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Oral Sessions

Session #	Title	Day, Date, Time, Location
Session 1	**Adolescence and anomaleus self-experiences** (?page=oral_sessions#1)	Thursday, October 20 1:00 - 2:30 pm, Parini
Session 2	**Duration of Untreated Psychosis, Stigma and Trauma** (?page=oral_sessions#2)	Thursday, October 20 1:00 - 2:30 pm, Porta
Session 3	**Sibling, friends and carers, how can they help?** (?page=oral_sessions#3)	Thursday, October 20 1:00 - 2:30 pm, Monti
Session 4	**Age of onset and interventions for children of patients with mental disorders** (?page=oral_sessions#4)	Thursday, October 20 2:45 - 4:15 pm, Parini
Session 5	**Virtual reality and digital technology** (?page=oral_sessions#5)	Thursday, October 20 2:45 - 4:15 pm, Porta
Session 6	**Clinical high risk populations, follow-up studies** (?page=oral_sessions#6)	Thursday, October 20 2:45 - 4:15 pm, Monti
Session 7	**Neural Mechanisms** (?page=oral_sessions#7)	Thursday, October 20 4:30 - 6:00 pm, Parini
Session 8	**Borderline personality disorder and transdiagnostic approaches** (?page=oral_sessions#8)	Thursday, October 20 4:30 - 6:00 pm, Porta
Session 9	**Sexual, mental and physical health** (?page=oral_sessions#9)	Thursday, October 20 4:30 - 6:00 pm, Monti
Session 10	**Psychosocial interventions for young people** (?page=oral_sessions#10)	Friday, October 21 1:00 - 2:30 pm, Parini
Session 11	**Negative symptoms and discontinuation of medication** (?page=oral_sessions#11)	Friday, October 21 1:00 - 2:30 pm, Monti
Session 12	**Childhood adversities and trauma** (?page=oral_sessions#12)	Friday, October 21 2:45 - 4:15 pm, Parini
Session 13	**Fighting stigma** (?page=oral_sessions#13)	Friday, October 21 2:45 - 4:15 pm, Porta
Session 14	**Psychopathology and disability** (?page=oral_sessions#14)	Friday, October 21 2:45 - 4:15 pm, Monti

Oral Session 1

Thursday, October 20, 1:00 - 2:30 pm, Parini

Adolescence and anomaleus self-experiences

Chair: Paolo Fiori, Co-Chair: Andrea Rabello
Speakers: Frauke Schultze-Lutter, Stephen J. Wood, Stefanie J. Schmidt, Martin Debbané, Nella Lo Cascio, Maya Rothbaum, Nelson Barnaby, David C. Cicero

Talk 1 Basic symptoms in the general population and their association with age.

Frauke Schultze-Lutter[1], Stephan Ruhrmann[2], Chantal Michel[1], Stefanie J. Schmidt[1], Jochen Kindler[1], Benno G. Schimmelmann[1]; [1]University of Bern, [2]University of Cologne

Recently, limited psychopathological significance of attenuated psychotic symptoms before the turn from early to late adolescence, i.e., age 15/16, was reported, which emphasizes the potentially important role of neurodevelopmental aspects in the early detection of psychoses. Thus, we examined the age effect on prevalence and clinical significance of 14 cognitive and perceptive basic symptoms (BS) included in risk criteria of psychosis in a randomly selected representative 8- to 40-year-old general population sample (N=689). Participants underwent clinical interviews for BS, psychosocial functioning, and current mental disorder on the telephone. BS were reported by 18% of participants, mainly cognitive BS (15%). Age seemed to affect perceptive and cognitive BS differently, indicating an age threshold for perceptive BS in late adolescence (around age 18) and for cognitive BS in young adulthood (early twenties)–with higher prevalence, but a lesser association with functional deficits and the presence of mental disorder in the below-threshold groups. Thereby, effects of the interaction between age and BS on functioning and mental disorder were commonly stronger than individual effects of age and BS. Supporting the proposed substrate-closeness of BS, differential age effects of perceptual and cognitive BS seem to follow normal brain maturation processes, in which they might occur as infrequent and temporary non-pathological disturbances. Their persistence or occurrence after the conclusion of main brain maturation processes, however, might signify aberrant maturation processes. Thus, BS might provide important insight into the pathogenesis of psychosis and into potential neuroprotective targets.

Talk 2 Adolescent brain development and the onset of psychosis.

Stephen J. Wood[1]; [1]University of Birmingham

Adolescence is a formative period of human development that is characterized by increases in affective reactivity, greater interest in and sensitivity towards peer-relationships, and an enhanced capacity to engage in behaviour directed towards long term goals. The developmental changes through this period promote the skills necessary for greater independence and enhance new forms of peer attachment, but they also create greater vulnerability to emotional and behavioural dysregulation. Indeed, the peak age of onset for psychotic illnesses is between 15 and 25, roughly equating to late adolescence. To demonstrate the importance of the adolescent developmental period for psychosis onset, epidemiological, cognitive, and brain imaging studies will be reviewed. Own as well as other studies provide significant evidence that adolescent onset of psychosis is associated with greater genetic loading, premorbid social impairments, more severe premorbid neurodevelopmental abnormalities, longer duration of untreated psychosis, a more severe clinical course and more severe negative symptoms. Furthermore, higher cognitive functions fail to show age appropriate gains during adolescence in those who later develop psychosis, while brain imaging data indicates faster maturation of grey matter regions. In conclusion, understanding the link between adolescence and the onset of psychosis, including the relationship with abnormal developmental trajectories of functional and structural brain networks, will assist in the search for biomarkers for the development of such illnesses.

Talk 3 Impact of age on competence and control beliefs and their association with attenuated psychotic symptoms in a patient sample

Stefanie J. Schmidt[1], Daniela Hubl[1], Benno G. Schimmelmann[1], Frauke Schultze-Lutter[1];
[1]University of Bern

Patients with first-episode psychosis show dysfunctional competence/control beliefs, with an excessive level of external control beliefs being linked to onset and severity of psychotic symptoms. Therefore, dysfunctional competence/control beliefs are considered to be risk factors for the development of psychosis. Accordingly, they were already reported for patients at clinical high risk (CHR) for psychosis. However, the developmental peculiarities of competence/control beliefs have been neglected so far. Thus, the aim of the study was to examine age effects on competence/control beliefs as well as on their association with ultra-high risk symptoms. The sample comprised 146 individuals (9-38 years), who sought help at the "Early Recognition and Intervention Center for mental crisis" (FETZ) Bern. Attenuated psychotic symptoms (APS) and brief intermittent psychotic symptoms (BIPS) as well as the respective UHR criteria were assessed using the Structured Interview for Psychosis-Risk Syndromes. Competence/control beliefs were assessed using the "Competence and Control Beliefs Questionnaire"; its age-adjusted standard T-values were classified into 2 categories: (1) below/above normal range or (2) within normal range. Age had a significant impact on competence/control beliefs. Thereby, adult patients (>18 years) reported an externalizing bias more frequently than children and adolescents. Furthermore, an externalizing bias was associated with a higher prevalence of APS, in particular perceptive APS and grandiose ideas, independent of age. This suggests that biases in competence/control beliefs develop throughout adolescence. Once developed, an externalizing bias might contribute to the formation and persistence or progression of APS. Thus, they likely represent worthwhile targets for an indicated prevention.

Talk 4 Mentalization in the development of psychotic disorders

Martin Debbané[1,2], George Salaminios[2], Deborah Badoud[1], Peter Fonagy[2], Patrick Luyten[2,3]; [1]University of Geneva, [2]University College London, [3]Catholic University Leuven

A number of higher order cognitive processes, including but not limited to insight, theory of mind, and metacognition, are thought to be impaired in individuals suffering from psychotic disorders. Recent studies involving youths at trait or state risk for psychosis suggest that these impairments most probably precede, at an attenuated level, the emergence of the first psychotic episode. These studies thus motivate to further scrutinize the developmental processes that may sustain, and perhaps help prevent, the onset of psychotic disorders. In this presentation, we will focus on mentalization as a set of higher order cognitive processes marking a key developmental achievement in the understanding psychological determinants of human behavior. Importantly, mentalization may represent a moderating, protective factor in the unfolding from trait vulnerability (schizotypy), to high risk states (basic symptoms and ultra high risk states) potentially culminating in the onset of psychosis. From a developmental perspective, mentalization is linked to early attachment relationships in childhood, and further develops throughout adolescence in the context of peer relationships and increasing social complexity. At the neural level, mentalization builds upon specialized social cognitive processes, and emerges through the integration of multiple functional networks. Therefore, in the maturing adolescent brain confronted to increasing interpersonal and social, mentalization

represents an integrative construct that can be examined in high risk samples. Perhaps more importantly, mentalization may prove to be a key target in indicated preventive treatment. Avenues for early intervention targeting specific mentalization dimensions will be discussed.

Talk 5 Diagnostic distribution of Self-disorders in help-seeking adolescents: An early feature of the schizophrenia spectrum.

Nella Lo Cascio[1], Martina Brandizzi[1], Barnaby Nelson[2], Elena Monducci[1], Riccardo Saba[1], Claudia Dario[1], Alice Masillo[1], Giada Colafrancesco[3], Nicoletta Girardi[1], Andrea Raballo[4], Mauro Ferrara[3], Paolo Fiori-Nastro[1]; [1]Department of Neurology and Psychiatry, Sapienza University of Rome, [2]Orygen, The National Centre of Excellence in Youth Mental Health, University of Melbourne, [3]Department of Pediatrics and Pediadric Neuropsychiatry, Sapienza University of Rome, [4]Norwegian Centre for Mental Disorders Research (NORMENT), University of Oslo

Self-disorders (SD) have been considered as a core feature of schizophrenia in both classical and recent psychopathological literature. However, the specificity of SD to the schizophrenia spectrum has mainly been tested in adult samples, with studies in adolescents being scarce. Thus, the aims of this study were: 1) to examine the specificity of SD to the schizophrenia spectrum in a help-seeking adolescent sample; 2) to explore the correlations between SD and social and role functioning. One hundred 13-18-year-old inpatients underwent a comprehensive psychopathological examination. SD were assessed using the Examination of Anomalous Self-Experiences (EASE), and social and role functioning were assessed using the Global Functioning: Social (GF:S) and Role (GF:R) scales. The diagnostic distribution of the EASE scores was tested using Mann-Whitney U test, the correlations between the EASE scores and the GF:S and GF:R scores were tested using Spearman's ρ. EASE scores were significantly higher in schizophrenia spectrum disorders than in other spectrum disorders, whereas in schizophrenia spectrum psychoses and schizotypal personalities did not differ. Furthermore, higher EASE scores significantly correlated with lower GF:S and GF:R scores. This findings confirm the validity of SD as an experiential vulnerability phenotype of the schizophrenia spectrum, even in adolescents.

Talk 6 Disturbances of the Basic Self and Prodromal Symptoms among Non-help-seeking Adolescents from the Community: A Population-based 1-year Follow-up Study.

Maya Rothbaum[1], Liza Lacua[1], Lily Yaqar Rothshild[1], Danny Koren[1,2]; [1]Department of Psychology, University of Haifa, [2]Department of Psychiatry, Rambam Medical Center, Haifa

Background and goals: Recent findings including from our own group provided first, preliminary support for the notion that basic-self-disturbances (SD) are related to prodromal symptoms among non-psychotic help-seeking adolescents. Because a sizable proportion of adolescents who are at risk do not seek help, the aim of this study was to assess the extent to which these findings are generalizable to the entire population of adolescents who are at risk for psychosis. Another goal was to assess the ability of SD to predict change in prodromal symptoms over time. Method: The concurrent and 1-year longitudinal relationship between BSD and prodromal symptoms were explored in a sample of 100 non-help-seeking adolescents (age 13-15) from the community. BSD were assessed with the Examination of Anomalous Self-Experience (EASE), prodromal symptoms and syndromes were assessed with the Structured Interview for Prodromal Syndromes (SIPS), psychosocial functioning was assessed with the Social and Role Global Functioning Scales, and level of distress with the Mood and Anxiety States Questionnaire (MASQ). Results: SD were significantly correlated with sub-clinical psychotic symptoms both concurrently (r=.70, p<.0001) and longitudinally (r=.53, p=.0001). These correlations were significantly stronger than those of SD with mood symptoms and social functioning. Finally, SD was the single best predictor of prodromal symptoms and syndromes both at baseline and over time. Conclusions: These results provide preliminary support for the generalizability of the association between SD and prodromal symptoms to the entire population of adolescents at clinical high risk for psychosis. In addition, they provide additional support for the notion that this association is both specific and unique.

Talk 7 Self disturbance: A construct to integrate phenomenology and neurocognition in early psychosis?

Nelson Barnaby[1], Li E[1], Whitford T[1], Gaweda L[1], Koren Danny[2,3], Leitan N[1], Sass Louis[4], Lavoie Suzie[1]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, University of Melbourne, [2]Department of Psychology, University of Haifa, [3]Department of Psychiatry, Rambam Medical Center, Haifa, [4]Rutgers University, State University of New Jersey

Introduction Over recent years there has been a striking similarity in the findings of phenomenological and neurocognitive studies of psychosis. We have recently proposed a model that integrates phenomenological research, indicating basic self-disturbance as a core feature of schizophrenia spectrum disorders, with neurocognitive research into aberrant salience and source monitoring deficits. We are currently conducting a study at Orygen to test this model. The study rationale, study design and preliminary data will be presented at the conference. Methods Ultra high risk (UHR) and first episode psychosis (FEP) patients are being recruited from Orygen Youth Health, a youth mental health service in Melbourne. Baseline and one year follow-up assessments consist of a range of clinical measures of basic self-disturbance and other clinical features (EASE, CAARMS, SCID, SOFAS) and neurocognitive (cognitive and psychophysiological) measures of source monitoring deficits and aberrant salience. Analyses will determine the relationship between these measures and their predictive utility. Results To date, 31 UHR and 14 FEP participants have been recruited. The preliminary data indicate negative correlations between basic self-disturbance and temporal binding and memory for self-generated acts, indicating a relationship between anomalous self-experience (phenomenological level) and compromised sense of agency/source monitoring (neurocognitive level). Conclusions This study may have theoretical implications, as it may contribute to developing a cross-domain model of pathogenic mechanisms, and clinical implications, as it may lead to the introduction of supplementary tools to improve the ability to identify young people at highest risk of psychotic disorders and contribute to preventive treatments in this group.

Talk 8 Introducing the Inventory of Psychotic-Like Anomalous Self-Experiences (IPASE): Development and Validation of a New Measure

David C. Cicero[1], Mallory J. Klaunig[1], Aaron M. Neis[1], Christi L. Trask[1]; [1]University of Hawai'i at Manoa

Anomalous self-experiences (ASEs) are disturbances in the subject experience of the self and are among the first symptoms to appear in the prodrome. ASEs are common in people with schizophrenia and may predict the development of psychosis over and above clinical symptoms. Although there are well-validated phenomenological interviews for assessing ASEs, there are no self-report measures. The current research describes four studies designed to develop and validate a new inventory to assess ASEs. In Study 1, an over-inclusive item pool was generated based on phenomenological descriptions of ASEs, and items were kept or discarded based on factor loadings in an exploratory factor analysis. Five factors were extracted including disturbances in Cognition, Consciousness, Self-Awareness and Presence, Somatization, and Transitivism/Demarcation. The five-factor structure was confirmed in Study 2, and IPASE scores were correlated with self-report and task measures of self-processing including self-concept clarity, self-consciousness, and self-esteem as well as measures of psychotic-like experiences. In Study 3, people with positive schizotypy had higher IPASE scores than a negative schizotypy and comparison group. In Study 4, people with schizophrenia had higher IPASE scores than healthy controls. In the schizophrenia sample, IPASE scores were correlated with severity of delusions, hallucinations, and paranoia on both interview-rated and self-report measures, but not with negative symptoms, disorganized symptoms, or IQ. The IPASE was also strongly correlated with self-concept clarity in this sample. Overall, the IPASE displayed strong psychometric qualities and may be a supplement to existing interviews in clinical, at-risk, and general population samples.

Oral Session 2

Thursday, October 20, 1:00 - 2:30 pm, Porta

Duration of Untreated Psychosis, Stigma and Trauma

Chair: Max Birchwood, Co-Chair: Eric Chen
Speakers: Max Birchwood, Nina Schnyder, Joanne Newbury, Sarah Ann Tay, Katharine Chisholm, Natalia Yen Lin Yee, Jordan DeVylder, Ilaria Tarricone

Talk 1 Don't turn your back on the symptoms of psychosis: the results of a quasi-experimental trial to reduce duration of untreated psychosis

Max Birchwood[1], Charlotte Connor; [1]University of Warwick, [2]University of Warwick

Background: No evidence based approach to reduce duration of untreated psychosis (DUP) has been effective in the UK. Existing interventions have many components and have been difficult to replicate. The majority of DUP in Birmingham, UK is accounted for by delays within mental health services (MHS) followed by help-seeking delay and, we hypothesise, these require explicit targeting. This study examined the feasibility and impact of an intervention to reduce DUP, targeting help-seeking and MHSs delays. Methods: A dual-component intervention, comprising a direct care pathway, for 16-25 year olds, and a community psychosis awareness campaign, using our youth-friendly website as the central hub, was implemented, targeting the primary sources of care pathway delays experienced by those with long DUP. Evaluation, using a quasi-experimental, design compared DUP of cases in two areas of the city receiving early detection vs detection as usual, controlling for baseline DUP in each area. Results: DUP in the intervention area was reduced from a median 71 days (mean 285) to 39 days (mean 104) following the intervention, with no change in the control area. Relative risk for the reduction in DUP was 0.74 (95 % CI 0.35 to 0.89; p = .004). Delays in MHSs and help-seeking were also reduced. Conclusions: Our targeted approach appears to be successful in reducing DUP and could provide a generalizable methodology applicable in a variety of healthcare contexts with differing sources of delay. More research is needed, however, to establish whether our approach is truly effective.

Talk 2 The Influence of Mental-Health Related Stigma on Help-Seeking - a Meta-Analysis

Nina Schnyder[1], Radoslaw Panczak[2], Nicola Groth[1], Frauke Schultze-Lutter[1]; [1]University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern, [2]Institute of Social and Preventive Medicine, University of Bern

Mental disorders are a leading cause of disability and create high individual and societal costs, partly because help-seeking is often delayed or completely missing. Stigma is discussed as a main reason of avoiding treatment. We conducted a systematic review and the first meta-analysis to estimate the effect of four stigma types (help-seeking attitudes, personal, self- and perceived public stigma) on active help-seeking in the general population. We searched three electronic databases using keywords related to mental disorder AND stigma AND help-seeking. We conducted four random effect meta-analyses according to the stigma type. We identified 6'805 potentially eligible studies published between January 1990 and July 2015. 27 studies fulfilled eligibility criteria. Negative help-seeking attitudes (OR=0.81, 95%CI=0.74-0.88) and more personal stigma (OR=0.82, 95%CI=0.69-0.98) predicted less active help-seeking for mental illness. Self-stigma and perceived public stigma showed no effect on active help-seeking. We observed a significant between-study heterogeneity overall (61.3%-91.3%). Our results confirm that stigma has a significant, though differential influence on active help-seeking in the general population. The strongest effect was for own attitudes towards mental health providers/treatment and persons with mental disorder. The perceived attitudes of others, the public, and, at least at an early stage of seeking help, self-stigma seem to play little role. This indicates that anti-stigma campaigns should address the individual's attitudes and that individuals with mental disorder should be supported in their self-image at an early state to avoid development of self-stigma.

Talk 3 Neighbourhood adversity, crime victimisation and adolescent psychotic experiences: findings from a longitudinal cohort study

Joanne Newbury[1], Louise Arseneault[1], Avshalom Caspi[1,2], Terrie E Moffitt[1,2], Candice L Odgers[3], Helen L Fisher[1]; [1]MRC Social, Genetic & Developmental Psychiatry Centre, Institute of Psychiatry, Psychology and Neuroscience, King's College London, [2]Departments of Psychology and Neuroscience, Psychiatry and Behavioral Sciences, and Centre for Genomic and Computational Biology, Duke University, [3]Center for Child and Family Policy and the Sanford School of Public Policy, Duke University

Purpose: Adolescent psychotic experiences are relatively common, and associated with a greater risk for adult psychotic disorder. Despite the prevalence and clinical relevance of early psychotic experiences, little is known about the impact of the wider social environment on the emergence of these experiences during adolescence. We investigated the longitudinal associations of urbanicity, neighbourhood-level characteristics, and violent crime victimisation with adolescent psychotic experiences. Materials and methods: Analyses were conducted on over 2000 participants from the E-Risk Longitudinal Twin Study. Urbanicity, neighbourhood-level characteristics (e.g. social cohesion) and crime victimisation were measured via a comprehensive battery of methods including geocoded census data, resident surveys of over 5000 E-Risk neighbours, and self-reports by E-Risk participants themselves. Adolescent psychotic experiences were ascertained in private interviews when participants were aged 18. Regression and interaction analyses adjusted for potential confounders including family SES, family psychiatric

history, and adolescent mental health problems. Results: Childhood urban residency was significantly and specifically associated with adolescent psychotic experiences (OR=1.62, 95% CI=1.15-2.29, p=0.006). Adverse neighbourhood-level characteristics at age-12 were also significantly and specifically associated with adolescent psychotic experiences. Participants exposed to both neighbourhood adversity and violent crime victimisation had a substantially elevated odds for adolescent psychotic experiences (OR=6.51, 95% CI=4.52-9.39, p<0.001), highlighting an additive interaction between these exposures (ICR=2.65, 95% CI=0.29-5.02, p=0.028). Conclusion: Neighbourhood factors that have previously been implicated in adult psychosis may also be relevant to adolescent psychotic experiences. Childhood exposure to neighbourhood-level stressors may increase adolescents' sensitivity to subsequent violent crime victimisation, thereby increasing susceptibility to psychotic experiences.

Talk 4 Childhood trauma exposure and severity of psychotic symptoms in a first episode psychosis group in Singapore

Sarah Ann Tay[1], Yu Hai Eric Prof Chen[2], Lye Yin Poon[1], Edimansyah Dr Abidin[1], Swapna A/Prof Verma[1]; [1]Institute of Mental Health Singapore, [2]University of Hong Kong

This study examines the prevalence of childhood trauma as well as its association with severity of psychotic symptoms in patients with first episode psychosis. Eighty one patients on follow-up with the Early Psychosis Intervention Programme were recruited. Childhood Trauma Questionnaire was administered to assess history of childhood trauma exposure. Severity of symptoms was assessed by the PANSS and GAF scale. Socio- demographic and clinical data were compared between the two groups using independent t-test and chi square test followed by multiple linear regression to adjust for confounder effects. The mean age was 25.9 (6) years. Prevalence of trauma was 54.3%. PANSS negative and total scores were positively and significantly associated with female gender, unemployment and lower education and negatively associated with positive history of childhood trauma. There was a significant improvement in GAF total scores over 1 year of follow-up across the entire cohort (39.7 vs. 67.8, Mean Diff. = -28.1; p <0.001), however, those with a history of childhood trauma had lower mean scores on GAF symptoms scale than those without a history of childhood trauma F(df) = 2.7(3,108), p value = 0.047). We found a high prevalence of trauma history, consistent with previous findings. Contrary to our hypotheses, we found that a history of trauma was associated with lower symptom severity at first presentation, especially the negative symptoms. However, we did find that at one year those with a positive history of childhood trauma had lesser improvement in symptom severity compared to those without a history of trauma.

Talk 5 Childhood abuse in first episode psychosis, depression, individuals at risk of psychosis, and controls: A comparison of participants from the PRONIA dataset

Katharine Chisholm[1], Mariam Iqbal[1], Alexandra Stainton[1], Stephen Wood[1,2], PRONIA study group[3]; [1]School of Psychology, University of Birmingham, [2]Melbourne Neuropsychiatry Centre, University of Melbourne, [3]EU Consortium

Childhood abuse has been causally linked to the emergence of psychiatric disorders, in particular mood disorders. Evidence of the role childhood trauma may play in the development of psychotic symptoms has also become more substantial. In addition there is evidence that childhood abuse may be a risk factor for psychotic like experiences in the general population, as well as in populations who are at risk of developing psychosis (CHR groups). Participants were recruited by the PRONIA consortium as part of a larger prospective study. Trauma was measured using the childhood trauma questionnaire. 401 participants (age 15-40 years old) were included in the analysis. This included 78 first episode psychosis (FEP; mean age 25.63), 77 CHR (mean age 23.63), 66 first episode depression (mean age 25.85), and 180 healthy controls (mean age 25.03). Significant differences of reported childhood trauma were observed between the groups for emotional abuse, F(3,337)=20.00, p<0.001, physical abuse, F(3,343)=8.241, p<0.001, sexual abuse, F(3,338)=6.39, p<0.001, emotional neglect, F(3,303)=26.64, p<0.001, and physical neglect, F(3,321)=16.64, p<0.001, as well as for overall trauma, F(3,282)=32.66, p<0.001. Planned contrasts found that clinical groups had experienced significantly more abuse than controls. The results showed a relatively consistent pattern of individuals with FEP reporting the highest levels of abuse across all subscales, followed by CHR participants, then individuals with depression, with controls reporting the lowest levels of abuse. Childhood abuse appears to be significantly elevated in individuals with early stage or emerging mental illnesses, in particular those with psychosis.

Talk 6 **Stages of Psychosis in Prison (SOPP): Examining the psychosis continuum among prison entrants in New South Wales (NSW), Australia**

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

Research on early intervention in psychosis has largely ignored those in contact with the criminal justice system despite the enormous burden of illness suffered by this population, a burden which can be worsened by the impact of incarceration. The 'Stages of Psychosis in Prison' (SOPP) project aims to understand the prevalence and nature of the different stages of psychosis [at-risk mental states (ARMS), first episode of psychosis (FEP), and established psychosis] within a sample of new prison entrants. Participants consist of a sample of adult inmates and juvenile detainees who have been referred to in-reach mental health services for possible or established psychosis. Semi-structured interviews utilising selected modules of clinical instruments [The Comprehensive Assessment of At Risk Mental States (CAARMS), Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), Structured Clinical Interview for DSM-IV-TR Axis II Personality Disorders (SCID-II)], criminal justice, and mental health records are used to understand the possible sociodemographic, clinical and offending-related factors that might be operating differently along the different illness stages. Initial data from a total of 155 participants will be presented including their CAARMS profile (44% met the psychosis threshold and 21% met the Ultra High Risk criteria), any lifetime diagnosis of psychosis (65% had a previous diagnosis), and nature of index offence (violent vs. nonviolent). The significance of findings from the study in terms of informing developments in service provision for prisoners with serious mental illness including those with emerging psychosis will also be highlighted.

Talk 7 **THIS ORAL HAS BEEN CANCELLED**

Talk 8 **Risk of psychosis and internal migration: results from the Bologna First Episode Psychosis Study**

Ilaria Tarricone[1], Jane Boydell[2], Marco Menchetti[1], Marta Di Forti[2], Robin M Murray[2], Craig Morgan[2], Domenico Berardi[1]; [1]Bologna Transcultural Psychosomatic Team (BoTPT), Department of Medical and Surgical Sciences, University of Bologna, [2]Institute of Psychiatry, Psychology & Neuroscience, King's College London

Background: Incidence of psychotic disorders is higher in many migrant groups; however little is known about internal migrants (IM). This study aims to describe the IR in natives (NA), IM and external migrants (EM) Method: All patients aged 18-64 years, with First Episode Psychosis (FEP), who made contact with the Bologna West psychiatric services, between 2002 and 2010, were included. Results: 187 cases were included. Age and sex adjusted IR of psychosis per 100.000 per year were: 12.6 for NA, 25.3 for IM and 21.4 for EM. The IRR was 1.93 (1.19-3.13, p=0.007) for IM and 1.79 (1.06-3.02, p=0.03) for EM compared to NA. Conclusion: Rates of psychosis were significantly elevated in IM as well as in EM. This result adds evidence as to the role of migration itself (versus ethnicity) on the risk of psychosis. References : 1. Tarricone I., Mimmi S., Paparelli A., Rossi E., Mori E., Panigada S., Carchia G., Bandieri V., Michetti R., Minenna G., Boydell J., Morgan C., Berardi D., 2012. First-episode psychosis at the West Bologna Community Mental Health Centre: results of an 8-year prospective study. Psychol. Med.; 7:1-10. 2. Tarricone I, Boydell J, Kokona A, Triolo F, Gamberini L, Sutti E, Marchetta M, Menchetti M, Di Forti M, Murray RM, Morgan C, Berardi D. 2016 . Risk of psychosis and internal migration: Results from the Bologna First Episode Psychosis study. Schizophr Res.; 173(1-2):90-3.

Oral Session 3

Thursday, October 20, 1:00 - 2:30 pm, Monti

Sibling, friends and carers, how can they help?

