the relationship between cognitive insight and neurocognitive processes in individuals at high risk for psychosis remains unclear.

Methods: The Japanese version of the Beck Cognitive Insight Scale (BCIS) was used to assess cognitive insight, whereas the Wisconsin Card Sorting Test (WCST), executive function. In all, 70 subjects with at-risk mental state (ARMS) and 29 healthy controls (HC) were evaluated. The mean scores of both groups on BCIS and WCST subscales were compared via t-tests. Correlations between BCIS and WCST subscales were also examined in each group.

Results: On average, scores for Self-Reflectiveness (on the BCIS) were significantly lower in the ARMS group than in the HC group, whereas Self-Certainty scores, significantly higher. The ARMS group performed significantly worse in both indices: mean number of categories achieved (CA) and perseverative errors of the Nelson type (PEN). In the ARMS group as well, higher self-certainty was significantly associated with lower performance in terms of mean number of categories achieved (Spearman’s rho=-0.24, p=0.048). A significant association was observed in the HC group between higher self-reflectiveness and higher performance in terms of PEN (Spearman’s rho=-0.38, p=0.043).

Discussion: The present findings suggest that excessively higher self-certainty, linked to delusional proneness, may develop in association with disturbed executive function in individuals with ARMS.
C51 Social cognition in subjects at ultra-high risk for psychosis: a cross-sectional study on emotion recognition and social perception skills in an ultra-high risk cohort

Lasse Randers,1,3 Birgitte Fagerlund,2,3 Jens Richardt M Jepsen,1,2,3 Dorte Nordholm,1,2 Kristine Krakauer,1,2 Louise B Glenthøj,1,2 Birte Y Glenthøj,1,2 Merete Nordenstöft1,2

1Mental Health Centre Copenhagen, Copenhagen University Hospital, Copenhagen, 2Centre for Clinical Intervention and Neuropsychiatric Schizophrenia Research, CNS, Glostrup, 3Centre for Neuropsychiatric Schizophrenia Research (CNSR), Mental Health Centre Glostrup, Copenhagen University Hospital, Glostrup, Denmark

Background and purpose: Social cognition in subjects with schizophrenia is impaired. However, only relatively few studies have examined social cognition in subjects at ultra-high risk (UHR) of developing psychosis. These studies have generally found deficits in this domain, even though some of them show conflicting results. Due to the few studies conducted, the profile of social cognitive deficits in UHR subjects remains largely unknown. The social cognitive deficits may constitute part of the predisposition to psychosis and be targets for early intervention. The purpose of this study is to examine emotion recognition and social perception skills in an UHR cohort.

Methods: We examined 50 UHR and 50 matched healthy control (HC) subjects cross-sectionally with social cognitive tests assessing emotion recognition and social perception skills. These include The Awareness of Social Inference Test (TASIT) (only part 2), a computerised degraded facial affect recognition task, and the Benton Facial Recognition Test (BFRT). We also used a comprehensive neurocognitive test battery.

Results: Results comparing the performances of the UHR and the HC subjects on the social cognitive tests will be presented. Also, we will present results on the relationship between social cognition and psychosocial functioning, and on the potential role of social cognition as a mediator in the relationship between neurocognition and psychosocial functioning.

Conclusion: The study will show if the UHR subjects have impaired emotion recognition and social perception skills compared to matched HC subjects. The results may indicate important treatment targets that can be addressed in social cognitive training.

Neuroimaging

C52 Impact of working memory load on cortical activation and connectivity in first-episode psychosis

Nicole Mehdiyoun,1 Tom Hummer,1 Michael Francis,1 Jenifer Vohs,1 Emily Liflick,1 Brenna McDonald,2 Andrew Saykin,2 Alan Breier1

1Indiana University Psychotic Disorders Program, 2Indiana University Center for Neuroimaging, USA

Cognitive dysfunction in schizophrenia is associated with poor functional outcomes. Working memory (WM), involved in manipulating information and integral in higher order thinking and behavior, is impaired in schizophrenia. Analysis of WM tasks during fMRI reveals that cortical activation within specific regions is altered by manipulating task demand (WM load). However, less is known about the impact of WM load on functional connectivity between different regions of the brain. To investigate the impact of WM load (using an n-back task) on functional connectivity in first-episode psychosis (FEP) patients and controls, we employed a psychophysiological interaction analysis. Benefits of investigating this population include the reduced potential for confounds, with less illness chronicity, and limited antipsychotic exposure. FEP subjects and controls performed a letter n-back task during fMRI under high, medium, and low WM load conditions. We examined functional connectivity changes, with right and left prefrontal cortex seed regions, between high (2-back) and low (0-back) load levels. As expected, task accuracy decreased as WM load increased, with greater decrements in FEP subjects. Connectivity between the right prefrontal seed and a cluster in left temporal cortex (132 voxels) decreased under the higher WM load condition in FEP subjects. No differences were present with left prefrontal connectivity. Results indicate that poor frontotemporal functional connectivity may underlie impaired cognitive performance as WM load increases in FEP patients. Alterations to working memory circuitry are present early in the course of schizophrenia, but may only be detectable when a greater cognitive effort is required.

C53 Similar age-related decline in cortical activity over frontotemporal regions in schizophrenia: a Multi-Channel Near-Infrared Spectroscopy Study

PoHan Chou,1 Shinsuke Koike,2 Yukioka Nishimura,2 Yoshihiro Satomura,2 Akhide Kinoshita,1 Ryu Takizawa,2 Kyoito Kasa2

1Department of Psychiatry, Taichung Veterans General Hospital, Taichung City, Taiwan, 2Department of Neuropsychiatry, Graduate School of Medicine, The University of Tokyo, Bunkyo-ku, Tokyo, Japan

Objectives: Although recent studies have demonstrated that patients with schizophrenia and healthy controls did not differ in the speed of age-related decline in cortical thickness and performances on cognitive tests, hemodynamic changes assessed by functional neuroimaging remain unclear. This study investigated age effects on regional brain cortical activity to determine whether there is similar age-related decline in cortical activity as those observed in cortical thickness and cognitive test performance.

Method: A total of 109 patients with schizophrenia (age range: 16–59 years) and 106 healthy controls (age range: 16–59 years) underwent near-infrared spectroscopy (NIRS) while performing a verbal fluency test (VFT). Group comparison of cortical activity was examined using two-tailed t-tests, adopting the false discovery rate (FDR) method. The relationship between age and cortical activity was investigated using correlational and multiple regression analyses, adjusting for potential confounding variables. A two-way ANOVA was conducted to investigate differences in the age effects between diagnostic groups.

Results: The patient group exhibited significantly decreased cortical activity in several regions of the frontotemporal cortices. However, slopes of age-dependent decreases in cortical activity were similar between patients and healthy individuals at the bilateral frontotemporal regions.

Conclusions: Our study showed no significant between-group differences in the age-related decline in cortical activity, as measured by NIRS, over the frontotemporal regions during a VFT. The results of our study may indicate a decrease in cortical activity in a relatively limited period around illness onset rather than continuously progressing over the course of the illness.
Clinical and brain structural predictors of ‘Transition to Psychosis’ or ‘Risk Remission’ in individuals at ultra-high risk for psychosis

Kristine Krakauer,1,2,3 Birte Y. Gثبتhaj,1,3 Egil Rostrup,4 Bjørn H Edbro,2,3 Lasse Randers,1,3 Dorte Nordholm,1 Louise B. Gثبتhaj,1,3 Christina Wennberg,1,4 Merete Nordenfelt1

1Mental Health Center Copenhagen-Copenhagen University Hospital Bispebjerg, 2Center for Neuropsychiatric Schizophrenia Research-Psychiatric Center Glostrup-Copenhagen University Hospital Glostrup, 3Lundbeck Foundation Center for Clinical Intervention and Neuropsychiatric Schizophrenia Research-Psychiatric Center Glostrup-Copenhagen University Hospital Glostrup, 4Functional Imaging Unit-Copenhagen University Hospital Glostrup, Denmark

Background: The CAARMS criteria identify individuals at ultra-high risk (UHR) of developing a psychosis. Most recent studies find that 10–16% of UHR individuals develop a psychosis within 1–2 years. The few studies that assess those without transition suggest that 50–75% remit from their initial UHR status within 1–3 years.

Aim: Risk stratification of UHR individuals offers a unique insight into the course of attenuated psychotic symptoms and permits identification of predisposing and protective factors. Moreover, identification of predictive markers facilitates early and personalized intervention targeting individuals who are at continuous risk while offering reassurance to those who are mislabeled.

Methods: 50 UHR individuals will be recruited from Mental Health Services in Denmark. They are examined throughout a year by: “Structural magnetic resonance imaging (MRI) scans using a 3 Tesla Philips scanner.” Diagnostic and psychopathological tests: “SCID-I, CAARMS, SANS, SOFAS, GAF.” Neuropsychological tests: BACS, CANTAB and DART, WAIS III, olfactory identification ability was assessed using University Pennsylvania Smell Identification Test (UPSIT). HI, whole-brain, and intracranial volumes were estimated on MRI. FESz and Sz patients showed significantly reduced UPSIT compared with Ctl. There were no correlations between UPSIT scores and left/right HI volumes in Sz (left, r = 0.1; right, r = 0.2; p > 0.05). However, negative correlations were found in FESz (left, r = 0.5; left, r = 0.5; p < 0.01), with a significant interaction found between the two patient groups (left and right, p < 0.05). FESz who had lower olfaction abilities displayed larger HI volumes, especially left HI. It has been suggested that brain expansion may reflect swelling caused by an active neurochemical or inflammatory process associated with acute psychosis (Croppley, Wood, & Pantelis, Int Clin Psychopharmacol, 2014). Our findings in early illness may be related to a more acute illness associated with tissue swelling. Measurement of UPSIT and HI volume may represent markers of acute psychosis relapse.

References:
Velakoulis, Arch Gen Psychiatry, 2006.
Altered functional connectivity of superior temporal gyrus in individuals at ultra-high-risk for psychosis

Youngwoo Yoon, 1 Je-Yeon Yun, 2, 3 WI Hoon Jung, 1, 3 Tae Young Lee, 1 Jun Soo Kwon, 1, 2, 3

1 College of Natural Science, Seoul National University, 2 Seoul National University College of Medicine, 3 Institute of Human Behavioral Medicine, SNU-MRC, Seoul, Korea, and 4 University of Pennsylvania, Philadelphia, PA, USA

Introduction: The structural studies on superior temporal gyrus (STG) of schizophrenia patients and first episode of psychosis have consistently demonstrated volumetric changes and connectivity alterations during the progress of psychosis. There are gaining evidences that structural aberrancies of STG could be the trait marker of some proneness for psychosis or hardship of social adaptation. In this study, we investigate on the functional connectivity of STG in individuals at ultra-high risk (UHR), who denies the overt auditory hallucination but suspected to be on the state of proneness to psychosis. Thus, we aim to propose the possibility that the characteristic of functional connectivity reflects the proneness to psychosis.

Methods: Fifty UHR subjects and 39 matched healthy controls underwent resting-state functional magnetic resonance imaging. The STG was parcellated into three regions-of-interest (ROIs): Heschl gyrus (HG), planum temporale (PT), and planum polare (PP). Differences in functional connectivity of each ROI with the whole brain were compared between the groups.

Results: Significant differences in functional connectivity patterns were observed in the HG and PT seed regions. For the HG seed region, individuals at UHR exhibited reduced functional connectivity with the prefrontal cortex accompanied by enhanced functional connectivity with the postcentral gyrus and planum polare (PP). Differences in functional connectivity of each ROI were compared between the groups.

Conclusion: The changes in functional network present in individuals at UHR demonstrate the alteration could indicate the neural underpin manifesting the proneness to psychosis.

Psychopharmacology

Partial concordance with long-acting antipsychotic injections in first-episode psychosis – demographic and clinical factors

Alan Farmer, Wright Brad

Early Intervention Services, Worcestershire NHS Health and Care Trust, UK

We aimed to determine the extent of partial concordance with long-acting antipsychotic injections (LAIs) and to see if there were specific risks or protective factors in a group with first-episode psychosis (FEP). Non- or partial concordance with medication is a major factor in relapse or a failure to achieve remission of symptoms. This is particularly significant in FEP as under 50% of people are adequately concordant with treatment during the first year of treatment; a time when symptoms and longer term outcomes are most sensitive to a robust package of bio-psychosocial support. Even partial concordance can have a significant effect on relapse, admission to hospital and suicide. LAIs reduce the need for people to remember or maintain motivation to take medication on a daily basis. Reviews have challenged the view that this is an unpopular way of giving or receiving medication in FEP. Partial concordance can still be an issue when people regularly delay receiving their injection or will only accept a lower dose against the advice of professionals. A definition of partial concordance has been developed for LAIs and used with young people working with the Worcestershire Early Intervention Services. Rates of partial concordance were lower than expected in a group often seen as at high risk. Positive attitudes towards medication and a good relationship with professionals contributed towards this. The early offer of a LAI as a positive choice to young people at greater risk of relapse/poor response due to poor concordance is an effective intervention.

Treatment of negative symptoms in schizophrenia: meta-analysis of randomised placebo-controlled trials

Evangelos Papanastasiou, 1 Paolo Fusar-Poli, 1 Daniel Stahl, 1 Matteo Rocchetti, 1, 2 William Carpenter, 1 Sukhi Shergill, 1 Philip McGuire 1

1 Institute of Psychiatry, King’s College London, UK, 2 Brain and Behavioural Sciences, University of Pavia, Italy, 3 Maryland Psychiatric Research Centre, University of Maryland School of Medicine, USA

Background: Negative symptoms underlie much of the functional and social disability seen in people with schizophrenia. It is unclear if existing treatments for schizophrenia have any impact on negative symptoms.

Objectives: To assess the efficacy of available treatments for negative symptoms in schizophrenia.

Data sources: A range of electronic databases was searched until December 2013.

Study selection: 168 unique and independent placebo-controlled trials were used for the analysis.

Main outcome measures: Standardised mean difference (endpoint minus baseline) in values of the negative symptom rating scale that was used in each study.

Results: The database included 6583 patients in the treatment arm and 5815 patients in the placebo arm. The mean duration of follow-up was 12.4 weeks. There was no evidence of publication biases. When considered separately, most treatments reduced negative symptoms at follow-up relative to placebo: second-generation antipsychotics: −0.579 (−0.755 to −0.404); antidepressants: −0.349 (−0.551 to −0.146); combinations of pharmacological agents: −0.518 (−0.757 to −0.279); glutamatergic medications: −0.289 (−0.478 to −0.1); psychological interventions: −0.396 (−0.563 to −0.229). No significant effect was found for two groups: first-generation antipsychotics: −0.531 (−1.184 to 0.041); brain stimulation: −0.228 (−0.773 to 0.319). There were no significant differences in the effect of different treatments, and type of molecule or dosage did not influence the meta-analytical estimates for antipsychotic medication. The effects of most treatments were not clinically meaningful as measured on the clinical global impression-severity scale (CGI-S).

Conclusions and relevance: There are no effective treatments to impact the clinical management of negative symptoms.
C62
Effectiveness comparison of antipsychotics used in first-episode psychosis: a naturalistic cohort study
Richard Whale,1,2 Michael Harris,1 Gail Kavanagh,1 Vijitha Wickramasinghe,1 Steven Marvaha,1 Ketan Jethwa,1,4 Nirmalan Ayadura,1 Aman Sardana,1 Andrew Thompson1,4
1Sussex Partnership NHS Foundation Trust, 2Brighton and Sussex Medical School, 3University of Warwick, 4Coventry and Warwickshire NHS Trust, 5Derbyshire Healthcare Foundation Trust, UK

Introduction: Several studies have explored comparative effectiveness of first prescribed antipsychotics for FEP using time to treatment discontinuation as a proxy measure. Consistent differences are not demonstrated. We explored this in a large clinical sample across different services. We present an interim data analysis.