Chair: Jo Smith, Co-Chair: Juliana Onwumere
Speakers: KW Sherry Chan, Jacqueline Han Pui Sin, Sigrid Stjernswärd, Juliana Onwumere, Jacqueline Sin, Siann Bowman, Chris Harrop, Heather Robinson

Talk 1 **Development of web-based psychoeducation program for caregivers of patients with psychosis**

KW Sherry Chan[1]; [1]Hong Kong University

Psychotic disorders have a prevalence of 3% presenting a major global burden to society. Informal care by the family members plays a pivotal role in improving outcomes of people with psychosis. Most of the services for caregivers are provided by the local non-governmental organizations (NGOs) in Hong Kong with mainly short-term face-to-face family groups. These services provide support and information to caregivers and allow a more personal sharing among them. However, the extent of services is limited by several barriers including logistic difficulties (restricted availability of venue and time), inflexible with different needs of caregivers and self-stigmatization. An interactive internet-based psychoeducation service (www.ipep.hk) has been developed to fill the gaps of service. More than 800 members were recruited for the website over a period of two years. About 10% (n=81) of the members were randomly selected and invited for a questionnaire-based evaluation of the website. Majority of the caregivers reported that the website enhances knowledge on psychosis (85.2%); increases understanding of local resources (77.5%) and makes them feel supported (74.7%). The participants also found that information on knowledge of psychosis (77.8%), updates on activities related to psychosis (66.7%) and YouTube learning videos recorded by healthcare professionals (66.2%) are particularly useful. Ten members were invited for a usability test and results suggesting that iPEP is user-friendly. A manual-based psychoeducation program utilizing the function of iPEP has also been developed. The online platform can potentially be useful and effective in providing psychoeducation to some groups of caregivers.

Talk 2 The E Sibling Project: An online psychoeducation and peer support intervention for siblings of individuals affected by psychosis

Jacqueline Han Pui Sin[1]; [1]King's College, London

Background: Siblings of individuals affected by psychosis often take on the role of caregiver for their unwell brother/sister, as well as providing support for other family members.1,2 To date, few studies have investigated how best to target sibling-specific needs, given that they are likely to want flexible and self-paced interventions which fit in with other life commitments. Aim: We describe the development and pilot feasibility trial, undertaken as part of the E Sibling Project: the first fully online intervention for siblings. Results: The intervention was informed by several systematic reviews, focus group and individual interviews with siblings. The intervention comprised psychoeducation about psychosis, strategies to enhance caregiving and improve mental wellbeing, peer-to-peer support, and an 'Ask the Experts' forum. Twenty siblings participated in a non-randomised feasibility study to evaluate intervention usability and acceptability. The intervention was considered 'helpful, relevant and useful' in terms of design, content and usability. The 'Ask the Experts' and Peer Discussion forums were the most commonly accessed components; input and moderation by mental health professionals was deemed to augment intervention credibility and participant satisfaction.3 Conclusions: Our findings suggest that siblings can make use of and benefit from online interventions. Further studies are needed to determine if findings are replicable; and to establish whether improvements in siblings' caregiving and coping capacity are associated with improvements in service users' outcomes.

Talk 3 Effectiveness of a web-based mindfulness intervention for families living with mental illness - a randomized controlled trial.

Sigrid Stjernswärd[1], Lars Hansson[1]; [1]Department of Health Sciences, Lund University, Sweden

Background: Of families living with mental illness (MI), 40% experience such psychological distress that they require therapeutic interventions. Web-based mindfulness interventions (MFI) have shown beneficial health outcomes for both clinical and healthy populations, and effectiveness in reducing caregiver stress. Such interventions may help families cope and overcome barriers that can otherwise hinder a help-seeking process. A feasibility study of a web-based MFI for families living with MI indicates that it can be useful to increase levels of mindfulness and self-compassion and reduce levels of perceived stress and caregiver burden. Aims: To explore the effectiveness of a web-based MFI for families living with MI. Methods: A randomized controlled trial to compare the effectiveness of an 8-week web-based MFI in an experimental group with a no treatment wait-list control group that will be offered the program after post-assessment of the experimental group. The study has a pre-post design and follow-up after 3 months, with mindfulness (FFMQ) as the primary outcome and perceived stress (PSS), caregiver burden (CarerQoL-7D) and self-compassion (SCS-SF) as secondary outcomes. Results: The RCT is ongoing. Preliminary results will be presented at the conference. Discussion: Acceptability and feasibility of the intervention in the pilot study was high. Outcomes were relevant

and the intervention showed positive and significant results supporting the hypothesis that the intervention may help families cope with a stressful situation. These findings motivate the present RCT to investigate the intervention's effectiveness.

Talk 4 Supporting family carers using a massive open online course (MOOC): exploring the perspectives of carers

Juliana Onwumere[1], Grace Parkyn[2], Elizabeth Kuipers[1]; [1]King's College London, [2]South London & Maudsley NHS Foundation Trust

Digital interventions have an important role to play in facilitating the individualised management of mental health conditions. King's College London recently launched the first massive open online course (MOOC) focused on exploring key issues faced by those caring for people with psychosis and schizophrenia. The 2 week course, which offered flexible learning, was free to access for anyone across the globe with internet access. It addressed key topics that included how can we best understand psychosis conditions, their main symptoms, causes and treatments, physical health, and recovery. Issues affecting carer health and wellbeing, including those related to communication difficulties, impact of caring and the specific needs of siblings, were also addressed. The course comprised different components including video interviews, downloadable resources, infographics, quizzes, and learner polls and through moderated discussion boards, it offered ongoing opportunities for peer-to-peer learning. The talk presents qualitative data on carers' reasons for undertaking the course and their feedback following completion. Practice implications for online carer interventions delivered during the early psychosis phase are reviewed. The course was funded by Otsuka Lundbeck Alliance. Neither Otsuka nor Lundbeck had any influence on or input into the development of the content or materials for this course.

Talk 5 Wellbeing, mental health knowledge and caregiving experiences of siblings of individuals affected by psychosis: do they differ from their peers and parent-carers?

Jacqueline Sin[1,2], Claire Henderson[1], Jo Smith[3]; [1]King's College London, UK, [2]St George's, University of London, UK, [3]University of Worcester, UK

Background: The wellbeing and caregiving experiences of family carers supporting people with psychosis has garnered increasing interest in recent years. While there is evidence that the burden of caregiving can adversely impact on parents' wellbeing, few studies have investigated whether this is also the case for siblings, who often take on caregiving responsibilities. This study investigated the wellbeing, mental health knowledge, and caregiving experiences in siblings of individuals with psychosis. Methods: Using a cross-sectional study design, 90 siblings completed three validated questionnaires: Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS), Mental Health Knowledge Schedule (MAKS), and Experience of Caregiving Inventory (ECI). Data obtained were compared to general population norms and parent-carers' scores. Multi-variable regression analyses were conducted to examine relationships between questionnaire scores and demographic characteristics including age, sex, birth order, marital status, accommodation and educational level. Results: Siblings, especially sisters, had significantly poorer mental wellbeing, compared to normative scores. Conversely, they had better mental health knowledge. Siblings and parent-carers had comparable high levels of negative appraisals of caregiving experiences, but siblings reported feeling more satisfied with personal experiences and relationship. Multi-variable regression analysis revealed education level to be a significant predictor for better mental health knowledge but there were no other associations between siblings' demographic factors and their outcomes. Conclusions: Study findings suggest that siblings have overlapping as well as distinct needs, compared to parent-carers. Further research is required to better understand siblings' caregiving experiences so as to inform development of targeted interventions that promote wellbeing and enhance caregiving capacity.

Talk 6 The impact of First Episode Psychosis on the sibling relationship

Siann Bowman[1]; [1]La Trobe University, Australia

Background: Research and clinical practice in first episode psychosis (FEP) has predominantly focused on parents and partners and has neglected siblings' needs. This study aims to characterise the sibling relationship in FEP and to examine the illness related variables that influence this relationship. Method: Survey methodology explored the experience of 157 siblings during the first 18 months of their brother or sister's treatment. The Adult Sibling Relationship Questionnaire was used to measure the warmth, conflict and rivalry within the relationship. A series of multivariate regression analyses were conducted to determine the relationship

between illness characteristics and sibling relationship. Results: Younger sisters reported the warmest relationships overall, younger brothers had the least. When the young person experiencing FEP had a period of untreated psychosis longer than 6 months, required more than one admission to hospital, had persisting psychotic symptoms, continued to use substances, and/or had a history of physical violence, warmth within the sibling relationship deteriorated. Regression analysis revealed that a history of violence was a significant predictor of the warmth, conflict and rivalry within the sibling relationship. Suicide attempts were a significant predictor of conflict. Conclusion: This study has established associations between the sibling relationship and illness related variables. This study promotes consideration of the importance of including siblings in early intervention. Given the powerful role this relationship can have as a protective factor, this study could inform future interventions involving siblings.

Talk 7 People with psychosis want friends and love relationships - Can Professionals help?

Chris Harrop[1], Fiona Lobban[2], Lyn Ellett[3], Rachel Brand[4]; [1]West London Mental Health NHS Trust, UK, [2]Lancaster University, UK, [3]Royal Holloway, University of London, UK, [4]Swinburne University of Technology, Melbourne, Australia

Background: Family Interventions are well-established and proven effective, but for young adults, friends and romantic partners are possibly even more important than parents. Sadly, many people with psychosis are isolated and quickly lose their original friends. Social trauma and social defeat are common in psychosis, and linked to symptoms. Methods: In this presentation, an argument is developed that Friends Interventions are needed (analogous with Family Interventions), to save original friendships where possible and foster new ones otherwise. It is argued that Dating experiences are similarly under-researched. Study 1: Friends of young people with a psychosis (n=7) were interviewed about their experiences, using Qualitative analysis (Constructivist Grounded Theory). Study 2: People with psychosis (n=8) were interviewed using Interpretative Phenomenological Analysis about their dating experiences and beliefs. Results: Several factors helped friends remain engaged, such as long-term investment in the friendship and a perception they were "still the same person". Factors likely to threaten the friendship included embarrassing behaviour, repetitive and self-orientated reassurance seeking, and needing to make excessive effort to remain friends with an avoidant sufferer. People with a psychosis identified romantic relationships as both the thing they most wanted and they most feared. Positives included companionship and positive identity construction. Negatives included being scared, controlled and getting in trouble with family. They perceived very limited sources of experience, support and advice compared to their age group. Conclusion: We report on our experiences with Friends Interventions, and Dating Groups, and describe a research agenda to establish their feasibility, acceptability and effectiveness.

Talk 8 Relatives Education and Coping Toolkit (REACT) – lessons learnt from developing a national online trial for relatives/friends of people with psychosis or bipolar disorder

Heather Robinson[1], Fiona Lobban[1], Mahsa Honary[1]; [1]Lancaster University, UK

Objectives/ Background: Relatives and friends of people with psychosis/Bipolar Disorder (BD) provide a large amount of vital unpaid support, but this can come at a cost in terms of high levels of distress and burden, and increased use of healthcare services. The UK Government recognises the need to support relatives in a caring role and NICE recommends that this is done by providing them with structured information and support. However, evidence shows poor levels of access to these interventions to support relatives. The Relatives Education and Coping Toolkit (REACT) has been developed to meet this need. REACT is an online self-management intervention for relatives (defined as family or friends) of people with psychosis/BD, supported by Expert Relatives (REACT Supporters). Design/ Methods: REACT is currently being evaluated in a single-blind 2 arm pragmatic online RCT to compare REACT (including a Resource Directory - information on how to access current national support) + Treatment As Usual (TAU) versus Resource Directory + TAU. Development of the intervention and study design have been informed by systematic review of the literature, a feasibility trial, and extensive input from relatives. Results: This paper will present the lessons learnt in the development of the online intervention and the design of a large scale evaluation of its effectiveness. The findings will be of particular interest to researchers, clinicians, and service users interested in the growing use of online interventions in mental health. The trial is ongoing and therefore no data regarding outcome evaluation will be presented.

Oral Session 4

Age of onset and interventions for children of patients with mental disorders

Chair: Giovanni Girolamo, Co-Chair: Philippe Conus
Speakers: Mary Cannon, Giovanni de Girolamo1, Marta Di Forti, Philippe Conus, Giovanni de Girolamo, Charlotte Reedtz, Therese van Amelsvoort, Kathryn Abel

Talk 1 How Early Does Psychosis Start? Psychotic Experiences in Adolescence – Association with Functioning and Mental Distress

Mary Cannon[1], Ian Kelleher[1]; [1]Department of Psychiatry, Royal College of Surgeons in Ireland, Dublin, Ireland

PURPOSE: Psychotic experiences are far more common in the population than psychotic disorder and occur much earlier. They are associated with a number of adverse outcomes but there has been little work on functioning or distress. We wished to investigate functioning and distress in a community sample of adolescents with psychotic experiences. METHODS: Two hundred and twelve school-going adolescents aged between 11 and 13 years were assessed for psychotic experiences, mental distress associated with these experiences, global (social/occupational) functioning on the Children's Global Assessment of Functioning scale, and a number of candidate mediator variables, including neurocognitive functioning, psychopathology, suicidality and trauma. RESULTS Fifty-three participants reported psychotic experiences. Participants who reported psychotic experiences had significantly poorer functioning (mean CGAS 61.8 vs 74.5). Similarly, participants with an Axis I disorder who reported psychotic experiences had significantly poorer functioning than participants with disorder who did not report psychotic experiences (respective means 61.8 vs 74.5). Candidate mediator variables explained some but not all of the relationship between psychotic experiences and functioning. CONCLUSIONS: Young people with psychotic experiences have poorer global functioning than those who do not, even when compared with other young people with psychopathology (but who do not report psychotic experiences). The clinical implication of these findings is to highlight the importance of assessing psychotic experiences in young people who present with non-psychotic disorders. Further research to investigate mechanisms underlying the relationship between functioning and psychotic experiences will be valuable.

Talk 2 What is the Interval Between the Onset and Management of Bipolar Disorder? A Meta-Analysis

Giovanni de Girolamo1[1], Jessica Dagani[1], Giulia Signorini[1], Matthew Large[2], Olav Nielssen[3]; [1]1 St. John of God Clinical Research Centre, Brescia, Italy, [2]3 The School of Psychiatry , University of New South Wales, NSW, Australia, [3]2 St Vincents Hospital Sydney, University of Sydney, University of New South Wales, NSW, Australia

PURPOSE: To evaluate the length of the interval between the onset and the initial management of Bipolar Disorder (BD). METHODS: We conducted a meta-analysis using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Systematic searches located studies reporting estimates of the age of onset (AOO) and indicators of the age at initial management of BD. We calculated a pooled estimate of the interval between AOO and age at management. Factors influencing between-study heterogeneity were investigated using sensitivity analyses, meta-regression and multiple meta-regression. RESULTS: Twenty-seven studies, reporting 51 samples and a total of 9,415 patients met the inclusion criteria. The pooled estimate for the interval between the onset of BD and its management was 5.8 years (Standardized difference =.53, 95% Confidence Intervals =.45-.62). There was very high between sample heterogeneity (I-square = 92.6, Q-value =672). A longer interval was found in studies that defined the onset according to the first episode (compared to onset of symptoms or illness), and defined management as age at diagnosis (rather than first treatment or first hospitalization). A longer interval was reported among more recently published studies, among studies that used a systematic method to establish the chronology of illness, among studies with a smaller proportion of bipolar I patients and among studies with an earlier mean AOO. CONCLUSIONS: There is currently little consistency in the way researchers report the AOO and initial management of BD. However, the large interval between onset and management of BD presents an opportunity for earlier intervention.

Talk 3 Smoke High-Potency Cannabis and Become Psychotic Younger?

Marta Di Forti[1], A Trotta[1], L Ferraro[1], Simona Stilo[1], A Marconi[1], C La Cascia[1], V Mondelli[1], A Paparelli[1], A Kolliakou[1], Craig Morgan[1], JH McCabe[1], Robin M. Murray[1]; [1]Department of Psychosis Studies, Institute of Psychiatry, Kings College London, London, U.K.

PURPOSE: Cannabis use is associated with an earlier age of onset of psychosis (AOP). However, the reasons for this remain debated. METHODS: We applied a Cox proportional hazards model to 410 first-episode psychosis patients to investigate the association between gender, patterns of cannabis use, and AOP. RESULTS: Patients with a history of cannabis use presented with their first episode of psychosis at a younger age (mean years = 28.2, SD = 8.0; median years = 27.1) than those who never used cannabis (mean years = 31.4, SD = 9.9; median years = 30.0; hazard ratio [HR] = 1.42; 95% CI: 1.16-1.74; P < .001). This association remained significant after controlling for gender (HR = 1.39; 95% CI: 1.11-1.68; P < .001). Those who had started cannabis at age 15 or younger had an earlier onset of psychosis (mean years = 27.0, SD = 6.2; median years = 26.9) than those who had started after 15 years (mean years = 29.1, SD = 8.5; median years = 27.8; HR = 1.40; 95% CI: 1.06-1.84; P = .050). Importantly, subjects who had been using high-potency cannabis (skunk-type) every day had the earliest onset (mean years = 25.2, SD = 6.3; median years = 24.6) compared to never users among all the groups tested (HR = 1.99; 95% CI: 1.50- 2.65; P < .0001); these daily users of high-potency cannabis had an onset an average of 6 years earlier than that of non-cannabis users. CONCLUSIONS: Daily use, especially of high-potency cannabis, drives the earlier onset of psychosis in cannabis users.

Talk 4 Age at the Onset of a First Psychotic Episode: A Determinant of Outcome or a Marker of Specific Needs?

Philippe Conus[1], Benno G. Schimmelmann[2], Sue M. Cotton[3], Nadir Mebdouhi[1], Philippe Golay[1], Martin Lambert[2]; [1]DP-CHUV, Lausanne University, Switzerland, [2]PEDIC, University medical Center Hamburg-Eppendorf, Germany, [3]ORYGEN, National Centre of Excellence for Youth health, Melbourne, Australia

PURPOSE: Studies conducted in child psychiatry suggest that patients with earlier onset of psychosis (<18) have poorer outcome. However, few studies have been conducted in youth mental health program where these patients may actually receive treatment. Furthermore, few early psychosis studies have explored characteristics of patients with later onset of psychosis (≥26). In this talk we outline specificities of these 2 patient subgroups on the basis of two distinct studies. METHODS: Patients with onset before age 18 stem from the FEPOS study, a file based cohort of 704 patients treated at EPPIC between 1998 and 2000. Patients with onset at age or after 26 stem from the TIPP-Lausanne cohort, a clinical sample of 256 early psychosis patients followed-up prospectively over 3 years of treatment. RESULTS: In FEPOS, patients who had an early onset (18%) had poorer pre-morbid functioning and longer DUP but displayed no differences in outcome compared to the others. In the TIPP sample, patients with onset after age 26 (31.6%) had shorter DUP, were more frequently female and had better premorbid functioning and greater insight but were significantly more likely to have been exposed to trauma (sexual or physical abuse and migration). Outcomes and gains from the program were similar, except for a faster recovery in older patients with regards to general assessment of functioning and less negative symptoms overall. CONCLUSIONS: While age at psychosis onset doesn't seem to have a major impact on outcome, it defines subgroups of patients with different premorbid trajectories and specific treatment needs.

Talk 5 The Needs of Children Who Have Parents Suffering From Severe Mental Disorders

Giovanni de Girolamo[1], Valentina Candini[1], Giulia Signorini[1]; [1]St. John of God Clinical Research Centre, Brescia, Italy

Purpose: Mental illness in parents is a biological and environmental risk factor to which young people are exposed. Living with a parent suffering from a mental disorder may have a variety of detrimental consequences, including: (a) the reversal of caregiving ("parentification"), similarly to what happens in children looking after somatically ill parents; (b) the exposure to an adverse environment, where developmental needs of the child (emotional and practical) might be repeatedly neglected due to lack of parental resources or to a compromised family functioning (lack of communication, high expressed emotion, etc..); (c) stigma and discrimination. The main of this presentation is to provide a comprehensive review of the main areas of needs of these children and of the interventions which have been developed and tested so far. Methods: Systematic searches located studies reporting and assessing met and unmet needs of these children. Results: Young people living in such family contexts often have problems of internalizing and

externalizing symptoms, cognitions of shame, guilt, and loneliness, perceptions of lacking social support and social acceptance. Children who have parents suffering from mental disorders are up to two and a half times more likely to experience poorer mental health outcomes than their peers (Cowling et al.,2004). Compared to peers, children of parents with mental disorders are also at risk of poorer intellectual and social outcomes (Goodman & Brumley, 1990), of affect dysregulation (Lancaster, 1999), of behavioural problems (Beck, 1999), of impaired attention and reduced overall adaptive functioning (Garley et al., 1997), of higher rates of substance abuse and multiple diagnosis (Downey & Coyne, 1990) and finally of low occupational status, health risk behaviour and antisocial behavior (Seifer, 2003). Conclusions: Given the high toll paid by children having parents suffering from severe mental disorders, it is urgent to develop, test and implement structured programmes to help these children cope with stressful circumstances and improve their resilience.

Talk 6 Identifying and Supporting Children of Mentally Ill Parents Within Adult Mental Health Services

Charlotte Reedtz[1]; [1]Regional Centre for Child and Youth Mental Health and Child Welfare, Faculty of Health Science, Arctic University of Norway, Tromsø (Norway)

PURPOSE: Studies have shown that implementing a change of practice in adult mental health care to identify and support children of mentally ill parents is challenging. A change of practice is not easy to accomplish even though the risk of transgenerational transmission of socioemotional problems and psychopathology has been thoroughly demonstrated the last decade, as well as the benefits of early intervention. The current presentation aims to describe the existing practice of identifying and supporting children of mentally ill parents within adult mental health services two years after a systematic effort to change routines was initiated. Furthermore, the study was conducted three years after Norwegian health legislation had been changed to make these tasks mandatory. The effort included implementation of two interventions; Family Assessment, an intervention for practitioners to increase identification of patients who are also parents and their children, and Child Talks, an intervention designed to provide support for parents and children within the participating hospital. METHODS: The sample included mental health professionals in a large university hospital in Northern Norway, who responded to a web-based survey on the routines of the services, attitudes within the workforce capacity, worker's knowledge on the impact of parental mental illness on children, knowledge on legislation concerning children of patients, and demographic variables. Additionally, we look at register data from the Electronic Patient Journals (EPJ) to assess whether or not the self-reported routines match the reality in the clinic. RESULTS: Results from our study will be presented and discussed i relation to the prospects of clinical change in general, as well as to which extent the two implemented interventions have contributed to changes in the clinical practice, workforce knowledge and attitudes in the participating hospital. CONCLUSIONS: Specific interventions must be implemented in order to enable health personnel to identify and support children of mentally ill parents within adult mental health services.

Talk 7 Dutch Intervention Programmes for Children of Mentally Ill Parents

Therese van Amelsvoort[1], Floor van Santvoort[2], Karin van Doesum[3]; [1]Department of Psychiatry and Psychology, Maastricht University, Maastricht, Netherlands, [2]Radboud University Nijmegen, Mindfit Mental Health Service, Netherlands, [3]Department of Clinical Psychology, Behavioral Science Institute, Radboud University, Nijmegen, Netherlands

PURPOSE: This presentation will present the outcomes of a practice-based and science-based Dutch initiative to develop a comprehensive national prevention programme focused on children of parents with a mental disorder. An outline of the multicomponent programme is presented which includes a wide set of interventions addressing different risk and protective factors in multiple domains, including children in different age groups, parents and families, social networks, professionals and the community as a whole. METHODS: We searched for all publications, including materials in Dutch, reporting the characteristics, the duration and the results of all programmes developed in the Netherlands to address the needs of children with parents suffering from mental disorders. We also report our long-lasting experience in this area. RESULTS: The 20-year history of this programme illustrates the importance of long-term collaborative investments that are required by practitioners, policymakers and scientists to develop and implement a nationwide, comprehensive approach for addressing the transmission of psychiatric problems from the parent to the child(ren). The results of recent controlled studies assessing various preventive interventions will be presented, as well as the findings of rigorous process evaluations. Also, strengths and weaknesses of the current programmes will be discussed and recommendations will be offered to promote changes in terms of

programme innovation, implementation and research. CONCLUSIONS: These programmes seem essential to prevent the development of psychopathological consequences in children of parents suffering from mental disorders. Their implementation also requires a substantial change in service configuration and delivery, with a much stronger link between child/adolescent and adult mental health services-.

Talk 8 **Toward the Development of New Strategies to Assess the Needs of Children and Adolescents with Sick Parents**

Kathryn Abel[1]; [1]Professor of Psychological Medicine and Reproductive Psychiatry, University of Manchester; Centre for Women's Mental Health, Institute of Brain Behaviour and Mental Health, Manchester (UK)

PURPOSE: Up to 10% of mothers and 5% of fathers in Europe have mental illness. Family, educational and social lives of Children and Adolescents with PaRental with mental Illness (CAPRI) are disrupted by deprivation & repeated hospitalisation. This is an urgent political & public health concern: the European Union's CAMHEE report & initiative to 'change political, legislative, health and social care systems to acknowledge and attend to the needs of children and families with parental mental health' recommend better information on CAPRI risks and resilience and to enable interventions to target the highest risk. This is important because although large numbers of children are in the risk set, most remain resilient. Research needs to support delivery of the CAMHEE initiative for families with parental mental illness by understanding who is at risk and how we can target them early before their life trajectories are fatally disrupted. METHODS: To do this, we aim to create ground-breaking cross-national datasets providing robust data on CAPRI prevalence & life trajectories needed to plan future services. But epidemiology alone cannot expose how risk creates effects at the individual level: we need to know which CAPRI to target with potentially expensive, time consuming specialist services. RESULTS: Powerful neuroscience techniques such as functional near infrared spectroscopy are now available with which we can link epidemiological risk to elucidate effects of exposure within individual infant brain. This unique interdisciplinary approach yokes robust epidemiological evidence to cutting-edge optical imaging which can be undertaken in very young infants. CONCLUSIONS: This approach allows us to target developments in clinical interventions for CAPRI to those in greatest need, and potentially to those most vulnerable with the future aim to identify early biomarkers of abnormality for targeting intervention in CAPRI.

Oral Session 5

Thursday, October 20, 2:45 - 4:15 pm, Porta

Virtual reality and digital technology

Chair: Maria Rus-Calafell, Co-Chair: Danielle Schlosser
Speakers: Miriam Fornells-Ambrojo, Chris Geraets, Wim Veling, Sagnik Bhattacharyya, Shalini Lal, Kristen Woodberry, Bruno Biagianti, Danielle Schlosser

Talk 1 **Hypersensitivity to Contingent Behavior in Paranoia: On Keeping Safe when Others Don't Care**

Miriam Fornells-Ambrojo[1,2,3], Maaike Elenbaas[1], Gail Wingham[1], Hannah Reidy[1], Chris Barker[1], Mel Slater[1,4]; [1]University College London, United Kingdom, [2]South London and Maudsley NHS Foundation Trust, United Kingdom, [3]King's College London, Institute of Psychiatry, Psychology and Neuroscience, United Kingdom, [4]University of Barcelona, Spain

Contingency in interpersonal relationships is associated with the development of secure attachment and trust, whereas paranoia arises from the overattribution of negative intentions. We used a new virtual reality paradigm to experimentally investigate the impact of contingent behavior on trust along the paranoia continuum. Sixty-one healthy participants were randomly allocated to have a social interaction with a pleasant virtual human (avatar) programmed to be highly responsive or not (high/low contingency). Perceived trustworthiness and trusting behavior were assessed alongside control variables attachment and anxiety. Higher paranoia and dismissive attachment were associated with larger interpersonal distances. Unexpectedly, extremely paranoid individuals experienced the highly contingent avatar as more trustworthy than their low contingency counterpart. Higher dismissive attachment was also associated with more subjective trust in both conditions. Extreme paranoia is associated with hypersensitivity to noncontingent behavior, which might explain experiences of mistrust when others are not highly responsive

in everyday social situations. Future directions will be discussed, including ongoing work using the same paradigm with a sample of people with early psychosis experiencing paranoia.

Talk 2 Social Environmental Stress Affects Interpersonal Spacing in Psychosis: a Virtual Reality Study

Chris Geraets[1], Marije van Beilen[1], Roos Pot-Kolder[2,3], Jacqueline Counotte[2], Mark van der Gaag[2,3], Wim Veling[1]; [1]University of Groningen, UMCG, The Netherlands, [2]VU University, Amsterdam, The Netherlands, [3]Parnassia Psychiatric Institute, The Netherlands

In psychosis abnormal processing of social signals could cause deviations in interpersonal space regulation, and effect social functioning. People dynamically regulate interpersonal distance in response to factors like discomfort. We investigate whether people with a psychotic disorder and those at ultra high risk (UHR) for psychosis have deviant spacing behaviour in response to social stressful environments. Nineteen UHR patients, 52 patients with a psychotic disorder, 40 siblings of patients with psychosis and 47 healthy controls were enrolled. Participants were exposed five times to a virtual café, each time different social stressors were present. This was achieved by manipulating the crowdedness, ethnicity and hostility of the virtual humans (avatars) in the café. The primary outcome was interpersonal distance to avatars. Additional measures on (sub) clinical symptoms were assessed at baseline and during Virtual Reality (VR) exposure (distress and paranoia). In all four groups interpersonal distance increased when more social stressors were present in the environment, no significant differences were found between the groups. Analysis on clinical variables (in all subjects) showed a positive relation between interpersonal distance and social anxiety as well as momentary distress. In conclusion, people keep more distance when social environmental stress and subjective distress increase, but interpersonal spacing behaviour in response to environmental social stressors appears not to be affected in psychosis or UHR. These results suggest that interpersonal space in the environment is not an important target for treatments or training focused on improving social functioning of patients with psychosis.

Talk 3 Cognitive biases, psychosis liability and paranoia in response to social stress: a Virtual Reality study

Wim Veling[1], Roos Pot-Kolder[2,3], Jacqueline Counotte[2], Mark van der Gaag[2,3]; [1]University of Groningen, UMCG, The Netherlands, [2]Parnassia Psychiatric Institute, The Hague, The Netherlands, [3]VU University Amsterdam, The Netherlands

Cognitive biases may play an important role in the development of psychosis. Experiences of social adversity alter cognitive schemas and sensitize the dopamine system, leading to aberrant processing of stimuli, which may eventually develop into psychotic symptoms in the context of biased cognitive schemas and social stress. This study tested whether cognitive biases in individuals with different psychosis liability moderate levels of paranoia in response to social stress, using Virtual Reality (VR) experiments. Fifty-five patients with recent onset psychotic disorder (FEP), 20 patients at ultra-high risk for psychosis (UHR), 42 siblings of patients with psychosis and 53 controls walked five times in a virtual bar with different levels of environmental social stress. Virtual social stressors were population density, ethnic density and hostility. Paranoia in response to virtual social stress was measured throughout the experiments, cognitive biases were assessed at baseline. Multilevel random intercept regression analyses were used to test cognitive biases as predictor and moderator of paranoia. Cognitive biases were higher in FEP and UHR compared to siblings and controls. Paranoia was predicted by cognitive biases in all groups, most strongly by selective attention to threat, cognitive inflexibility and external attribution bias. Interaction effects were found between degree of environmental social stress and cognitive biases on level of paranoia. Cognitive biases are stronger in individuals with high psychosis liability, and are associated with more paranoia in response to social stress. The effect of cognitive biases increases with degree of social stress in the environment.

Talk 4 Effect of cannabidiol on paranoid ideation in a virtual reality environment in individuals at ultra high risk of psychosis

Sagnik Bhattacharyya[1,2], Elisabeth Appiah-Kusi[1], Robin WIlson[1], Alison Hird[1], Matthijs Bossong[1], Lucia Valmaggia[1,2], Philip McGuire[1,2]; [1]King's College London, Institute of Psychiatry, Psychology and Neuroscience, [2]South London and Maudsley NHS Foundation Trust, United Kingdom

There is a huge unmet clinical need for safe and effective pharmacological treatments in individuals at ultra high risk of psychosis (UHR), who experience low-grade psychotic symptoms and have a very high risk of making a transition to frank psychosis. Our objective was to test whether an acute oral dose of Cannabidiol (CBD), a major ingredient in the extract of cannabis, may have antipsychotic

properties, by combining an experimental medicine approach with virtual reality (VR) to assess its effect on paranoid ideation in a virtual social environment. Twenty-three UHR individuals were randomized to receive either CBD (600mg; UHR-CBD; n= 12) or placebo (UHR-Placebo; n=11) orally for 7 days. After 7-day treatment, each participant was studied under identical conditions in an immersive VR environment, which modeled a London Double-decker Bus. Paranoid ideation about the VR avatars was measured after coming out of the VR environment using the State Social Paranoia scale (Persecution; SSPS-Per) (Freeman et al 2007) and anxiety was measured using the Spielberger State-Anxiety inventory- state subscale (STAI-S) both before and after the VR experiment. UHR-CBD and UHR-Placebo groups differed significantly in terms of paranoid ideation (SSPS-Per; Moses extreme reaction test= $p < 0.001$) and change in anxiety (STAI-S; $p = 0.048$, Kruskal-Wallis test) following exposure to the VR environment, with the UHR-CBD group experiencing less paranoia and anxiety. These results provide preliminary evidence supporting a therapeutic role for CBD in UHR individuals.

Talk 5 Experiences and perceptions of youth with first-episode psychosis on using technology to access mental health information, services, and supports

Shalini Lal[1,2,3], Valentin Nguyen[4], Joanie Theriault[1], Ashok Malla[3], Jennifer Dell'Elce[5]; [1]School of Rehabilitation, Faculty of Medicine, University of Montreal, [2]University of Montreal's Hospital Research Center (CR-CHUM), [3]Douglas Mental Health University Institute, [4]Department of Psychology, University of Montreal, [5]Institut universitaire en santé mentale de Montréal

Background: The purpose of this study was two-fold: 1) to determine access and use of online and mobile technologies in a sample of young people receiving treatment for first-episode psychosis (FEP), 2) to better understand their experiences and perceptions of using technology for receiving mental health information, services, and supports. Methods: Cross-sectional survey with 67 participants and focus groups with 17 participants between the ages of 18 and 35 recruited from a specialized early intervention program for psychosis. Descriptive statistics and a thematic analysis was conducted. Results: Most of the participants had access to online and mobile technologies (e.g., smartphones, laptops) and used popular social media such as Facebook and YouTube. The majority agreed or strongly agreed with using YouTube as a platform for mental health-related information and supports, and for using technology to: receive information on medication, education, employment, mental health, psychosis, and recovery; support decision making pertaining to treatment and recovery; and, receive reminders for appointments via text messaging. Participants used a variety of online sources to obtain a better understanding of their illness and treatment, however they encountered many challenges in their search for this information and support. Conclusions: Youth receiving treatment for FEP are receptive to the idea of using technology for receiving mental health information, services, and supports. The findings can inform the development of online resources and strategies that meet the needs of service users.

Talk 6 Computer Aided Learning for Managing Stress (CALMS): Using Video games to Engage Clinical High Risk Youth and their Families

Kristen Woodberry[1,2], Cole Chokran[1], Rachael Serur[3], Larry Seidman[1,2]; [1]Beth Israel Deaconess Medical Center, [2]Harvard Medical School Department of Psychiatry, [3]Barbershop Labs

Background: Psychotic disorders have their peak onset during adolescence and early adulthood, a period of dynamic interaction between developmental and contextual factors such as the family. Yet, the majority of treatments are downward extensions of adult treatments that may have limited appeal or effectiveness with younger participants. Adolescents and young adults, who may show limited or inconsistent engagement in school, family interactions, or therapy, often spend hours mastering complicated videogames. Indeed, many youth at clinical high risk (CHR) for psychosis have significant verbal deficits that may make verbally mediated treatments particularly intimidating or frustrating. CALMS is a 12 week family therapy that uses a biofeedback videogame to engage CHR youth ages 12-30 and their families. Methods: The multiuser games, based on Emotional Manipulatives (EM) designed to facilitate self-regulation in the context of stressful tasks, simultaneously reward cooperative play and reduced autonomic nervous system arousal to strengthen self-regulation within an important social context. The aims include reducing stress-reactivity and interpersonal conflict and enhancing interpersonal effectiveness and social support. Results: Preliminary data will be reported on engagement, treatment credibility, user experience, and individual and interpersonal change over the course of treatment. Discussion: Therapeutic videogames offer an innovative tool for meeting adolescents and young adults "where they are."

Leveraging these as tools to enhance psychosocial protective factors has potential to improve the reach and effectiveness of interventions in the early stages of psychosis.

Talk 7 CLIMB: A Mobile Platform to Treat Social Cognition Impairments and Improve Social Functioning in Psychosis

Bruno Biagianti[1,2,3], Mor Nahum[2], Danielle Schlosser[3], Joshua Woolley[1,3], Sophia Vinogradov[1,3]; [1]Department of Veterans Affairs Medical Center, San Francisco, [2]Posit Science, Inc., [3]Department of Psychiatry, University of California, San Francisco

Social cognition impairments and social withdrawal affect quality of life in people with psychosis. While social cognition training and group therapy target these domains, engagement with these treatments is limited by commute range and scheduling burden. The delivery of these treatments through mobile devices can bridge the gap between mental health clinics and people with psychosis who live in under-resourced areas, and/or to those who do not approach treatment settings because of mental health stigma. To meet these needs, we designed CLIMB, a digital platform that aims to improve social cognition, social functioning, and quality of life for people with psychosis. CLIMB includes computerized social cognition assessments and training, remote clinical assessments, CBT-based group tele-therapy, and a secure social network. We engineered methods to screen, recruit, enroll, assess and deliver CLIMB entirely remotely. In this pilot study, we investigated the feasibility of delivering 6 weeks of CLIMB using provided iPads. We evaluated retention and effects on social cognition, negative symptoms, and quality of life. Of 26 participants enrolled in the study, 3 withdrew during the intervention and 23 completed the study. Study procedures were conducted successfully, with good user acceptability. All iPads were returned undamaged. On average, participants attended 90% of the group sessions and engaged with the social cognitive training program. In study completers, CLIMB appears to improve aspects of social cognition and negative symptoms. These findings indicate that delivering CLIMB to people with psychosis is feasible and likely to improve social functioning and quality of life.

Talk 8 Feasibility, acceptability, and preliminary outcome of PRIME: A mobile app intervention to treat young people with schizophrenia

Danielle Schlosser[1], Timothy Campellone[1,2], Brandy Truong[1], Silvia Vergani[3], Sophia Vinogradov[1,4]; [1]Department of Psychiatry, University of California, San Francisco, [2]University of California, Berkeley, [3]IDEO, Palo Alto, [4]Department of Veterans Affairs Medical Center, San Francisco

Background: The purpose of this study was: 1) To evaluate the benefits of using an iterative, user-centered design process to develop a digital intervention for young people with schizophrenia, 2) To evaluate the feasibility and acceptability of implementing PRIME (Personalized Real-Time Intervention for Motivation Enhancement), a mobile app intervention designed to target reward-processing impairments, enhance motivation, and thereby improve quality of life in young people with schizophrenia; and 3) To evaluate the extent to which PRIME improves motivation and psychosocial functioning, relative to Treatment As Usual (TAU). Methods: User-centered testing was conducted with 15 key stakeholders, which lead to the first version of PRIME. This initial version was evaluated over a 12-week period (n=10). The results from the pilot participants informed the next iteration of PRIME to be tested in a RCT, during which participants were randomized to either receive PRIME or a Wait-list/TAU control condition (n=10). Results: Participants used the app, on average, every other day and were actively engaging with the features each time they logged into the app, with the second phase participants engaging in at least 2 features each time they logged in. Applying a user-centered, iterative approach for design improvement led to a 2-3 fold increase in logins, greater active use, as well as a significantly greater number of social interactions with peers and coaches. Results from RCT will be reported (n=40). Discussion: The results from this study demonstrated that PRIME is a feasible and acceptable intervention for young people with schizophrenia.

Oral Session 6

Thursday, October 20, 2:45 - 4:15 pm, Monti

Clinical high risk populations, follow-up studies

*Chair: Mark van der Gaag, Co-Chair: Barnaby Nielsen
Speakers: Meredith McHugh, Tamar Kraan, Helga Ising, Lucia Valmaggia, Meredith McHugh, Suzie Lavoie, Andrea Polari, Jessica Hartmann*

Talk 1 Defining trait and state risk for psychosis: Evidence to maintain the status quo

Meredith McHugh[1,2], Patrick McGorry[1,2], Ian Hickie[3], Andrew Thompson[4], Lieuwe de Haan[5], Nilufar Mossaheb[6], Stefan Smesmy[7], Stephen Wood[8,2], Dorien Nieman[5], Merete Nordentoft[9], Alison Yung[10], Barnaby Nelson[1,2]; [1]Orygen, Melbourne, Australia, [2]University of Melbourne, Australia, [3]University of Sydney, Australia, [4]University of Warwick, UK, [5]University of Amsterdam, the Netherlands, [6]Medical University of Vienna, Austria, [7]Jena University Hospital, Germany, [8]University of Birmingham, UK, [9]University of Copenhagen, Denmark, [10]University of Birmingham, UK

Individuals are considered Ultra-High-Risk (UHR) for psychosis if they meet a set of standardised criteria including presumed genetic vulnerability (Trait), a recent history of Attenuated Psychotic Symptoms (APS) or a recent history of Brief Limited Intermittent Psychotic Symptoms (BLIPS). Previous evidence suggests these criteria may confer varying degrees of risk. In the present study (N=702) we examined transition risk between four UHR groups: genetic vulnerability only (Trait-alone), recent history of APS (APS-alone), genetic vulnerability with a history of APS (Trait+APS), and recent history of BLIPS (any BLIPS). Participants were recruited upon entry to early intervention services and followed-up over a period of up to 13 years (Mean=4.53, SD=3.83). Interviews at baseline and follow-up (N=559) included assessment of negative, positive and other psychiatric symptoms (SANS, BPRS) and psychosocial functioning (SOFAS, GAF, QLS). Any BLIPS individuals evidenced elevated transition risk relative to Trait-alone and APS-alone individuals. This effect did not survive adjustment for baseline year (ranging from 1995 to 2013). The groups had similar symptom severity and psychosocial functioning at baseline and follow-up as well as similar prevalence of non-psychotic disorders at follow-up. Compared to earlier reports, our findings show a weak effect of UHR group on transition risk that may in part reflect changing distribution of risk groups (increase in APS-alone and decrease any BLIPS individuals) and declining transition rates over time. Similar psychopathological and risk profiles across UHR groups studied here provide support for maintaining the current UHR criteria.

Talk 2 The effects of childhood abuse in individuals at ultra-high risk for psychosis after 4-years

Tamar Kraan[1,2], Helga Ising[2], Marjolein Fokkema[3], Eva Velthorst[1,4], Filip Smit[5,6], Don Linszen[1], Dorien Nieman[1], Lex Wunderink[7,8], Nynke Boonstra[7], Rianne Klaassen[9], Lieuwe de Haan[1], Mark van der Gaag[2,5]; [1]University of Amsterdam, The Netherlands, [2]Parnassia Psychiatric Institute, The Hague, The Netherlands, [3]Leiden University, The Netherlands, [4]Icahn School of Medicine, Mount Sinai, New York, USA, [5]VU University and EMGO Institute for Health and Care Research, Amsterdam, the Netherlands, [6]Netherlands Institute of Mental Health and Addiction, Utrecht, the Netherlands, [7]Friesland Mental Health Services, Leeuwarden, the Netherlands, [8]University of Groningen, the Netherlands, [9]Bascule, Amsterdam, the Netherlands

Background: Childhood abuse is highly prevalent and associated with a range of mental disorders, functional impairment and higher health care costs in later life. In this study we evaluate whether childhood abuse predicts poor clinical and functional outcomes in a sample of patients at ultra-high risk (UHR) for developing a first psychosis. Method: Structured Equation Modeling (SEM) was used to examine the effect of childhood abuse on depression, anxiety, transition to psychosis, and overall social and occupational functioning at 4-year follow-up. Data pertain to 105 UHR participants of the Dutch Early Detection and Intervention Evaluation (EDIE-NL). Results: Physical abuse was associated with higher depression rates (b=0.381, p=0.012) and lower social functional outcome (b=-0.219, p=0.017) at 4-year follow-up. In addition, emotional neglect was negatively associated with social functioning (b=-0.313, p=0.018). Childhood abuse was not associated with transition to psychosis. Conclusion: The data indicate that in a sample of patients at risk for psychosis, childhood abuse is predictive of depression, and social and occupational functioning but not with transition to psychosis at 4-year follow-up, suggesting that childhood abuse is a significant risk factor for poor clinical and functional outcomes.

Talk 3 Improving outcome with CBTuhr: Cost-effectiveness and Profiling after 4-years

Helga Ising[1], Filip Smit[2,3], Stephan Ruhrmann[4], Wim Veling[5], Judith Rietdijk[1,2], Sara Dragt[6], Rianne Klaassen[7], Nynke Boonstra[8], Dorien Nieman[6], Lex Wunderink[5,8], Don Linszen[6], Mark van der Gaag[1,2]; [1]Parnassia Psychiatric Institute, The Hague, the Netherlands, [2]VU University and EMGO Institute for Health and Care Research, Amsterdam, the Netherlands, [3]Netherlands Institute of Mental Health and Addiction, Utrecht, the Netherlands, [4]University of Cologne, Germany, [5]University of Groningen, the Netherlands, [6]University of Amsterdam, the Netherlands, [7]Bascule, Amsterdam, the Netherlands, [8]Friesland Mental Health Services, Leeuwarden, the Netherlands

Aims: The first aim was to determine the cost-effectiveness of CBTuhr to prevent first-episode psychosis in ultra-high risk (UHR) at 18 and 48 months. The second aim was to develop an optimized prediction model of a first-episode psychosis.

Methods: 196 help-seeking UHR patients participated in the Early Detection Intervention (EDIE) study in the Netherlands. All individuals were treated with routine care (RC) for non-psychotic disorders. The experimental group received add-on CBTuhr to prevent psychosis. Results: The CBTuhr intervention was cost saving at 18 and 48 months follow-up. This was achieved by less hospital admissions and a reduction in other service costs. Societal costs were reduced because more treated patients were employed. Prognostic modeling identified 3 UHR risk classes with 4%, 13% and 70% risk for transition within 18 months. In the highest risk class, transition to psychosis emerged on average ≥ 8 months earlier than in the lowest risk class. Conclusions: Using prognostic modeling and proactive care can accomplish health gain at lower costs.

Talk 4 Early detection for the ultra high risk for psychosis in prison: improving outcomes and reducing readmission to prison

Lucia Valmaggia[1,2], Clare Evans[1,2], Andrew Forrester[1,2], Manuela Jarrett[1,2], Vyv Huddy[2,3], Catharine Campbell[1,2], Majella Byrne[1,2], Thomas Craig[1,2]; [1]King's College London, Institute of Psychiatry, London, UK, [2]South London & Maudsley NHS Foundation Trust, London, UK, [3]University College London, UK

Our aim was to investigate whether early detection could improve mental health outcomes in young prisoners. A secondary aim was to explore whether it can reduce readmission to prison. Between 2011-2014 a total of 2,115 young prisoners were screened, 94 (4.4 %) met criteria for ultra-high risk for psychosis and were offered an intervention, 52 were able to receive it. Re-admission to prison data was sought on all 52 participants. Mental health outcomes were recorded for a sub-sample of those receiving the intervention. The results indicated statistically significant improvements on measures of depression, anxiety and psychological distress. Of the 52 prisoners who received an intervention, 30.8% returned to custody compared to national average reconviction rates of between 45.4 - 66.5%. Our results suggest that early detection is a feasible option in a prison setting, improving mental health outcomes and reducing re-admission to prison.

Talk 5 Cannabis-induced attenuated psychotic symptoms: Implications for prognosis in young people at ultra-high risk for psychosis.

Meredith McHugh[1], Patrick McGorry[1], Alison Yung[4], Ashleigh Lin[2], Stephen Wood[3], Jessica Hartmann[1], Barnaby Nelson[1]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, University of Melbourne, [2]Telethon Kids Institute, Perth, [3]University of Birmingham, [4]University of Manchester

Cannabis use shows a robust dose-dependent relationship with psychosis risk among the general population. Despite this, it has been difficult to link cannabis use with risk for transitioning to a psychotic disorder among individuals at Ultra-High Risk (UHR) for psychosis. The present study examined UHR transition risk as a function of cannabis use characteristics which vary substantially between individuals including age of first use, cannabis abuse severity and a history of cannabis-induced attenuated psychotic symptoms (APS). Participants were 190 UHR individuals (76 males) recruited at entry to treatment between 2000 and 2006. They completed a comprehensive baseline assessment including a survey of cannabis use characteristics during the period of heaviest use. Outcome was transition to a psychotic disorder, with mean time to follow-up of 5.0 years (range 2.4 to 8.7 years). A history of cannabis abuse was reported in 58 percent of the sample. Of these, 26 percent reported a history of cannabis-induced APS. These individuals were 4.9 times more likely to transition to a psychotic disorder (p = .001). Greater severity of cannabis abuse also predicted transition to psychosis (p = .036). However, this effect was mediated by higher abuse severity among individuals with a history of cannabis-induced APS. Findings suggest that cannabis use poses risk in a subpopulation of UHR individuals who manifest cannabis-induced APS. Whether this reflects underlying genetic vulnerability requires further study. Nevertheless, findings reveal an important early marker of risk with potentially significant prognostic utility for UHR individuals.

Talk 6 The frequency mismatch negativity in individuals at ultra-high risk for psychosis: effect of omega-3 fatty acids treatment.

Suzie Lavoie[1], Thomas Whitford[2], Paul Amminger[1], Ayaka Ando[1], Anthony Couroupis[1], Aidan Jago[1], Connie Markulev[1], Barnaby Nelson[1], Andrea Polari[3], Patrick McGorry[1]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, University of Melbourne, [2]University of New South Wales, [3]Melbourne Health

The mismatch negativity (MMN) is a change in the activity of the brain induced by the occurrence of a novel stimulus embedded in a stream of repeated or familiar events. MMN amplitude is thought to reflect the functioning of NMDA receptors. Decrease in the amplitude of MMN has been consistently replicated in

schizophrenia. While the MMN to a duration deviant sound is a good contender as a biomarker of the illness, the MMN to a frequency deviant sound (fMMN) appears to behave like a state marker. The main aim of this study was to look at the effect of omega-3 fatty acids treatment on the amplitude of the fMMN. By improving the membrane fluidity and the general redox status, omega-3 treatment may indirectly improve the activity of NMDA receptors, reflected by increased fMMN amplitude. 47 UHR individuals had their brain activity recorded before commencement of treatment. Their fMMN amplitude was compared to a group of 29 healthy controls to establish whether it was impaired or not. UHR individuals showed significantly reduced fMMN amplitude ($F(17,51)=2.42$, $p=0.008$), with post-hoc analyses revealing localization of this impairment in the frontal area. The effect of omega-3 fatty acids on the activity of the brain was measured at the end of the 6-month treatment period in 34 UHR individuals. The generation of the fMMN was not improved following omega-3 fatty acids treatment as compared to placebo. Our results suggest that 6-month treatment with omega-3 fatty acids does not improve the impaired fMMN observed in UHR individuals.

Talk 7 The identification of clinical trajectories in the ultra high risk for psychosis population

Andrea Polari[1], Suzie Lavoie[2], Hok Pan Yuen[2], Paul Amminger[2], Gregor Berger[3], Dorien Nieman[4], Eric Chen[5], Lieuwe deHaan[4], Merete Nordentoft[6], Anita Riecher-Rössler[7], Patrick McGorry[2], Barnaby Nelson[2]; [1]Melbourne Health, [2]Orygen, The National Centre of Excellence in Youth Mental Health, The University of Melbourne, [3]Psychiatrische Universitätsklinik Zürich, Klinik für Kinder- und Jugendpsychiatrie, [4]Academic Medical Center, Department of Psychiatry, Amsterdam, [5]The University of Hong Kong, [6]The University of Copenhagen, [7]The University of Basel

In the field of Ultra High Risk (UHR) research there is a lack of clear identification of clinical trajectories such as Remission, Recovery, Recurrence and Relapse. The following criteria were applied: 1. Remission: no longer meeting UHR criteria and good functioning 2. Recovery: remission for 6 months 3. Recurrence: meeting UHR criteria after remission 4. Relapse: meeting UHR criteria after recovery 5. Transition to psychosis. Aims To apply the proposed definitions in a large UHR cohort to evaluate longitudinal trajectories of this clinical population and the relationship of these trajectories to UHR intake groups. Methods Attenuated Psychotic Symptoms (APS), functioning, transition, duration of untreated symptoms (DUS) and depression scores were extracted from a UHR dataset (n=201) at entry, months 3, 6, 9, 12. Trajectories were analysed using regression models. Results 17 trajectories were identified and subdivided into: Quick Remission (24.9%), Slow Remission (13.4%), No Remission (20.9%), Uncertain Remission (8.5%), Recurrence (15%), Relapse (1.5%) and Transition (15.9%). Patients who quickly remitted also met recovery criteria at 12 months. No difference in trajectories were found when comparing APS to the other UHR intake groups. Unfavorable trajectories were significantly correlated with longer DUS (p=0.001) and higher baseline depression scores (p=0.002). Discussion UHR patients have a variety of trajectories identifiable with the proposed definitions. A longer follow-up is needed to better evaluate recovery and relapse. Given that the UHR vulnerability subgroup may present with a genetic life-long risk without APS, specific attention should be given to defining criteria for trajectories in this group.

Talk 8 Beyond Psychosis Risk: Introduction to a Broad at Risk Mental State

Jessica Hartmann[1], Barnaby Nelson[1], Paul Amminger[1], Andrew Chanen[1], Aswin Ratheesh[1], Christopher Davey[1], Patrick McGorry[1]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, University of Melbourne

The development of the ultra-high risk (UHR) criteria for psychosis over 20 years ago created a new paradigm for research into subthreshold states. While the UHR criteria connote a risk for subsequent psychotic disorders, they also strongly cross-linked with other syndromal and functional outcomes. This reflects the overlapping and non-specific nature of early psychopathology, calling for a subthreshold concept which is more pluripotential: an extension of the UHR approach into transdiagnostic targets. We will introduce the rationale and design of the 'CHARMS' study (Clinical High at Risk Mental State), aimed at validating a novel set of criteria to prospectively identify help-seeking young people at risk of developing a range of serious mental illness. The CHARMS study is a cohort study of help-seeking young people aged 12-25 attending youth mental health services in Melbourne, Australia. New referrals meeting the CHARMS criteria are allocated to the CHARMS+ group; referrals under CHARMS threshold are allocated to CHARMS- group; referrals meeting criteria for a full-threshold disorder are excluded. Transition status and clinical/functional outcomes will be re-assessed at 6 and 12 months. This study is the first to introduce and validate a set of clinical criteria to identify a broader 'at risk' patient population, facilitating young people's access to clinical services and early treatment by

breaking down the reliance on current diagnostic silos. It will foster understanding of risk factors and pathogenic mechanisms that drive the onset of severe mental illness and may introduce a new paradigm for the next generation of preventive intervention trials.

Oral Session 7

Thursday, October 20, 4:30 - 6:00 pm, Parini

Neural Mechanisms

Chair: Philip McQuire, Co-Chair: Oliver Howes
Speakers: Paul Allen, Andre Schmidt, Gemma Modinos, Matthijs Bossong, Naoyuki Katagiri, Ilaria Bonoldi, Diana Wotruba, Isabel Valli

Talk 1 Relationship between hippocampal perfusion and subcortical dopamine function in people at high risk for psychosis

Paul Allen[1,3], Chris Chaddock[1], Alice Egerton[1], Oliver Howes[1], Ilaria Bonoldi[1], Fernando Zelaya[2], Philip McGuire[1]; [1]Department of Psychosis Studies, Institute of Psychiatry, Psychology & Neuroscience, King's College London, United Kingdom, [2]Department of Neuroimaging, Institute of Psychiatry, Psychology & Neuroscience, King's College London, United Kingdom, [3]Department of Psychology, University of Roehampton, London, United Kingdom

Background: Data from animal models suggest that psychosis develops when hyperactivity in the hippocampus drives subcortical dopamine function. We used neuroimaging to examine this model in people at high risk of psychosis. Methods: Resting cerebral blood flow was assessed using Pseudo-Continuous Arterial Spin Labelling (pCASL) imaging in 52 individuals at Ultra High Risk (UHR) for psychosis and 27 healthy volunteers. 18 F-DOPA PET was used to measure striatal dopamine synthesis. The severity of psychotic symptoms was assessed using the Comprehensive Assessment of At Risk Mental State (CAARMS). The UHR subjects were re-assessed with the same measures as at baseline after a mean of 17 months follow up. Results: UHR subjects showed greater rCBF than volunteers in the hippocampus, basal ganglia and midbrain at baseline. Symptomatic improvement over time was associated with longitudinal reductions in rCBF in the hippocampus and ventral striatum. In healthy volunteers there was a negative correlation between hippocampal rCBF and striatal DA levels. This relationship was not evident in the UHR subjects. Conclusions: The UHR state was associated with increased resting perfusion in the hippocampus, and a perturbation of the normal relationship between hippocampal perfusion and striatal dopamine function.

Talk 2 Aberrant salience, hippocampal activation, and subcortical dopamine function in people at Ultra High Risk for psychosis

Andre Schmidt[1,2], Toby Winton-Brown[1], Shitij Kapur[1], Jon Roiser[3], Oliver Howes[1], Alice Egerton[1], Tony Grace[4], James Stone[1], Philip McGuire[1]; [1]Department of Psychosis Studies, IoPPN, King's College London, [2]University of Basel, [3]University College London, [4]Department of Neuroscience, University of Pittsburgh

Background Psychosis is thought to develop as a result of hippocampal dysfunction driving increased subcortical dopamine activity and the aberrant processing of salience. We examined this model in people at ultra high risk (UHR) of developing psychosis. Methods Functional MRI was used to measure hippocampal responses to salient stimuli in 14 UHR subjects and 16 healthy volunteers. 18-FDOPA PET was used to assess subcortical dopamine synthesis capacity in the same subjects. Results There was a significant group difference in the relationship between hippocampal responses to both rewarding and aversive stimuli and dopamine function in the striatum and in the midbrain. Within the hippocampal region, these differences were particularly evident in the left subiculum and parahippocampal gyrus. Conclusions These findings suggest that vulnerability to psychosis is associated with an alteration in the relationship between the hippocampal region and the subcortical dopamine system, consistent with data from animal models.