Method: A retrospective cohort study examined the naturalistic treatment of all patients accepted by FEP services across 6 sites in Sussex and Warwickshire over 3 years. Case notes were examined to the point of any-cause discontinuation up to 1 year. Median and mean survival times and rate of discontinuation at 1 year were compared using survival analysis.

Results: Of 579 patients prescribed antipsychotic treatment, data were available for 451. Aripiprazole was prescribed in 59 cases, Olanzapine 184, Quetiapine 114 and Risperidone 80 cases. Greatest risk of treatment discontinuation was in the first 3 months for all medications. Risperidone had the longest median time-to-discontinuation (175 days, 95% CI 47.90–302.99), followed by Aripiprazole (162 days, 95% CI 43.72–280.27), Quetiapine (154 days, 95% CI 81.68–226.32) and Olanzapine (112 days, 95% CI 85.90–138.10). Patients prescribed Olanzapine had highest rates of discontinuation by 1 year (76.4%), followed by Aripiprazole (69.5%), Quetiapine (67.9%) and Risperidone (65.8%). Discontinuation rates for patients prescribed Risperidone versus Olanzapine were significantly different (%, n=3.125; p=0.0386).

Conclusions: Risperidone is more effective than Olanzapine in the treatment of FEP where time to all-cause treatment discontinuation is considered. In the light of the greater metabolic influence of Olanzapine, its use as a first line antipsychotic in FEP patients needs further consideration.

C63
Psychosocial Interventions

Layers of listening: a qualitative analysis of the impact of early intervention services for first-episode psychosis on carers’ experiences
Anna Lavis,1 Helen Lester,1 Linda Everard,2 Max Birchwood3
1Health and Population Sciences, University of Birmingham, Birmingham, 2Early Intervention Service, Birmingham and Solihull Mental Health NHS Foundation Trust, Birmingham, 3Mental Health & Wellbeing, Medical School, University of Warwick, Coventry, UK

Engaging with the family of a young person with first-episode psychosis (FEP) is central to UK Early Intervention Services (EIS) for psychosis.1,2 Yet the potential impact on families, of both a relative’s FEP1,3 and also this involvement in their care, remains under-researched. This paper draws on qualitative semi-structured interviews with 90 carers of young people in involvement in their care, remains under-researched. This paper draws on qualitative semi-structured interviews with 90 carers of young people in which families of young people with first-episode psychosis are supported is of applied importance not only to EIS. As a continuing emphasis on interventions outside the clinic space places families at the heart of the care of those with severe mental illness, this research offers insights into how services can engage with the experiences and needs of this often-hidden population group. It asks: who can and should support carers, and in what ways? Notes: Super EDEN is funded by the National Institute for Health Research (NIHR) under the Programme Grants for Applied Research programme.

References:

C64
Reducing the impact of the metabolic syndrome in schizophrenia using a Tailored Recovery Action in the Community (TRAC) approach
Kevin Madigan,1,2 Pauline Joyce,3 Mary Clarke1,3
1Detect Early Intervention in Psychosis Service, 2Royal College of Surgeons in Ireland, 3University College Dublin, Ireland

Background: There are few studies with proven efficacy which utilises a collaborative recovery style approach that engages patients with schizophrenia towards improving physical health outcomes. The Health TRAC clinic and programme were set up to address physical health outcomes in individuals with psychosis.

Aims: This study follows two cycles of Action Research. Cycle 1: Health TRAC clinic systematically monitors physical health. Cycle 2: Health TRAC programme aims to form a collaborative partnership with patients who have schizophrenia and treated with Clozapine in order to develop a recovery plan for improving physical health outcomes.

Method: Quantitative measurements monitor physical health of patients at 6 monthly intervals according to best practice prescribing guidelines Focus groups held with multidisciplinary team members and patient groups at 6 monthly intervals provide qualitative feedback on progress of the Health TRAC clinic and programme.

Results: A baseline physical health audit of 161 Clozapine patients found 20% of patients received an ECG/Fasting bloods within prescribing guidelines timeframe. At 6 months, 90% of patients received ECG/Fasting bloods compliant with prescribing guidelines. At baseline, the mean BMI rate for the group was 28.4 kg/m², total HDL cholesterol 5.2 mmol/L, glucose 6.0 mmol/l and heart rate 99 bpm.

Implication: Action research to extend Health TRAC clinic and programmes to early phase psychosis would extend the benefits of adequate health monitoring and recovery oriented approach to lifestyle in the early course of illness.
C66 How much should we involve parents and families?
Andrew Wake, 1,2 Hamish Alker-Jones 1,2

1North East Child and Adolescent Mental Health Service-AWH, 2Royal Australian and New Zealand College of Psychiatrists, 3 Australian College of Nurse Practitioners, Australia

An overview of the importance of parent and family work in the treatment of youth with mental health disorders, particularly youth who are experiencing a first-episode psychosis/ultra-high risk will be presented. The impact of psychosis on development and the parent-child-family relationship will be considered. The level of involvement with families who are burdened by guilt, shame and responsibility after the acute phase of illness has occurred, particularly when the developing illness was viewed as just a “phase.” The benefits of working with parents and family relating to its developmental appropriateness, potency, and efficiency are an often overlooked treatment modality. Benefits for the busy clinician around the incorporation of parents/family into a therapeutic intervention that can assist with outcomes will be a key aspect of this talk.

C67 Family peer support work in an early intervention, youth mental health service
Gina Woodhead
Orygen Youth Health, Australia

In 2001, Orygen Youth Health (OYH) developed a Family Peer Support Service and 2 carers of young people with mental ill health were trained and employed to support other carers attending OYH with their young people. Overtime, this program has evolved and changed. This presentation will describe the development of family peer support within OYH and will include the challenges of integration into a clinical service, the role of supervision and the development of a training manual. In recent times, as a result of some additional philanthropic funding and an informal evaluation, the program has increased its input into the inpatient unit. This entails one family peer support worker being positioned 3 days per week, including one evening in this acute environment to have easy access to family members. The other family peer support worker divides time between the outpatient sites and providing information sessions with clinicians both within the service and also in the community. A recent development has been the inclusion of “families as partners” training for clinicians. Family peer support workers work alongside clinicians to provide information to increase the skills and confidence of all clinicians working within OYH. An evaluation of the family peer support service is proposed for the latter half of this year.

C65 E Sibling Project online psychoeducation and peer support interventions for brothers and sisters an evaluation of its feasibility and usability
Jacqueline Sin, 1 Claire Henderson, 1 Catherine Gamble, 2 Mike Kelly, 3 Mike Booker, 4 Jo Smith, 5 Ian Norman 1

1King’s College London, 2South West London and St George’s Mental Health NHS Trust, 3Dorset Healthcare University NHS Foundation Trust, 4Central and North West London NHS Foundation Trust, 5Worcestershire Health and Care NHS Trust & University of Worcester, UK

Siblings of individuals with first-episode psychosis (FEP) are both a vulnerable group to develop mental ill health due to the negative impact caused by the psychosis within the family, as well as being the most effective and natural agents to promote service users recovery (Sin et al., 2012; Smith et al., 2009). The E Sibling Project developed a web-based intervention that provides education on psychosis and coping strategies coupled with interactive peer support for siblings of individuals with FEP. This paper describes the key content and elements of the intervention prototype which is delivered online via a unique website http://esiblingpsycho sis.org. A non-randomised usability study that adapted Poulson et al.’s framework (1996) was undertaken to collect both subjective feedback from sibling participants on ease of use, perceived usefulness and acceptability, together with objective usage data on the online intervention. Twenty siblings were recruited to the usability test; 19 tried out the intervention prototype over a 4-week period and 17 completed the online evaluation. Sibling participants evaluated the intervention as helpful, relevant and useful in terms of content, design and usability. Participants made 906 page views and each spent about 2 hours using the intervention throughout the test period. Ask the Experts and Peer Discussion forums were the most well-featured features, as well as two of the most desired. Moderation by qualified mental health professionals was appreciated as enhancing the credibility of the intervention. Notes: The usability study described here forms part of a research programme entitled The E Sibling Project which is funded by the National Institute for Health Research under its Doctoral Research Fellowship Programme (awarded to J.S.; Reference: NIHR-DRF-04-129; Trial registration reference: ISRCTN01416694).

References:

C68 More than fun? Towards understanding the impact of social-recreation programming
Sharman Robertson, 1,2 Gretchen Conrad, 1,2 Angela Stevens, 1 Melissa Cosman, 1 Cindy DeLauriers, 1 Crystal Morris 1

1The Ottawa Hospital, 2The University of Ottawa, Ottawa, Canada

The importance and efficacy of early psychosis intervention (EPI) is well established. Negative symptoms and social anxiety distress clients and families, and challenge treating professionals. Vocational rehabilitation and social reintegration are core components of psychosocial rehabilitation. An evaluation of social recreation programming in an urban Canadian EPI program revealed significant mean differences in age (p = .00) and hospitalization days (p = .03) between clients attending (n = 89) and not attending groups (n = 91). The experimental group was younger and spent less time in hospital than the comparator group. GAF and PANSS negative scores approached significance, with GAF scores lower (p = .06) and PANSS negative scores higher (p = .09) among group participants. An ongoing prospective follow-up evaluation has begun with nineteen unique baseline participants (mean age = 23; 15 males, 4 females) and ten follow-ups. Mean scores for the Rosenberg Self Esteem Scale were lower than average non-clinical norms, remaining stable for gender and over time (males: pre = 25.73, post = 25.5; females: pre = 24.75, post = 24.5). Scores for the Social Anxiety Questionnaire appear to vary according to gender; with males’ scores remaining stable, and females’ scores increasing. The Leisure Attitude Measurement scores were similar for pre and post. The Leisure Motivation Scale revealed that at baseline, females were more motivated by intellectual and social activities than males. Gender differences in motivators may have implications for how groups are presented and delivered. The level of attendance suggests that participants are being assisted by these groups, although the mechanism of benefit requires further analysis. Ongoing data will provide clarification and will be presented.
C69 Cognitive adaptation training for first-episode psychosis: a feasibility study
Kelly Allott, 1 Eoin Killackey, 1 Pamela Sun, 1 Warrick Brewer, 1 Dawn Velligan 2
1 Oygen Youth Health Research Centre, The University of Melbourne, Australia, 2 University of Texas Health Science Center, San Antonio, USA

Objective: Cognitive and functioning impairments are present early in the course of psychotic disorder and remain one of the greatest treatment challenges. Cognitive adaptation training (CAT) is a compensatory approach to psychosocial intervention that is underpinned by a model that incorporates the role of cognition in daily functioning. CAT has established effectiveness in chronic schizophrenia, but has received limited investigation in first-episode psychosis (FEP). The aim of this study was to examine the feasibility and acceptability of CAT in young people with FEP.

Methods: This was a single-arm feasibility study of CAT conducted at the Early Psychosis Prevention and Intervention Centre, Melbourne, Australia. Five FEP participants received manually guided CAT from a fully trained CAT therapist. A range of feasibility and acceptability measures were recorded throughout the study, including participant and case manager satisfaction ratings.

Results: All participants completed the CAT intervention and session attendance rates were very high (95.3%). Participants and their case managers indicated strong satisfaction with CAT as indicated by positive mean ratings on all satisfaction items, although there was a greater range in the participant ratings. Importantly, CAT did not have a negative effect on existing case management, with case managers reporting that CAT enhanced their treatment.

Conclusions: This study provides evidence that CAT is a highly feasible and acceptable intervention in FEP which may be easily integrated within existing services. The effectiveness of CAT in improving functional outcomes in FEP is worthy of investigation in a larger trial.

C70 Treatment system delay in first-episode psychosis: a matter of trust
Katherine Boydell, 1,2,3 Elaine Stasiulis, 2 Brenda Gladstone, 1,2 Jean Addington 4
1 Department of Psychiatry, University of Toronto, 2 The Hospital for Sick Children, Toronto, 3 Dalhousie School of Public Health, University of Toronto, 4 Department of Psychiatry, University of Calgary, Canada

Purpose of study: Treatment system delays comprise a significant portion of the overall delay in the pathway to care for young people experiencing a first episode of psychosis. Utilizing the Network Episode Model, we explored the pathways to care via the treatment system for young people experiencing first-episode psychosis. In particular, we focused on the interactions occurring within the treatment system from first contact to entry into the early psychosis intervention clinic.

Statement of methods: A multiple qualitative case study included in-depth interviews with 10 young people who have experienced a first episode of psychosis and 27 significant others whom they identified as playing a role in their pathway to care.

Summary of results: Young people experienced numerous encounters with GPs, emergency services and psychiatrists prior to receiving appropriate treatment. Others identified as experienced insiders played an integral role. Delays are related to health professionals not recognizing a mental health problem and/or its severity due to challenges in disclosure. This inaction is viewed by young people and family members as an indication of professionals not listening and not caring, thereby contributing to a recurring cycle of system mistrust.

Statement of conclusions reached: Attention to communication practices that foster trust between health professionals and young people experiencing first-episode psychosis is necessary to improve recognition of a mental health problem by encouraging disclosure of psychotic symptoms.

C71 First-episode psychosis and disengagement from treatment: a systematic review
Mary Clarke, 1,2 Roisin Doyle, Niall Turner, Felicity Fanning, Laoise Renwick, Elizabeth Lawlor
1 Detect Early Intervention for Psychosis Services, Avila House, Blackrock Business Park, Blackrock, Co Dublin, 2 School of Medicine and Medical Sciences, University College Dublin, Belfield, Dublin 4, Ireland

Objectives: This review examined rates and definitions of disengagement among services for first-episode psychosis (FEP) and identified the most relevant demographic and clinical predictors of disengagement.

Methods: A comprehensive search for and review of published studies that reported rates and predictors of disengagement within FEP services were conducted. The databases PubMed (1966–2012) and PsycINFO (1982–2012) were searched. Relevant terms were used to search the Internet and the references of relevant papers for other pertinent studies. Independent searches for recent publications by leading researchers in the field were also conducted.

Results: Ten articles were included in the review. There was a lack of consensus on a clear definition of engagement and disengagement. However, despite differences in definitions and study settings, the evidence reviewed indicates that approximately 30% of individuals with FEP disengage from services. Variables that were consistently found to exert an influence on disengagement across studies were duration of untreated psychosis, symptom severity at baseline, insight, substance abuse and dependence, and involvement of a family member.

Conclusions: Given the importance of continuity of care for FEP, there is a need for a clearly defined and agreed measurement of service engagement and disengagement across FEP services. In particular, those who enter an FEP program without family involvement and support as well as those who maintain persistent substance abuse are at higher risk of disengagement. Early identification of such individuals and the development of approaches to reduce risk of service disengagement are likely to increase the effectiveness of these services.
C73
How to care for the homeless describing the existing treatments for the psychotic homeless young adults: a systematic literature review

Virginie Dore Gauthier, Didier Jutras-Aswad, Clairelaine Ouellet-Plamondon, Amal Abdel-Baki
Université de Montréal, Montréal, Canada

Background: Homelessness carries an increased risk of becoming mentally sick and conversely psychosis is associated with homelessness. In Montréal, approximately 15% of homeless people suffer from psychosis. The young ones are even more at risk. It hits them at a crucial time of their life, already vulnerable which make their burden heavier. The young ones are even more at risk. It hits them at a crucial time of their life, already vulnerable which make their burden heavier.