Talk 3 Cortical GABA levels in people at Ultra High Risk for psychosis

Gemma Modinos[1], Fatma Simsek[1], Jamie Horder[1], Matthijs Bossong[1], Carly Samson[3], Matilda Azis[1], Beverly Quinn[2], Ilaria Bonoldi[1], Oliver Howes[1], James Stone[1], Paul Allen[1], Philip McGuire[1]; [1]Department of Psychosis Studies, Institute of Psychiatry, King's College

London, UK, [2]CAMEO, Cambridgeshire and Peterborough Mental Health Partnership NHS Trust, Cambridge, UK,, [3]Medical Research Council Clinical Sciences Centre, Hammersmith Hospital, Imperial College London, UK

Background: Studies in animal models indicate that changes in GABAergic neurons may play a critical role in the onset of psychosis, and recent neuroimaging studies using MR spectroscopy (MRS) have reported abnormal cortical GABA levels in patients with schizophrenia. This study was designed to investigate cortical GABA levels in people at Ultra High Risk for psychosis (UHR), and to assess the relationship between GABA levels and resting cortical activity. Methods: MRS at 3.0 Tesla was used to study GABA levels in the dorsomedial prefrontal cortex in 17 males at UHR for psychosis and 17 aged and gender-matched healthy controls. LCModel was used to analyse the spectra. Resting brain blood flow was measured using Arterial Spin Labelling (ASL) in the same subjects. The relationship between dorsomedial prefrontal GABA levels and resting perfusion in the hippocampus and in the dorsomedial prefrontal cortex was examined using multiple regression. Results: Dorsomedial prefrontal GABA levels were lower in UHR subjects than in controls (p = 0.04). Within the UHR sample, there was a negative correlation between dorsomedial prefrontal GABA levels and local resting perfusion, and a positive correlation with resting hippocampal perfusion (p< 0.05 family-wise error correction). Conclusions: These data suggest that prefrontal GABA levels are reduced in subjects at UHR for psychosis. They also indicate that this is related to alterations in resting perfusion locally and in the hippocampus. The extent to which these changes influence the subsequent onset of psychosis will be clarified when the UHR sample has completed clinical follow up.

Talk 4 Hippocampal glutamate levels associated with transition to psychosis in people at high risk

Matthijs Bossong[1], Paul Allen[2], Matilda Azis[2], Carly Samson[3], Beverly Quinn[4], Ilaria Bonoldi[2], Gemma Modinos[2], Oliver Howes[2], James Stone[2], Philip McGuire[2]; [1]Brain Center Rudolf Magnus, Department of Psychiatry, University Medical Center Utrecht, the Netherlands, [2]Department of Psychosis Studies, Institute of Psychiatry, King's College London, United Kingdom, [3]Department of Psychology, University of Roehampton, London, United Kingdom, [4]CAMEO, Cambridgeshire and Peterborough Mental Health Partnership NHS Trust, Cambridge, United Kingdom

Background: It has been proposed that alterations in hippocampal glutamate function may lead to the onset of psychosis. We investigated this by assessing hippocampal glutamate levels in people at Ultra High Risk (UHR) for psychosis. Methods: Proton magnetic resonance spectroscopy at 3T was used to assess glutamate levels in the left hippocampus in UHR subjects (n=68) and controls (n=30). We used Point-Resolved Spectroscopy (TE=30ms; TR=3000ms; 96 averages; voxel size 20x20x15). LCModel version 6.3-0A was used to analyse the spectra, and water-scaled glutamate levels were corrected for voxel CSF content. UHR subjects were scanned at clinical presentation. At the time of analysis, subjects had been followed up for 19 months, and 9 had developed psychosis. Results: Hippocampal glutamate levels in the UHR sample overall were not significantly different from those in the controls. There was a trend for differences in hippocampal glutamate levels between UHR subjects who had developed psychosis, UHR subjects who had not, and controls (p=0.07; one-way ANOVA). Post-hoc testing indicated that glutamate levels were higher in the UHR subjects who had developed psychosis compared to both UHR subjects who had not become psychotic (p=0.04), and to controls (p=0.01). Conclusions: These preliminary data indicate that UHR subjects go on to develop psychosis have increased hippocampal glutamate levels at presentation. As the clinical follow is incomplete and more subjects are being included, the findings should be interpreted with caution. Nevertheless, the data are consistent with the notion that elevated glutamatergic function in the hippocampus contributes to the onset of psychosis.

Talk 5 Symptom recovery and relationship to structure of corpus callosum in individuals with an 'At risk mental State' (ARMS): a longitudinal study

Naoyuki Katagiri[1], Takahiro Nemoto[1], Naohisa Tsujino[1], Junichi Saito[1], Masaaki Hori[2], Taiju Yamaguchi[1], Tomoyuki Funatogawa[1], Hiroshi Matsumoto[1], Yoko Baba[1], Yusuke Shido[1], Takashi Uchino[1], Masafumi Mizuno[1]; [1]Department of Neuropsychiatry, School of Medicine, Toho University, Tokyo, Japan, [2]Department of Radiology, Juntendo University School of Medicine, Tokyo, Japan

Introduction: There are much evidence of the relationship between structural abnormality of corpus callosum (CC) and psychotic symptoms in ARMS as well as schizophrenia. The aim of this study is to investigate whether changes in CC volume associate with the changes in the sub-threshold psychotic symptoms of ARMS. Further, we investigated the effect of antipsychotics. Method: Sixteen healthy controls and 42 ARMS subjects were recruited. MRI was performed for all

participants. The SIPS/SOPS was used for measuring sub-threshold positive (POS) and negative symptoms (NEG). Imaging and SOPS were re-administered in the ARMS group after 52 weeks. ARMS group was divided into who developed psychosis (ARMS-P) and who did not (ARMS-N) over one year. We investigated the longitudinal volume changes of sub-regions of CC (i.e. posterior, mid-posterior, central, mid-anterior, anterior) and analyzed the correlation between changes in the volumes of CC sub-regions (ΔCC) and change in POS and NEG (ΔPOS and ΔNEG) of ARMS subgroups. Further, we invested the effect of antipsychotics using the regression analysis. This study was approved by the ethics committee of the Toho University. Results: There was a significant reduction of central and mid-anterior of CC in ARMS-N compared to controls at baseline. ΔNEG negatively correlated with ΔCC-central. These relationships were irrelevant to the dose of antipsychotics. Discussion: The results suggest that increases of volume at the CC-central may associate with biological background of recovery of negative symptoms in ARMS-N group. The relationship between change in CC and change in NEG was not explained by medication.

Talk 6 Relationship Between Self-Disturbances and Striatal Dopamine Synthesis Capacity in Subjects at Ultra High Risk for Psychosis

Ilaria Bonoldi[1], Oliver Howes[1,5,6], Luis Madeira[1], Sameer Jauhar[1], Paul Allen[1,2], Matilda Azis[1], Beverley Quinn[3], Gemma Modinos[1], Matthijs Bossong[1], Jesus Perez[3,4], Paolo Fusar-Poli[1,2], Philip McGuire[1,2]; [1]Institute of Psychiatry, Psychology and Neuroscience, King's College London, UK, [2]OASIS prodromal clinic, SLaM NHS Foundation Trust, London, UK, [3]CAMEO Early Intervention Services, Cambridgeshire and Peterborough NHS Foundation Trust, UK, [4]Department of Psychiatry, University of Cambridge, UK, [5]MRC Clinical Sciences Centre (CSC), London, UK, [6]Institute of Clinical Sciences (ICS), Faculty of Medicine, Imperial College London, London, UK

Disturbances of the subjective sense of self (SD) are core features of the schizophrenic spectrum disorders. In subjects at ultra high risk (UHR) for psychosis, SD can predict conversion to schizophrenia. Little is known about the neurocognitive and neurobiological correlates of SD. However, aberrant salience has been proposed as a possible neurocognitive model underlying SD. A dysfunction in the capacity to compare predicted and incoming stimuli would lead to inappropriate allocation of attention to details not normally reaching awareness. The neurobiological alteration most robustly associated with aberrant salience is dysregulation of dopaminergic function in a cortico-striatal network involving the midbrain, basal ganglia, lateral medial-temporal, and prefrontal cortex. Increased striatal dopamine synthesis capacity is evident in full blown psychosis and in UHR subjects who later developed the disorder. The relationship between SD and striatal dopaminergic function has never been tested upfront. We addressed this issue in an ongoing longitudinal study conducted in London in UHR and healthy control. At baseline, 25 UHR subjects and 15 healthy controls have been assessed with the 57-items semi-structured interview "Examination of Anomalous Self-Experience-EASE and dopamine synthesis capacity (indexed as the influx rate constant Kicer) has been measured with 18F-DOPA Positron Emission Tomography (PET) scan. Clinical and neuroimaging follow-ups are currently ongoing. Preliminary results on the relationship between SD and dopamine synthesis capacity in UHR and healthy controls will be presented, with focus on the impact on clinical and functional outcomes. The results are likely to shed new light on vulnerability to schizophrenia.

Talk 7 Resting-state fMRI dynamics reveal increased state switching in the at-risk stage for psychosis

Diana Wotruba[1,2], Thomas Bolton[3,4], Roman Buechler[1], Anastastia Theodoridou[1,5], Wulf Rössler[1,2,6], Dimitri Van de Ville[3,4], Karsten Heekeren[1]; [1]University Hospital of Psychiatry Zurich, the Zurich Program for Sustainable Development of Mental Health Services (ZInEP), Switzerland, [2]Collegium Helveticum, a joint Research Institute between the University of Zurich and the Swiss Federal Institute of Technology Zurich, Switzerland, [3]Institute of Bioengineering, Ecole Polytechnique Fédérale de Lausanne, Switzerland, [4]Faculty of Medicine, University of Geneva, Switzerland, [5]Department of Psychiatry, Psychotherapy and Psychosomatics, University Hospital of Psychiatry, Switzerland, [6]Laboratory of Neuroscience (LIM-27), Institute of Psychiatry, University of Sao Paulo, Sao Paulo, Brazil

Introduction: A fundamental feature of the human brain is its intrinsic organization into anticorrelated functional networks. The right anterior insula (rAI) has been proposed to play a causal role in regulating the competing activity of the Default-Mode (DMN)- and Task-Positive Network (TPN). A disturbed network-coordination has been associated with the confusion of internally and externally focused attention. Thus, the aim of this study was to examine the dynamic fluctuations of spontaneous brain activity in order to test to what extent rAI co-activation patterns (CAP) would be disturbed in the at-risk state for psychosis. Methods: Using resting-state fMRI data we characterized the dynamic fluctuations of spontaneous brain activity by probing rAI interactions through CAP-analysis in 28 subjects with basic

symptoms, 19 suffering from attenuated and/or brief limited intermittent psychotic symptoms, and 29 controls. Results: In controls, the most frequent state displayed was rAI-TPN co-activation while the DMN was deactive, the second a rAI/DMN coactivation. Both at-risk groups engaged in shorter excursions in any state of rAI-coactivation and had a significantly smaller occurrence rate of the first state. Conclusion: The findings substantiate the pivotal role of rAI in governing TPN-to-DMN transitions, which seems to be dysfunctional in the psychosis at-risk state. Here, it is less likely to be active in concert with TPN-activation and DMN-deactivation and less able to remain active as part of a brain network, denoting increased state switching. This is, interestingly, regardless of symptom constellation.

Talk 8 HPA axis function and grey matter volume reductions: imaging the diathesis-stress model in individuals at ultra high-risk of psychosis

Isabel Valli[1], Nicolas Crossley[1,2], Fern Day[1], James Stone[1], Stefania Tognin[1], Valeria Mondelli[1], Oliver Howes[1,3], Lucia Valmaggia[1], Carmine Pariante[1], Philip McGuire[1]; [1]IoPPN King's College London, [2]Department of Psychiatry, P. Catholic University of Chile, [3]Institute of Clinical Science, Imperial College London

The onset of psychosis is thought to involve interactions between environmental stressors and the brain, with cortisol as a putative mediator. We examined the relationship between the cortisol stress response and brain structure in subjects at Ultra High Risk (UHR) for psychosis. Waking salivary cortisol was measured in 22 individuals at UHR for psychosis and 17 healthy controls. Grey matter volume was assessed using MRI at 3T. The relationship between the stress response and grey matter volume was investigated using voxel-based analyses. Our predictions of the topography of cortisol action as a structural brain modulator were informed by measures of brain glucocorticoid and mineralcorticoid receptor distribution obtained from the multimodal neuroanatomical and genetic Allen Brain Atlas. Across all subjects, reduced responsivity of the HPA axis was correlated with smaller grey matter volumes in frontal, parietal, and temporal cortex and in the hippocampus. This relationship was particularly marked in the UHR subjects in the right prefrontal, left parahippocampal/fusiform and parietal cortices. The subgroup that subsequently developed psychosis showed a significant blunting of HPA stress response, observed at trend level also in the whole UHR sample. Altered responses to stress in people at high risk of psychosis are related to reductions in grey matter volume in areas implicated in the vulnerability to psychotic disorders. These areas may represent the neural components of a stress vulnerability model.

Oral Session 8

Thursday, October 20, 4:30 - 6:00 pm, Porta

Borderline personality disorder and transdiagnostic approaches

Chair: Jan Scott, Co-Chair: Andrew Chanen
Speakers: Rudolf Uher, Aswin Ratheesh, Elizabeth Scott, Jan Scott, Christel Hessels, Andrew Chanen, Louise McCutcheon, Andrew Chanen

Talk 1 A transdiagnostic strategy for early identification of risk for severe mental illness

Rudolf Uher[1], Lukas Propper[1], David Lovas[1], Alexa Bagnall[1], Sabina Abidi[1], Barbara Pavlova[1], Martin Alda[1]; [1]Dalhousie University Canada

Bipolar disorder, major depression and schizophrenia, jointly referred to as severe mental illness, share genetic risk factors and typical onset around the threshold of adulthood. Early interventions in the prodromal stage are beneficial, but the prodrome is already associated with functional impairment. It has been suggested that risk identification and early intervention efforts may need to refocus on earlier stages of development. The risk of severe mental illness may be identified from precursors in children, but these early indicators of risk are not specific to any eventual diagnostic outcome. We have developed a transdiagnostic early identification and intervention strategy based on the combination of familial risk and psychopathological antecedents, including affective lability, anxiety, psychotic symptoms and basic symptoms. We implemented this strategy in the Families Overcoming Risks and Building Opportunities for Well-being (FORBOW) cohort of 300 participants (mean age 13.7, range 9-21 years; 51% males), including 211 offspring of parents with major depressive disorder, bipolar disorder and

schizophrenia. Results from the first 280 annual follow-up assessments suggest that a combination of family history and antecedents prospectively identifies new onsets of severe mental illness. All 10 prospectively ascertained new onsets of major mood and psychotic disorders occurred in offspring of parents with severe mental illness and nine of them were preceded by one or more antecedents. Antecedents at baseline predicted new onsets at follow-up (risk ratio 9.00, p<0.05) and the risk increased exponentially with the number of antecedents. These preliminary data suggest that transdiagnostic early identification strategy is feasible and efficient.

Talk 2 Predictors of early transition from major depression to bipolar disorder and the implication for prevention.

Aswin Ratheesh[1,2], Christopher Davey[1,2], Sarah Hetrick[1,2]; [1]University of Melbourne, Australia, [2]Orygen, Melbourne, Australia

Depression is a common early stage problem in many young people who later develop severe mental disorders. For example, individuals who present with first episode mania or hypomania usually have a prior history of depression, leading to suggestions that major depressive episodes (MDE) might be a target for prevention of bipolar disorders (BD) or other severe mental disorders. We used a systematic search strategy to identify studies that included diagnostic ascertainment of MDE and BD and had a minimum length of follow up was 6 months. The incidence of BD in individuals with a prior MDE was the greatest within the initial 2 to 5 years of follow-up, and meta-analysis indicated a pooled incidence of 4.0 per 100 person-years within the first 2 years of follow-up. As well as family history of BD or mood disorders and lower age of onset of MDE, we demonstrated that the presence of psychotic symptoms was also positively associated with early transition from MDE to BD. Severity and recurrence of depression, subthreshold (hypo)manic symptoms and family history were predictive of later onset BD. The presentation concludes that nearly a quarter of adults and adolescents with MDE recruited from clinical settings and followed up for long periods developed a BD spectrum disorder. Help-seeking clients with MDE with a lower age of onset or psychotic symptoms merit closer observation and may benefit from prevention efforts.

Talk 3 Trans-diagnostic predictors of outcome in youth mental health settings and their implications for preventative interventions.

Elizabeth Scott[1,2], Shane Cross[2], Ian Hickie[2]; [1]Notre Dame Medical School, Sydney, Australia, [2]Brain & Mind Centre, The University of Sydney, Australia

In recent years there has been a growing international focus on the provision of timely intervention for mental disorders in adolescents and young adults, a period when the vast majority of mental disorders have their onset. headspace is the Australian response to this public health challenge, and the service aims to offer a wide range of interventions that are easy to access. A number of studies demonstrate that headspace attendees report very high level of psychological distress, low levels of functioning and a range of psychosocial risk factors at service entry. These studies and others also show that a significant proportion of young people treated in early intervention settings have attenuated features of more severe adult-type mental disorders. This paper describes the baseline characteristics of a cohort of attendees at headspace clinics in and around Sydney, identifying the baseline characteristics that predict poor outcome and trans-diagnostic transitions (from non-specific symptoms to specific severe mental disorders) and the clinical strategies used in these settings that are most effective in preventing transitions across traditional diagnostic thresholds. The presentation will highlight the need to consider social functioning and markers such as NEETs (not in employment, education or training) status alongside other established clinical risk factors (family history, symptom profile) in identifying young people at high risk of persistent problems.

Talk 4 Trans-diagnostic models: from early identification to early intervention

Jan Scott[1]; [1]Newcastle University, UK

This paper will present data from three linked studies examining predictors of transition from states of anxiety, depression and/or sleep problems to severe mental disorders (SMD) in adolescence or early adulthood. It demonstrates how normative developmental changes in sleep profiles and cognitive emotional development in adolescence may act as precipitants from sub-sydromal to syndromal states of SMD. For example, the increase in delayed sleep phase and evening chronotype alongside increased rumination, especially 'toxic brooding' may synergistically interact to exacerbate attenuated or sub-threshold symptoms. Furthermore, it will show how individuals with poor sleep may have altered physical activity and cognitive functioning and show how perseverative cognitions may increase the risk

of distress associated with intermittent depressive or psychotic symptoms, thus increase the likelihood of help-seeking. A new model of therapy that targets current problems and these shared underlying mechanisms will be presented including preliminary data for CBT-R (regulation). The presentation concludes that the advantage of this approach is that it is more acceptable to youth as it primarily focuses on non-pharmacological and basic behavioural strategies, and is low risk but potentially high benefit across a broad range of young people. However, the paper also highlights that change in self-regulation usually takes up to 6 months and that the targets in youth are different from those usually identified for older adults with established disorders. As such, there is a need to counter assumptions that the management of sub-threshold symptoms and early stage problems only requires short forms of adult type therapies.

Talk 5 It's All About Timing… Early Intervention in BPD

Christel Hessels[1], Saskia Tromp[1], Gerda Blom[1]; [1]GGz Centraal, Amersfoort, the Netherlands

Background: In the last decade, reluctance and ambivalence about assessing borderline personality disorder (BPD) in young people has shifted. Personality disorders are now considered lifespan developmental disorders and this developmental psychopathology perspective has paved the way to study interventions from a clinical staging model, in which early intervention has an important role. In the Netherlands, the first early intervention program for BPD was based on the Helping Young People Early (HYPE) program, developed in Melbourne, Australia. Other programs are also being developed, based on different psychotherapeutic models. HYPE is an integrated, outpatient based intervention model, comprising assertive case management, general psychiatric care and time-limited psychotherapy, using Cognitive Analytic Therapy. Materials and Methods: This presentation describes and discusses different models of early intervention for BPD, considerations for program implementation, and first clinical experiences. Results: Since 2012, different organizations in the Netherlands began implementing early intervention programs alongside longer-term programs for youth with BPD, taking into account developments in the treatment facilities, guidelines and culture, and modifications to account for cultural differences. Conclusion: The experiences of the implementation process and the first research findings will be presented. Based on these experiences, we can understand the importance of fine-tuning an evidence-based treatment to the patients, the context, the organization and the prevailing culture.

Talk 6 A pilot study evaluating a psychoeducation intervention for families and friends of youth with BPD

Andrew Chanen[1,2,3], Jessie Pearce[4], Ben McKechnie[3], Carol Hulbert[4], Martina Jovev[1,2,3]; [1]Orygen, the National Centre of Excellence in Youth Mental Health, [2]Centre for Youth Mental Health, The University of Melbourne, [3]Orygen Youth Health, Northwestern Mental Health, [4]Melbourne School of Psychological Sciences, The University of Melbourne

Abstract: Borderline Personality Disorder (BPD) is a severe mental disorder characterised by instability in interpersonal relationships and self-image, emotional dysregulation and marked impulsivity. The emergence of BPD features in a young person can be intensely distressing for the family. Despite family members and friends of individuals with BPD reporting high levels of burden and distress, only two family psychoeducation groups related to BPD have been empirically evaluated previously. This project evaluated Making Sense of Borderline Personality Disorder (MS-BPD), a psychoeducation group designed specifically for the family and friends of young people with BPD pathology that discusses BPD within a youth developmental context. Demographic data were collected on the MS-BPD group participants and their associated young person with BPD pathology. Twenty-nine MS-BPD group participants completed self-report measures including the Burden Assessment Scale, Kessler Psychological Distress Scale and selected items from the Personality Disorder Knowledge, Attitudes and Skills Questionnaire, pre- and post-intervention. Post-participation in the MS-BPD intervention, group participants reported significantly decreased burden (specifically, subjective burden) and increased personality disorder knowledge. Contrary to predictions, objective burden and distress remained unchanged. The current study is the first to evaluate a psychoeducation group designed specifically for family and friends of youth with BPD features.

Talk 7 Evaluation of an early intervention for BPD training package for mental health clinicians targeting knowledge and attitudes

Louise McCutcheon[1,3], Leanne Crothers[1,3], Katherine Thompson[1,2], Andrew Chanen[1,2,3]; [1]Orygen, the National Centre of Excellence in Youth Mental Health, [2]Centre for Youth Mental Health, The University of Melbourne, [3]Orygen Youth Health, Northwestern Mental Health

Aim: This study evaluated the effects of a two-day Early Intervention for Borderline Personality Disorder (EI-BPD) training package on staff from headspace centres around Australia, and aimed to measure the change in how these clinicians felt about working with young people with personality disorders pre and post training, and at three month follow-up. Method: Staff at all headspace centres were invited to attend one of eleven two-day EI-BPD workshops that were held in capital cities across Australia. Out of a potential sample of 319 attendees, a total of 163 participants completed the survey pre-training, post-training, and at three-month follow-up. The survey contained the Personality Disorder Knowledge Attitude and Skills Questionnaire (PD-KASQ), plus some additional training evaluation questions. Results: Substantial significant improvements in score were found for each subscale of the PD-KASQ across time. Understanding, capability efficacy and emotional reaction (i.e. more positive) improved between pre-training and post-training, and these improvements were maintained at follow-up. While clinicians who had more experience working with personality disorder rated themselves as being significantly more understanding and capable than inexperienced clinicians, their emotional reaction to clients with BPD was not significantly different. The majority of clinicians who attended found the workshop relevant to their work (90.9%), and thought the workshop would improve the way they worked with clients (86.9%). Discussion: EI-BPD training had a significant positive impact on clinicians' understanding, capability and emotional reaction to their clients, and these improvements were retained at three month follow-up.

Talk 8 Comparing three forms of early intervention for youth with borderline personality disorder: the MOBY study

Andrew Chanen[1,2,3], Henry Jackson[4], Sue Cotton[1,2], John Gleeson[5], Christopher Davey[1,2,3], Jennifer Betts[1,2], Sophie Reid[6], Katherine Thompson[1,2], Louise McCutcheon[1,3]; [1]Orygen, the National Centre of Excellence in Youth Mental Health, [2]Centre for Youth Mental Health, The University of Melbourne, [3]Orygen Youth Health, Northwestern Mental Health, [4]Melbourne School of Psychological Sciences, The University of Melbourne, [5]School of Psychology, Faculty of Health Sciences, Australian Catholic University, Melbourne Campus, [6]Murdoch Children's Research Institute

Aims: To evaluate the effectiveness of three forms of early intervention for borderline personality disorder in terms of adaptive functioning. Each treatment is defined by combining either a specialised or a general service delivery model with either an individual psychotherapy or a control psychotherapy condition. Methods: The study is a parallel-groups, single-blind, randomised controlled trial. The treatments are: (1) The specialised Helping Young People Early service model plus up to 16 sessions of individual Cognitive Analytic Therapy; (2) The Helping Young People Early service plus up to 16 sessions of a control psychotherapy condition known as Befriending; (3) A general youth mental health care model plus up to 16 sessions of Befriending. Results: Recruitment has now closed. Participants comprised 139 help-seeking 15-25 year-olds with borderline personality disorder. The primary endpoint is at 12 months. The primary outcome is adaptive functioning (measures of social adjustment and interpersonal problems) and secondary outcomes include measures of client satisfaction, borderline personality disorder features, depression and substance use. Baseline data are currently being analysed. Discussion: The results of this trial will help to clarify the comparative effectiveness of a specialised early intervention service model over and above general youth mental health care, along with the contribution of individual Cognitive Analytic Therapy over and above specialised general clinical care in early intervention for borderline personality disorder. Consequently, the findings will also inform the level of training and competency required for effective delivery of early intervention services.

Oral Session 9

Thursday, October 20, 4:30 - 6:00 pm, Monti

Sexual, mental and physical health

Chair: Andrew Chanen, Co-Chair: Mariano Bassi
Speakers: Brian O'Donoghue, Barbara Dooley, Andrew Chanen, Helen Coughlan, Lene Nyboe, Sylvia Collinetti, Marit Haram, Maria Calem

Talk 1 Sexual health of young people attending a youth mental health service

Brian O'Donoghue[1,2,3], Asiel Adan Sanchez[3], Elizabeth McMillan[3], Nancy Pehlivan[4], Katherine Thompson[3], Katherine Monson[2], Paul Badcock[1], Eoin Killackey[1], Amit Bhaduri[2], Andrew Chanen[1,2,3]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, Melbourne, Australia, [2]Orygen Youth Health, Melbourne, Australia, [3]Centre for Youth Mental Health, The University of Melbourne, Melbourne, Australia, [4]North Western Mental Health Service, Melbourne, Australia

Background: It is well-established that adolescence is a period of increased risk for both mental health disorders and high-risk sexual behaviour, however there is a paucity of research on the potential interplay between these two factors. This study aims to identify the prevalence of high risk sexual behaviours, potential sequela and sexual dysfunction in a cohort attending a youth mental health service. Methodology: Participants were young people aged 15-24 attending a specialist clinic for either psychotic disorders, ultra-high risk for psychosis, personality disorders or mood disorders. Instruments included: Sexual health questionaire, sexual functioning questionaire and the Brief Psychiatric Rating Scale. Results: 81 young people participated to date and a total cohort of over 100 is anticipated. Of the participants, 54% identified as heterosexual, 25% as bisexual and 4% as homosexual. 76.5% had a history of sexual intercourse and the mean age of sexual debut was 16(SD 2.8). Less than half of those who were sexually active were using contraception. 24% of the cohort had tested positive for a sexually transmitted infection and a similar proportion had been pregnant (or their partners), 93% of pregnancies were unplanned. Nearly two-thirds had used alcohol during sex and 43% had used cannabis. A high rate of sexual dysfunction was also found in this cohort. Conclusions: These results indicate that young people with mental health disorders also have high needs in regards to their sexual health, which could be addressed by incorporating sexual health clinics into early intervention services.

Talk 2 Sexual orientation and mental health in a youth population based cohort in Ireland

Barbara Dooley[1,2], Louise Dolphin[1], Amanda Fitzgerald[1]; [1]School of Psychology, University College Dublin, [2]Headstrong (The National Centre for Youth Mental Health), Dublin

This study investigates the relationship between sexual orientation and a) mental health outcomes (e.g. depression, anxiety) b) alcohol and substance use c) protective factors (e.g. self-esteem, social support) in a large cohort of 18-25 year olds in Ireland. Participants are young adults who took part in the My World Survey (MWS), a large study of youth mental health in Ireland (Dooley & Fitzgerald, 2012) which assessed key positive and negative domains of psychological functioning using numerous psychometrically sound instruments. In the present study, participants were 7,414 college students (65.4% female, 34.6% male). The age range was 18-25 years (M=20.33, SD=1.86). Regarding sexual orientation, 89.3% self identified as heterosexual; 3.9% as gay or lesbian; 4.1% as bisexual; 2.7% as unsure of sexual orientation. Young adults who identified as bisexual or unsure reported higher levels of psychological distress compared to those who identified as gay/lesbian or bisexual. Alcohol and substance use was higher among gay/lesbian young adults and lower among those unsure of sexual orientation. Protective factors including self-esteem, optimism, life satisfaction, positive coping and social supports were highest among heterosexual and gay/lesbian young people and lowest among bisexual and unsure young people. Findings complement research indicating a hierarchy of risk among LGB individuals: bisexual young people report higher psychological distress and poorer protective factors than gay/lesbian young people. Findings also highlight the significant risk associated with young people who are unsure of their sexual orientation.