Objective: To determine what type of intervention is efficient in helping homeless young adults suffering from psychosis (IPAP) to recover socially and symptomatically.

Method: Systematic literature review from 1980 to 2013 of the existing interventions for the HYAP using electronic database (PubMed, etc.) and manual search.

Results: We did not find any published study on the impact of specific intervention for the HYAP. For homeless people of all ages, community approaches seem to diminish the number of service use (including emergency visits and hospitalisation) and enhance their quality of life. To improve the symptomatic and functional outcome of the participants, the approaches have to be focused on the youth, on housing, and understanding of the particular reality of homelessness. They have to be early and intensive treatment including community outreach.

Conclusion: These data argue for the importance to create a specialised community treatment for HYAP and to measure its impact.

C74
Towards a metacognitive model of caregiver distress in first-episode psychosis

Jens Einar Jansen,1,2 Susanne Harder,1 Ulrik Helt Haahr,1,3 Hanne-Grethe Lyse,1 Marlene Buch Pedersen,1 Anne Marie Trauelsen,1,3 Erik Simonsen1,4,5
1Early Psychosis Intervention Center, Zealand Region Psychiatry Roskilde, 2Department of Psychology, University of Copenhagen, 3Faculty of Health and Medical Sciences, University of Copenhagen, 4Psychiatric Research Unit, Zealand Region Psychiatry Roskilde, 5Department of Psychology and Educational Studies, Roskilde University, Denmark

Background: Informal caregivers take an increasingly active role in supporting persons with first-episode psychosis. Unfortunately, this often takes toll on their own mental wellbeing, which is confirmed by many studies. While there is agreement that caregivers need support, there is still limited knowledge about the psychological factors involved in caregiver distress.

Method: Within a cross-sectional design, 127 caregivers of persons with first-episode psychosis completed the Family Questionnaire (FQ), the Metacognitions Questionnaire (MCQ-30) and the General Health Questionnaire (GHQ-30) with the aim of investigating the contribution of expressed emotion and metacognitions to caregiver distress.

Results: Linear mixed models analysis found that emotional overlap-involvement and metacognitions independently predicted caregiver distress. An explorative mediation analysis showed that emotional overlap-involvement could be seen as mediating the effect of metacognitions on distress.

Conclusion: These findings lend preliminary support to a metacognitive model of caregiver distress, and open up for the possibility of using interventions from Metacognitive Therapy (Wells, 2000). Implications and future studies are discussed.

C75
Baseline to 18 months: main results from a randomized controlled trial of individual placement and support for young people with first-episode psychosis

Eoin Killackey,1 Kelly Allott,1,2 Susan Cotton,1,2 Gina Chinney,1 Henry Jackson1
1Orygen Youth Health Research Centre, 2Centre for Youth Mental Health, The University of Melbourne, 3Orygen Youth Health Clinical Program, 4School of Psychological Sciences, The University of Melbourne, Australia

Background: Young people with mental illness, especially those with first-episode psychosis (FEP), nominate employment as a number one goal. Despite this in most places, young people with psychosis have high rates of unemployment at entry to service and these rates increase rapidly. Individual placement and support (IPS) is an employment intervention with a growing evidence base in FEP.

Method: IPS was compared to high-quality early psychosis treatment as usual (TAU) for 146 young people attending an FEP clinic in Melbourne, Australia. Assessments were conducted a four time points baseline, 6 months (end of intervention) and 18 months.

Results: The IPS group achieved higher employment and education rates, although this was only significant for employment at 6 months end of intervention (71.6% vs 47.5%, p = 0.005). Interestingly, the control group achieved outcomes that mimic IPS intervention groups in other RCTs. Results were maintained across the follow-up period with 52.5% and 64.2% in the TAU and IPS groups, respectively. When education was factored in 75.4%, and 81.8% of the TAU and IPS groups, respectively, were either in education, training or employment at 18 months.

Conclusion: IPS produced a significant early benefit in terms of employment. This advantage was lost over time, however, Overall, participants in both groups had outcomes significantly better than those in routine early psychosis settings and those in non-specialised mental health settings.

C76
Positive Psychotherapy for Early Psychosis

Dylan Alexander,1,2 Mario Alvarez-Jimenez1,2
1Orygen Youth Health, 2The University of Melbourne, Australia

A majority of young people with first-episode psychosis (FEP) experience significant difficulty returning to premorbid levels of social functioning or reaching expected developmental milestones. Young people identify social isolation and functional deficits as the most disturbing aspects of psychosis and prioritise social connectedness and relationships over and above symptom management. Despite this, current pharmacological and psychological approaches for management of psychosis predominantly address symptomatic recovery. Approaches that aim to improve social and functional outcomes remain elusive. Positive psychotherapy for early psychosis (PPEP) is a positive, formulation-based, theory-driven, manualised intervention specifically designed to improve social functioning in young people with psychosis. PPEP has been developed over a 12-month period by a multidisciplinary team of EPPIC clinicians and researchers from The University of Melbourne and The Australian Catholic University. In contrast with traditional cognitive behavioural therapies that target symptoms and self-defeating negative cognitions, PPEP focuses on building personal strengths, positive emotions, and social connectedness. This new treatment approach is supported by evidence that building positive emotions and strengths may contribute to resilience during periods of vulnerability. This results in lowered sensitivity to stress and increased personal resources such as broadened cognitive and behavioural repertoires and social support. A 12-month, single-group, single-blind pilot study in which both groups received the novel PPEP intervention for six months within EPPIC is currently being conducted. The pilot aims to evaluate feasibility, safety and initial benefits of PPEP. This poster presents the model being piloted and preliminary data from the study.
The present study is investigating the capacity of a sample of adults with schizophrenia to accurately perceive and produce facial expressions of emotion and to understand how these abilities are related to one another. It employs video recording for capturing and displaying facial expressions, which is thought to be a more ecologically valid modality than static or digitally morphed images. All participants will be video recorded making six universal facial expressions. Participants will view videos of other people in the study, and also to view videos of themselves, and decide which expression is being displayed in each of the clips, how authentic they perceive the expression to be, and how confident they are of their rating. By asking participants to rate videos of their own facial expressions, this will provide some interesting insight into whether the participants’ internalized representation of their facial displays of emotion is consistent with what is perceived. While in previous research participants have been required to recognize their own faces, the assessment of emotional valence of the self-face is a novel approach with participants with schizophrenia. Additionally, by having other participants in the study rate videos of the facial emotional expressions of people with schizophrenia, this will provide insight into how these individuals are perceived in the community. Presently, no suitable dynamic facial expression databank exists, thus researchers have created and validated a databank to be used in this study. Testing is currently underway, and final results will be presented on the poster.

C80
Adventures in psychosis: a review and a pilot study
Cynthia Delfosse, Audrey Lemelin, Amal Abdel Baki, Clairelaine Ouellet-Plamondon
Université de Montréal, Canada
Early intervention for psychosis services (EIS) offer a range of interventions to promote recovery. However, a significant proportion of young people are isolated, engagement in treatment and social integration remain a challenge. Adventure therapy, considered as therapeutic medium, aims to bring about change by relying on the beneficial nature of the open air by the use of clinical intervention structured to promote recovery of the participant. The objective of the presentation is to summarize our literature review on adventure therapy, to define its components and its potential benefits and present our adventure therapy pilot project with a clientèle of young people followed within our EIS. A literature review that was made using electronic database and manual search in 2013 led the inclusion of 28 articles. Our experimental project was realised to collect observations on the benefits of the adventure therapy in young people going through a first-episode psychosis. Evaluations pre and post interventions were made with young people by means of self-administered questionnaires.

Results: Improvement of the therapeutic alliance and of the engagement of the client in the treatment as well as a better locus of control.

Conclusion: Adventure therapy seems like an interesting therapeutic option for a FEP presenting ongoing difficulties, considering the potential attraction and the intensity of contacts with the treatment team and their peers. Few studies on its benefits on FEP have been published. The evaluation of the efficacy and the feasibility of this approach in Quebec will be the object of future research.
C81 Accceptability of routine outcome evaluation in early psychosis: lessons from the Improving Access to Psychological Therapies for Severe Mental Illness (IAPT-SMI) Pilot in the United Kingdom (UK)

Miriam Fornells-Ambrojo,1,2 Suzanne Jolley,1,3 Juliana Onwumere,1,3 Catherine Irendale,1 Louise Johns1,3

1South London and Maudsley NHS Foundation Trust, 2University College London, 3King’s College London, UK

Routine outcome evaluation in early psychosis services is advocated, but UK initiatives such as MiData have highlighted the need to identify barriers to improve completion rates. Feasibility has been questioned in relation to resource allocation and acceptability of measures among staff, but no research has looked at acceptability among service users themselves. We report data from the early intervention pathway in the South London and Maudsley NHS Foundation Trust, currently a demonstration site for IAPT-SMI, a UK governmental funded initiative improving access to psychological therapies for psychosis. Sixty-one people with early psychosis reported their satisfaction with completing the IAPT-SMI baseline assessment battery with a psychologist assistant before commencing CBT. Overall satisfaction with measure completion was 6.3 (SD=2.14, possible range 0–10), with 88% reporting they had found completion of the questionnaires helpful. Males reported higher satisfaction than females, whereas age and ethnicity did not have an impact. Decision not to engage with therapy was not associated with dissatisfaction with assessment. Subjective lower social adjustment and goal achievement were related to experiencing measure completion as unhelpful at trend level, but symptom severity was not related. Themes of qualitative feedback on helpful (e.g. made me reflect on reasons for becoming unwell) and unhelpful (e.g. reluctance to quantify distress) aspects of the assessment are reported. In conclusion, routine outcome assessment for psychological therapy in early psychosis is acceptable to service users and orientates them to psychosocial inter-ventions. Reflections on assessment should be sought. Implications for routine outcome monitoring in early intervention are discussed.

C83 Highlights of the results from the JERI study: Early Detection & Early Intervention in Helsinki University Central Hospital in Finland

Niklas Granö, Marjaarna Karjalainen, Virve Edlund, Erkki Saari, Arja Itkonen, Jukka Anto, Eeva Carpen, Mikko Roine

Helsinki University Central Hospital, Department of Psychiatry, Jorvi Hospital, Espoo, Finland

JERI team (Jorvi Early psychosis Recognition and Intervention) at Helsinki University Central Hospital, Finland, was an early detection (ED) and early intervention (EI) team for adolescents at risk of psychosis and other mental health problems. Team worked together with community co-workers, as social workers, nurses and GPs. The JERI team met with adolescents at ages between 12 and 22 at school or at home together with their parents and with community co-worker, who had taken the contact at the team for a reason of an undiagnosed mental health problem. Intervention model was based on need adaptive, integrative and family therapy approaches. The main purpose of team was to assess adolescents and meet the client and family together with community co-worker to find a way to reduce stress and support the client in overall functioning. Results from 11 peer-reviewed publications show that (1) detected adolescents at risk for psychosis have more general psychiatric symptoms than other help-seeking subjects; (2) during JERI intervention, psychiatric symptoms reduced and functioning and quality of life improved; (3) JERI ED & EI model works on different areas, as contact volumes, symptom severity and treatment response do not differ by different areas in detected adoles-cents. Previous findings suggest that both ED and positive tendency for treatment for symptoms are possible to reach by this type of ED & EI model.

C82 Developing a whole-system recovery programme for family peer support workers

Catherine Gamble

South West London and St. George’s Mental Health Care NHS Trust, UK

New recovery-based early intervention models increasingly promote the development of person-centred approaches and self-management skills. An important factor within this paradigm is a growing awareness that a person’s recovery from psychosis is largely dependent upon the informal peer support they receive. Peer support roles for family members are emerging (Kling et al., 2008) yet little relevant literature is available to formulate what is required to integrate the natural support families can provide into routine mental health care. As Mental Health providers seek to promote social inclusion and engage family members in peer support work, there is need for further detail concerning the specific development programmes required. By exploring Experience of Care-giving (Szmukler et al., 2003) data, skills development workshop feedback and the narratives of family members involved in recovery-based programmes, this paper will consider ways to incorporate peer support and family inclusion measures into routine activity. Recommendations to sustain a family inclusive service will also be outlined.

References:


C84 Persecutory delusions in early psychosis: are Cognitive Bias Modifica-tion for Interpretation (CBM-I) and the Maudsley Review Training Programme (MRTP) specific to social anxiety, reasoning biases and paranoia?

James Hurley,1 Joanne Hodgkins,1 David Fowler2

1University of East Anglia, 2University of Sussex, UK

Background: Paranoia is a core feature of psychosis and, due to the distress it elicits, is a common target for treatment. The threat anticipation model (Freeman, 2007) implicates social anxiety and reasoning biases in the formation and maintenance of persecutory delusions. Computerised interventions, such as CBM-I, have been shown to improve social anxiety in early psychosis (Turner et al., 2011). Similarly, the MRTP has improved reasoning biases associated with delusions (Waller et al., 2011). This study examined the use of both of these treatment packages in people with first-episode psychosis. It was hypothesised that CBM-I would reduce social anxiety, not reasoning biases, and that the MRTP would reduce reasoning biases, not social anxiety. It was also hypothesised that both packages would reduce paranoia.

Study design: A single case series design with three participants from an Early Intervention for Psychosis service in England was used. Measures of social anxiety, paranoia and reasoning biases were taken during baseline, intervention and one-month follow-up. Data were analysed according to Kazdin’s (2010) criteria and were inspected for clinical and reliable change.

Results: Results indicated modest support for the study hypotheses, with the exception that the MRTP did not improve paranoia, although it did improve reasoning.

Conclusion: These findings support the threat anticipation model, sugges-ting that social anxiety and reasoning biases are distinct mechanisms in the formation of paranoia that have unique aetiology and treatment responses. Computerised therapy may help young people who are unwilling to engage with services and reduce cost of provision.
C85 High Risk for Psychosis: a comparison between a community help-seeking group and routinely screened prisoners

Manuela Jarrett,1,2 Tom Craig,1,2 Andrew Forrester,1,2 Philip McGuire,1,2 Steven Badger,7 Paolo Fusar-Poli,1,2 Majella Byrne,1,2 Paul Williams,1 Lucia Valmaggia1,3

1King’s College London, Institute of Psychiatry, 2South London and Maudsley NHS Trust, UK

Background: Prisoners have high rates of psychosis as well as high levels of risk factors associated with psychosis and do not seek help in the community. We compared a group of male prisoners found to meet criteria for ultra-high risk for psychosis following routine screening with a group of male participants who had sought help in the community and were on the community team caseload.

Method: All prisoners meeting inclusion criteria were screened in their first week in custody; those that screened positive underwent a further assessment to see if they met criteria for being high risk for psychosis. Their data were compared with a sample of participants who had sought help in the community and had been taken on by the community team.

Results: There were 44 prison and 42 community participants. The community group had higher scores on both positive and mood symptoms, lower rates of social exclusion, and lower rates of recent but not lifetime substance use than the prison group.

Discussion: Symptom score differences may be indicative of differing levels of distress between the groups, while differences in substance misuse may be indicative of different coping styles. While the prison group had not sought help, they actively engaged in the assessment process and appeared to be “help accepting.”