Talk 3 The Sexual Health and Relationships of Young people with Borderline Personality Pathology

Andrew Chanen[1,2,3], Martina Jovev[1,2,3], Jennifer Betts[1,2], Yolanda Nyathi[1], Anthony Smith[4], Marion Pitts[4], Arthur Stabolidis[1], Katherine Thompson[1,2]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, Melbourne, Australia, [2]Centre for Youth Mental Health, The University of Melbourne, Melbourne, Australia, [3]ORYGEN Youth health, Melbourne, Australia, [4]Australian Research Centre in Sex, Health and Society, Latrobe University, Melbourne, Australia

Background: Little is known about the sexual and reproductive health status of young women with borderline personality (BPD) traits. This study aimed to measure the knowledge and attitudes these young people have about sexual health and the type of sexual health risk behaviours they engage in. We hypothesized that young women with BPD traits would have less clarity about their sexual orientation, and engage in more impulsive behaviours, in keeping with the core features of BPD which relate identity disturbance and impulsivity. This information was then compared with data from a nationally representative sample of 16-24 year olds that participated in the Australian Study of Health and Relationships (ASHR) study. Methodology: Participants included 49 women aged between 16 and 24 years, who attended the HYPE Clinic for treatment associated with their BPD traits. They

completed a comprehensive psychopathology interview together with the Australian Study of Health and Relationships (ASHR) longitudinal survey. This data was compared to an aged matched cohort of 170 young women from the ASHR study. Results: The results supported our hypotheses and suggested young women with BPD traits have a greater lack of clarity about their sexual orientation. They also had a greater number of sexual partners, higher rates of unwanted pregnancies and terminations. Conclusion: Our preliminary findings suggest that young women with BPD traits engage in more risky sexual behaviours and have a less clear sexual identity than their age matched peers

Talk 4 Non-suicidal self injury, suicidal thoughts and suicide attempts among sexual minority youth in Ireland during their emerging adult years

Helen Coughlan[1], Emmet Power[1], Mary Clarke[1,2], Ian Kelleher[1], Fionnuala Lynch[3], Dearbhla Connor[4], Carol Fitzpatrick[5], Michelle Harley[6], Mary Cannon[1,7]; [1]Department of Psychiatry, Royal College of Surgeons in Ireland, Dublin, Ireland, [2]Department of Psychology, Royal College of Surgeons in Ireland, Dublin, Ireland, [3]Department of Psychiatry, Lucena Clinic, Dublin, Ireland, [4]Department of Psychiatry, Connolly Hospital, Dublin, Ireland, [5]Department of Psychiatry, University College Dublin, Ireland, [6]Department of Psychiatry, St. Michael's House, Dublin, Ireland, [7]Department of Psychiatry, Beaumont Hospital, Dublin, Ireland

Emerging adulthood, the period between the late teens and the mid to late twenties, is one of high risk for morbidity, disability and mortality associated with suicide and self-injury. However, few studies have been conducted to determine whether or not sexual minority youth constitute a distinct at risk group for suicidality and self-injurious behaviour during this phase of the lifespan. The Challenging Times Study is a longitudinal, population-based study of psychopathology, suicidality and deliberate self-harm among young people in Ireland. Data on lifetime rates of suicidality and deliberate self-harm were collected using diagnostic clinical interviews at two time points, one when the cohort was aged 12-15 years and the second when they were between the ages of 19-24 years. Analyses were conducted to examine whether sexual minority status, as reported between the ages of 19-24 years, was associated with an increase in the odds of any lifetime experiences of suicidality or deliberate self-harm among the cohort. Sexual minority status was associated with an over 6-fold increase in the odds of both suicidality and deliberate self-harm among 19-24 year-olds when compared to young people with a heterosexual orientation. Findings from this study provide evidence that sexual minority youth are at increased risk for suicidality and deliberate self-harm. They also suggest that the period of emerging adulthood may be a distinct period of risk for suicidality and self-injurious behaviour among sexual minority young people. Findings from this study have important public health implications, particularly in relation to suicide prevention and intervention initiatives.

Talk 5 Low Aerobic Fitness Predicts Metabolic Syndrome in Patients with First-Episode Schizophrenia

Lene Nyboe[1], Claus Høstrup Vestergaard[2], Marianne Kleis Moeller[3], Hans Lund[4], Poul Videbech[5]; [1]Aarhus University Hospital, [2]Aarhus University, [3]Horsens Regional Hospital, Denmark, [4]University of Southern Denmark, [5]Psychiatric Centre Glostrup, Denmark

Purpose: This observational, prospective study aimed to describe the prevalence of metabolic syndrome (MetS) in patients with first-episode schizophrenia (FES) in comparison with healthy controls, furthermore, to investigate development and predictors of MetS during 1 year follow-up in FES. Material and methods: MetS was assessed in patients with FES (N=99) and healthy controls (N=50)using the International Diabetes Federation (IDF) criteria of waist circumference (WC), triglycerides (TG), high-density lipo-protein (HDL), blood pressure (BP) and fasting glucose (FG). Data on physical activity, aerobic fitness, smoking and dietary habits, and sleeping quality were assessed for all participants; for patients with FES also data on psychotropic medication, GAF, SANS and SAPS were included. Results: Patients with FES had significantly higher prevalence of MetS (p=0.07), higher WC (p<0.01), FG (p=0.04), and TG (p<0.01), and lower HDL (p=0.02) compared with healthy controls. During 1 year follow-up the prevalence of MetS increased from 10 % to 22.1% (p=0.03) in patients with FES, who also had significant increases in WC (p=0.04), and TG (p=0.01). Both the use of antipsychotics and low physical activity were significantly correlated to increased metabolic abnormalities. In multivariate analyses, low aerobic fitness proved to be the most consistent and significant predictor of metabolic abnormalities and MetS. Conclusion: MetS and metabolic abnormalities are highly prevalent in patients with FES and worsen over time. Poor aerobic fitness is a significant predictor of metabolic abnormalities, and warrant more attention in psychiatric treatment and rehabilitation.

Talk 6 Clinical Outcomes comparing the Early Psychosis Prevention and Intervention Centre (EPPIC) Treatment as Usual (TAU) Versus Trauma-Informed Psychotherapy for Psychosis (TRIPP) with Melanie: A 3 year longitudinal approach

Sylvia Collinetti[1], Sarah Bendall[1], Nerida Barclay[2], Jacinta Macintyre[2], Sarah Borg[2]; [1]Orygen, The Centre of Excellence in Youth Mental Health, [2]Orygen Youth Health, Clinical Program

Introduction: Research indicates that there is a high percentage of individuals who have psychosis and also co-occurring post-traumatic stress disorder (PTSD). Currently there are no evidence-based treatment for PTSD in first episode psychosis (FEP). In this case study, we compare the application of treatment as usual (TAU) within the Early Psychosis Prevention and Intervention Centre (EPPIC) followed by adjunct Trauma-Informed Psychotherapy for Psychosis (TRIPP). Melanie, the young person in this case study, had Psychosis NOS, Major Depressive Disorder, as well as anxiety and dissociative symptoms. Melanie grew up in a dysfunctional family environment, resulting in emotional and verbal abuse. She also experienced bullying in school which led to school refusal. Method: Melanie was referred to EPPIC at the age of 15 and received treatment TAU for the first 2 years. She then received TRIPP for 10 months as part of a research pilot trial. Assessment measures including the CAPS for PTSD, were taken at 6 month into TAU treatment, at the end of TAU and at the end of TRIPP. Results: PTSD symptoms during TAU from childhood bullying were categorised at severe on the CAPS (60), after TAU were mild (31) and after TRIPP were asymptomatic (15). Discussion: Adjunctive TRIPP within the EPPIC model, can have beneficial long-term effects for some young people with co-occurring psychosis and PTSD. The therapy led to clinically significant improvements in symptomatology including psychosis and PTSD with gradual functional gains. A collaborative formulation allowed a shared understanding about how Melanie's early traumatic experiences impacted on the emergence of co-occurring symptomatology. This paradigm shift allowed to move away from understanding her presentation from a psychopathology position, enabling to highlight the young person's personal strengths and develop a narrative of resilience in the face of adversity.

Talk 7 Contribution of oxytocin receptor polymorphisms to amygdala activation in schizophrenia spectrum disorders

Marit Haram[1], Francesco Bettella[1], Christine Lycke Brandt[1], Daniel S. Quintana[1], Mari Nerhus[1], Thomas Bjella[1], Srdjan Djurovic[1,2], Lars T. Westlye[1,3], Ole A. Andreassen[1], Ingrid Melle[1], Martin Tesli[1]; [1]NORMENT; K.G. Jebsen Centre for Psychosis Research, Institute of Clinical Medicine, University of Oslo and Division of Mental Health and Addiction, Oslo University Hospital, Norway, [2]Department of Medical Genetics, Oslo University Hospital Ullevål, Oslo, Norway, c Department of Psychology, University of Oslo, Oslo, Norway, [3]Department of Psychology, University of Oslo, Oslo, Norway

BACKGROUND Amygdala dysfunction has been associated with altered emotion processing in schizophrenia, and the oxytocin system has been proposed to mediate this effect. However, the contribution of oxytocin pathway genes to amygdala activation has yet to be investigated in this patient group. METHODS 346 participants (104 cases with schizophrenia spectrum disorders (SCZ), 100 patients with affective spectrum disorders (AD), and 142 healthy controls) underwent genotyping and functional magnetic resonance imaging (fMRI) during an emotional faces matching paradigm. Genetic association analyses were performed to test the possible effects of rs53576, rs237902, and rs2254298 on task-induced BOLD amygdala response to fearful/angry faces. RESULTS In participants with SCZ, the rs237902 G allele was associated with low amygdala activation (left hemisphere, b= -4.99, Bonferroni corrected $p = 0.04$) and interaction analyses showed that this association was disorder specific (left hemisphere; Bonferroni corrected $p = 0.003$, right hemisphere; Bonferroni corrected $p = 0.03$). There were no associations between oxytocin polymorphisms and amygdala activation in the total sample, among AD patients or healthy controls. CONCLUSION Rs237902 was associated with amygdala activation in response to fearful/angry faces in patients with SCZ. Our findings indicate that the endogenous oxytocin system could serve as a contributing factor in biological underpinnings of emotion processing and that this contribution is disorder specific.

Talk 8 Structural Brain Correlates of Stress Reactivity in the At-Risk Mental State

Maria Calem[1], Ulrich Reininghaus[2], Lucia Valmaggia[1], Barnaby Nelson[3], Eva Velthorst[4], Inez Myin-Germeys[2], Craig Morgan[1], Philip McGuire[1], Matthew Kempton[1]; [1]Insitute of Psychiatry, Psychology and Neuroscience, King's College London, [2]Department of

Psychiatry and Neuropsychology, School for Mental Health and Neuroscience, Maastricht University, [3]Orygen, University of Melbourne, [4]Department of Psychiatry, Icahn School of Medicine at Mount Sinai, New York, [5]Various

Background There is growing interest in the psychological and biological mechanisms by which stress might increase risk for psychosis. One psychological mechanism that is thought to be relevant is stress reactivity, characterised by intense emotional reactions and psychotic-like experiences in response to routine daily hassles and minor stressful experiences. This study investigated associations between stress reactivity and the volume of stress-related brain structures in people at clinical high risk for psychosis. It was hypothesized that the stress reactivity would be greater in those with smaller hippocampal and amygdala volume. Methods The Experience Sampling Method was used to measure minor stressful experiences (event stress, social stress and activity stress), negative and positive affect and psychotic experiences in daily life. The volume of the hippocampus and amygdala was calculated from structural MRI data. The association between volume of stress-related brain structures and elevated reactivity to minor stressors was investigated using linear mixed models to account for the multilevel structure of ESM data. Results Smaller hippocampal volume was associated with: greater positive affective and negative affective reactivity to event stress; greater psychotic reactivity to activity stress; and greater negative affective reactivity to social stress. Smaller amygdala volume was associated with: greater positive affective, negative affective and psychotic reactivity to event stress; negative affective and psychotic reactivity to activity stress; and negative affective reactivity to social stress. Discussion Smaller volumes of two stress-related brain structures are markers for greater affective and psychotic reactivity to stress in people at clinical high risk for psychosis.

Oral Session 10

Friday, October 21, 1:00 - 2:30 pm, Parini

Psychosocial interventions for young people

Chair: Rita Roncone, Co-Chair: Phillippe Golay
Speakers: Rita Roncone, Maria Patrizia Lorenzetti, Federico Galvan, Barbara D'Avanzo, Philippe Golay, Carolyn Little, Brian O'Donoghue, Maria de Nazareth Malcher

Talk 1 TRIP, a specialized psychiatric service for young users: duration of untreated psychosis, age of onset and functioning in affective disorder

Rita Roncone[1], Valeria Bianchini[1], Laura Giusti[1], Donatella Ussorio[1], Anna Salza[1], Annalisa Aggio[1], Maurizio Malavolta[1], Massimo Casacchia[1,2]; [1]University of L'Aquila, Department of Life, Health and Environmental Sciences, TRIP - Psychosocial Rehabilitation Treatment, Early Interventions University Unit - ITALY, [2]President World Association for Psychosocial Rehabilitation, WAPR - Italian branch

AIMS. Observational study among a young sample at the onset of affective disorder seeking help to a dedicated service, with the aim to evaluate the age of onset, diagnostic delay and functional outcome. METHODS. For 57 young people at First Episode Psychosis (FEP) of Affective Disorder, consecutively recruited into the SMILE service, an University service for Early Intervention in L'Aquila (Italy), socio-demographic and clinical (DUP, psychiatric history, age of onset) and psychopathological (BPRS e SCL-90) data were collected, together with perceived distress (GHQ-12) and functioning (GAF) evaluations. RESULTS. The sample showed a duration of untreated psychosis (DUP) of 120,9 weeks and a mean age at onset of 21 years. More than 50% of the sample reported a family psychiatric history; this subgroup showed a higher substance use and a longer DUP compared to young people with no family history of psychiatric disorders. Two years after the access to SMILE service, the sample showed a good functional improvement (T0 GAF 63.4 s.d. 13.6 - T1 GAF 74.57 s.d 13.5 - ANOVA repeated measures: F=25.548; df=1.50; p=0.05). DISCUSSION AND CONCLUSIONS. This study confirms the problem of the diagnostic delay of young people at FEP of Affective Disorder and underlines the role of family psychiatric history. Our results support the need of a specialized service to improve the early detection, identification and treatment of mental disorders.

Talk 2 Adolescents and mental health service network: a model of early identification and engagement and harmonization of interventions

Maria Patrizia Lorenzetti[1], Deanna Armellini[1], Mariella Salciarini[1], Paola Tomassoli[1]; [1]Mental Health Service for Adults, Mental Health Service for Children and Adolescents, Social Services and Drug Abuse Services - District Alto Chiascio AUSL Umbria1, ITALY

Data from the District Alto Chiascio AUSL Umbria1 including the Mental Health Service for Adults, Mental Health Service for Children and Adolescents, Social Services and Drug Abuse Services showed that 35% of adolescents or parents who contacted the services in 2012 had had a previous contact which did not produce any treatment or monitoring plan. If early intervention is the main objective in youth services, to overcome service fragmentation is mandatory. A working group comprising all involved professions and functions - pediatrician, psychiatrist, child and adolescent psychiatrist, general practitioner, emergency doctor, social worker, nurse, physiotherapist, psychologist, nutritionist, speech therapist - planned activity and training to enrich professionals' competencies and skills for adolescent problems and to achieve a more consistent framework of care. The objective was creating a system where all services are appropriate contact point and can give an answer; the problem presented is analysed by the professional of the contacted service and assigned to the appropriate service; the person is accompanied to the competent service. Compared to 2012, contacts with the mental health services in 2015 increased of 100%. Main problems were anxiety disorders (36%) and reactions to stressful events (27%). Time between symptom/problem onset and contact was 30 days or less for 56% of individuals referred by the health services involved. Earlier interventions of mental disorders can be improved by an organization allowing real access to care and quality of the first answer to young people and their families.

Talk 3 Evolution in the community detection and intervention in youth disease. Specific projects in Northern Italy and the example of Gabbiano Onlus.

Federico Galvan[1,2,3], Giacomo Bellagamba[1], Antonella Damo[1], Fabio Corso[1], Marco Bellotto[1], Patrizio Angelinis[1], Loana Di Dio[1], Sara Bresesti[1], Gloria Beloli[1], Diego Longo[1], Alice Mondora[1], Cecco Bellosi[1]; [1]Il Gabbiano Onlus, Italy, [2]AIPP – Associazione per la prevenzione e l'intervento precoce nella Salute Mentale, Italy, [3]TempoZero - Azienda Socio Sanitaria Territoriale della Valtellina e Alto Lario, Italy

In recent years it's been more and more clear the partnership between non-profit organizations with their non-specific programs focusing on youth disease (addictions, legal problems, school drop out), and specific hospital services of early detection and intervention in mental health can be useful to reduce DUP and improve specific community educational treatment. The match of the established experience of Gabbiano Onlus with different Departments of Mental Health led to a cooperation involving the integration of prevention programs already working (Interventi psico-socio-educativi a favore di famiglie con adolescenti in difficoltà – POR-FSE 2014/2020) with the specific service of early intervention "TempoZero" of Azienda Socio Sanitaria Territoriale della Valtellina e Alto Lario. On the one hand we noted an increase in the number of requests of specific assessment and on the other hand, the design and educational experience of Gabbiano Onlus has been made available to the early intervention service for different situations, integrating psychiatric intervention with intensive work in life contexts. Moreover, within residential facilities, particular attention has been paid to dual diagnosis, introducing specific psychiatric assessment (BPRS), evaluation of social functioning (GAF) and empowerment (SESM) and social and clinical outcomes, which have been added to the already existing package of assessment and project. In addictions, the multi-professional team dedicated to DD implements the IPHYS project to prevent side effects of anti-psychotic medications, monitoring specific and non-specific cardiometabolic risk factors using a specific version of the algorithm HETI. The first outcomes of assessment foster further developments in research, training and investments.

Talk 4 Community activation in relationship to mental states at risk of psychosis: pitfalls and strenghts of a community coalition activity.

Barbara D'Avanzo[1], Alberto Parabiaghi[1], Mauro Percudani[2], CCM Community Coalition Group[2]; [1]Laboratory of Epidemiology and Social Psychiatry IRCCS - Istituto di Ricerche Farmacologiche Mario Negri Milan, ITALY, [2]Mental Health Department, ASST Rhodense, Garbagnate Milanese, ITALY

Although a focus on the role of the community in the identification of young people with psychotic-like signs and implementation of inclusive activities, services for early interventions in mental illness have mainly focused on accessibility and appropriate intervention, and less on community involvement. In 2014 the project "Integrated interventions to enhance identification and early intervention in serious mental disorders in young people (15-24 years) in at risk population groups" started, funded by the National Centre for Disease Prevention and Control, addressing the role of

community organizations as 1. active in the referral to appropriate services; 2. proactive and inclusive subjects in the encounter with young people experiencing mental difficulties. Specific focus was on the immigrant population. The model was mutuated from the Community that Care model, a prevention system that empowers community stakeholders to collaborate to develop and implement a science-based community prevention system. In the six centres involved, associations, churches and schools entered the Boards and were trained to psychosis and mental states at risk; risk of duration of untreated psychosis; prevention; interventions; communication skills; ethnic differences in illness presentation. The Boards have had averagely 10 meetings. All started with larger numbers of participants and then decreased to 4-14. Schools and ethnic/religious organizations remained everywhere. Main issues of the project are addressed in a survey of Board participants: help need with young peoples' emotional problems; fear to "replace" specialists; families not accepting referral; difficulties in translating competencies into actions; introduction of specific needs from refugees.

Talk 5 Prediction of Remission in Early Psychosis: What if we Took our Models Seriously?

Philippe Golay[1], Philipp Baumann[1], Philippe Conus[1]; [1]Lausanne University Hospital

Purpose: Identification of factors associated with remission in early psychosis intervention is important to adapt strategies and increase likelihood of favourable outcome. Indeed, rates of 20-30% of relapse in early intervention settings can be observed with patients that are most at risk for adverse outcomes. The first goal was to determine which pre-treatment and baseline variables were associated with symptomatic remission after 18 month of treatment in an early psychosis sample. The second goal was to evaluate to which extent this model could be applied in a different yet similar setting in order to predict clinical outcome. Material and methods: A model was first developed in an epidemiological sample of 506 patients treated at EPPIC in Melbourne. Symptomatic remission was defined as receiving a score ≤3 on the CGI. Using this model, a prognosis was estimated for 106 patients of TIPP in Lausanne. Results: The rates of false positives/negatives, sensitivity/specificity were evaluated. Several factors were associated with decreased chances of remission such as substance use disorder at presentation, duration of untreated psychosis or premorbid functioning. Results showed good specificity but high rates of false negatives and poor sensitivity. Overall, about 61% of patients were correctly classified. Conclusion: Such models have limited forecasting capabilities. An important limitation of this study was that potential predictors of interest were limited to variables available in both datasets. Therefore important predictors could have been overlooked. This limitation is nevertheless similar to the real-world situation of clinicians trying to translate research findings into their clinical setting.

Talk 6 Opportunity and Challenge : Developing Australia's First Regional headspace Youth Early Psychosis Program

Carolyn Little[1]; [1]headspace Darwin

Anglicare Northern Territory has operated headspace Darwin for 8 years—nominated as a Round 1 headspace site. In 2015, Federal government funding was released to enable the development on the headspace platform of a Youth Early Psychosis Program (hYEPP) based on the world renowned Early Psychosis Prevention and Intervention Centre (EPPIC) model. Darwin is the first Australian regional centre with these two main streams of mental health service delivery. Key features of the model include mobile assessment and outreach for young people aged 12–25 years, intensive 2 years of case management for first-episode psychosis (FEP), a youth and family-friendly functional recovery program involving educational and vocational support, psychoeducation, therapeutic and social group programs, complemented by peer and family support workers. This presentation provides an overview of the unique opportunities and challenges involved in setting up the hYEPP model in a remote regional center. It has been an exciting journey of building partnerships with the existing services, engaging with the community and young people. A significant achievement has been the development of a Service Level Agreement (SLA) with the existing Public Mental Health Service to enable inpatient admissions to be facilitated under headspace psychiatrists rather than government services. hYEPP provides a unique service to regional Darwin young people, many of Indigenous origin, who are experiencing an FEP or are at ultra-high risk (UHR) of developing an FEP. The geographic remoteness, client demographics and Federal funding changes provide a unique opportunity to modify service provision to the needs of the community.

Talk 7 Screening for Ultra-High Risk (UHR) for Psychosis states in a youth mental health service

Brian O'Donoghue[1,2,3], Vidyenderan Rudhan[3], Shakira Kumar[3], Meghan Bowtell[2], Milana Rasic[3], Andrea Polari[3], Andrew Mackinnon[1,2], Patrick McGorry[1,2], Barnaby Nelson[1,2]; [1]Orygen, the National Centre of Excellence in Youth Mental Health, Melbourne, Australia, [2]Centre for Youth Mental Health, University of Melbourne, Australia, [3]Orygen Youth Health, Melbourne, Australia

There is a clinical utility in being able to identify individuals who are at UHR of developing a psychotic disorder. However, the diagnostic instruments required are lengthy and require expertise to complete reliably. Therefore, a brief screener for psychotic symptoms could be a practical first step in identifying UHR individuals. This study aims to determine the screening performance of the Prodromal Questionaire-16(PQ16) in a youth mental health service and whether the addition of the level distress improves the screening properties. Young people, aged 15-24, attending for assessment at Orygen Youth Health will undergo screening with the PQ16 and then an assessment with the Comprehensive Assessment of the At-Risk Mental State (CAARMS). A score of 6 or greater on the PQ16 has been demonstrated to have high sensitivity and specificity to distinguish those at UHR. 147 young people have participated to date. 60% were female and the mean age was 18.5 years (SD2.7) and the mean SOFAS score was 53 (SD8.0). From the CAARMS assessment, 43%(N=63) were identified as being UHR. A score of 6 or greater on the PQ16 had a sensitivity of 90.3%, specificity of 53.6%, positive predictive value of 0.59 (95%CI 0.48–0.69) and a negative predictive value of 0.88 (95%C.I. 0.76-0.96). While the PQ16 has modest specificity, its high sensitivity implies that full assessment burden can be considerably reducing will little impact on missing UHR patients. A total cohort of 250 participants is anticipated and it will be determined whether the addition of distress scores improves screening performance.

Talk 8 The route of the psychosocial model of care and changes in production practices in mental health

Maria de Nazareth Malcher[1], Gardênia da Silva Abbad; [1]Professor Adjunto Universidade de Brasília, [2]Professora Adjunta. Universidade de Brasilia ; Brasil

The Mental Health Policy in Brazil in the last decade has enabled changes and evolved the model to produce care This study aims to describe the construction stages of the policy model in mental health presenting the practices of the service daily and the skills of mental health professionals for the development of this model. The study was conducted research in 38 national and international government documents on mental health, published from 1995 to 2014. The data were organized through thematic analysis of aspects of the model of care and psychosocial rehabilitation of the specialized services of the Network Psychosocial care (RAPS) of the Unified Health System in Brazil. Data presented based on the parameters of government documents describe the model of care in mental health developed in Brazil, influenced by historical and social, national and world events, the care model in the everyday practices of substitute services and the skills of professionals for the development of this model. The data show that the psychosocial model of care presented as a current paradigm, with reflection on the need to develop multifactorial strategies, good clinical practices of intervention, rigorous therapeutic strategy and dissemination of evidence, adopting international guidelines and that even as a model global innovation also shows in development and problems in the daily management of services.

Oral Session 11

Friday, October 21, 1:00 - 2:30 pm, Monti

Negative symptoms and discontinuation of medication

Chair: Alp Ucok, Co-Chair: Anne Faerden
Speakers: Ann Faerden, John Lyne, Alp Ucok, Vera Lonning, Alessandro Segurini, Heidi Jensen, Andrew Thompson, Jacqueline Mayoral-van Son

Talk 1 Review of assessment of negative symptoms in adolescents with psychosis

Ann Faerden[1]; [1]Oslo University Hospital, Norway

Background Negative symptoms have only recently come into attention in adolescents with psychosis (AP) and when present is associated with poorer functioning and outcome. Assessment in this young age group is mostly done with

PANSS and SANS, the same instruments as used in the adult population. Since these symptoms have such important consequences it is important that assessment is optimal and manage to assess their full range. It is well accepted that the PANSS and SANS do not represent the current knowledge and concepts of negative symptoms. Initiatives have been taken to make new scales for the adult population. No such initiative has yet been taken for AP. It has not been reviewed if negative symptoms in AP have the same range of sub-symptoms, factor structure, correlations and prediction as found in adults. Aim This presentation has the aim to review this by going through the last 20 years studies of negative symptoms in AP. The result of this review will shed light on the need for development of new scales for the assessment of negative symptoms in AP or if the scales used in adults can be used as stands or only with minor age relevant adjustments. Results of this review can be used to achieve better assessments of negative symptoms in AP.

Talk 2 Age of onset of negative symptoms in a youth population with first episode psychosis'

John Lyne[1], Brian O'Donoghue[1], Eric Roche[1], Caragh Behan[1], Iain Jordan[1], Laoise Renwick[1], Niall Turner[1], Eadbhard O'Callaghan[1], Mary Clarke[1]; [1]Dublin and East Treatment and Early Care Team (DETECT) Services, Blackrock, Co. Dublin, Ireland

Purpose: Study of negative symptoms in a youth population with psychosis is important in understanding the early development of psychosis in this population and describing clinical needs. Previous evidence suggests that negative symptoms have onset in the psychosis prodrome, and this is an area which merits further study. The objectives of the current study were (i) to evaluate symptom onset in a youth population with a particular focus on negative symptoms, and (ii) to compare negative symptom prevalence in a youth population with a population aged over 25 years. Materials and Methods: Interviews were conducted for 437 individuals aged 16-65 years presenting with first episode psychosis between 2005 and 2012 in a defined catchment area (population of 390,000). Individuals with confirmed psychosis were assessed using the Beiser Scale and the Scale for the Assessment of Negative Symptoms to determine age at symptom onset and negative symptom prevalence at first presentation. Age at symptom onset was determined by subtracting duration of symptoms prior to presentation from the age at first presentation. Results: First symptom onset frequently occurred under the age of 18 years (23.9%) in the youth sample, and early symptoms were frequently negative symptoms. There were significantly greater negative symptoms among the 25 years and under FEP sample (49.1%) when compared with the over 25 years sample (39.1%). Conclusions: Negative symptoms have high relevance for a youth population with first episode psychosis, and represent a crucial clinical need in this group.

Talk 3 The Relationship of Negative Symptom Severity with Cognitive Symptoms and Functioning in Subjects at Ultra High Risk for Psychosis

Alp Ucok[1], Ugur Cikrikcili[1], Handan Noyan[2], Oznur Tabak[1], Cagdas Yokusoglu[1], Hatice Kaya Samanlı[1], Ceylan Ergul[1], Nuran Çağlar[1]; [1]Department of Psychiatry, Istanbul Faculty of Medicine, Istanbul, Turkey, [2]Institute for Experimental Medical Research, Department of Neurosciences, Istanbul University, Istanbul, Turkey

Introduction: It is reported that cognitive and negative symptoms are related to decline in professional and social functioning in patients with schizophrenia. Methods: We examined the relationship of negative symptom severity with cognition and functioning in a group of 94 subjects at ultra high risk (UHR) for psychosis. The symptoms were evaluated with the Scale for the Assessment of Negative Symptoms (SANS) and the Scale for the Assessment of Positive Symptoms (SAPS). Cognitive functions of participants were assessed with The Rey Auditory Verbal Learning, Wisconsin Card Sorting, Stroop, The Digit Span, Trail Making Test (TMT) and N-back tests. Patients were not under antipsychotic medications. Functioning levels were evaluated according to the working/studying status of patients' during the month before admission and also with Global Assessment of Functioning (GAF). Results: GAF scores at first evaluation were correlated with SANS score, but not with PANSS score. SANS score was correlated to TMT-B score and Stroop test scores. SANS scores were lower in subjects who were working or studying during the month before admission (34,4 vs 48.4, $p < 0.001$). In the logistic regression analysis, global score of cognitive tests was the only variable which independently contributed to the working/studying status. When GAF score was dependent variable in the linear regression analysis, the only independent variable appeared to be the SANS score at first admission. Our findings suggest that negative symptoms were related with level of global functioning in the UHR group. There was a weak correlation between negative symptoms and global cognitive functioning.

Talk 4 Negative symptoms in adolescents with Early-Onset Psychosis: Associations with brain structure and neurocognition

Vera Lonning[1], Runar Smelror[1], Lynn Mørch-Johnsen[1], Andrea Raballo[1], Thorny Olafsdottir[1], Kirsten Wedervang-Resell[1], Anne Margrethe Myhre[1], Ingrid Agartz[1]; [1]NORMENT, KG Jebsen Center for Psychosis Research, Institute of Clinical Medicine, University of Oslo, Oslo, Norway

Negative symptoms constitute an important therapeutic target as they primarily affect daily functioning, quality of life and outcome. This is even more pronounced in adolescence and in developmental years in general. The aim of this study is to explore how negative symptoms in patients with early-onset psychosis (EOP) are associated with brain structure and neurocognitive functioning. Thirty adolescent patients (age 12-18, mean age 16.4, males 30%) with psychotic disorders were recruited from child and adolescent mental health clinics in the Oslo region, as part of the Norwegian EOP-TOP project. Negative symptoms were assessed with the Positive And Negative Syndrome Scale (PANSS). Neurocognitive assessment included the MATRICS Cognitive Battery and the Wisconsin Card Sorting Test for additional testing of executive functioning. MRI scans were acquired with a 3-T GE scanner.Preliminary analyses suggest associations between negative symptoms and reduced verbal memory and executive functioning, and hippocampal and amygdala volumes. Our results indicate that negative symptoms are associated with neurocognitive functioning and brain structural volumes in adolescents with EOP. Data collection is ongoing and these associations will be further explored.

Talk 5 Comparing Negative Symptoms in High Risk and First Episode: A Study on Differences and Their Implications

Alessandro Segurini[1], Laura Bislenghi[1], Alessia Pisano[1], Anna Meneghelli[1]; [1]Programma 2000, Milan, Italy

Purpose This study compares risk and onset of psychosis in order to identify eventual differences between them regarding prevalence of negative symptoms, influencing therapeutic choices. Materials and Methods Subjects: 255 patients (131 FEP; HR: 124; average age: 22±3.7), enrolled within Programma 2000, a specific EI program addressed both to FEP and HR. Statistical analysis data (Leven Test) show a significant difference between the two groups regarding presence of negative symptoms, (BPRS and HONOS), particularly emotional withdrawal, blunted affect, motor retardation, disorientation (BPRS). Results Negative symptoms' scores are higher in FEP compared to HR; emotional withdrawal (mean values: 2.56±1.65 vs 2.21±1.34, p=0.07 – almost significant), blunted affect (2.75±1.63 vs 2.14±1.45; p=0.002), motor retardation (2.13±1.61 vs 1.45±0.94; p=0.000). High risks show higher results in the following scales: Depression (mean values: 3.78±1.38 vs 2.89±1.51; p=0.00) and Guilt (2.43±1.41 vs 2.06±1.42; p=0.03) in BPRS. Equally "Problems related to depressed mood" of HONOS show higher average values in the HR than FEP (2.32±1.00 vs 1.57±1.22; p=0.000). The GAF score is higher in HR than in FEP (53.40±9.43 vs 46.74±12.56; p=0.00). Statistical analysis show a mild, but significant correlation between "social withdrawal", (Checklist ERIRAOS) and negative symptoms (BPRS): particularly emotional withdrawal (r=0.14; p=0.02), blunted affect (r=0.12; p=0.05), motor retardation (r=0.13; p=0.04). Conclusions Withdrawal characterizing FEP as well as HR could present different features: in HR it could be related to depressed mood, while it could represent an independent phenomenon in FEP. This consideration could help at orienting both diagnosis and treatment.

Talk 6 Reasons for Antipsychotic Discontinuation versus Continuation at Follow-up at 5 Years in the Prolonged Early Intervention, the OPUS II Trial

Heidi Jensen[1], Nikolai Albert[1,2], Marianne Melau[1], Carsten Rygaard Hjorthøj[1], Merete Nordentoft[1,2]; [1]Mental Health Center Copenhagen, [2]University of Copenhagen

Purpose: This study aims to investigate the patient´s reasons for antipsychotic discontinuation and continuation and find how the patients who discontinue differ from those who continue their medical treatment. Materials and methods: This study is part of a larger RCT (OPUS II) testing prolonged specialized early intervention (SEI) compared to standard two years of SEI treatment. 400 patients were recruited 1½ year into their SEI treatment and followed up 3½ year later. At the follow-up interview patients were interviewed using the patient-reported Reasons for Antipsychotic Discontinuation/Continuation interview, RAD-I. Results: At follow-up 281 completed RAD-I. A total of 106 patients had discontinued and 175 had continued. We found higher functional level and lower psychopathological scores at baseline in the discontinuation group. In the discontinuation group adverse effects (43%) were the most frequent reason given for treatment stop. The treatment benefits (78%) were most frequent mentioned as reasons for those who continued antipsychotic medication. The decision about discontinuing medication was most

frequently taken by the patient (90%). Conclusion: RAD-I gives more detailed information regarding reasons for discontinuation and continuation of antipsychotic treatment. The number of patients reporting adverse effects as reason for discontinuation implies attention to the patient´s perspective on these effects in the clinical decision-making. It also brings attention to the importance of assuring that the patient experiences treatment benefits and that the decision about discontinuation is taken by the patient.

Talk 7 Outcomes of Maintenance Antipsychotic Treatment versus Discontinuation Strategies Following Remission from First Episode Psychosis: A Systematic Review and Meta-analysis

Andrew Thompson[1,2], Catherine Winsper[1], Steven Marwaha[1,3], Jon Haynes[4], Mario Alvarez-Jimenez[5], Hetrick Sarah[5], Realpe Alba[1], Vail Laura[1], Sarah Dawson[6], Sarah Sullivan[6,7]; [1]Division of Mental Health and Wellbeing, University of Warwick, UK, [2]North Warwickshire Early Intervention in Psychosis Service, Coventry and Warwickshire Partnership NHS Trust, UK, [3]Affective Disorders Service, Coventry and Warwickshire Partnership NHS Trust, UK, [4]2gether NHS Foundation Trust, Gloucester, UK, [5]Orygen, The National Centre of Excellence in Youth Mental Health, 35 Poplar Rd, Parkville, VIC, Australia, [6]Centre for Academic Mental Health, University of Bristol, Oakfield House, Oakfield Grove, Bristol, UK, [7]CLAHRC West, Whitefriars, Lewins Mead, Bristol, UK

Introduction There remains some controversy regarding the relative merits of maintenance treatment versus discontinuation of antipsychotics following remission during first episode psychosis (FEP). Methods We performed a systematic review and meta-analysis using Cochrane methods as a framework. We identified prospective experimental studies including a parallel control group to compare maintenance antipsychotic treatment to total discontinuation or specific medication discontinuation strategies following remission in FEP. Primary outcome was relapse rate. Secondary outcomes included hospitalization and psychosocial functioning Results Nine studies were included in the review, all of which had a randomized design. There was a greater risk of relapse in the discontinuation (either total or specific discontinuation strategies) groups compared to the maintenance treatment (pooled risk difference [RD] = 0.26). Pooled RD was lower for hospitalization (RD = 0.12). Subgroup analysis suggested that the pooled RD of relapse was lower in studies with a: longer follow-up period, specific discontinuation strategy (as opposed to receiving placebo), higher relapse threshold, and larger sample size. Meta-regression demonstrated that sub-group differences were only significant for specific discontinuation strategy versus placebo, and smaller versus larger trials. A narrative review highlighted no differences in quality of life and functional outcomes between maintenance and discontinuation groups. Discussion There is a higher risk of relapse and hospitalization for those who undergo a total or specific discontinuation strategies compared to a maintenance antipsychotic therapy. However, the effect size is moderate and slightly lower than previously suggested, This is likely to reflect including real world strategies that include specific discontinuation strategies as opposed to simply receiving placebo.

Talk 8 Clinical outcome after antipsychotic treatment discontinuation in functionally recovered first-episode non-affective psychosis individuals: A 3-year naturalistic follow-up study

Jacqueline Mayoral-van Son[1,2], Victor Ortiz-Garcia de la Foz[2,3], Obdulia Martinez-Garcia[3], Teresa Moreno[4], Maria Parrilla-Escoba[5], Elsa M. Valdizan[2,6], Benedicto Crespo-Facorro[2,3]; [1]Sierrallana Hospital, Torrelavega, Cantabria, Spain. Department of Psychiatry. University of Cantabria, Santander , Spain., [2]CIBERSAM, Centro Investigación Biomédica en Red Salud Mental, Spain., [3]University Hospital Marqués de Valdecilla. IDIVAL. Department of Psychiatry. School of Medicine, University of Cantabria., Santander, Spain., [4]Osakidezta Mental Health Network, Bizkaia, Spain., [5]Clinical University Hospital Valladolid, Spain. Department of Psychiatry., [6]Department of Physiology and Pharmacology, and IBBTEC (UC-CSIC-SODERCAN), University of Cantabria, Spain

Objective: The timing of antipsychotic discontinuation in patients who have fully recovered from their initial episode of psychosis is still open to discussion. We aimed to evaluate the risk of symptoms recurrence during the three years after antipsychotic discontinuation in a sample of functionally recovered first-episode patients with schizophrenia spectrum disorder Method: This is an open-label, non-randomized, prospective study. The participants in this study were drawn from an ongoing longitudinal intervention program of first-episode psychosis, Programa Asistencial de Fases Iniciales de Psicosis (PAFIP), University Hospital Marques Valdecilla, Spain. From July 2004 to February 2011, functionally recovered first-episode non-affective psychosis (DSM-IV criteria) individuals meeting the inclusion criteria: 1 - a minimum of 18 months on antipsychotic treatment, 2 - clinical remission criteria for at least the 12 months, 3 - functional recovery criteria for at least the 6 months, and 4 - stabilized at the lowest effective doses for at least the 3 months;

were eligible. Forty-six individuals who were willing to discontinue medication were included in the discontinuation group (target group). Twenty-two individuals opted to stay on the prescribed antipsychotic medication and therefore were included in the maintenance group (control group). Primary outcome measures were relapse rate at 18 months and 36 months and time to relapse. Results: The rates of relapse over the 3-year period were 67.4% (31of 46) in the discontinuation group and 31.8% (7 of 22) in the maintenance group. The mean time to relapse was 209 (median=122) days and 608 (median=607) days, respectively (Log Rank=10.106; p=0.001). The resumption of antipsychotic medication after the relapse occurred was associated with clinical stability and lack of further relapses. When the overall group of relapsed individuals, including individuals from the two conditions (N=38), was compared to those who remained asymptomatic after 3 years (N=30), there were significant differences in total scores of SANS, CGI, and DAS (all p´s< 0.05). Conclusions: Antipsychotic treatment discontinuation in individuals who had accomplished a functional recovery after a single psychotic episode was associated with a high risk of symptom recurrence. Relapsed individuals had a greater severity of symptoms and lower functional status after 3 years.

Oral Session 12

Friday, October 21, 2:45 - 4:15 pm, Parini

Childhood adversities and trauma

Chair: Andrew Thompson, Co-Chair: Raimo Salokangas
Speakers: Andrew Thompson, Helen Fisher, Helen Coughlan, Sarah Bendall, Heinrich Graf von Reventlow, Maija Lindgren, Stefanie J. Schmidt, Sinikka Luutonen

Talk 1 Trauma and transition to psychosis in the ultra high risk population: results from a long term follow up study

Andrew Thompson[1,2], Barnaby Nelson[2], Ashleigh Lin[2,3], Stephen Wood[4], Steven Marwaha[5], Hok Pan Yuen[2], Patrick McGorry[2], Alison Yung[2,6]; [1]Division of Mental Health and Wellbeing, University of Warwick, UK, [2]Orygen Research Centre, Centre for Adolescent Mental Health, University of Melbourne, Melbourne, Australia,2, [3]Telethon Kids Institute, University of Western Australia, Australia, [4]Department of Psychology, University of Birmingham, UK, [5]Division of Mental Health and Wellbeing, University of Warwick, UK, [6]Institute of Brain and Behaviour, University of Manchester, UK

Background: A causal link between childhood trauma and development of psychosis has been proposed. We aimed to examine the association between experience of childhood trauma and the development of a psychotic disorder in a large "Ultra High Risk" (UHR) for psychosis cohort. Methods: The data was collected as part of a longitudinal cohort study of all UHR patients recruited to research studies at the PACE clinic between 1993-2006. Baseline data was collected at recruitment to these studies. The participants completed a comprehensive follow-up assessment battery (mean time to follow-up, 7.5 years), which included the Childhood Trauma Questionnaire (CTQ), a self-report questionnaire that assesses experience of child-hood trauma. The outcome of interest was transition to a psychotic disorder during the follow-up period. Results: Data was available on 233 individuals. Total CTQ trauma score was not associated with transition to psychosis. Of the individual trauma types, only sexual abuse was associated with transition to psychosis (P=0.02). The association remained when adjusting for potential confounding factors. Those with high sexual abuse scores were estimated to have a transition risk 2-4 times that of those with low scores. Sexual abuse scores tended to be higher in those who developed a non-schizophrenia like psychotic disorder. Conclusions: The findings suggest that sexual trauma may be an important contributing factor in development of psychosis for some individuals. We further investigated whether this association was mediated by depression, anxiety, dissociation, manic symptoms or mood swings. None of the potential mediators (assessed by the HAM- D, HAM-A and the CAARMS symptom scales) significantly mediated the total association between sexual abuse scores and transition. At the point of transition, the mechanistic pathway from sexual trauma to psychosis does not appear to operate through affective symptoms.

Talk 2 Poly-victimisation and adolescent psychotic symptoms in a nationally-representative prospective cohort study of twins.

Helen Fisher[1], Avshalom Caspi[1,2], Terrie Moffitt[1,2], Marianna York-Smith[1], Joanne Newbury[1], Rudolf Uher[3], Louise Arseneault[1]; [1]King's College London, UK, [2]Duke University, USA, [3]Dalhousie University, Canada

Purpose: Psychotic symptoms (PS) in adolescence are associated with self-harm, suicide and a range of psychiatric disorders. Therefore, it is imperative to identify early risk indicators in order to design and target preventive interventions. Childhood trauma has been consistently associated with PS but little is known about the role of adolescent victimisation. As experiences of victimisation tend to co-occur we explored whether exposure to multiple types of victimisation (poly-victimisation) across adolescence predicted occurrence of PS at age 18 in a genetically-sensitive longitudinal study. Methods: Data were utilised from the Environmental Risk Longitudinal Twin study of 2232 same-sex twin children born in 1994-95 and followed to age 18. Twins were interviewed at age 18 about victimization experiences between 12-18 years using a modified version of the Juvenile Victimisation Questionnaire, and about PS at 12 and 18. Mothers reported prospectively about twins' exposure to victimisation up to age 12. Results: Poly-victimisation during adolescence was more strongly associated with age-18 PS (RR=7.24, 95% CI 3.92-13.36) than exposure to only one type of victimisation (RR=2.94, 95% CI 1.41-6.11). This association held when adjusted for a range of confounders, including age-12 PS, and amongst twins discordant for poly-victimisation. Both adolescent and childhood poly-victimisation were independently associated with the presence of age-18 PS and the association was stronger still when study members had experienced poly-victimisation in both childhood and adolescence (OR=13.16, 95% CI 6.02-28.75). Conclusion: Children and adolescents exposed to multiple forms of victimisation could potentially benefit from interventions to prevent the emergence of psychotic symptoms.

Talk 3 The Childhood Trauma-Psychosis Conundrum: Examining the role of cumulative trauma in the evolution of non-clinical psychotic experiences using two prospective adolescent studies in Ireland

Helen Coughlan[1], Ian Kelleher[1], Cannon Mary[1]; [1]Department of Psychiatry, Royal College of Surgeons in Ireland

BACKGROUND Childhood trauma has been identified as one of a complex range of interrelated factors that are associated with the emergence and later pathologisation of psychotic symptoms (Millan, Andrieux et al. 2016). However, there is little evidence about the role of cumulative trauma in the genesis and evolution of psychotic symptoms during the adolescent years. METHOD Analyses of the association between childhood trauma and non-clinical psychotic experiences (PEs) were undertaken using data from the Irish arm of the Saving and Empowering Young Lives in Europe (SEYLE) study (Wasserman, Carli et al. 2010) and the Adolescent Brain Development and Risk of Psychosis (ABD) study (Kelleher, Murtagh et al. 2012), two longitudinal population-based adolescent cohorts in Ireland. FINDINGS In both studies, childhood trauma was associated with up to a 4-fold increase in the odds of experiencing PEs. Within the SEYLE study, we found a bi-directional relationship between both bullying and physical assault and non-clinical psychotic experiences at 3-month and 12-month follow-up, with cessation of these traumas associated with a concurrent cessation in PEs. We also found a dose-response relationship between the intensity of bullying and PEs. In the ABD study, while cumulative trauma was associated with lifetime experiences of PEs, it did not predict persistence of PEs over time. DISCUSSION Although findings from these studies support existing evidence that cumulative childhood trauma may place children and adolescents at increased risk of developing PEs, they are equivocal about the relationship between cumulative trauma and PE persistence during adolescence. The role of cumulative trauma in PE persistence is likely to be enmeshed in a dynamic and synergistic interplay between multiple risk factors during the adolescent years.

Talk 4 Trauma, stress reactivity and prediction of outcome in the ultra high risk population: Data from the Neurapro-E study

Sarah Bendall[1], Barnaby Nelson[1], Andrew Thompson[1,2], Hok Pan Yuen[1], Lieuwe De Haan[3], Dorien Nieman[3], Suzie Lavoie[1], Paul Amminger[1], Connie Markulev[1], Lisa Phillips[1,4], Alison Yung[1,5], Patrick McGorry[1]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, University of Melbourne, Melbourne, Australia., [2]Division of Mental Health and Wellbeing, University of Warwick, [3]Department of Psychology, University of Melbourne, [4]University of Amsterdam, The Netherlands, [5]Department of Psychology, University of Melbourne, [6]Institute of Brain and Behaviour, University of Manchester, UK

Introduction Recent years have witnessed renewed interest in the relationship between psychosis and trauma, such as childhood sexual, physical and emotional abuse. The ultra high risk for psychosis (UHR) population is particularly valuable in the investigation of the relationship between childhood trauma, HPA axis dysfunction, post-traumatic intrusions, stressful life events and psychotic symptoms. This study aimed to: 1. Assess whether a history of traumatic events predicts outcome (transition to psychotic disorder, lack of remission of symptoms and poor

functioning) in the UHR population. 2. Investigate the relationship between a history of childhood trauma, HPA axis dysfunction, stressful life events and vulnerability to develop psychotic symptoms in the UHR population. Methods This study collected data from the international Neurapro-E trial of omega-3 polyunsaturated fatty acids (PUFAs) in the UHR population. 304 UHR participants were randomised to PUFA + cognitive behavioral case management (CBCM) versus placebo + CBCM for 6 months with the primary outcome being transition to psychotic disorder at the end of the 6 month treatment period. The trauma and stress measures consisted of: history of childhood trauma (CTQ), post traumatic stress disorder symptoms (IES-R), attributional style (IPSAQ), daily stress (the "Hassles" scale), and morning saliva samples for cortisol analysis. Results Of the 304 participants, 96 (32%) provided data relating to this trauma and stress study. Participants are currently being followed up for various medium-term outcomes (2 years +). Data is currently being analysed and will be presented at the conference. Conclusions This is a valuable data set in which to investigate the relationship between childhood trauma, neuroendocrine function, post-traumatic intrusions, stressful life events and emergence of psychotic symptoms, overcoming some of the methodological limitations of previous reports.

Talk 5 Self-reported Early Trauma and Abuse as measured with the Trauma and Distress Scale (TADS) in an European High-Risk Sample

Heinrich Graf von Reventlow[1], Raimo K. R. Salokangas[2], Frauke Schultze-Lutter[3], Markus Heinimaa[1], Don Linszen[4], Peter Dingemans[5], Max Birchwood[6], Paul Patterson[7], Stephan Ruhrmann[8], Joachim Klosterkötter[8]; [1]Nexus Klinik, Baden-Baden, Germany, [2]Department of Psychiatry, University of Turku, Finland, [3]University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern, Switzerland, [4]Department of Psychiatry and Psychology, University of Maastricht, Netherlands, [5]Mediant, Enschede, Netherlands, [6]School of Psychology, University of Birmingham, United Kingdom, [7]Youthspace – Birmingham & Solihull Mental Health Foundation Trust, Birmingham, United Kingdom, [8]Department of Psychiatry and Psychotherapy, University of Cologne, Germany

Purpose: Early trauma is again more broadly investigated as a risk factor for the development, maintenance and severity of psychosis. Multiple attempts are made to explain for possible pathways of especially childhood interpersonal trauma on the development of later psychosis. Materials and Methods: To investigate a range of possibly traumatic, adverse childhood experiences and perceived early interpersonal distress, the TADS, a 43-items self-rating questionnaire, was administered to subjects at high risk (HR, n=240) for psychosis in 4 European countries. On the basis of the original raw domains as well as five revised sub-scale domains extracted in a community sample, a renewed analysis of the European Prediction of Psychosis Study (EPOS) data was carried out. Results: Elevated rates of pronounced adverse interpersonal childhood experiences similar to other clinical samples were found in the EPOS HR sample. Emerging associations between trauma categories and transition into psychosis in the sample did statistically mostly reach only trend level. However, marked associations with other indicators of possibly relevant psychopathology, especially emotional dysfuncion, were more generally observed. Conclusion: Current results show that early adverse interpersonal experiences are markedly elevated in a HR sample. Early trauma and abuse experiences seem to be a more general risk factor for developing mental disorders than specific for developing psychosis. It remains, however, subject to further investigation whether or not more severe traumatic experiences pose an additional threat for the development of psychosis in special subgroups of subjects at high risk for psychosis.

Talk 6 Childhood Adversities in First-Episode Psychosis

Maija Lindgren[1], Teemu Mäntylä[1], Eva Rikandi[1], Minna Torniainen-Holm[1], Tuula Kieseppä[1,2], Outi Mantere[1], Jaana Suvisaari[1]; [1]National Institute for Health and Welfare, Finland, [2]University of Helsinki and Helsinki University Hospital, Psychiatry, Finland

Purpose: Childhood adversities are risk factors for psychosis. We explored negative childhood experiences among first-episode psychosis (FEP) patients compared to controls, and their influence on symptoms. Methods and Methods: The participants were FEP patients (n=67) in the Helsinki area, Finland, at their first psychiatric contact for psychosis. A matched control sample was identified from the population register (n=41). A questionnaire asked about 7 negative experiences during childhood. Parental mental disorders were asked about separately. Results: FEP patients reported more adversities (mean 1.7) than controls (mean 0.8), p=.001. Specifically, serious conflicts within the family, bullying at school, and own and parents' serious illness were reported by patients more often than by controls. In the FEP group, anxiety, manic, and obsessive-compulsive symptoms were positively correlated with the number of adversities. Among controls, adversities correlated with lower social support and sense of mastery, and higher depression and manic symptoms. Having a parent with mental disorder was associated with more

adversities and obsessive-compulsive symptoms and less social support in patients. Mediation and moderation effects between parental mental disorder, adversities, and obsessive-compulsive symptoms were investigated, but none were found. Conclusion: In line with earlier studies of more chronic psychosis, a majority of the patients with FEP reported exposure to childhood adversities, the patients reporting more adversities than controls. As the number of adversities was associated with non-psychotic symptoms only, psychosocial load appears to add non-specific risk of mental disorder. The results highlight the effect of early psychosocial burden.

Talk 7 Pathways linking childhood adversities to suicidality in patients at clinical high risk for psychosis

Stefanie J. Schmidt[1], Nadja Inderbitzin[1], Benno G. Schimmelmann[1], Daniela Hubl[2], Frauke Schultze-Lutter[1]; [1]University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern, Switzerland, [2]University Hospital of Psychiatry and Psychotherapy, University of Bern, Switzerland

Purpose: Lifetime suicidality is highly prevalent in psychotic disorders. Many studies indicate that patients at clinical high risk for psychosis (CHR) are especially prone to suicidality. It is well established that childhood adversities and trauma (CATs) are associated with poor mental health outcomes including an elevated risk for suicidality in adolescence and adulthood. However, the mechanisms linking CATs to suicidality are still poorly understood. Materials and methods: Therefore, path models from CATs to suicidality were examined in a sample of 67 CHR patients according to ultra-high risk and/or basic symptom criteria. Mediators between CATs (Trauma And Distress Scale) and suicidality (MINI International Neuropsychiatric Interview) were attribution style, self-efficacy (Competence and Control Beliefs Questionnaire), and depressiveness (Beck Depression Inventory II). Additional sociodemographic model variables were age, gender, and education. Results: 61.2% of CHR patients reported having current suicidal ideation, 14.9% reported being at risk for attempting suicide. The model showed a pathway running from CATs, in particular emotional neglect and abuse, to low self-efficacy, high levels of external attributions, and depressive symptoms to suicidality. In addition, gender had a significant impact on suicidality with more women than men reported having suicidal ideation. Conclusions: Our findings suggest that CATs increase the risk for suicidality in CHR by raising the probability for the development of low self-efficacy, dysfunctional attributions, and depressiveness. Thus, integrated interventions should be offered as early as possible to individuals, who experienced CATs, to target these factors to enhance resilience and, thereby, to improve mental health outcomes, such as suicidality.

Talk 8 Childhood adversities and suicidality in clinical samples

Sinikka Luutonen[1,2], Raimo K. R. Salokangas[1], Markus Heinimaa[1], Tiina From[1], Jarmo Hietala[1,2,3]; [1]Department of Psychiatry, University of Turku, Finland, [2]Psychiatric Clinic, Turku University Central Hospital, Finland, [3]Turku Psychiatric Clinic, Turku Mental Health Centre, Turku, Finland

Purpose: In addition to clinical disorders, also childhood adversities may increase the risk of suicidal behaviour. In previous studies, the effects of clinical co-morbidity and several childhood adversities has not been taken into account. We aimed to study associations between clinical diagnoses and four types of childhood trauma and distress experiences and severity of risk of suicide. Material and Method: Altogether, 415 patients attending primary and psychiatric outpatient care filled the Trauma And Distress Scale (TADS) and their clinical disorders and severity of risk of suicide were assessed by the Mini International Neuropsychiatric Interview (MINI). Associations between diagnoses, TADS domains and suicidality were analysed by t-test and in general linear analyses. Results: All MINI diagnoses had a significant association with suicidality. Emotional and physical abuse, emotional and physical neglect did, but sexual abuse did not associate significantly with suicidality. Number of clinical disorders and childhood adversities had a dose-response effect on suicidality. In multivariate analysis, major depression, psychosis, social phobia and alcohol dependency from the MINI diagnoses and emotional abuse and neglect from the TADS domains had independent associations with severity of suicidality. Conclusions: Clinical disorders and childhood adversities associate with suicidal intentions. However, when the effect of co-morbidity and overlap of childhood adversities is controlled, only major depression, psychosis, social phobia and alcohol dependency and emotional abuse and neglect have specific associations with suicidality.