C86 Modification of an established SIBS model from a Children’s Learning Disability Service to support siblings of young people with an early psychosis

Mike Kelly

Dorset Healthcare University NHS Foundation Trust, UK

Working with the siblings of individuals with a learning disability is well documented in the literature (Burke 2010; Dyson 2010; Orsmond & Seltzer 2007). A successful model to support the siblings of young people involved with a Children’s Learning Disability Service in Dorset, UK, called SIBS has been running for over 12 years. The approach and interventions attempt to address the needs of both younger siblings from 5yrs to 13yrs (Super SIBS) and older siblings from 13 yrs to 18yrs (SIBS XL). A workshop-based approach was used to obtain feedback from parents and the siblings of a group of young people with an early psychosis to identify potential modifications needed to this model for implementation by a local Early Intervention in Psychiatry Service. This paper will provide an overview of the SIBS model, outline the feedback from the families and siblings involved and highlight the identified approach to support the siblings of young people with a first episode of psychosis.

References:


C87 Recognition of mental disorders facilitates help-seeking behavior

Soshi Kodama1, Nozomu Ikeda2

1Health Sciences University of Hokkaido, 2Sapporo Medical University, Japan

Aim: To reduce the duration of untreated illness (DUI), it is important to facilitate help-seeking behavior by health education. However, it is unclear that what kind of knowledge about mental health facilitates help-seeking behavior. Therefore, we aimed to investigate the relationship between knowledge about mental health (recognition of mental disorders and prevalence rates) and help-seeking behavior.

Method: Participants were 21 undergraduate students (11 males, 10 females). After presentation of a major depression case vignette, participants were asked to respond with the (i) case vignette’s disease name, and (ii) prevalence rate of major depression. The Attitudes Toward Seeking Professional Psychological Help Scale (ASPH) was used as a scale with which to measure help-seeking behavior. We divided participants into two groups (the correct group and incorrect group), and used the Mann–Whitney U-test to assess differences in ASPH score between the two groups.

Results: (i) Seventeen participants could correctly provide the disease name. The correct group had higher ASPH scores and there was a significant difference in the scores between the two groups (P=0.031). (ii) Twelve participants could correctly provide the prevalence rate of major depression, and there was no significant difference between the two groups (P=0.129).

Conclusions: This study suggests that recognition of mental disorders facilitates help-seeking behavior. In the future, it is necessary to investigate the kind of knowledge that enables mental disorder recognition.

C88 Psychodynamic psychotherapy of psychosis 2 and 5yrs follow-up

Anne Lindhardt,1 Susanne Harder,2 Anne Koester,2 Kristian Valbak,4 Bent Rosenbaum2

1Psychiatrifonden, 2University of Copenhagen, Department of Psychology, 3Mental Health Services Copenhagen, 4University of Aarhus, Denmark

Objectives: The study presented is a prospective longitudinal multicenter investigation of successively referred patients diagnosed with a first-episode schizophrenia spectrum disorder. They were allocated to either Standard Treatment (ST) or ST supplemented with manualised Supportive Psychodynamic Psychotherapy (SPP).

Method: Duration of treatment was two years. The SPP targeted interpersonal relationships, emotional regulation, social cognition and self-coherence. The aim of SPP was systematically to improve social functioning in the above-mentioned areas.

Results: During the two years treatment period, significant effect was found favouring ST-SPP over ST on social functioning, positive symptoms and overall symptoms. However, these results were not sustainable at the 5 years of follow-up.

Conclusion: The findings are in line with other approaches targeting social functioning in schizophrenia and support SPP as a valuable treatment method. However, two years of intensive treatment is too short a treatment period to make a longer lasting effect on symptoms of schizophrenia.
Development of psychological interviewing techniques to short en the duration of untreated psychosis in at-risk individuals

Mariko Matsuda, 1 Yuki Yamaji, 1 Tomoko Takashima, 1 Naohito Shu, 1 Takashi Ikuta 1

1Kyoto Bunkyo University, Kyoto, 2Seirei Hamamatsu General Hospital, Shizuoka, 3HEALTH WAVE Co., Ltd., Kyoto, Japan

Working as counselors in private senior high schools and educating university students as faculty staff members, the authors have observed students and their families facing difficult lives and severe distress after the manifestation of schizophrenia or depression, rather than temporary psychiatric symptoms. Such experiences emphasize the necessity and importance of taking appropriate measures to shorten the duration of untreated psychosis (DUP) during the prodromal phase, with a view to preventing the manifestation of the disease or, even when it is difficult to prevent it, ensuring a favorable recovery and prognosis with early treatment. The long-term objective of this study was to provide a basis for DUP shortening by clarifying the details of ego-syntonic prodromal symptoms frequently preventing patients from undergoing psychiatry consultation and examining the structure of personality, social adaptation, and cognitive aspects. As part of the development of psychological interviewing techniques to shorten the DUP in at-risk individuals, in the study, screening was performed using the PRIME-Screen Japanese Version, involving university students, to extract those psychologically at risk, while clarifying the details of prodromal symptoms and ego functions of those undergoing semi-structured interviews. Mizuno (2009) pointed out that during the prodromal phase, non-specific symptoms including: neurotic reactions, such as anxiety and uneasiness, dysthymia, such as a depressed mood, volitional and cognitive changes, decreased attention and concentration, physical symptoms, such as loss of appetite and sleep, a reduced social role function, and social withdrawal, are manifested. This study aimed to discuss methods to shorten the DUP.

C91

Capturing the individual environment of patients: basis for targeted psychotherapy

Inez Myin-Germeys, Dina Collip, Margreet Oorschot, Nicole Geschwinds, Marije Wichers, Tinke Latater

Maastricht University, School of Mental Health & Neuroscience, The Netherlands

Background: Assessing variation of psychotic symptoms and the determinants thereof at the level of the individual patient may be crucially important for the diagnosis and treatment as well as for the assessment of treatment efficacy.

Method: Using experience sampling methodology (ESM), we investigated 60 patients with non-affective psychosis in order to determine temporal dynamic patterns between mood states and paranoia in each individual. Furthermore, we used ESM to assess the efficacy of mindfulness based cognitive therapy (MBCT) in 130 patients with residual affective problems at risk to experience paranoia.

Results: Huge variation was found in the temporal association between mood states and paranoia at the level of the individual. For example, for some people, anxiety would precede paranoia whereas for others, relaxation preceded paranoia. In the MBCT study, momentary paranoia levels in the intervention group were significantly reduced and feelings of social acceptance significantly increased compared to control.

Discussion: Real-life ambulatory assessment may substantially improve our understanding of symptom patterns at the level of the individual patient, making patients active partners in the therapeutic process. Furthermore, real-time monitoring may be pivotal in illuminating mechanisms of change.

C92

Implementing an early intervention program for first-episode psychosis in a Japanese clinical setting: a preliminary descriptive study

Takashi Ono, 1 Akemi Kayama, 1 Kazuiko Saito, 1 Syunichi Funakoshi, 1 Yoshibusa Kakuto, 1 Koichi Abe, 1 Tatsui Otsuka, 1 Ryo Nomura, 1 Komatsu Hiroshi, 1 Kazunori Matsumoto, 1 Akira Kodaka, 1 Hiroo Matsuoka 2

1Miyagi Psychiatric Center, 2Department of Psychiatry, Tohoku University Graduate School of Medicine, 3Department of Preventive Psychiatry, Tohoku University Graduate School of Medicine, Japan

Background: Service development of early intervention for first-episode psychosis (FEP) is delayed in Japan, and early intervention programs for FEP (EIPF) are not prevalent in Japanese clinical settings. Despite these circumstances, the Miyagi Psychiatric Center introduced an EIPF in 2011.

Method: In our EIPF, a case manager was assigned to each patient; then the case manager conducted a comprehensive assessment, psycho-education, and a needs-based psychosocial intervention. To clarify challenges in implementing EIPF in Japanese clinical settings, we interviewed the case managers involved in the program.

Result: From April 2011 to March 2014, we recruited 15 patients with FEP who were compulsorily admitted to our hospital. Six hospital staff members, including psychologist, occupational therapist, psychiatric social worker, and nurse, were involved in the program as case managers. Although all of the case managers found that EIPF was useful for many of the patients, they experienced some difficulties: (1) program implementation required time in addition to their routine work; (2) it was sometimes difficult to develop collaborative relationships with patients whose admission was started compulsorily; (3) since EIPF is new in a Japanese clinical setting, they experienced difficulty in sharing the essence and concept of early intervention with other hospital staff.

Discussion: All of the case managers involved were motivated to improve their ability to conduct EIPF and realized that EIPF should be more prevalent in Japan. More effort is necessary to reorient mental health resources to earlier phases of psychosis in Japan.
C93 eheadspace – expanding the reach of mental health support in early psychosis
Victoria Ryall, Alessandro Radovini, Carmen Garrett

headspace operates as Australia’s National Youth Mental Health Foundation, and is the nation’s largest provider of mental health treatments to young people. headspace has undergone rapid expansion in recent years, and the development of an online treatment service known as eheadspace has been a cornerstone of the organisation’s growth. Since inception in 2010, eheadspace has provided services to over 36,000 young people with high prevalence mental health issues. headspace is about to become the world’s largest provider of early psychosis services, extending services to young people experiencing early psychosis or who are at risk of developing psychosis through the existing headspace platform. eheadspace will provide a central component to the treatment framework, offering remote electronic and telephone services to complement the treatments young people and their families will receive through traditional face-to-face programs. It is envisaged that all young people accessing headspace early psychosis programs will have access to eheadspace services as part of their coordinated care. The addition of online support to the early psychosis model offers immense potential for young people and their families to access immediate and preventative support in accordance with principles of youth friendly services. This paper will outline how eheadspace initiatives are providing an innovative contribution to the ways in which support is offered to young people and families affected by emerging psychotic conditions. An overview will be provided of eheadspace treatments, service integration across early psychosis services and practice evaluation and opportunities for embedding ehealth practice across early psychosis services discussed.

C94 PRIME: A neuroscience-informed mobile app intervention to treat reward processing impairments and improve quality of life in recent onset schizophrenia
Danielle Schlosser,1 Silvia Vergani,2 Daniel Kim,1 Tim Campbellone,1,3 Sophia Vinogradov1,4
1University of California, San Francisco, 2IDEO, 3University of California, Berkeley, 4San Francisco Veterans Affairs Medical Center, USA

Introduction: Recent data suggest that negative symptoms, and a motivation in particular, are the single most important factor affecting functional disability in schizophrenia and undermining the ability to engage in and adhere to effective treatment. This presentation describes a novel approach to treating reward processing deficits using a newly developed Personalized Real-time Intervention for Motivational Enhancement (PRIME), a mobile app for young people with schizophrenia. PRIME promotes reward anticipation and learning, and encourages enhanced-motivated behavior across social, work/school, and health domains.

Methods: Forty participants with recent-onset schizophrenia (RO; ages 16–30, within 5 years of diagnosis) will be randomly assigned to receive either PRIME or Treatment As Usual/Wait-list. Participants will complete a series of clinical assessments and a laboratory-based reward-learning task at the pre- and post-treatment assessment to investigate: whether PRIME improves learning from positive, rewarding social interactions and if changes in social reward learning predict improvements in psychosocial functioning. In addition, we will recruit an age-matched healthy comparison group to investigate the extent to which PRIME-related improvements restore reward learning and functioning to levels of people without schizophrenia.

Results: We will present the results from the first 10 participants with pre- and post-treatment data, as well as the results from group and individual interviews conducted with users during the design phase of the study. To the best of our knowledge, this is the first study to demonstrate the benefit of a treatment app intervention targeting motivational deficits to improve quality of life in young people with schizophrenia.

C95 Social Well-being and Engaged Living (SWEL): results of a pilot trial and a RCT for re-engaging young Australians in education and work
Helen Stain,1 Leanne Hides,2 Amanda Baker,3 Chris Jackson,4 Roshnel Lenroo,2 Georgie Paulik-White,1 Patrick McIlfud,2 Scott Clark,2 Luke Wolfenden1
1Durham University, UK, 2Queensland University of Technology, Australia, 3University of Newcastle, Australia, 4Birmingham Solihull National Health Service Foundation Trust, UK, 5University of New South Wales, Australia, 6Western Australian Health Service, Australia, 7Western Local Health Network, Orange, Australia, 8Hunter Local Health Network, Newcastle, Australia

Background: Many young people lack the socio-emotional skills necessary to negotiate the transition through adolescence, and are at increased risk of disengaging from education, work, family and community. This is the first clinical trial to investigate the efficacy of a telephone delivered intervention (SWEL) for increasing the social engagement and emotional well-being of disengaged youth.

Method: SWEL Pilot Study 1 (proof of concept) recruited six youth for telephone counselling and showed strong support for the acceptability by youth for telephone therapy; and suitability of the manual specifically developed for this study, Pilot Study 2 was an effectiveness RCT for a sample of 26 youth randomised to either telephone delivered SWEL or single session psycho-education. In the planned efficacy RCT, 294 young people aged 12–25 years will be randomised to receive either (i) 4–8 sessions of SWEL, (ii) 4–8 sessions of Befriending, or (iii) Single Session Psycho-education. This paper will report on the results from the SWEL pilot study.

Results: In Pilot Study 2, at baseline average age was 16.67 years, 66.7% were female, mean SOFAS score was 70.67. Results from both pilot studies have refined our treatment manual; indicated that 4–8 sessions are more suitable than 12; telephone delivery is highly acceptable to youth; and that youth have improved psychosocial functioning post intervention.

Discussion: Telephone counselling amongst disengaged youth warrants further research to increase access to potentially efficacious interventions, prevent the impact of emerging mental health problems in disengaged youth and examine its efficacy in early psychosis.

C96 Identification of students at high risk for mental health problems before participation in short-term study abroad programs: a case series
Jiro Takeuchi,1,2 Hisaya Kawagishi,1,3 Taketomo Minoshima,1 Teiji Sakagami,4 Yu Saka,4
1The International Center, Kyoto University, 2Kyoto University Health Service, Agency for Health, Safety and Environment, 3Department of Psychiatry, Kyoto University Graduate School of Medicine, 4National Medical Juvenile Home of Kyoto, Japan

Recent increases in the number of students studying abroad are expected to be accompanied by increases in the number of students at high risk for mental health problems. Therefore, in this study, to clarify the types of problems reported by students who plan to study abroad, we investigated interviews conducted by physicians during mental health screening. Students at Kyoto University who expressed a desire to participate in a short-term study abroad program in 2012 were selected as the target population. Inclusion criteria for the interview included a score of 17 or higher on the Japanese version of the 68-item general health questionnaire (GHQ-60), primary illness reported on a self-administered questionnaire, or volunteers. Interviews were recorded, transcribed, and then analyzed using deductive content analysis. Interviewees comprised a total of 16 students from all 121 target populations who fell into the following overlapping categories: a score of 17 or higher on the GHQ-60 (11 students, 68.8%); self-reported primary illness (7 students, 43.8%); and volunteers hope (3 students 18.8%). Concerning analysis of the mental health interviews, 7 students (43.8%) reported having a busy schedule, and 5 (31.3%), 3 (18.8%), and 3 (18.8%) reported experiencing anxiety, exhaustion, and insomnia, respectively. These results suggested that, for students who plan to study abroad, symptoms reflecting mental health problems increase in relation to the approaching start of program. Further studies that compare mental health problems in students before and after intervention, and the development of new advising methods in health care education for such students, will be necessary.
Factors influencing levels of engagement with case managers: perspectives of young people with a diagnosis of first-episode psychosis

Rachel Tindall, 1,2 Bridget Hamilton 1

1 Orygen Youth Health Clinical Program, 2 The University of Melbourne, Australia

Disengagement from early intervention services for first-episode psychosis occurs at rates of 19–40 percent. Where disengagement occurs, extensive resources are used to assertively follow-up the person, who will often re-present later to acute mental health services at a point of crisis. Currently, research into factors that may influence engagement or disengagement for this special population is limited. This qualitative study asked the question: How is engagement experienced by 15- to 25-year-olds diagnosed with first-episode psychosis at early intervention services? Data were collected through semi-structured interviews with seven current clients of an early intervention service in Melbourne, Australia. Themes were then identified using Interpretive Phenomenological Analysis. Young people detailed how engagement with a service could be viewed as a process, following different stages between initial referral and discharge. Throughout this process, factors pushed young people towards engaging with their case manager, such as fear of relapse or having needs met. However, factors also pulled young people towards disengaging with their case manager, such as waiting and doing nothing and stigma. This created a push-pull dynamic with periods of good engagement and poor engagement. Discussion of this dynamic adds nuance to established scholarship about engagement, including shifts in the importance of client empowerment and valued features of therapeutic relationships. This analysis of young people’s accounts can add to clinicians’ awareness of what influences levels of engagement at early intervention services, guiding changes that may enhance engagement at key points for this population.