Oral Session 13

Fighting stigma

Chair: Antony Morrison, Co-Chair: Young Chul Chung
Speakers: Melissa Pyle, Anthony Morrison, Lisa Wood, Kathy Greenwood, Hiromi Tagata, Yu Sang Lee, Hon Xue Lin Charlene, Edwin Lee

Talk 1 Internalised Stigma: Implications and Interventions for people At-Risk of Developing Psychosis

Melissa Pyle[1,2]; [1]Greater Manchester West NHS Trust, [2]University of Manchester

Internalised stigma in young people meeting criteria for at-risk mental states (ARMS) has been highlighted as an important issue. Recent research has demonstrated that stigma stress in this population is associated with reduced wellbeing and negative attitudes towards help seeking. In psychosis populations internalised stigma has been found to contribute to the development and maintenance of additional psychological difficulties including depression. Data from a study exploring the relationship between internalised stigma and depression in the ARMS population will be presented. This secondary analysis of the EDIE 2 Trial indicates that stigmatising negative appraisals of unusual experiences contribute to depression (when controlling for baseline depression and unusual psychological experiences). Additionally, data from another secondary analysis of EDIE 2 on the effects of cognitive therapy on internalised stigma will be presented, showing that stigmatising negative appraisals of experiences were significantly reduced at 12 months in the group assigned to cognitive therapy. These findings suggest that, rather than increasing internalised stigma, as has been suggested as a possible adverse effect, cognitive therapy decreases negative appraisals of unusual experiences in young people at risk of psychosis and as such may be one possible intervention to reduce internalised stigma in this group.

Talk 2 A pilot randomised controlled trial of Cognitive Therapy for Internalised Stigma in People Experiencing Psychosis

Anthony Morrison[1,2]; [1]University of Manchester, [2]Greater Manchester West NHS Trust

We aimed to evaluate the feasibility of Cognitive Therapy (CT) as an intervention for internalised stigma in people with psychosis. We conducted a single-blind randomised controlled pilot trial comparing CT plus treatment as usual (TAU) with TAU only. Participants were assessed at end of treatment (4 months) and follow-up (7 months). Twenty-nine participants with schizophrenia spectrum disorders were randomised (sixteen of whom were from early intervention services). CT incorporated up to 12 sessions over 4 months (mean sessions = 9.3). Primary outcome was the Internalised Stigma of Mental Illness Scale – Revised (ISMI-R) total score, which provides a continuous measure of internalised stigma associated with mental health problems. Secondary outcomes included self-rated recovery, internalised shame, emotional problems, hopelessness and self-esteem. Recruitment rates and retention for this trial were good. Changes in outcomes were analysed following the intention-to-treat principle, using ANCOVAs adjusted for baseline symptoms. There was no effect on our primary outcome, with a sizeable reduction observed in both groups, but several secondary outcomes were significantly improved in the group assigned to CT, in comparison with TAU, including internalised shame, hopelessness and self-rated recovery. Exploratory analyses focusing on those within early intervention services will also be presented. Stigma-focused CT appears feasible and acceptable in people with psychosis who have high levels of internalised stigma. A larger, definitive trial is required.

Talk 3 A cognitive model of internalised stigma in psychosis: rationale, development and application to people with first episode psychosis

Lisa Wood[1,2,3]; [1]North East London NHS Foundation Trust, [2]University of Essex, [3]University of Manchester

Stigma is a pervasive difficulty for people who experience psychosis. It is a particular concern for people when they are first identified as part of a stigmatising group such as receiving a diagnosis or experiencing a first episode of psychosis. Experiencing stigma can cause people to experience shame, blame, hopelessness and guilt. It can also delay access to mental health services and impede recovery. Therefore, it is an important issue to address at first episode in order to optimise opportunities for recovery and reduce relapse rates. There has been increasing interest in developing interventions to help support people manage self-stigma. The majority of interventions have been developed for severe mental illness, not psychosis specifically, and have utilised approaches such as Cognitive Behaviour Therapy

(CBT), Narrative Enhancement Cognitive Therapy (NECT), Honest Open Proud (HOP) and other peer led interventions, with varied results. This presentation will describe the results of a systematic review and meta-analysis of the 12 clinical trials that have been conducted for people with psychosis. Overall, the interventions show some promise. The majority of interventions have been group-based and have, therefore, lacked an idiosyncratic formulation; basing interventions on such a formulation may be able to increase the effectiveness of interventions targeting self-stigma. The development and application of a cognitive model for self-stigma in psychosis for a first-episode population will be outlined

Talk 4 Understanding and preventing stigma towards psychosis in young children: working with children, parents and schools.

Kathy Greenwood[1,2]; [1]School of Psychology, University of Sussex, [2]Sussex Partnership NHS Foundation Trust

Stigma towards mental illness and psychosis is widespread, exacerbating mental health problems and self-stigma, and impacting on help-seeking and social inclusion. Anti-stigma campaigns have met with some success, but these have largely targeted adults and adolescents, in whom stigma is already high. A series of studies explored (i) the development of stigma in young children, and (ii) a pilot RCT aimed at preventing stigma before it develops. Three qualitative studies explored (i) how young children aged 7-11 understand and respond to mental illness and how (ii) parents and (iii) teachers communicate about mental illness. A cross sectional study investigated mental health schema in 7-11 year olds, and an experimental intervention investigated whether an indirect contact story-based intervention in 7-8 year olds led to more positive mental health schema. Young children were most likely to demonstrate stigma when they did not understand a situation, yet communications to young children about mental illness, were limited, characterised by divisions between 'them' and 'us', and by fear, and taboo. Young children's schema were initially positive, but deteriorated cross-sectionally as intergroup anxiety increased. The intervention was effective in promoting positive mental health schema, partially mediated by knowledge. Young children's schema towards mental illness are developing between the ages of 7-11, alongside intergroup anxiety, and influenced by knowledge. An indirect contact intervention shows promise in promoting positive mental health schema before stigma develops, and may be further supported by engagement with parents and teachers and by changes to the school curriculum.

Talk 5 Stigma towards psychosis and its formulation process in Japan

Hiromi Tagata[1], Takahiro Nemoto[1], Yoko Baba[1], Masafumi Mizuno[1]; [1]Department of Neuropsychiatry, Toho University School of Medicine, Tokyo, Japan

Background: Because shortening the duration of untreated psychosis (DUP) can improve its prognosis, a number of studies indicated the importance of early intervention. On the other hand, stigma may keep patients and their families from consulting with professionals at the early stages of psychosis. The aim of this study is to investigate the formation process of the stigma towards psychosis to shorten the DUP. Methods: We recruited outpatients with mental illness, medical professionals, and healthy controls. They read simulated cases at the different stages of psychosis that consisted of psychotic-like-experience (PLE), at-risk mental state (ARMS), schizophrenia, and depression, and they filled in a questionnaire about prejudice and discrimination. We compared the stigma among three participant groups using Kruskal-Wallis analysis. Results: The illness got more serious, the stigma increased more. Furthermore, the process of stigma formation was suggested: they were prejudiced against ARMS and discriminated schizophrenia although healthy controls had low prejudice and discrimination towards PLE. Conclusion: Patients with ARMS and their families would not consult professionals because even that sub-threshold condition is stigmatized in the public. It is necessary to disseminate accurate knowledge and enlighten about ARMS as well as schizophrenia.

Talk 6 Effects of renaming schizophrenia from "Jungshinbunyeolbyung(Split-mind Disorder)" to "Johyeonbyung(Attunement Disorder)" in Korea.

Yu Sang Lee[1], Jang Won Cho[2], Yong Chon Park[2], Jun Soo Kwon[3]; [1]Yongin Mental Hospital, Yongin City, Gyeonggi-Do, South Korea, [2]Hanyang University Kuri Hospital ,Kuri, South Korea, [3]Seoul National University Hospital, Seoul, Korea

Purpose Korean Neuropsychiatric Association changed Korean name of schizophrenia from "Jungshinbunyeolbyung" to "Johyeonbyung" in 2011, to diminish social stigma, and to promote early detection and treatment of schizophrenia. Aims of the present study are to examine effects and attitudes toward the new name,

"Johyeonbyung". Material and Methods This study assessed the attitudes towards renaming of schizophrenia among psychiatrists, psychologist, psychiatric nurses, the patients with schizophrenia and their family members, and the general public using three versions of survey (N=979). Questionnaire consists of the awareness of renaming, the psychiatrists' informing of the diagnosis, the attitudes toward the principle of renaming including scientific validity, social and medical usefulness. ANOVA and Chi-square were used for statistical analyses. Results Ninety nine percent of the mental health workers, 56.3% of patients and their families, and 20% of the general public are aware of renaming. The proportions of mental health workers' informing diagnosis depending on before and after renaming were 78.7% and 79.0% respectively. In patients and their families group, 58.7% answered that they heard their diagnosis Jungshinbunyeolbyung from psychiatrists before renaming and 42.2% answered that they heard their diagnosis Johyeonbyung after renaming. Sixty three percent of them answered that the renaming will help patients to access medical treatment easily. Conclusion Awareness of new Korean name for schizophrenia, Johyeonbyung is increased in mental health professionals but not in patients and their families and the general public. Effects such as informing patients of diagnosis are not enough. More active campaigns regarding new name of schizophrenia are needed.

Talk 7 Perceptions of Stigma and Discrimination of Individuals with First Episode Psychosis

Hon Xue Lin Charlene[1], Rochelle Melina Kinson[2], Helen Lee[1], Poon Lye Yin Yin[3], Edimansyah Bin Abdin[4], Chua Wei Lin[1], Justine Xue[1], Swapna Verma[1]; [1]Early Psychosis Intervention Program, Institute of Mental Health, Singapore, [2]Psychological Medicine, Tan Tock Seng Hospital, Singapore, [3]General Psychiatry, Institute of Mental Health, Singapore, [4]Research Division, Institute of Mental Health, Singapore

Stigma often acts as deterrent for people seeking help for their mental condition, causing delay in treatment and poorer prognosis of the illness. Recent studies show that as many as 88% of patients suffering from chronic mental illness experience some form of discrimination but little systematic research has been done in individuals with first episode psychosis (FEP). The Early Psychosis Intervention Program (EPIP), Singapore, aims to examine the patterns and severity of experienced and anticipated stigma and discrimination in patients with FEP. We also wanted to explore the relationship between stigma and severity of psychopathology and functioning. 100 participants who completed one year of follow up in EPIP were recruited to do a survey using the Discrimination and Stigma Scale 12. Severity of psychotic symptoms, depressive symptoms and functioning were measured using the Positive and Negative Syndrome Scale, Patient Health Questionnaire 9 and Global Assessment of Functioning Scale scales. Preliminary results showed that females have higher levels of stigma and discrimination compared to males. Individuals with higher levels of functioning at baseline perceive receiving more unfair treatment because of their mental illness compared to those with lower level of functioning (rs=.326, p<.05). Having higher levels of negative symptoms at baseline were associated with the perception of less positive treatment by the individual at 1 year (rs=-.266, p<.05). Baseline levels of symptoms and functioning seemed to have an impact on the level of stigma perceived at 1 year. Further data to understand the reasons why, can help us improve our services.

Talk 8 Public stigma associated with treatment of psychosis in Hong Kong

Edwin Lee[1], Nicole Lau[1], Christy L.M. Hui[1], Jingxia Lin[1], W.C. Chang[1], Sherry K.W. Chan[1], Eric Y.H. Chen[1]; [1]Department of Psychiatry, The University of Hong Kong, Hong Kong

Aim: Stigma of psychosis has negative impact on help-seeking behavior and delay appropriate treatment. Stigma associated with treatment is a comparatively less researched topic in Chinese population, which may affect patients' adherence and recovery. We designed a cross-sectional survey to investigate the public stigma associated with treatment of psychosis in Hong Kong. Methods: Participants were recruited from public through electronic communication and social media. Public stigma associated with treatment of psychosis was assessed online using a modified Attitude Toward Psychotropic Medications Questionnaire. Knowledge about psychosis was assessed by modified Knowledge About Schizophrenia Test. Results: (Preliminary) Nearly half of participants believed antipsychotics would make patients weak and enervated. Around one-third of participants believed antipsychotics had high risk of dependence. About one-fifth of participants believed antipsychotics were harmful poisonous substances. Its association with knowledge and demographic information will also be discussed. Conclusions: The study explored the public stigma associated with treatment of psychosis in Chinese population. Effective measures to reduce public stigma associated with treatment of psychosis in Chinese population are needed to be explored in the future.

Oral Session 14

Psychopathology and disability

Chair: Aristide Saggino, Co-Chair: Kelly Allot
Speakers: Vishal Bhavsar, Gerdina Pijnenborg, Maude Schneider, Eric Roche, Emmanuelle Peters, Mari Nerhus, Aswin Ratheesh, Kelly Allott

Talk 1 Subclinical psychotic experiences (PEs) and the rate of mental health service use in South London- a survey/health record linkage study

Vishal Bhavsar[1], Matthew Hotopf[2], James Maccabe[1], Philip McGuire[1]; [1]Department of Psychosis Studies, IOPPN, King's College London, [2]Department of Psychological Medicine, IOPPN, King's College London

BACKGROUND: PEs are associated with the use of mental health services in most studies, however questions remain. The temporal relationship between PEs and service use is unclear, and previous studies have assessed service use using self-report, which could be liable to recall bias. METHODS: We examined the prospective association between PEs, assessed using the PSQ in a representative household survey (2008-2010), and service use, measured through linkage to health records for the comprehensive mental healthcare provider for the area. Survival analysis was done in STATA 14. Diagnoses, referral source, and duration under care were described for all subjects. RESULTS: The overall rate of referral was 11.24 cases per 1000 person-years (/1000pyrs). In those without PEs it was 10.8 cases/1000pyrs, and in those with PEs it was 19.1/1000pyrs. The age adjusted hazard ratio comparing PEs to those without PEs was 2.41, which reduced considerably to 1.91 on further adjustment for gender, unemployment, education, and ethnicity. On addition of depressive/anxiety symptoms, this estimate was attenuated further, but remained statistically reliable at 1.75 (95% confidence intervals 1.03,2.97). We found no evidence that diagnoses or referral source differed between people with and without PEs, however people with PEs had significantly longer durations under mental health care. CONCLUSIONS: We present evidence that PEs are associated with the later use of mental health care. This association persisted despite accounting for other psychopathology. People with PEs spent longer under mental healthcare than those without. PEs could serve as a "pan-diagnostic" marker of later mental health need.

Talk 2 Longitudinal and cross-sectional associations between theory of mind, social functioning, and psychotic experiences during adolescence

Gerdina Pijnenborg[1,2], Laura Steenhuis[1], Agna Bartels[3,4], Andre Aleman[1,3], Maaike Nauta[1,5]; [1]University of Groningen, [2]GGZ Drenthe, Assen, The Netherlands, [3]UMCG Groningen, Groningen, The Netherlands, [4]Lentis, Groningen, The Netherlands, [5]Accare, Groningen, The Netherlands

Background: Theory of Mind (ToM) is significantly impaired in both early and chronic phases of psychosis. The aim of this study was to examine whether ToM abilities are related to psychotic experiences (PE) and whether social functioning (SF) mediates this relationship, cross-sectionally and over six years' time in a sample of adolescents. Method: A sample of 18- and 19-year-old adolescents, stemming from a case-control sample (T0: 694) from the general population with and without auditory vocal hallucinations (AVH), were assessed after five years (T1: 337) on ToM, and after eleven years (T2: 293) on PE, ToM and SF. Using multiple imputation, adolescents who participated in at least one follow-up assessment were included in the analyses (n: 425). Results: ToM did not predict PE, SF or depressive symptoms over six years' time. Cross-sectionally at age 18-19, ToM first-order cognitive skills were positively associated with distress of PE (β=.16, $t(418)$=2.64, p=0.01), but the other ToM domains (second-order cognitive skills and first- and second-order affective skills) were unrelated to frequency of PE, SF or depressive symptoms. At age 18-19, SF was cross-sectionally related to frequency (β=.-.18, $t(418)$=-3.01, p=0.01) and distress (β=-.32, $t(418)$=-6.28, p<0.01) of PE, and to depressive symptoms (β=-.55, $t(418)$=-9.71, p<0.01). Conclusion: The current study found that ToM at age 12-13 did not predict PE or SF over six years' time. At age 18-19, first-order cognitive ToM skills were related to PE. The fact the ToM abilities mature between age 12 and 18 may account for the lack of longitudinal associations.

Talk 3 Understanding social impairments in schizophrenia: are we measuring the right stuff? Lack of association between theory of mind and social functioning requires a drastic conceptual reframing

Maude Schneider[1], Erik Myin[2], Ulrich Reininghaus[1,3], Martine van Nierop[1], Mayke Janssens[4], Inez Myin-Germeys[1], for GROUP[5,6,7,8]; [1]Center for Contextual Psychiatry, Department of Neuroscience, KU Leuven, [2]Department of Philosophy, University of Antwerp, [3]Department of Psychiatry and Neuropsychology, School for Mental Health and Neuroscience, Maastricht University, [4]Open University, Heerlen, [5]University Medical Centre Groningen, Department of Psychiatry, [6]University Medical Centre Utrecht, Department of Psychiatry, Rudolf Magnus Institute of Neuroscience, [7]Academic Medical Centre, University of Amsterdam, Department of Psychiatry, [8]Maastricht University Medical Center, Department of Psychiatry & Psychology, School for Mental Health & Neuroscience

A better understanding of the mechanisms underlying social impairments in schizophrenia is essential. Theories of Mind (ToM) deficits are generally assumed to contribute to social difficulties but several studies failed to observe consistent associations between the two constructs. Furthermore, the association between ToM and real-life measures of social functioning remains unknown. We tested these associations using two measures of social functioning: the Social Functioning Scale (SFS) and real-life measures collected with Experience Sampling Methodology (ESM). 578 adults with a psychotic disorder and 349 controls completed the Picture Sequencing Task (ToM task) and the SFS. A subsample of 245 participants underwent a 6-day ESM protocol assessing the amount of time spent alone vs. with others, and the appraisal of the social context. Patients exhibited significant social impairments and ToM deficits compared to controls. However, robust regressions controlling for IQ, age, and gender revealed no significant effect of ToM on either of the SFS dimensions. Similarly, ToM score failed to predict real-life measure of the social context (% time spent alone vs. with others). Regarding the appraisal of the social context, higher ToM abilities were associated with decreased preference for being alone in controls (b=0.08, p=0.007) but not in patients. All the remaining associations were non-significant. Contrary to what is typically assumed, this study shows that ToM deficits do not underlie social impairments in schizophrenia. These findings will be interpreted in light of alternative conceptualizations of ToM and the growing literature on remediation programs targeting ToM impairments in patients at-risk for psychosis.

Talk 4 Social determinants of formal thought disorder in early psychosis

Eric Roche[1], John Lyne[2], Ricardo Segurado[3], Caragh Behan[1], Brian O'Donoghue[4], Laoise Renwick[5], Kevin Madigan[1], Mary Clarke[1]; [1]DETECT Early Intervention in Psychosis Service, Dublin, Ireland, [2]North Dublin Mental Mental Health Service, Dublin, Ireland, [3]CSTAR, University College Dublin, Ireland, [4]Orygen, National Centre for Excellence in Youth Mental Health, Melbourne, Australia, [5]School of Nursing, Midwifery and Social Work, University of Manchester, UK

Background: Remarkably little is known of the social determinants of formal thought disorder (FTD). Other types of language disturbance may evolve over the course of a psychotic illness and this may relate to social factors. We aimed to evaluate this possibility in a first episode psychosis (FEP) sample. Methods: A mixed diagnostic FEP cohort was recruited through an Early Intervention in Psychosis Service in Dublin, Ireland. Participants were evaluated at initial presentation and 1 year later with the SAPS and SANS: disorganisation (disFTD), verbosity (verFTD) and poverty (povFTD) dimensions were identified. Premorbid adjustment domains (social, academic and socio-sexual) were evaluated with the Premorbid Adjustment Scale. The quality of social relationships in the year following FEP was established with the Strauss-Carpenter Level of Functioning Scale. Results: Total n=397 were assessed at FEP and 1 year later. FTD followed an emergent pattern over the year following FEP in some individuals. Poor premorbid socio-sexual development predicted the presence of povFTD at FEP (OR 3.93, 95% CI 1.19-12.98, p < 0.05) but not at 1 year. More than premorbid adjustment, the quality of social relationships following FEP became a more significant predictor of FTD, specifically disFTD at 1 year (OR 0.66, 95% CI 0.44-0.97, p < 0.05). Conclusions: FTD is partly mediated by social adjustment in early psychosis and this association may evolve in the year following FEP. These findings are relevant to the nosology of FTD, its future research and the potential for the development of interventions for communication disorders in early psychosis.

Talk 5 Clinical, Socio-demographic, and Psychological Characteristics in Individuals with Persistent Psychotic Experiences With and Without a 'Need-For-Care'

Emmanuelle Peters[1,2], Thomas Ward[1], Mike Jackson[3,4], Craig Morgan[1], Monica Charalambides[1], Philip McGuire[1], Peter Woodruff[5], Pamela Jacobsen[1], Paul Chadwick[1], Philippa Garety[1]; [1]Institute of Psychiatry, Psychology & Neuroscience, King's College London, [2]NIHR Biomedical Research Centre for Mental Health, South London and Maudsley NHS Foundation Trust, [3]Bangor University, [4]Betsi Cadwaladr University Health Board, [5]University of Sheffield

Purpose: To compare a non-clinical group with persistent, full-blown psychotic experiences (PEs) to a clinical group with psychosis and controls without PEs. Such individuals are a unique group of particular importance in identifying risk and protective factors for psychosis. Materials/methods: The UNIQUE (Unusual Experiences Enquiry) study recruited 259 participants across three groups: non-clinical (individuals with persistent PEs without a 'need-for-care'; N=92); clinical (psychosis patients; N=84); controls (individuals without PEs; N=83). Standardised measures were administered to assess three domains: (1) types of PEs; (2) sociodemographic/environmental variables; (3) psychological/emotional characteristics. Results: The non-clinical group presented with hallucinations in all modalities, first-rank symptoms, hypomanic states and dissociative features, with an earlier age of onset than the clinical group. Their PEs were far from transitory, but were generally less frequent. They were differentiated from their clinical counterparts by an absence of paranoia, cognitive difficulties and negative symptoms. Unlike the clinical group, they were characterised neither by low psychosocial capital and functioning, nor by social adversity, with the notable exception of childhood trauma. Similarly to the controls they did not report emotional problems, had intact self-esteem, displayed healthy schemas about self and others, showed high life satisfaction and well-being, and higher mindfulness. Conclusions: The findings support biopsychosocial models of psychosis that emphasize the importance of environmental and psychological factors. While some PEs may be more malign than others, less social adversity, combined with protective factors such as intact IQ, spirituality, and psychological and emotional well-being, may prevent persistent PEs from leading to pathological outcomes.

Talk 6 Vitamin D in psychotic disorder - associations with symptomatology and cognition

Mari Nerhus[1], Akiah O. Berg[1], Ingrid Melle[1]; [1]NORMENT

INTRODUCTION: There are indications that low vitamin D levels (S-25(OH)D) are associated with increased disease severity in psychotic disorder. We wanted to investigate if low S-25(OH)D was associated with a specific symptom profile and if vitamin D deficiency (S-25(OH)D≤ 25nmol/L) was associated with cognitive deficits in young persons with a psychotic disorder. METHODS: Patients were recruited from in- and outpatient clinics and healthy controls were randomly selected. In the first study we included 358 patients assessed by a five factor model of the Positive and Negative Syndrome Scale and by the Calgary Depression Scale for Schizophrenia. In the second we included 225 patients and 159 controls assessed by a cognitive test battery including processing speed, verbal learning, verbal memory and executive function tests. RESULTS: Multiple regression models, controlling for possible confounding variables, indicated that low S-25(OH)D was significantly associated with negative symptoms (t= -2.3, P=0.024. Total model: Adjusted R^2 =0.11, $F_{(6,357)}$=8.58, p<0.001) and with depression (t= -2.7, p=0.01. Total model: Adjusted R^2 =0.05, $F_{(4,357)}$=5.23, p<0.001). S-25(OH)D≤ 25nmol/L was significantly associated with decreased processing speed (i.e. "Digit symbol coding") (t=-2.7, p=0.01. Total model: Adjusted R^2 = 0.40, $F_{(5,375)}$=52,3, p<0.001) and decreased fluency (i.e. "Verbal fluency")(t=-2.1, p=0.03; Total model: Adjusted R^2 = 0.35, $F_{(5,374)}$=41.1, p<0.001). DISCUSSION: The associations between low vitamin D levels and increased negative and depressive symptoms and decreased processing speed and verbal fluency are good arguments for planning large scale randomized controlled studies in target populations, in order to conclude about vitamin D's potential beneficial effect in psychotic disorders.

Talk 7 Risk factors prior to onset of Mania in a 4 to 13-year longitudinal study

Aswin Ratheesh[1,2], Susan Cotton[1,2], Christopher Davey[1,2], Ashleigh Lin[5], Stephen Wood[6], Patrick McGorry[1,2], Michael Berk[3,4], Alison Yung[1,7], Barnaby Nelson[1,2]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, Melbourne, Australia, [2]Centre for Youth Mental Health, The University of Melbourne, Melbourne, Australia, [3]Deakin University, Geelong, Australia, [4]Florey Institute of Neuroscience and Mental Health, Melbourne, Australia, [5]Telethon Kids Institute, The University of Western Australia, Perth, Australia, [6]University of Birmingham, UK, [7]University of Manchester, Manchester, UK

Aims: The longitudinal antecedents of mania have been infrequently studied among help-seeking clinical samples. We aimed to examine the pre-morbid risk factors among help-seeking youth aged 15-30 years who later developed manic episodes, with or without psychosis. Methods: Participants were recruited from a cohort of 416 young people who were at ultra-high risk (UHR) for psychosis at baseline and

followed up 4 to 13 years later. The current report is of 20 participants who later developed BD I or schizoaffective bipolar disorder (UHR Manic). A subgroup of 20 age, gender and baseline-study matched controls who did not develop BD or psychosis on follow-up (UHR-NT) were also selected. The baseline data on subthreshold symptoms, use of substances or antidepressants, family history, symptom scores and functioning measures were compared between the two groups using chi-square or Fishers tests for categorical variables and paired-samples T tests for continuous variables. Results: Presence of subthreshold manic syndromes (p= 0.007), and prior antidepressant use (p=0.005) were significantly more common among UHR Manic group compared with UHR NT group. The UHR Manic group also had significantly lower GAF scores (p= 0.02), and tended to have higher levels of depression (p= 0.07). Prior antidepressant use remained significant after controlling for transition to psychosis. Conclusions: Among a sample of help-seeking youth and risk for psychosis, subthreshold manic symptoms, higher depressive symptoms, lower functioning and antidepressant use predicted later episodes of mania. These characteristics need further study in controlled prospective studies among samples without psychosis risk.

Talk 8 Duration of untreated psychosis and cognitive functioning in first-episode psychosis: A systematic review and meta-analysis

Kelly Allott[1,2], David Fraguas[3], Cali Bartholomeusz[1,2,4], Covadonga Martinez[3], Cassandra Wannan[1,4], Christos Pantelis[4,5], Paul Amminger[1,2], Celso Arango[3], Emma Parrish[1,6], Marta Rapado-Castro[3,4]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, Parvkille, Australia, [2]Centre for Youth Mental Health, The University of Melbourne, Parkville, Australia, [3]Child and Adolescent Psychiatry Department, Hospital General Universitario Gregorio Marañón, School of Medicine, Universidad Complutense, IiSGM, CIBERSAM, Madrid, Spain, [4]Melbourne Neuropsychiatry Centre, Department of Psychiatry, University of Melbourne, Parkville, Australia, [5]Melbourne Health, Victoria, Australia, [6]Department of Psychology, Northeastern University, Boston, MA, USA

PURPOSE: Neurocognitive and social cognitive impairments are well-established early clinical features of first-episode psychosis (FEP). While longer duration of untreated psychosis (DUP) is associated with poorer symptomatic and functional outcomes, whether DUP is also associated with poorer cognition is less clear. AIMS: To conduct a systematic review and meta-analysis investigating whether: 1) DUP is associated with degree of cognitive impairment in FEP; and 2) demographic and clinical factors moderate the relationship between DUP and cognition. METHOD: A systematic review and meta-analysis was conducted according to PRISMA guidelines. PubMed and EMBASE electronic databases were searched from inception to June 2015 using multiple terms for 'first-episode psychosis' and 'cognition'. DUP was not included in the initial search so that data from papers on cognition and FEP which had reported DUP could be included. All papers were double-screened and final inclusion/exclusion was determine by consensus. RESULTS: After removing duplicates, 5737 articles were identified via electronic search and 6 were found through manual searches of reference lists and relevant reviews. Screening of title and abstract led to exclusion of 4880 articles. The full text of 863 articles were screened for eligibility, with 706 being excluded. The remaining 157 articles were screened for overlapping samples, with 81 being excluded. The final included studies was 76. Results of the meta-analysis will be presented. CONCLUSION: Findings will inform the neurotoxicity hypothesis of psychosis. Results will also inform the timing and type of interventions that are likely to maximise recovery and minimise impairment and disability in early psychosis.