A pilot study on music therapy in improving anxiety disorder

Shiun-jie Wu, 1 Hsin-Pei Tang 2

1 China Medical University-Annan Hospital, Taiwan, 2 Kaohsiung Medical University, Taiwan

Introduction: This study will investigate on the effects of Music Therapy in improving health problems and symptoms in hospitalized patients with anxiety disorder.

Methods: This study is a quasi-experimental study with patients from psychiatric acute wards from a certain hospital selected as study samples in the implementation of Music Therapy. Changes of negative symptoms by the implementation of Music Therapy in the patient’s first day and 30 days after being hospitalized will be used for comparison.

Results: Effective sample totals to 50 samples. Prior to the therapy, 90% (n=45) of patients in overall sample show inactive acts of isolation, and 88% (n=44) of patients show lack of will and interest. 70% (n=35) of patients in the evaluation for social interaction show lack of interest for his/her surroundings with patients with aversion to social interaction (n=30, 40%). After Music Therapy, overall sample shows a general decrease in the ratio of patients with inactive acts of isolation (n=10, 20%) as well as in the ratio of patients with lack of will and interest (n=8, 16%), patients with lack of interest to his/her surroundings (n=6, 12%) and patients with aversion to social interaction (n=5, 10%).

Conclusions: Music Therapy is found effective in the improvement of hospitalized patients with anxiety disorder. In the future, Music Therapy can be used in taking care of patients with other mental illness with further studies on its effects.

Key words: Music Therapy.
**C101 Building competence and self-efficacy in a routine clinical staff in an Early Intervention Project (STAND-UP) in Italy**

Anna Meneghelli,1,2 Andrea Alpi,1,2 Ornella Bettinardi,1, Laura Bislenghi,1,2 Massimiliano Imbesi,3 Giovanni Patelli,1,2 Antonio Saginario,3 Giuliano Limonta4

1Programma 2000 Milano, IT, 2Scuola ASIPSE Milano, IT, 3Ausl Piacenza, IT

**Background:** Emerging evidence on cognitive-behavioural therapy (CBT) and family intervention for subjects affected by psychosis, Mental Health Departments in Italy need important organizational changes and updated competence in clinical routine practice.

**Aim:** To evaluate the effectiveness of a short training program to build CBT and psycho-educational competence in mental health professionals working in a specific early intervention project in Piacenza DSM (29,100 inhabitants). To evaluate the acquired perceived self-efficacy.

**Method:** A specific CBT training has been delivered to 24 mental health clinicians (psychiatrists, CAMHS neuro-psychiatrists, clinical psychologists) and a family intervention training (psycho-education, communicational skills and problem-solving training) as well as to 23 professionals (nurses, social workers, occupational therapist) by experts in the field (Programma 2000 team). Both trainings consisted of interactive lessons (48 hours) and practical exercises (16 hours). Three specific questionnaires on perceived self-efficacy about clinical, organizational and psychosocial domains were administered at the end of the training and the 6-month follow-up.

**Results:** Statistical analysis was conducted with t-test. Summarizing as for competence, the median score was 50.80 (ds 3.8) for nurses, social workers and occupational therapists (max score 60) and 52.75 (ds 5.01) for clinicians. As for perceived self-efficacy, the results show a significant increase (p < 0.05) in using basic CBT for clinicians. Nurses, social workers and occupational therapists also improve self-efficacy regarding empathy (p = 0.002), stress management (p = 0.028) and coping effectively with difficult situations (p = 0.016). The training results are maintaining and improving by monthly clinical and practical supervision.

**C102 Factors affecting hospital admission following presentation to mental health services with psychosis**

Rashmi Patel,1 Hitesh Sheety,1 Jane Boydell,1 Matthew Taylor,1 Robert Stewart,1 Philip McGuire1

1Institute of Psychiatry, King’s College London, 2South London and Maudsley NHS Foundation Trust, UK

**Background:** Early intervention services aim to improve clinical outcomes of people with psychotic disorders. Understanding which individuals are most likely to need hospital admission would help to better direct these services. A cohort study was performed to investigate how diagnosis was associated with risk of hospital admission in a large clinical dataset of people presenting with psychosis.

**Method:** Data were obtained from 9,929 people presenting with their first diagnosis of a psychotic disorder to the South London and Maudsley NHS Trust (SLaM), Europe’s largest provider of specialist mental healthcare. Data were extracted from anonymised electronic health records on age, gender, ethnicity, marital/employment/accommodation status and psychotic diagnosis. These factors were analysed using multivariable logistic and multiple linear regression to investigate their association with compulsory hospital admission (under the UK Mental Health Act) and number of days spent in hospital in the 12 months following presentation to SLaM.

**Results:** People with mania were more likely to be compulsorily admitted (OR 2.39, 95% CI 1.96–2.92) while those with psychotic depression were less likely (0.58, 0.49–0.69). However, among people who were admitted to hospital, those with schizophrenia spent longer in hospital than those with mania (B coefficient – 15.8 days, 95% CI –26.5, –5.2).

**Conclusions:** Compulsory hospital admission was more likely among people with mania. However, a diagnosis of schizophrenia was associated with greater number of days spent in hospital. These findings highlight variations in clinical outcomes depending on psychotic diagnosis and illustrate a potential need to stratify early intervention services accordingly.

**C103 Clinical Pathway for the ON Track First-Episode Psychosis Program at the Ottawa Hospital**

Sharman Robertson,1,2,3 Margaret Gibson,1 Barbara D’Entremont,1 Avril McIntosh,1 Shannon White,1 To Nhu Nguyen1

1The Ottawa Hospital, 2The University of Ottawa, 3The Royal Ottawa Mental Health Centre, Canada

Clinical pathways, also known as care pathways and care maps, are not new to medicine. They are used to improve quality of health care by reducing the variations in clinical practice, facilitating the use of evidence-based guidelines, measuring patient progress, encouraging teamwork and defining measurable outcomes and timelines. They provide patients and families with clear expectations and potentially reduce health care costs (Evans-Lacko 2010). Despite the fact that provincial guidelines for the management of first episodes of psychosis exist in Canada, there appear to be no published clinical pathways for the provision of mental health care in first-episode psychosis. We present a recovery-based four-stage clinical pathway developed for the On Track first-episode psychosis program in Ottawa, Canada. It has been suggested that clinical pathways should be defined using the following 5 criteria: (1) the intervention is a structured multidisciplinary plan of care; (2) the intervention is used to translate guidelines or evidence into clinical structures; (3) the intervention details the steps in a course of treatment of care in a plan, pathway, algorithm, guideline, protocol or other inventory of actions; (4) the intervention has time frames or criteria-based progression; and (5) the intervention aims to standardize care for a specific clinical problem, procedure or episode of healthcare in a specific population (Kinsman 2010). It is the opinion of the authors that our pathway meets the above criteria and could be adapted to other first-episode psychosis programs as a way to improve care delivery.

**C104 Debate: early intervention for all mental disorders in all age groups would compromise the gains of decades of EI Psychiatry Teams**

Peter Byrne,1 Paddy Power,2 David Meagher,2 Alan Rosen4

1University College London, UK, 2St Patrick’s University Hospital, Dublin, Ireland, 3University of Limerick, Ireland, 4University of Sydney, Australia

Early Intervention (EI) for people with psychosis has become the gold standard for the treatment of young people who develop psychosis – at first signs of disorder. Generic community mental health services have too many other demands made of them to deliver specialist EI to this or other groups. They provide lifetime care to people with severe mental disorders (SMI) and are the gatekeepers for new onset disorders, provided patients’ symptoms reach the threshold of severity and duration. Lowering this threshold, holding cases that may not develop SMI, or assessing patients from other services (primary care, delirium cases from general hospitals) would overwhelm services so that no group would receive adequate levels of care. If generic community teams were labelled as EI practitioners, there would be no perceived need for EI Psychosis Teams and therefore a return to 1970s community psychiatry. It took much effort to persuade key people that investment in young people with psychosis provides the best returns on time and money invested. Meddling with EI models will compromise the gains of two decades: if it ain’t broke, don’t fix it. Opposing the motion are the editors of a 2014 book that advocates an ambitious roll-out of EI. Building on the work of EI pioneers, they use examples across every age group and many disorders to make EI a key component of 21st mental health care. Our evidence will persuade clinicians, purchasers of services and others to the high value of EI from cradle to grave.
C105

Evolution of a provincial network: how Ontario’s early psychosis intervention grassroots grew

Chiachen Cheng,1,2 Gretchen Conrad,1 Catherine Ford,4 Gord Langill,1 Karen O’Connor,1 Terry Bedard,1,7 Heather Hobbs4

1EPION, 2Canadian Mental Health Association-Thunder Bay Branch, 3The Ottawa Hospital, 4The Ontario Ministry of Health and Long-Term Care, 5Canadian Mental Health Association Haliburton Kawartha Pine Ridge, 6Canadian Mental Health Association, Toronto Branch, 7North Bay Regional Health Centre, 8St. Joseph’s Healthcare Hamilton, Canada

Background: The Early Psychosis Intervention Ontario Network (EPION) is a provincial coalition of over 40 early psychosis intervention (EPI) programs, one of the most comprehensive EPI networks in the world. An initial provincial working group, the OWG (Ontario Working Group for Early Intervention in Psychosis) was organized in 1999.

Approach/Results: From the outset, family representatives, service providers from community agencies, and government representatives were involved with EPION. Initially, the OWG worked to secure funding for EPI. From 2004 to 2008, the Ministry of Health and Long-Term Care (MOHLTC) provided new province-wide funding, totaling $22.5 million annually. With this success, OWG focus switched to education, capacity building, and networking. A series of one-time grants permitted annual provincial conferences and quarterly meetings. With the MOHLTC, the OWG helped develop a provincial EPI policy framework (December 2004), the Ontario EPI Program Standards (2011), and two province-wide questionnaires (2012, 2014). The questionnaires specifically evaluated areas of success and challenge for programs to meet the provincial standards. Recognizing changing roles, the OWG was rebranded EPION in 2012. In 2013, the MOHLTC announced permanent annualized funding for EPION, a clear indication of the solidified relationship between MOHLTC and EPION.

Conclusion: We will discuss in this presentation the multi-stakeholder approach in EPION, including the close connection with MOHLTC funders. Key points and challenges to stay current and relevant will also be elaborated. EPION is a strong example of a large network that has evolved to the changing needs of its membership.

C106

Medicines management in an early intervention in psychosis service

Debasis Das, Fiesal Jan
Leicestershire Partnership NHS Trust, Leicester, UK

Aim: The aim was to ascertain compliance with the essential standards of the Care Quality Commission (CQC) UK, in an early intervention in psychosis service, in respect of information provided and discussions held with patients in order to make informed choices about prescribed medication.

Background: The CQC is an independent regulatory organisation that monitors care standards. Outcome 9 incorporates medicines management and maintaining essential standards of quality and safety and identifying risks of non-compliance.

Methodology: A questionnaire was developed to audit Outcome 9 standards to ascertain whether: (1) patients were being made aware of benefits and risks of newly prescribed medications; (2) information about medicines including patient information leaflets was provided; (3) regular reviews of medications carried out, including their efficacy; (4) personal, cultural and religious views of patients were considered. The questionnaire was provided to patients attending the outpatient clinics between December 2013 and May 2014.

Results: 20 completed responses were obtained. 30% of respondents said that questions about compatibility with cultural and religious beliefs were not asked. 45% were not advised about behavioural/lifestyle measures. Nearly 90% was scored in all other measures.

Conclusion: High compliance was achieved in most outcome measures. There is need for improvement in discussions around cultural and religious needs of patients before prescribing. There were no incidents of overt prescribing. Regular review of medications was conducted in outpatient clinic. The service must provide evidence to demonstrate adherence to relevant guidance by the CQC. Active patient involvement in psychotropic medication prescribing is very important.

C107

The TTOGS model: a novel approach to sustain early psychosis knowledge and skills in clinical practice

Frank Hughes,1 Craig Macneil,1,2 Helen Osman,1 Sue Cotton1,3
1Orygen Youth Health Research Centre, 2Orygen Youth Health Clinical Program, 3University of Melbourne, Australia

The early psychosis field is ever-evolving with new developments in clinical research requiring ongoing translation into evidence-based clinical practice. Research indicates that clinical skills learned solely in workshops have been shown to diminish over time and workshop training alone is unlikely to result in sustained retention of knowledge and practice change (Baer et al., 2004; Miller & Mount, 2001; Walters et al., 2005). It is therefore clear that to increase the effectiveness of clinical training in early psychosis, both in terms of improving practice and increasing knowledge retention, additional measures are required. However, empirical research into the effectiveness of training methods and other education strategies is limited (Burke & Hutton, 2007). The Topic-focused, Time-limited, Online Group Supervision (TTOGS) model is a novel, cost-efficient approach to sustaining knowledge and embedding learned skills into early psychosis clinical practice. The model comprises four sessions of topic-based group supervision delivered online. This paper will describe the model and the benefits of using this approach. A new research project that has been developed to test the acceptability and tolerability of the TTOGS model as a learning method and to investigate the impact of the approach on the perceived self-efficacy of learners (which can be a significant precursor to practice change) will also be presented.
C109
Bridging the gap between mental health and education: the development of a successful collaboration

Gretchen Conrad,1,2 Chiachen Cheng,1,4,5 Terry Bedard,6 Sarah Bromley,5 Kim Karioja,1 Carole Lem,4 Aedan Shaughnessy,7 Kathy Short,2 Catherine Willinsky9

1The Ottawa Hospital, 2The University of Ottawa, 3Canadian Mental Health Association-Thunder Bay Branch, 4St. Joseph’s Care Group, 5Centre for Addiction and Mental Health, 6North Bay Regional Health Centre, 7Canadian Mental Health Association-Toronto Branch, 8School Mental Health Assist, Ontario Ministry of Education, 9Centre for Innovation in Campus Mental Health, Canada

Background: The Early Psychosis Intervention Ontario Network (EPION) received two Community of Interest (CoI) grants (2012–2013, 2013–2014) to promote collaboration and information exchange with the education sector. The CoI program, managed through the Evidence Exchange Network (EENet), Centre for Addiction and Mental Health, had province-wide virtual reach. EENet supports diverse stakeholders who share a common interest and to exchange information, obtain answers to problems and/or improve the understanding of a subject and through different knowledge exchange activities and forums.

Approach/Results: Despite many common goals, mental health and education sectors often work separately, duplicating efforts and failing to leverage each other’s strengths. Increasing awareness of the key role that mental health issues play in the academic, social, and emotional lives of secondary and post-secondary students has highlighted the need for collaboration. This CoI included EPI clinicians from across Ontario, an individual with lived experience, and representation from the education sectors. Multiple initiatives were developed: infographics on psychosis were translated into French, Mandarin, Italian, and Spanish; educational module for the school mental health leads (with Ontario School Mental Health Assist); webinar for college and university counselors (with Centre for Innovation in Campus Mental Health); chapter for revised edition of Supporting Minds (with Ontario Ministry of Education).

Conclusion: The processes of successful initiatives and collaborations, as well as areas of challenge (e.g., lack of understanding of where psychosis fits into mental health issues for students; lack of coordination of numerous Mental Health initiatives within education sector) will be discussed.

C110
A decade of delivering education by EPPIC Statewide Services to the First-Episode Psychosis workforce: some lessons learned and future directions

Frances Foster,1 Mandie Nicoll,1 Craig Macneil,1,2 Swagata Bapat,1 Simon Dodd,1 Amy Mackay,1 Richard Monfries1

1Orygen Youth Health Research Centre, 2Orygen Youth Health Clinical Program, Australia

EPPIC Statewide Services has supported the translation of evidence-based, early psychosis research into behavioural practice change through the delivery of workforce training and development for over 10 years. Although the target audience has been local First-Episode Psychosis clinicians across Victoria, Australia, EPPIC Statewide has also provided training nationally and internationally. This presentation outlines lessons learned in the provision of education to the Early Psychosis workforce in a variety of rural and metropolitan settings and services and outlines some implications for further training. Data collected from 64 workshops between January 2010 and December 2013 from over 1300 participant feedback forms will be briefly described. Participant’s qualitative and quantitative assessment of 7 key concepts, utilizing Kilpatrick’s level 1 evaluation, is included. More recent workshops have also included measurement of level 2 evaluation, utilizing content specific, before and after workshops questions to assess knowledge acquisition. Significant practicalities of running training in a variety of settings across rural and metropolitan services to participants with a range of competing interests and time commitments and associated implications are identified and discussed. In addition to face-to-face training, a model of supervision via an online environment was trialed in 2013. An outline and evaluation of this is also presented.

C111
Psychological interventions for first-episode psychosis: a new model for training and supervision in early psychosis

Alison Hughes, F. Frank Hughes,1 Shona Francey,1 John Gleeson2

1Orygen Youth Health Research Centre, 2Australian Catholic University, Australia

The growing body of research on the effectiveness of psychological interventions in Early Psychosis has led to the expectation that evidence-based psychological interventions (such as Cognitive Behaviour Therapy) should be routinely offered as part of a broad bio-psycho-social treatment package. However, there is negligible evidence on the effectiveness of workforce training in psychological interventions for public mental health clinicians or guidelines for how allied health clinicians can be supported to acquire and evaluate their skills in this important area. This paper will outline some of the challenges that have been encountered by the EPPIC National Support Program of Orygen Youth Health Research Centre (OYHRC) whose mandate is to deliver early psychosis training to Australian federally funded national early psychosis centres. A new model of training and supervision for allied health clinicians working in early psychosis which identifies levels of knowledge and skills and the associated training and support required is proposed. A research project to evaluate this new training and supervision model will also be presented.

C112
Youth Mental Health Nurse Practitioners: an Australian regional and rural approach

Christopher McNair,1,2 Hamish Alker-Jones1,2

1Albury Wodonga Health (North East Border Mental Health Service), 2Mental Health Drug & Alcohol Nurse Practitioner Collaborative, Australia

Mental health services in the North East Victoria and Southern NSW integrated in 2014 forming the North East and Border Mental Health Service (NEBMHS). This entity gained two endorsed Youth Mental Health Nurse Practitioners (YMHNP)s whose model of care focuses on 16- to 25-year-olds predominately with psychosis, with a broadened scope to include mood, anxiety, personality disorders and substance use disorders. The YMHNP’s provides timely expert assessment, diagnosis, planning, intervention with follow up and review of care progression. These autonomous, senior nurses work collaboratively with family, the young person and other health care professionals providing patient-centered care. They build capacity and resilience by increasing mental health literacy, providing psycho-education and consultation around complex and non-engaged young people. This contributes to streamlined navigation through care pathways, minimizing wait time and maximizing access to service provision. Interventions traditionally performed by a psychiatrist or medical officer would have necessitated the young person to attend a centre-based appointment. Assertive outreach to such clients in the regional/rural catchment of NEBMHS allows greater access to specialist mental health care and review for youth that may have traditionally been lost to service. It was well recognised that the needs of youth are different to those of the paediatric and adult populations, requiring creative, tailored and flexible care. The YMHNP role highlights the development and deployment of a diverse, flexible and innovative approach to engage young people who are experiencing mental ill health. This allows timely and expert treatments related to youth in regional/rural Victoria.

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C113 Reduced hospitalization in community-based early psychosis treatment

Shobha Pais,1 Robert Bennett,1 Jessica Hua,1 Scott Ewing,1 Will Chapman,2 Marta Rose,2 Rachel Loewy7
1FELTON Institute, Family Service Agency of San Francisco, 2East Bay Community Recovery Project, 3University of California, San Francisco, USA

It is estimated that the total costs of treating schizophrenia are as high as 3% of all health expenditures in the USA. About 79% of the direct costs of schizophrenia are a result of hospitalization or other residential care. Repeated hospital admission of people with schizophrenia is a significant problem. Therefore, a major goal of treatment for patients with schizophrenia is relapse prevention, reduction in hospitalizations, and restoring to patients the functional capacity to lead satisfying and productive lives. An important focus of services in early intervention for psychosis has been improved care during the early stages of psychosis and to shift the burden of treatment from inpatient hospitalization to outpatient programs. In this presentation, we will report short-term (1-year) effects of a community-based early intervention model of treatment called Prevention and Recovery in Early Psychoses (PREP) on the hospitalization days, utilization of psychiatric emergency services, and hospitalization costs, as well as cost savings compared to treatment as usual. Our findings are based on hospitalization data from two participating community-based PREP sites in 2 US counties in the Greater San Francisco Bay Area. Data regarding days of hospitalization a year prior to PREP as well as hospitalization and psychiatric emergency episodes during the first year of PREP will be shared along with the impact on cost savings based on standard county costs for hospitalization.

C114 Early Psychosis headspace Services (EPhS) imbedding the EPPIC Model into an enhanced primary care platform

Kerryn Pennell,1,2 Kathleen Alonso,1 Patrick McGorry,1,2,2 Chris Tanti,1 Heather Stavely,1 Rebekah Lautman,1 Frank Hughes,1 Michael Struth,1 Vikki Ryal,1 Sandra Radovini1
1headspace, The National Youth Mental Health Foundation, 2Orygen Youth Health Research Centre, 3Centre for Youth Mental Health, University of Melbourne, Australia

The Commonwealth Government of Australia committed 246.8 million to support the roll-out of the EPPIC Model across Australia. This process is supported by a partnership between Orygen Youth Health Research Centre and headspace that sees these services being delivered through the headspace platform of care Early Psychosis headspace Services (EPhS) will deliver early psychosis services to young people aged 12-25, in line with the EPPIC Model, which was developed by OYHRC. The model draws on the best available international evidence and the experiences of the EPPIC based in Melbourne, Australia. The initial roll-out will see the establishment of nine centres nationally (though a hub and spoke model) which will deliver the 16 core components of the EPPIC Model in a way that integrates and builds on the headspace model and tailored to the local context. Services will reflect existing headspace culture in being youth-friendly, accepting and flexible, delivering early psychosis services in a consistent and responsive manner with the aim to expand access to specialist early treatment and care for young people with FEP. This innovation in service delivery, which will see tertiary mental health care delivered for the first time in a youth-specific, community-based primary care environment, reflects a significant leap in youth mental health reform. This paper will provide a detailed overview of the EPPIC model and its integration into EPhS model of service delivery and the process of implementation.

C115 Long duration of untreated psychosis: is it partly a design problem?

Kristin Romm,1 Kari Kvaerner,1,2 Ingrid Mella,1,2 Birger Sevaldsen,2 Jan Ivy Rassberg1,2
1Oslo University Hospital, 2University of Oslo, UiO, 3The Oslo School of Architecture and Design, AHO, Norway

Oslo University Hospital in Norway is one of the largest hospitals in northern Europe. This makes it demanding to offer a coherent service to patients with a first-episode psychosis (FEP), and there are delays in the system which influence the duration of untreated psychosis (DUP). As the first step to improve our services towards FEP, we wanted to explore how patients and relatives experience our services by using service designers. Service design methods is an approach for improving how people navigate complex systems. The designers performed two user interviews and facilitated a workshop with 26 participants (mainly user representatives, psychologists, psychiatrists, nurses, social workers and general practitioners) from different psychiatric divisions. The visualised patient journey map showed several discrepancies between the users and the provider’s experience of the same stages in the process of help seeking and early treatment. There were 6 main concerns: (1) how easily do you find your way to specialist care; (2) how do patients experience the first meeting with specialist mental health care; (3) family involvement, how and when; (4) when do you transfer between youth and adolescent care; (5) how to work with complex cases, dual diagnosis, etc; (6) how to work around those who don’t want help but need it? Service design methods can be helpful to enhance insight and explore possibilities in the development of complex health services. It places the patients’ experience in the center of the service, which is essential to improve quality.

C116 “I will be L8, c u in 10”: use of mobile phones within Youth Mental Health outreach service

Alana Scully,1,2 Joel Pilgrim,1 Simon Rosenbaum,1,2 Sam Wilson,1 Megan Kalucy,1 Cheryl Davenport,1 Philip Ward,2,3 Jackie Curtis2,3
1Early Psychosis Programme, The Bondi Centre, South Eastern Sydney Local Health District, 2School of Psychiatry, University of New South Wales, 3Schizophrenia Research Unit, South Western Sydney Local Health District, Liverpool, Australia

Mobile phones, texting, email and social media are the platforms through which young people communicate. Current best practice guides advocate the utilisation of technology to facilitate cost-effective and accessible mental health care. However, there is a gap between these guidelines and current practice; due to concerns regarding risk and inappropriate usage, many clinicians cannot provide a client with a mobile contact number. Preliminary research suggests the use of text messaging enhances engagement with services, and is very rarely used inappropriately (Furber et al., 2011). This project investigated whether mobile phones and text messaging can be used to enhance engagement while effectively managing risk. Staff and clients of an Early Intervention service were surveyed regarding their views on mobile telephone use, and whether the ability to call or text directly would assist with engagement and service provision. A six-month pilot study was conducted, where clients were provided with a direct mobile number for clinicians. Clients were informed of the appropriate use of mobiles, and policies were implemented to minimise and monitor risk. Following completion, staff and clients were surveyed regarding the usefulness of mobile phones in enhancing engagement and communication. It is hypothesised that having direct access to mobile numbers of clinicians will increase perceived availability and approachability of clinicians, and this would therefore enhance engagement with the service. Preliminary results will be presented.

Reference:
C117 Mind the gap please: exploration of professional’s views regarding barriers and facilitators of discharging patients from Early Intervention in Psychosis (EIP) team to primary care

Chris Kingsley Ugochukwu
St Georges University of London, UK

Background: Discharge planning is one of the key components of care delivery for patients in EIP teams and the quality of discharge planning can influence both the number of future readmission to hospital and quality of their lives at home (Power et al., 2007). Staff in EIP teams plays a key role in coordinating effective discharge (Reed, 2008), understanding their views is a key step to promoting success.

Aim: To explore the views of professionals within EIP teams.

Methods: Grounded theory method (GTM) was utilised to complete a two-staged study in three EIP teams across London. Stage one involved focus group discussions with professionals. Stage two involved ten individual interviews with theoretical samples selected based on findings from stage 1. Data were analysed using Charmaz’s (2006) grounded theory approach.

Findings: Communication and standardized discharge procedures were some of the facilitators elicited by participants. The participants highlight potential barriers as lack of integrated IT system, continuity of care, liaison between GPs and psychiatrists, medication compliance and increasing caseloads.

Conclusions: Flexibility in the timing of discharge and referral back to EIP are essential to address issues related to increasing patient complexity and unpredictable illness trajectories. The study enhances understanding of the important views of staff regarding enhancers and inhibitors to effective discharge planning and contributes to evidence-based practice. A safe transition to the primary care for the patient is paramount for the continuous monitoring of physical health. Effective coordination and ongoing liaison are instrumental in bridging the gap between the two services.

References:

C118 Mediation models from childhood adversity to depressiveness in patients at risk for psychosis and in help-seeking controls

Frauke Schultz-Lutter,1 Stephan Ruhrmann,2 Benno G Schimmelmann,1 Joachim Klosterkötter,2 Stefanie J Schmidt1

1University of Bern, Bern, Switzerland. 2University of Cologne, Cologne, Germany

Childhood adversity (CA) is associated with poor mental health outcomes including psychotic symptoms. However, the mechanisms linking CA to the development of psychosis are still poorly understood in both their nature and the specificity of links for psychosis development. Possible links (mediators) are an excessive use of external attributions, dysfunctional coping patterns, and depressive symptoms that were associated with CA in healthy subjects but have not been studied in patients at risk for psychosis. Therefore, pathway models from CA to depressiveness were generated based on literature and examined separately in two samples by structural equation modeling: 137 patients at risk for psychosis and 228 help-seeking controls. Mediators between CA (Trauma and Distress Scale) and depressiveness (BDI II) were attribution style, self-efficacy (Competence and Control Beliefs Questionnaire) and coping strategies (Stress Coping Questionnaire). As expected, both final models showed 3 pathways running from CA to external attributions and low self-efficacy, from these beliefs to maladaptive coping strategies and from there to depressiveness (CFI = 0.9, RMSEA < 0.1). In addition to these 3 direct pathways, the at-risk group displayed an alternative effect of CA on maladaptive coping. Our findings suggest that CA generally increases the risk for mental health problems by the development of dysfunctional attributions and low self-efficacy that lead to maladaptive coping strategies and heightened levels of depressiveness with an additional effect of CA on maladaptive coping in at-risk patients. Thus, integrated interventions targeting these factors may enhance resilience and, thereby, prevent both the persistence of distressing symptoms and their progression to mental disorders, including psychosis.

Stress Responsivity

C119 Microstructural abnormality in white matter, regulatory T lymphocytes and depressive symptoms after stroke

Fumihiko Yasuno,1,2 Akihiko Taguchi,1 Yoshifumi Kishimoto,1 Hidehiro Iida,2 Kazuyuki Nagatsu1

1Department of Psychiatry, Nara Medical University, Kashihara, 2Department of Investigative Radiology, National Cerebral and Cardiovascular Center, Suita, 3Department of Neurology, National Cerebral and Cardiovascular Center, Suita, Japan

Background: The purpose of the present study was to investigate the existence of microstructure abnormalities in the white matter circuit in stroke patients, and their relationship to depressive symptoms, using magnetic resonance diffusion tensor imaging. We also investigated the relationship between lymphocyte subsets and microstructure abnormalities in patients as a target for the prevention of depressive symptoms.

Methods: Participants were 29 acute ischemic stroke patients and 37 healthy control subjects. Diffusion tensor imaging was performed. Whole brain voxel-based analysis was used to compare fractional anisotropy (FA) between the groups. Blood samples were obtained, and lymphocyte subsets were evaluated using flow cytometry. Six-month follow-up examinations were also conducted for 18 of the patients.

Results: FA was decreased in the bilateral anterior limb of the internal capsule in stroke patients. Six months after onset, a significant increase in FA was noted, and it revealed an association with a reduction in depression scale scores. Patients showed reduced amounts of circulating regulatory T lymphocytes (Treg), with the degree of reduction being related to the decrease in FA value in the internal capsule.

Conclusions: FA reductions in the anterior limb of the internal capsule related to abnormalities in the frontal-subcortical circuits, which might associate with the post-stroke depressive symptoms. Our findings also demonstrated the possibility of the prevention of post-stroke depressive symptoms by targeting the protective role of Treg for the axonal damage of the internal capsule due to stroke.
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**Substance Use**

C120 Interaction between childhood trauma x cannabis use in predicting psychosis: a systematic review
Irena Behlke, Tabea Schoeler, Sagnik Bhattacharyya
Department of Psychosis Studies, Institute of Psychiatry, King’s College London, UK

**Background:** Cannabis use and childhood trauma have consistently been identified as independent predictors for psychotic symptomatology. Few studies took a step further and investigated the interaction between these two factors on risk of psychosis. This review aims to systematically summarize the research investigating the synergistic effects of childhood trauma and cannabis (TxC) in predicting psychosis.

**Methods:** To be included in the review, a study was required to provide information regarding (1) definition of cannabis use, (2) operationalization of childhood trauma, and (3) had to statistically test the interaction between childhood trauma and psychosis (TxC) in predicting psychotic experiences in either the general population or patients with a pre-existing psychotic disorder. In total, 8 studies that were identified through the systematic literature search met the criteria for inclusion.

**Results:** Seven of eight studies reported a significant effect of TxC interaction in predicting psychotic experiences in the general population, as well as onset, persistence and severity of psychosis in clinical samples. This effect remained significant in 6 studies when controlled for confounders such as age, sex, ethnicity and the independent effects of cannabis and childhood trauma.

**Discussion:** The review implicates an interaction between childhood trauma and cannabis use in predicting psychosis, suggesting that those individuals who experienced childhood trauma are more vulnerable to the effects of cannabis with regard to developing and manifesting symptoms of psychosis. This highlights the importance of considering both previous trauma and history of drug use as part of clinical assessment and treatment planning.

**Theme:** Epidemiology.

C121 The impact of substance use disorders on the risk of suicide and suicide attempts in people with a diagnosis of depression, bipolar disorder, personality disorder or psychoses
Marie Louise Drivsholm Østergaard, Marie Louise Drivsholm Østergaard, Carsten Ryaard Hjorthøj
Mental Health Centre Copenhagen, Copenhagen University Hospital, Denmark

**Introduction:** Substance use disorders (SUDs) and mental illness increase the risk of suicide and suicide attempts. This risk is further increased among double diagnosis patients compared to people who suffer from either mental illness or SUDs. It is however unclear how the risk differs between people with different psychiatric diagnoses and different types of SUDs. In this study, we investigate how SUDs affect the risk of fatal and non-fatal suicide attempts in four psychiatric populations.

**Methods:** Data have been retrieved from several Danish registers and connected through encrypted personal identification numbers. Study subjects are all people born in Denmark since 1955 with a diagnosis of depression, bipolar disorder, personality disorder, and/or psychoses. They are included in one or more of the study populations according to diagnoses. Information on suicide attempts and SUDs is retrieved from somatic and psychiatric patient data. Furthermore, information on prescription medicine and municipal alcohol and drug treatment programs is used to identify individuals with SUDs.

**Analysis:** Data are analyzed in Cox regression. Study subjects contribute to time at risk when they get a diagnosis relevant to a specific psychiatric population, and until first suicide attempt fatal or non-fatal whichever comes first. Sociodemographic information and other relevant variables such as previous suicide attempts are taken into account in the analyses.

**Expectations:** Through this study, we hope to identify the subgroups of double diagnosis patients who are especially at risk of attempting suicide, and to get a deeper understanding of the interrelations of mental illness and SUDs.

C122 Predicting 12-month outcome in first-episode psychosis at the individual level using clinical, MRI and cognitive data: a support vector machine study
William Pettersson-Yeo, Andrea Mechelli, Manuela Russo, Simone Ciufolini, Abraham Reichenberg, Tiago Reis Marques, Valeria Mondelli, Marta DiForti, Andrew Simmons, Anthony S David, Robin M Murray, Paola Dazzan
Department of Psychosis Studies, Institute of Psychiatry, King’s College London, UK

Clinicians cannot currently predict whether a first-episode psychosis (FEP) patient will reach long-term remission or will subsequently relapse. Recent studies suggest that baseline neuroanatomical, clinical and cognitive information may be able to. However, it remains unclear which data type may best achieve this, and whether combining data may improve prediction accuracy. Here, we aimed to identify neuroanatomical, clinical and cognitive predictors of 12-month clinical outcome in FEP. Support vector machine (SVM) – a technique with high clinical translational applicability, able to provide predictions specific to each individual – was applied to each data type obtained for 81 patients at their FEP. At 12 months, patients were re-evaluated and classified on the basis of illness course as (i) having either a continuous or episodic course, or (ii) being in remission. Individual SVM classifiers were trained to discriminate between the two clinical outcomes for each data type, and for each data combination (clinical&MRI; cognitive&MRI; clinical&coognitive) combined using prediction averaging. Preliminary analysis of baseline clinical data showed patients with a continuous or episodic illness course at one year were distinguishable from those who would remit (accuracy=59.52%; p=0.001). Conversely, the two groups were indistinguishable using neuroimaging or cognitive data alone, or any of the data combinations (p > 0.05). Our findings suggest clinical data may be a strong predictor of clinical outcome in FEP. However, accuracies achieved here were lower than in previous studies possibly due to subject heterogeneity. Future studies are warranted to investigate the impact of patient stratification and to achieve levels of accuracy necessary for clinical utility.

C123 Nurses helping young rural people with emergent mental health problems
Rhonda Wilson
School of Health University of New England, Australia

This paper presents the findings of research about the mental health help-seeking experiences of young rural people in northern New South Wales, Australia. A rural socio-ecological health theoretical framework and a mixed methods case study research design were selected to answer a research question: How can young rural people with emergent mental health problems be helped? Survey and in-depth interview data were collected and analysed using descriptive, content and thematic techniques.

**Results:** Theme 1: Characteristics of emergent mental health problems of young rural people. Theme 2: Characteristics of helping young rural people with mental health problems. Theme 3: Lack of meaningful connection with mental health services. Theme 4: Characteristics of health, welfare and social service providers.

**Findings:** Providing positive first mental health encounters for young rural people in their rural communities enables successful initial and ongoing mental health helping. Rural nurses are mental health capital in rural communities. Barriers to mental health help-seeking for young rural people persist. The primary recommendation from this research is a co-location model for nursing assets in rural communities to promote the early engagement of young rural people into appropriate mental health care when it is required. Rural nurses are ideal in rural settings because nurses contribute expertise by paying adequate attention, careful listening, provide authentic care which is mindfully present and understand the local context for young rural people. The outcomes of this study provide new insights about the emergent mental health problems of young rural people.
C124
Acculturating Musical Identity as a Process of Recovery
Cherry Hense1,2
1Orygen Youth Health, 2The University of Melbourne, Australia

In the field of mental health, evidence-based practice is upheld as the
benchmark of quality care. However, the evolution to a Recovery Model
has expanded notions of treatment to incorporate processes of meaning
and identity construction (Davidson, 2007). Such changes in clinical
understanding require similar expansion within research practice to foster
appropriate types of evidence in ways that align with recovery principles
(Fossey, Harvey, McDermott, & Davidson, 2002). The PhD project dis-
cussed in this presentation investigated the construct of musical identity
in young people's recovery from mental illness. A participatory approach
was chosen to align with recovery care. However, a stark contrast to other
research within the Australian youth mental health context meant that the
project required advocacy from a multidisciplinary team including the
Head of Youth Mental Health, the Head of Music Therapy at the largest
training course in Australia, as well as an international expert in musical
identities, in order to be accepted. Results from a Critical Interpretive
Synthesis will be presented to demonstrate the incongruence between
approaches of recovery principles and dominant research paradigms in
youth mental health in Australia. The need for expansion in research
approaches will be argued. Findings from the second stage of research will
be presented as a Grounded Theory of musical identity in mental illness.
This theory details how young people's experiences of Musical Symptoms
are expressions of pathology that require appropriate services and com-

C125
Neurocognitive dysfunction in subjects with at-risk mental state
to predict transition to schizophrenia
Shimako Nishiyama,1 Tsutomu Takahashi,1 Yuko Higuchi,1 Atsushi Furuichi,1
Yumiko Nishikawa,1 Tadasu Matsuoka,1 Yasuhiro Kawasaki,2 Tomiki
Sumiyoshi,1 Michio Suzuki1

1University of Toyama Graduate School of Medicine and Pharmaceutical
Sciences, 2Kanazawa Medical University, 3National Center of Neurology
and Psychiatry, Tokyo, Japan

Introduction: Neurocognitive dysfunction has been reported to be more
severe in individuals at ultra-high risk (UHR) of psychosis who later de-
veloped psychosis compared with those who did not, but the former subjects
could develop not only schizophrenia but also other psychotic disorders.
In this study, our main interest was to determine the neurocognitive pre-
dictors of transition to schizophrenia.

Methods: Participants were 45 UHR individuals meeting the criteria of the
Comprehensive Assessment of At-Risk Mental State (CAARMS), and 31
patients with first episode of schizophrenia (FES). All subjects had normal
premorbid intelligence (IQ>80, assessed by the Japanese Adult Reading
Test (JART)). Neurocognitive function was evaluated by the Japanese
version of the Brief Assessment of Cognition in Schizophrenia (BACS-1).
Clinical symptoms were assessed by the Positive and Negative Syndrome
Scale (PANSS). Two-year outcome data were available for 21 UHR indi-
viduals; 10 UHR individuals transitioned to schizophrenia (UHR-T) while
11 did not (UHR-NT).

Results: The FES group demonstrated significantly higher scores on the
positive symptoms and lower performance on attention/processing
speed, verbal memory, phonemic fluency, semantic fluency and working
memory as compared with whole UHR group. The UHR-T group showed
significantly lower motor function, attention/processing speed and
semantic fluency at baseline than the UHR-NT group, but there was no
difference in clinical symptoms and premorbid IQ between the UHR
subgroups.

Conclusion: These findings suggest that specific neurocognitive impair-
ments predate the onset of schizophrenia and that impairments in motor
function, attention/processing speed, and semantic fluency in the high-
risk individuals may be predictive of future transition to schizophrenia.

Ultra-High Risk/Prodromal Research

C126
The role of anxiety in outcome for youth at clinical high risk of
developing psychosis
Laina McCausland,1 Lu Liu,1 Kristin S Cadenhead,2 Tyrone Cannon,3 Barbara
A Cornblatt,4 Thomas H McGlashan,2 Diana O Perkins,1 Larry J Seidman,4
Ming T Tsuang,2 Elaine F Walker,1 Scott W Woods,2 Jean Addington1

1University of Calgary, Canada, and 2University of California, San Diego,
3Yale University, 4Zucker Hillside Hospital, 5University of North Carolina,
6Harvard Medical School, 7Emory University, USA

Background: Anxiety is common in youth at clinical high risk (CHR) of
psychosis. Little is known about the course of anxiety and its association
with later outcome. The aim of this project is to examine anxiety longitu-
dinally in those at CHR.

Methods: The sample consisted of 765 CHR individuals and 280 healthy
controls (HC). CHR status was determined with the Structured Interview
of Prodromal Syndromes, anxiety diagnoses with the SCID, and severity of
anxiety was measured with the Social Interaction Anxiety Scale and Self-
Rating Anxiety Scale. Assessments were conducted at baseline, 6 and 12
months. The relationship of anxiety at baseline to clinical outcome at 2
years (i.e. remission, symptomatic, continuing to meet prodromal criteria
or psychotic) was determined for a sub-sample.

Results: 51% at baseline and 43% at 12 months had a diagnosis of anxiety.
Ratings of anxiety were significantly associated with attenuated psychotic
symptoms and negative symptoms at all three time points (p<0.001).
There was a trend towards improvement in anxiety ratings for those at
CHR; however, the CHR group had significantly more anxiety than the HC
at each assessment. Although there were no differences in anxiety ratings
for the different outcomes, those who continued to meet prodromal cri-
teria at 2 years were more likely to have had an anxiety diagnosis at base-
line and those who were in remission were less likely.

Conclusion: Anxiety is an ongoing concern for those at CHR. Longitudi-
nally, there is a significant association between the presence of anxiety and
ongoing attenuated psychotic symptoms.
Relationship between membrane fatty acids and cognitive function in individuals at ultra-high risk for psychosis

Sung-Wan Kim,1 Miriam R Schäfer,2 Claudia M Klier,3 Michael Berk,4 Simon Rice,2 Kelly Allowt,2 Cali F Bartholomeusz,2 Sarah L Whittle,2 Eleanor Pilopoulos,3 Christos Pantelis,5 Patrick D McGorry,5 G Paul Amminger1

Cognitive symptoms and impairment are central to schizophrenia and often an early sign of this condition. The present study investigated biological correlates of cognitive symptoms and performance in individuals at ultra-high risk (UHR) for psychosis. The study sample comprised 80 neuroleptic-naïve UHR individuals aged 13–25 years. Associations among erythrocyte membrane fatty acid levels, measured by gas chromatography, and cognitive functioning were investigated in UHR patients. Subjects were divided into terciles based on their scores on the cognitive factor of the Positive and Negative Syndrome Scale. The Zahlen Verbindungs Test (ZVT) (the number combination test) was also used as a measure of information-processing speed. Exploratory analysis was conducted to investigate the relationship between membrane fatty acid levels with the size of the intracranial area (ICA), a neurodevelopmental measure relevant to schizophrenia, in half of subjects (n=40) using magnetic resonance imaging. The adjusted analysis revealed that omega-9 eicosenoic and erucic acid levels were significantly higher, but omega-3 docosahexaenoic acid levels were significantly lower, in the cognitively impaired than in the cognitively intact group. We found a significant negative association of eicosenoic, erucic, and gamma-linoleic acids with ZVT scores. A negative association between ICA and membrane levels of eicosenoic acid was also found. This is the first study to demonstrate the relationship between membrane fatty acids and cognitive function in neuroleptic-naïve subjects at UHR for psychosis. The study findings indicate that abnormalities in membrane fatty acids may be associated with the neurodevelopmental disruption associated with the cognitive impairments of individuals at UHR for psychosis.

Differential effects of intra- versus extra-familial support on self-esteem and treatment engagement in teenagers at clinical high risk for psychosis

Christine Cho,1 Cheryl Corcoran,1 Joanna Fiszdon,2 Charlie Davidson,1 Jimmy Choi1

Studies on social support in adolescence emphasize the importance of peer support in self-esteem and engagement in psychological therapies. Adolescents tend to report a greater reliance on peer versus parental or family support to gauge their self-perceptions of worth, their expectations of therapy, and whether or not to attend treatment sessions. However, there is limited information about how these types of social support relate to treatment in those at clinical high risk (CHR) for psychosis. The current study examined the differential effects of intra- versus extra-familial support, as well as peer versus adult support, on self-esteem, therapy self-efficacy, and treatment attendance. Twenty-one participants enrolled in a cognitive remediation trial were ascertained from the Center of Prevention and Evaluation (COPE) at Columbia University Medical Center. Contra to hypotheses, intra-familial support from parents/siblings/extended family was strongly correlated with better treatment attendance and therapy self-efficacy compared to support from peers or extra-familial adults (teachers, sports coaches, etc.). However, when examining only those with low self-esteem, extra-familial support from peers and adults was more strongly correlated with treatment attendance, self-efficacy for therapy, and self-esteem (Fisher r-to-z transformation: Z=1.94, p<0.05). This indicates it may be beneficial for clinicians working with CHR to focus on enhancing extra- versus intra-familial supports to keep adolescents with low self-esteem engaged in treatment. Our research continues to examine differential valuations of sources of social supports in CHR compared to normative youth and their effects on treatment outcomes.

Awareness of narrative identity and attenuated psychosis symptoms

David J Halford,1,2 Manon Burgat1,2

The ability to construct and be aware of a coherent narrative identity is thought to be important in adaptive psychological functioning. The life stories that individuals create about themselves and their experiences through autobiographical memories help them to understand what kind of person they are, and what their life might be like in the future. Schizophrenia has been associated with impairment in the use of autobiographical memories and less coherent, elaborate, and meaningful personal narratives. Self-disturbances have also been found to be associated with psychosis prodrome, and predictive of transition to psychotic disorder. To date, however, no research has explored the associations between narrative identity and attenuated psychosis symptoms. To examine this relationship, a cross-sectional study was conducted employing a large community sample. Participants completed the Prodromal Questionnaire (PQ-16) and the recently developed Awareness of Narrative Identity Questionnaire. The results are discussed in the context of associations between attenuated psychotic symptoms, awareness of a narrative identity, and the types of coherence necessary to organise autobiographical memory into stories about one’s life (temporal coherence, causal coherence, and thematic coherence). These findings indicate that higher order abstractions of autobiographical memory that are central to the self-conception may be compromised in the context of prodromal symptoms. These findings have implications for psychosis screening and clinical practice.
C131
Prodomal symptoms of psychosis in individuals referred to a Youth Mental Health Service
Jo Hodgeskins,1 Jon Wilson,2 Rebecca Lowe,2 Hannah Cole,2 Sarah Maxwell,1 David Fowler1
1University of East Anglia, 2Norfolk and Suffolk NHS Foundation Trust
Discussion: exposure to traumatic life events.
sis, individuals defined as at risk reported longer pathways to care, ele-
measures. When compared to individuals who were not at risk for psycho-
care, trauma history, functioning, anxiety and depression were also
the Primary Care Checklist (French et al, 2012). Measures of pathways to
care, trauma history, functioning, anxiety and depression were also
collected.
Results: 54% of the sample was considered at risk for psychosis on cli-
cian-rated measures and this increased to 84% when using self-report
measures. When compared to individuals who were not at risk for psycho-
sis, individuals defined as at risk reported longer pathways to care, ele-
vated levels of social anxiety and depression, and a higher frequency of
exposure to traumatic life events.
Discussion: Prodomal symptoms of psychosis are common in young
people with non-psychotic mental health problems and may also reflect
a more complex presentation. This has potential implications for assess-
ment, treatment and outcome. Further investigation and long-term fol-
t-up are required.

C132
Psychotic-like experiences (PLEs) in the general population of Hong Kong: predictors of persistent PLEs
Lee Kit Wai, Chan Kit Wa, Chang Wing Chung, Lee Ho Ming, Hui Lai Ming, Lin Jing Xia, Xu Jia Qi, Chen Yu Hai
The University of Hong Kong, Hong Kong
Backgrounds: PLEs are poorly understood phenomenon referring to sub-
clinical psychotic experiences that occurred in healthy individuals. Most
PLEs are transient, while persistent PLEs might increase the risk of psy-
chosis. Understanding predictors of persistent PLEs provides insight to
development of psychosis.
Aims and methods: The ongoing study aims to compare environmental
factors of healthy subjects with and without persistent PLEs by conducting
a 2-year follow-up on subjects who reported PLEs in the Hong Kong
Mental Morbidity Survey 2010 (HKMMS). HKMMS was an epidemiological
study carried out in 2010–2013, targeted at general population aged 16–75.
Endorsement on 81 items in Psychotic Screening Questionnaire at both
baseline (HKMMS) and follow-up was regarded as having persistent PLEs.
Results: Data of 62 participants were analyzed, 43(69.4%) were female,
aged 19–72 years (mean=44.97, SD=13.84). At follow-up, 31 (50%) subjects
had persistent PLEs. Baseline information was compared between the
groups with persistent (pPLEs) and non-persistent PLEs (nPLEs). Chi-
square test indicated no significant difference in gender (C2(1, N=62)=0.76, p=0.38), education attainment (C2(1, N=62)=5.81, p=0.21)
and employment (C2(1, N=62)=6, p=1.00). Mann-Whitney tests showed
no significant difference on age (U=473, p=0.92). Mann-Whitney test
indicated that the total number of life events experienced by pPLEs
(Mdn=3) was significantly greater than nPLEs (Mdn=2) (U=351.50, p=0.03). No significant difference was observed in social support (U=403,
p=0.37) and social and occupational functioning (U=422.5, p=0.41). Chi-
square test showed no significant difference in substance use (C2(1, N=62)=0.48, p=0.49).
Summary and discussion: The preliminary results on the link between life
events and persistence of PLEs support an environmental influence on the
progression of PLEs. Further study may focus on the mechanisms of the
influence and its implication.

C133
Genetics high risk to clinical high risk: a case report
Minhee Lee,1 Taeyoung Lee,1 Sungnyung Kim,2 Myoungwuk Chon,2 Hyuna Kim,2 Junsoo Kwon1,2
1Institute of Human Behavioral Medicine, SNU-MRC, 2Seoul National Uni-
versity College of Medicine, 3Seoul National University College of Natural
Sciences, Seoul, South Korea
Objective: Numerous genetic studies on schizophrenia have been con-
ducted in order to elucidate its mode of transmission. However, uncer-
tainty remains regarding the mechanism by which clinical symptoms
manifest in offspring of patients with schizophrenia.
Method: In November 2004, a male subject who was 23 years old at the
time made his first visit to Seoul Youth Clinic (SYC) in Seoul National
University Hospital. Both of his parents had schizophrenia. In addition,
his family history, rigorously examined within the third degree, revealed
that his uncle on the paternal pedigree and his cousin had been also
diagnosed with schizophrenia. He consented to be enrolled as Generic
High Risk (GHR) subject in a prospective cohort program for high risk for
psychosis, and underwent yearly follow-up assessment including clinical
assessments and neurocognitive function tests.
Results: At baseline, he did not show any clinical symptom and neuropsy-
chological deficit. While the eighth yearly follow-up assessment showed
a range of attenuated psychotic symptoms, the severity fell short of fulfi l-
ing clinical high risk (CHR) state for psychosis. It was in December 2013 that
we could confirm his CHR status after intensive clinical assessment as his
ninth yearly evaluation. His clinical diagnosis by SCID-I was depressive
disorder NOS. Henceforth, he has been receiving both psychosocial and
pharmacological treatment as an outpatient at the SYC.
Conclusion: Further studies on healthy and clinically symptomatic GHR
subjects are suggested so that markers of vulnerability factors and protec-
tive markers would be discovered.

C134
Effects of N-acetylcysteine on clinical symptoms and functioning in subjects with at-risk mental state: a case series
Nobumi Miyake, Seiya Miyamoto, Yusuke Yamashita, Yuriko Ninomiya, Tomomi Tenjin, Hisashi Harada, Jun Arau, Sachiko Tskahara, Yukie Ito, Masanori Tadokoro, Taku Iwakura, Noboru Yamaguchi
Department of Neuropsychiatry, St. Marianna University School of Medi-
cine, Japan
Objective: The safer preventive intervention of psychosis in subjects with
an at-risk mental state (ARMS) is warranted. Given that N-acetylcysteine,
a cysteine precursor, has neuroprotective effects, its preventive use in
psychosis merits investigation.
Methods: Five subjects were given N-acetylcysteine (2000 mg/day) as
supplementation for 12 weeks. Clinical evaluations were conducted at
baseline and 24 weeks. The outcome measures were changes in the Scale
of Prodromal Symptoms (SOPS), the Brief Assessment of Cognition in
Schizophrenia (BACS), the Schizophrenia Cognition Rating Scale (SCoRS),
UCSD Performance-based Skills Assessment-Brief (UPSA-B), and Schizo-
phrenia Quality of Life Scale (SQLS). This work was supported by JSPS
Grant-in-Aid for Young Scientists (B) 24791239. This study protocol was
approved by the bioethics committee of St. Marianna University School of
Medicine, and written informed consent was obtained from all participants.
Results: N-acetylcysteine improved the SOPS total score from baseline
to endpoint (p=0.080). Moreover, significant improvements were observed
in the BACS composite z-score (p=0.043) and the SCoRS score (p=0.038).
The UPSA-B and the SQLS scores were also improved, but they were not
statistically significant. No serious adverse events were observed during
the trial.
Conclusions: This is the first report that examined the effects of N-acetyl-
cysteine on clinical symptoms and functioning in subjects with an ARMS.
The results suggest that NAC may be safe and may also have beneficial
effects on psychopathological symptoms, cognitive functions, and func-
tional capacity. Further controlled intervention trials of N-acetylcysteine
using larger sample sizes and longer follow-up period are required to
confirm our initial findings.

POSTER ABSTRACTS
C135 The Stavanger model: Norwegian primary prevention of psychosis (POP) study

Kjersti Nedrebo, 1 Robert Jorgensen, 1 Inge Joa, 1, 2 Jan Olav Johannessen 1, 2
1 Stavanger University Hospital, 2 University of Stavanger, Norway

Aim: Is primary prevention of psychosis possible?

Background: Since 1997, the Scandinavian TIPS study has been implemented in our region with a low threshold access to an Early Detection (ED) team and extensive information campaigns in order to achieve successful early intervention for first-episode psychosis. In March 2012, the services added to the ED a new study focusing on early detection of persons with prodromal/ultra-high risk symptoms. Persons aged between 13 and 65 years living in the area and meeting the UHR criteria in the SIPS (Structured Interview for Prodromal Symptoms) manual are offered inclusion in the POP study. Stavanger University Hospital and The Fonna health care trust catchment area for the study has a population base of 500,000.

Methods: The POP study offers included patients the following treatment. The first component is Cognitive Behavior Therapy (CBT) over 12 sessions, which aims at starting within 2 weeks after inclusion. The second component is Single-Family Therapy treatment, which is offered weekly during the first 6 months of treatment. The third component is omega-3 fatty acid. Symptoms are monitored every month for the first 6 months, then every 3 months up to 2-year follow-up.

Results: From 2012 to present date, 95 persons have been screened with SIPS. 41 persons met inclusion criteria and 34 persons consented to participation. During follow-up, 4 persons have converted to psychosis.

C136 Childhood trauma and perceived parenting in individuals at ultra-high risk for psychosis are associated to reelin promoter hypermethylation

Attilio Rapisarda, 1, 4 Dawn XP Koh, 3 Amanda Chin, 3 Judy CG Sng, 3 Jimmy Lee 1, 2, 3
1 Research Division, Institute of Mental Health/Woodbridge Hospital, 2 Department of General Psychiatry, 1 Institute of Mental Health/Woodbridge Hospital, Singapore Institute for Clinical Sciences, 3 A*STAR, 4 Neurosciences & Behavioral Disorders, Duke-National University of Singapore Graduate Medical School, 5 Office of Clinical Sciences, Duke-NUS Graduate Medical School, National University of Singapore, Singapore

Childhood adversities are associated with later development of psychiatric disorders, but the aetiology of these disorders remains unknown. We present a study to elucidate the epigenetic mediation between reported childhood trauma and parenting, and psychopathological risk. We posit this risk to be mediated by DNA hypermethylation of the reelin gene promoter, which is involved in neuronal migration and synaptogenesis. Participants aged 14–29, recruited from the community, were assessed by Structured Clinical interview for DSM IV Axis I (SCID-I) and Comprehensive Assessment of At-Risk Mental State (CAARMS). Data on parent–child relationships and child trauma were collected by Parental Bonding Instrument (PBI) and Child Trauma Questionnaire (CTQ). The clinical assessment was complemented by Positive and Negative Syndrome Scale (PANSS), Calgary Depression Scale for Schizophrenia (CDSS) and Beck Anxiety Inventory (BAI). Genomic DNA was extracted from peripheral blood leukocytes, bisulphite-converted, PCR-amplified and pyro-sequenced. Methylation percentage was entered into a regression model to predict clinical risk. DNA hypermethylation on the reelin CpG island 1 was significantly associated with higher positive symptoms scores, higher emotional, physical, sexual abuse and physical neglect. The association between low PBI Maternal Care and reelin hypermethylation was marginally significant. Abnormal DNA hypermethylation on reelin CpG island 1 was positively and significantly associated with CAARMS composite score. Our results suggest that the impact of early social and emotional adversities is possibly mediated by DNA hypermethylation of the reelin gene. This finding encourages us to further investigate the role of early life experiences to alter epigenetic patterns in genes crucial for neurodevelopment and mental health.

C137 Glutamatergic disturbances in subjects at ultra-high risk of psychosis and the effect of cognitive remediation therapy

Christina Wenneberg, 1 Merete Nordenstøft, 1 Birte Yding Glenthøj, 2 Egill Rostrup, 3 Louise Birkedal Glenthøj, 1 Kristine Krakauer, 1 Dorte Nordholm, 1 Lone Sandbrekke 1
1 Research Unit of Psychiatric Centre Copenhagen, 2 Lundbeck Foundation Centre for Clinical Intervention and Neuropsychiatric Schizophrenia Research, 3 Functional Imaging Unit, Copenhagen University Hospital Glostrup, Denmark

The search for relevant biomarkers seems significant in the detection of UHR subjects and for monitoring the subsequent treatment effect. Disturbances in function of the neurotransmitter glutamate have long been suspected to be involved in the pathophysiology of schizophrenia. Cognitive deficits in schizophrenia are present prior to the onset of psychosis, and may be linked to perturbed glutamate function. The need for nonpharmacological interventions for improving cognitive functions is emphasized by the link between glutamatergic disturbances and cognition as well as the fact that psychological intervention seems more promising in the earlier prodromal stages than antipsychotics. It is plausible that an effect on glutamatergic levels will be seen in UHR subjects following cognitive remediation therapy. Finding these correlations offers an opportunity to find UHR subjects with glutamatergic disturbances and intervene at an early stage. We will examine differences in glutamate levels in UHR subjects compared with healthy controls, and aim to investigate whether the anticipated disturbances in UHR subjects are a predictor of clinical outcome. The effect of CRT on these expected glutamatergic disturbances, and whether reduced glutamate release in the prefrontal cortex is seen concomitant to enhanced cognitive functioning are examined. 126 patients will be randomised to either the experimental intervention (CRT in the form of a computerised training program) or standard intervention (regular contact to health professionals in inpatient and outpatient facilities) using the instrument CAARMS. The UHR subjects will be examined longitudinally throughout a year (MRI and 1H-MRS + diagnostic, psycho-pathological, and cognitive testing). Inclusion is ongoing.