Oral Session 15

Friday, October 21, 4:30 - 6:00 pm, Parini

Implementing Early Psychosis Models Across Different Healthcare Settings: Lessons from around the World

Chair: Kate Hardy, Co-Chair: Olaf Johannesen
Speakers: Kate Hardy, Pat McGorry, Steven Adelsheim, Jo Smith, Anna Meneghelli, Jan Olav Johannessen, Swapna Verma, Merete Nordentoft

Talk 1 Learning from International Early Psychosis Implementation (Or Why Implementation Doesn't Happen in a Vacuum)

Kate Hardy[1]; [1]Stanford University, USA

Purpose: Since initial conceptualization in the 1980's the notion of intervening early in psychosis has seen widespread international dissemination. Although the countries implementing early psychosis service development differ widely in terms of healthcare settings, funding, and implementation models there are lessons to be learned for the early psychosis community as a whole as advocates move to bring about mental health care reform for this population. Methods: International experts renowned for their work implementing national level early psychosis models were contacted to participate in a symposium for IEPA as part of an effort to recognize the 20th anniversary of this meeting and the conference theme of "Looking back, moving forward". Results: This presentation, as part of the overall symposium, will provide a context to highlight the importance of awareness of diverse early psychosis implementation efforts and will provide information on countries implementing early psychosis reform not represented in the symposium. Conclusion: Although the field has come a long way since initial inception there are still huge challenges faced by those leading national reform efforts with established programs facing funding cuts and new initiatives struggling to develop coordinated implementation. The early psychosis community can learn from one another by sharing innovative models and creative partnerships to ensure sustainable change as well as lessons learned when overcoming unique challenges. This will act to support the community as it strives to ensure widespread dissemination and implementation of models developed to provide access and care to cutting edge treatments for this historically underserved population.

Talk 2 Early Psychosis: The Australian Experience

Pat McGorry[1,2], Eoin Killackey[1,2], Kerryn Pennell[1,2], Heather Stavely[1]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, Australia, [2]University of Melbourne, Australia

Purpose: To describe the evolution of early psychosis care and reform in Australia and its relationship to international developments. Materials and Methods: A review of the origins and impact of the Australian contribution to early psychosis research, care and reform. Results: Early Intervention is Australia has its origins in the 1980's in a first episode psychosis clinical research unit and evolved into the EPPIC program which became a blueprint for many other international developments. The synergy between research and clinical innovation created a clinical laboratory which soon expanded its focus more broadly into early intervention in youth mental health. Australia played a key leadership role in establishing collaborative international scientific and reform platforms which catalyzed the progress that has been seen in early psychosis around the world. Within Australia however early psychosis reform was piecemeal until recently when the Federal government began to invest in comprehensive programs to complement primary care headspace centres for young people. Conclusion: While the reforms are vital and feasible, their future is now in the balance due to other changes in national mental health policy and challenges to implementation of the reform program.

Talk 3 Creating a National Early Psychosis Clinical Support Program in the United States: The Development of the Prodrome and Early Psychosis Program Network (PEPPNET)

Steven Adelsheim[1], Vicki Harrison[1], Robert Heinssen[2], Jane Isaacs Lowe[3], Gary M. Blau[4]; [1]Stanford University Department of Psychiatry and Behavioral Sciences, USA, [2]Division of Services and Intervention Research, National Institute of Mental Health, USA, [3]Consultant, former senior advisor for program development, Robert Wood Johnson Foundation, USA, [4]Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, USA

Purpose: The Prodrome and Early Psychosis Program Network (PEPPNET) began as a response to increased United States interest in first episode clinical care and the need for rapid technical assistance expansion nationally. Materials and Methods: While coming to early psychosis clinical program implementation later than other countries, the United States expanded research efforts in early psychosis through the support of the RAISE and North American Prodrome Longitudinal Study (NAPLS) studies by the National Institute of Mental Health (NIMH), and the Early Detection & Intervention for Prevention of Psychosis Program by the Robert Wood Johnson Foundation (RWJF). These national research studies increased interest, the evidence-base, and ultimately funding for the US expansion of early psychosis clinical programs. Results: From the first PEPPNET meeting came the consensus that there would be value in formalization of a network of experts to organize thinking around clinical best practices, training approaches and metrics, and to provide leadership to communities nationwide implementing early high risk and psychosis programs. Through a one-year grant from RWJF, Stanford's Department of Psychiatry began developing an infrastructure to support PEPPNET. Milestones included convening the steering committee of national experts; organizing and supporting the work of three subcommittees (training, treatment, and lived

experience), registration of over 200 PEPPNET members across the country; and launch of a national list-serve, a newsletter and website. Conclusion: The development of ongoing funding to support PEPPNET remains a concern for the future, yet the Network continues to provide valuable coordination of local program development and technical assistance.

Talk 4 Reflections on Two Decades of Early Intervention in Psychosis Service Reform in England

Jo Smith[1], David Shiers[2], Max Birchwood[3]; [1]University of Worcester, UK, [2]University of Manchester, UK, [3]University of Warwick, UK

Purpose: England was one of the first countries to successfully roll out EIP on a national scale under the National Service Framework (NSF 1999) and become an international field-leader in providing universal coverage with a comprehensive EIP package to young people aged 14-35 presenting with a FEP. Since 2010, EIP services have been eroded with significant cuts to resourcing and budgets. The response has been a renewed government commitment to invest in improving access to EIP services and strengthen their clinical and cost-effectiveness within the Achieving Better Access policy. Materials and methods: An EIP Policy Implementation Guidance (DH 2002) delineated a national service model specification and identified minimum service fidelity criteria and national minimum dataset requirements. An EIP leadership programme at a national and regional level supported service development through a national EIP network. Results: £104 m investment funded 178 teams providing comprehensive EIP coverage across England. Service evaluation and cost economic analysis demonstrated EIP service value (Knapp et al, 2014). Since 2010, significant cuts in over 50% of EIP services (Rethink 2014 with only 69% of NHS Trusts offering EIP services (The Commission on Acute Adult Psychiatric Care, 2016). In 2015/16, £40m additional investment to support preparedness for a new EI Access and Wait Time standard and delivery of evidence based care through specialist training for EIP staff. Conclusions: Current government policy commitment to invest in improving access to effective EIP services hinges on achieving local commissioning support in restoring what has been lost over the last six years.

Talk 5 Early intervention in Mental Health in Italy: Implementation and Fidelity to the Model in a Nationwide Perspective

Anna Meneghelli[1], Emiliano Monzani[1], Antonio Preti[1,2]; [1]Programma 2000 – MHD Niguarda, Milan, Italy, [2]University of Cagliari, Italy

Purpose: To illustrate the pathway of implementation of EI in Italy, since 1999 when the Programma2000 , the first program targeted at early detection and treatment for subjects at the onset, or considered at risk of psychosis, was established in Milan, within a public Department of Mental Health (MHD). Since then, and for impulse of the Programma 2000 leaders, the early intervention model was brought to the attention of the health authorities and the community at large. Materials and Methods: An intense dissemination and pilot studies were made and a national association (AIPP) was set to collect all initiatives and activities focused on the EI model. The advocacy activity of the people involved in early intervention programs (EIPs) resulted in the promotion of National Guidelines on Early Intervention in Schizophrenia (2007) and in the recognition of the EI goals within the national Action Plan for Mental Health (2013). Results: Over 18 years, EIPs have been implemented in 25% of DMHs and in some academic centers. Several trials were financed to evaluate the organization and functioning of EIPs. The knowledge of the EI paradigm and its application, were and still are promoted with conferences, congresses, scientific publications and national surveys. Conclusion: Albeit slowly, the implementation of EIPs is spreading throughout the Italian public network of mental health. There is still a wide variability in the distribution and the modalities of EIPs across the Italian territory (AIPP Survey, 2014). Further efforts are necessary to stimulate policy endorsement, fidelity to model and resources allocation.

Talk 6 Developing Early Intervention in Psychiatry: Evidence-Based Health Service Approach

Jan Olav Johannessen[1,2], Inge Joa[1,2], Robert Jørgensen[1], Sveinung Dybvig[1], Kolbjørn Brønnick[1,2], Wenche ten Velden Hegelstad[1]; [1]Division of Psychiatry, Stavanger University Hospital, Norway, [2]Faculty of social sciences, Institute of Health, University of Stavanger, Norway

Background: In Norway, development of early intervention services in mental health started around 1990, based on the concepts of phase-specific treatment. In the mid-nineties the TIPS-project (Early InTervention In PSychosis) was launched, after discovering that DUP (Duration of Untreated Psychosis) was long (mean 104 weeks, median 26 weeks) in Stavanger (south-west Norway). The main research questions in TIPS were: 1) was it possible to shorten DUP, and 2) did shorter DUP influence

outcome in a positive direction? And, it was possible to reduce DUP (4 weeks median), and it was possible to improve long-term outcome (suicidality, recovery-rate at 1, 2, 5, 10 year follow-up). Methods: DUP was introduced as a national quality indicator, and early intervention strategies, based on a dimensional understanding of mental disorders, are the core element in Norwegian guidelines for assessment, treatment and follow-up of non-affective psychosis (2013). One of the recommendations to health service providers is that DUP should not exceed 4 weeks. Results: Most health trusts in Norway now have established early intervention services, based on easy access and early treatment, but there are still some blind spots. A nationwide 3.3 mill Euros implementation project regarding the new national guidelines has been launched (2016). Our strategies focus on earliness; the EI-teams usually refer the early detected FEP patients to evidence based standard treatment. Discussion: The importance of earliness in Early intervention seems somehow to be forgotten when organizing FEP-services. Achieving early intervention in psychosis and ARMHS is the main health political challenge in our time.

Talk 7 The Singapore Early Intervention Model: Psychosis and beyond!

Swapna Verma[1], Lye Yin Poon[1], Helen Lee[1]; [1]1. Early Psychosis Intervention Programme, Institute of Mental Health, Singapore

Purpose: The Singapore Early Psychosis Intervention Programme (EPIP) was implemented in 2001 with the aim to raise awareness of psychosis and improve the outcome of patients with first-episode psychosis (FEP). When the first ever National Mental Health Blueprint was launched in 2007, it provided the opportunity to expand into indicated prevention and youth mental health. Methods: SWAP is a clinical service to assess and treat individuals with At-Risk Mental States (ARMS), whereas CHAT is more broad-based, to promote awareness of youth mental health issues and provide free and confidential assessment. Results: We have seen an annual increase in the number of patients, as well as a change in the pathways to care i.e. more seeking help on their own or being referred by community partners. More than 1000 young people have sought help at CHAT. The most common diagnoses were Mood and Adjustment Disorders (41%), Anxiety Disorder (12%), ARMS (12%) and Psychotic Disorders (8%). For those with ARMS and FEP, our clinical service using phase-specific care and a strengths based approach has ensured high levels of remission. Conclusion: Amidst the service expansion and increase in workload, it is important not to compromise on the quality of care while preventing staff burnout. To complement the care efforts of our clinical team, we have engaged persons with lived experience in advocacy, peer support and service development. Upcoming plans include having a mobile platform to complement our face-to-face assessments, and applying the principles of early intervention for physical health in FEP.

Talk 8 From Research to Practice: How OPUS Treatment was Disseminated throughout Denmark

Merete Nordentoft[1,2], Marianne Melau[1], Tina Iversen[1], Nikolai Albert[1], Anne Thorup[1,2], Carsten Hjorthøj[1,2], Ole Mors[2,3], Per Jørgensen[3]; [1]Mental Health Centre Copenhagen, Mental health Services Capital Region of Denmark, [2]The Lundbeck Foundation Initiative for Integrative Psychiatric Research, iPSYCH, Denmark, [3]Center for Psychiatric Research, University of Aarhus, Risskov, Denmark

Purpose: The critical period hypothesis was the background for the Danish OPUS trial. Modified assertive community treatment, together with family involvement and social skills training, constituted the core elements in the original programme. OPUS treatment was superior to standard treatment in reducing psychotic and negative symptoms and substance abuse, in increasing user satisfaction and adherence to treatment, and in reducing use of bed days and days in supported housing. Moreover, relatives included in OPUS treatment were less strained and had higher level of knowledge about schizophrenia and higher user satisfaction. Methods: The Danish parliament created special grants for which regional health authorities could apply in order to implement OPUS teams throughout the country. Training courses were developed and manuals and books published. Staff members from OPUS teams all over Denmark meet at a yearly national OPUS conference. The OPUS panel was created, a group of patients who wants to tell the public about living with an invisible disease. Results: OPUS treatment was implemented throughout Denmark In 2016, there were 22 teams with a total of more than 200 employees. Recently a two-year early intervention treatment package was endorsed by Danish regional health authorities, which will imply that all persons with for incident schizophrenia are entitled to receive the described treatment. Discussion: The content of the treatment is now further developed, and new elements are being tried

out – such as individual placement and support, lifestyle changes, cognitive remediation, specialized treatment for substance abuse, and different kinds of user involvement.

Oral Session 16

Friday, October 21, 4:30 - 6:00 pm, Porta

Children at risk

Chair: Helen Fisher, Co-Chair: Birgitte Klee Burton
Speakers: Elsa Gilbert, cecilia marino, Nicola Groth, Birgitte Klee Burton, Anne Ranning, Lynn MacKenzie, Agna Bartels, Eloise Crush

Talk 1 Aggregation of risk indicators in children-adolescents at genetic risk of major mood or psychotic disorders: A basis for a pre-clinical staging of the risk trajectory

Elsa Gilbert[1,2], Thomas Paccalet[2,3], Nicolas Berthelot[2,3], Pierre Marquet[2,4], Valérie Jomphe[2], Daphné Lussier[2], Nathalie Gingras[2,4], Michel Maziade[2,4]; [1]Université Laval, École de Psychologie, [2]Centre de recherche, Institut universitaire en santé mentale de Quebec, CIUSSS de la Capitale Nationale, [3]Université du Québec à Trois-Rivières, [4]Université Laval, Faculté de Médecine

Background : Developmental risk findings stem from our follow-up of children descending from multigenerational families affected by schizophrenia or bipolar disorder : i) Risk endophenotypes (cognitive or electrophysiological) uncovered in adult patients may be detected in children of an affected parent (HRs); ii) other childhood risk indicators such as trauma, psychotic-like experiences, non-psychotic DSM diagnoses and drug use impacting the developmental trajectory. Methods : We characterized the childhood trajectory across a period of 11 years in HRs (n=84) descending from a 25-year follow-up of 48 densely affected multigenerational kindreds from Eastern Quebec, using 5 established risk indicators: cognitive impairments, psychotic-like experiences, non-psychotic DSM diagnosis and episodes of poor functioning, trauma and drug use. Results : The relative risks for each risk indicator were low in these vulnerable offspring (RR=1.92 to 2.99). Transitioners accumulated more risk indicators in childhood-adolescence than non-transitioners (Wilcoxon rank test; Z=2.64, p=.008). We devised a model of preclinical staging to classify the children-adolescents along an increasing level of clustering of risk endophenotypes in a child. The model showed a satisfactory level of inter-individual and inter-sib variability. Conclusions : We observed that the accumulation of risk indicators in a child had significance for predicting later transition to a major disorder. Such aggregations of risk markers have incidentally been observed in other complex disorders such as metabolic-cardiovascular disorders. This may set the basis of models of a preclinical staging of the early trajectory and of preventive practice guidelines in major psychiatric disorders.

Talk 2 THIS ORAL HAS BEEN CANCELLED

Talk 3 A naturalistic and prospective study on preventive interventions in children and adolescents at clinical high risk for psychosis

Nicola Groth[1], Frauke Schultze-Lutter[1], Hannah Dietrich[1], Benno G. Schimmelmann[1], Chantal Michel[1], Susanne Walitza[2], Maurizia Franscini[2], Gerd Lehmkuhl[3], Petra Walger[3], Stefanie J. Schmidt[1]; [1]University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern, Switzerland, [2]University Hospital of Child and Adolescent Psychiatry, Zurich, Switzerland, [3]University Hospital of Child and Adolescent Psychiatry and Psychotherapy, Cologne, Germany

Indicated prevention approaches can prevent transition to a first episode of psychosis in adult patients at clinical high risk (CHR). However, for lack of studies, primarily preventive intervention was not recommended by the European Psychiatric Association for children and adolescents. To find indication for efficient interventions in young CHR patients, we examined the treatment effects in a naturalistic 1-year follow-up study of 63 CHR patients (8-17 years) meeting ultra-high risk or basic symptom criteria at baseline. These were re-assessed for their outcome with clinical interviews and for meanwhile interventions with the Client Service Receipt Inventory. Outcome was categorized into (1) full or partial remission, (2) persistence, and (3) progression according to the course of CHR symptoms and functioning. Interventions were grouped into (I) none, (II) any psychological or pharmacological

intervention, (III) preventive interventions administered in a specialized CHR service, and (IV) hospitalizations. Ordinal regression analyses were used to investigate effects of interventions and potential moderators (baseline level of CHR symptoms and functioning, comorbidity) on outcome categories. The mental problems of 71.4% of CHR patients had at least partially remitted, persisted in 6.3%, and progressed in 22.2%. Patients receiving preventive intervention (55.6%) did not show partial or full remission more frequently than those without (75.6%) or any other intervention (71.4% any, 55.6% hospital). Yet, these patients had already reported more CHR symptoms and comorbid disorders, and lower functioning at baseline. Thus, current interventions might fail to sufficiently address the special needs of young CHR patients with severe mental-health problems.

Talk 4 Motor Impairments among Children with a Familial Risk of Schizophrenia or Bipolar Disorder at the age of 7 years. The Danish High Risk and Resilience Study – VIA 7

Birgitte Klee Burton[1,3,5], Jens Richardt Jepsen[1,5], Anne A. E: Thorup[1,3,5], Ditte Ellersgaard[2,3,5], Camilla Jerlang Christiani[2,3,5], Katrine Spang[1,3,5], Nicoline Hemager[2,3,5], Aja Greve[4,5], Gry Poulsen[2,5], Ole Mors[4,5], Merete Nordentoft[2,3,5], Kerstin J. Plessen[1,3,5]; [1]Child & Adolescent Mental Health Centre, Mental Health Services Capital Region, Copenhagen University Hospital, [2]Mental Health Centre Copenhagen, Mental Health Services Capital Region, Copenhagen University Hospital, [3]Department of Clinical Medicine, University of Copenhagen, [4]Psychosis Research Unit, Aarhus University Hospital, Risskov, [5]The Lundbeck Foundation Initiative for Integrative Psychiatric Research, iPSYCH

Purpose: In a substudy of the Danish High Risk and Resilience Study, we aimed to investigate the level of motor function among 7-years old children of parents with either 0, 1 or 2 parents diagnosed with schizophrenia or bipolar disorder. We expected that children with a familial risk of schizophrenia would perform worse on the motor tasks indicating a disturbed motor development compared with children with a genetic risk of bipolar disorder and compared with controls. We explored the difference between children at risk of schizophrenia and children at risk of bipolar disorders to map whether these neurodevelopmental disorders share the same developmental path or whether these two groups of children show distinct profiles and deviations of their motor skills. Further on, this elucidates the question whether motor deficits represent a specific endophenotype for schizophrenia or rather serve as a marker for serious mental disorder? Material and method: We have established a stratified cohort of 522 children aged 7 years with 0, 1 or 2 parents with schizophrenia spectrum psychosis or bipolar disorder. Motor function was assessed by the Movement ABC-2, Grooved Pegboard and Finger Tapping Test. Results: Preliminary results suggest that children with a familial risk of schizophrenia have impaired motor abilities compared to controls, whereas children with a familial risk of bipolar disorder and controls do not differ concerning their motor function. Conclusion: Motor deficits during development might represent a specific endophenotype, indicating a vulnerability for schizophrenia but not for bipolar disorder suggesting distinct profiles of developmental paths.

Talk 5 Educational achievements for children of parents with schizophrenia or bipolar disorder - a register-based, cohort study

Anne Ranning[1,3], Thomas Munk Laursen[2,6], Esben Agerbo[2,6], Carsten Hjorhøj[1,3], Anne Thorup[1,3,4], Jens Richardt Jepsen[1,3,5], Merete Nordentoft[1,3]; [1]University of Copenhagen, [2]Aarhus University, [3]Mental Health Center Copenhagen, [4]Child and Adolecent Mental Health Center Copenhagen, [5]Child and Adolecent Mental Health Center Glostrup, [6]Nordic Center for Registerbased studies

Background: Many studies have found children of parents with schizophrenia and bipolar disorder to have lower neuropsychological performance than other children, however, not much research have been done with regard to these children's educational achievement. Method: We included all children (N = 684.248) born and alive in Denmark between 1986 and 1996, and their parents. Follow-up was until graduation in 2014. The main outcome variable was school grades after mandatory education in Denmark. School grades were divided into 4 categories: not completed, low grade point average (GPA), medium GPA , and high GPA. A multiple logistic regression with medium grade as the reference category was performed. Results: Children of parents with schizophrenia had higher odds for non-completion of mandatory education (OR= 2.6) and low GPA (OR=1.6), and lower odds for a high GPA (OR=0.71). Children of mothers, but not fathers, with bipolar disorder had higher odds for non-completion (OR=1.64) and slightly increased odds (OR= 1.14) for low GPA. Children of parents with severe mental illness (SMI) who had been institutionalized had lower GPA and higher odds for non-completion. However, outcomes for institutionalized children of parents with (SMI) had favorable outcomes compared to institutionalized children from the reference group. Conclusion: Parent's diagnosis of schizophrenia predicted children to have lower GPA and higher odds for

non-completion of mandatory education. Mothers', but not fathers' diagnosis of bipolar disorder was associated with higher odds for non-completion. Institutionalized children generally had the poorest school outcomes.

Talk 6 Verbal memory impairment in children of parents who experience psychotic symptoms

Lynn MacKenzie[1,2], Victoria Patterson[1,2], Vlad Drobinin[1,2], Skene Elaine[1,2], Alexa Bagnell[1,2,3], Sabina Abidi[1,2,3], Lukas Propper[1,2,3], Barbara Pavlova[1,2,3], Rudolf Uher[1,2]; [1]Dalhousie University, [2]Nova Scotia Health Authority, [3]IWK Health Centre

Background: Psychotic symptoms and deficits in verbal memory occur across severe mental illnesses (SMI; major depressive disorder, bipolar disorder, and schizophrenia). Offspring of parents with SMI have a 1-in-3 chance of developing SMI by early adulthood. Verbal memory may represent a common biomarker to SMI. We aimed to investigate visual and verbal cognitive functions in sons and daughters at familial high risk for severe mental illness. Method: We assessed a cohort of 193 children and youth (mean age 10.23, SD 2.91, range 5 to 16) at familial risk for severe mental illness, including 65 (34%) offspring of parents with transdiagnostic lifetime psychotic illness. We measured verbal auditory working memory with the digit span test of the Wechsler Intelligence Scale for Children-IV, visual working memory with the Spatial working memory task, verbal logical memory with story recall from the Children's Memory Scale, and full scale intelligence with the Wechsler Abbreviated Scale of Intelligence-II. Results: Family history of psychotic illness in one or both parents was associated with poor performance on auditory working memory (B=-5.82, 95%CI=-11.37 to -.27, p=0.040) and verbal logical memory (B =-8.38, 95%CI -14.53 to -2.22, p= 0.006) in the offspring after adjustment for age, sex, full scale intelligence quotient, socioeconomic status, and familial clustering. Conclusions: Poor verbal working memory and logical memory may be markers of familial liability to psychotic illness. Verbal memory may represent a target for pre-emptive early interventions in youth at high risk for severe mental illness. Key words: psychotic symptoms, offspring, verbal memory

Talk 7 Course of auditory vocal hallucinations in childhood: 11-year follow-up study

Agna Bartels[1], Johanna Wigman[1], Jack Jenner[2], Richard Bruggeman[1], Jim Van Os[3,4]; [1]University of Groningen, University Medical Center Groningen, [2]Jenner Consult, Haren, the Netherlands, [3]Maastricht University, Maastricht, the Netherlands, [4]King's College London, King's Health Partners, Department of Psychosis Studies, Institute of Psychiatry, London, United Kingdom.

Childhood auditory vocal hallucinations (AVH) are mostly transient but may predict clinical outcomes. Little is known about their course over time and associations with risk factors. Therefore, we followed a case-control sample from a general population survey on AVH in 3870 children, and examined associated psychopathology and risk factors at two time-points, after five years (T1) respectively 11 years (T2) from baseline (T0). From the case-control sample, 293 adolescents (age 18-19) participated in T2, presented as online assessment of AVH, other psychotic experiences (with the Community Assessment of Psychic Experience; CAPE), psychopathology (with the Depression, Anxiety and Stress Scale; DASS-21), traumatic experiences (with the Trauma Screening Questionnaire; TSQ), and cannabis use. The AVH 6-year (T1-T2) persistence rate was 18.2% and the AVH 11-year (T0-T2) persistence rate was 6.2%. T2 participants with AVH had higher CAPE scores in all three dimensions (positive, negative and depressive), on both frequency and distress, than participants without AVH. AVH were associated with higher levels of depression and anxiety, and with more traumatic events and concomitant distress. The proportion of participants at risk for PTSD was significantly higher in those with AVH compared to those without AVH. Cannabis use in the past year was not associated with AVH. Early childhood AVH are mostly transitory. AVH in adolescence are associated with affective dysregulation and with traumatic events. Given the evident association between traumatic events and AVH, it is advisable to sensitively inquire about childhood adversity in help-seeking youngsters presenting with AVH and, if necessary, address these traumas.

Talk 8 Protective factors for childhood psychotic symptoms amongst poly-victimised children

Eloise Crush[1], Louise Arseneault[1], Sara Jaffee[2], Andrea Danese[1], Helen.L Fisher[1]; [1]King's College London, UK, [2]University of Pennsylvania, Philadelphia

Purpose: Experiencing victimisation in early life has been identified as an important risk factor for the emergence of psychotic symptoms in childhood. Whilst this association has been repeatedly replicated, the majority of victimised children do not develop psychotic symptoms and why this occurs is not fully understood. Therefore, this study investigated a range of factors which might protect against the

development of psychotic symptoms amongst children exposed to multiple forms of victimisation (poly-victimisation). Methods: Data were utilised from the UK Environmental Risk Longitudinal Twin Study, a nationally representative sample of 2232 twin children assessed at 5, 7, 10 and 12 years. Mothers reported prospectively on children's exposure to physical and emotional abuse and neglect, and domestic violence, as well as a range of family-level protective factors. Both mothers and children reported on bullying victimisation. Children were assessed for cognitive and personality factors at age 5, and interviewed at age 12 about psychotic symptoms. Results: Childhood poly-victimisation was associated with age-12 psychotic symptoms (OR=3.85, 95% CI=2.27-6.52), but the majority of poly-victimised children did not have symptoms (81%). Having a higher IQ (OR=0.95, 95% CI=0.92-0.99) and experiencing a positive atmosphere at home (OR=0.92, 95% CI=0.86-0.99) were associated with an absence of psychotic symptoms at age 12 amongst poly-victimised children. However, these 'protected' children displayed elevated levels of other mental health problems compared to non-victimised children. Conclusion: More research is needed to identify factors that protect against the emergence of psychotic and other mental health symptoms to inform preventive interventions for victimised children.

Oral Session 17

Friday, October 21, 4:30 - 6:00 pm, Monti

Cannabis and substance abuse

Chair: Liewe de Haan, Co-Chair: Giovanni Patell
Speakers: Stine Mai Nielsen, Virginie Dore Gauthier, Lieuwe de Haan, Giovanni Patelli, Stephan Ruhrmann, Leanne Hides, Carsten Hjorthøj, Rashmi Patel

Talk 1 Association between Alcohol, Cannabis and Other Illicit Substance Abuse and Risk of Developing Schizophrenia: A Nationwide Population Based Register Study

Stine Mai Nielsen[1,2], Nanna Gilliam Toftdahl[1,2], Merete Nordentoft[1,2], Carsten Hjorthøj[1,2]; [1]Copenhagen University Hospital, Mental Health Center Copenhagen, Gentofte, Kildegårdsvej 28, 2900 Hellerup, Denmark, [2]The Lundbeck Foundation Initiative for Integrative Psychiatric Research, iPSYCH, Aarhus, Denmark

Objective Several studies have examined whether use of substances can cause schizophrenia. However, due to methodological limitations in the existing literature (eg. selection bias and lack of adjustment of co-abuse) uncertainties still remain. We aimed to investigate whether substance abuse increases the risk of developing schizophrenia, addressing some of these limitations. Method The longitudinal, nationwide Danish registers were linked to establish a cohort of 3,133,968 individuals (105,178,673 person-years at risk), identifying 204,505 diagnosed with substance abuse and 21,305 diagnosed with schizophrenia. Information regarding substance abuse was extracted from several registers and did not include psychotic symptoms caused by substance abuse in the definition. This resulted in a large, generalizable sample of exposed individuals. The data was analyzed using Cox regression analyses, and adjusted for calendar year, gender, urbanicity, co-abuse, other psychiatric diagnosis, parent's substance abuse and psychiatric history parent's immigration to Denmark and parent's socioeconomic position. Results A diagnosis of substance abuse increased the overall risk of developing schizophrenia, hazard ratio (HR), 6.04 (95% confidence interval (CI), 5.84-6.26). Cannabis (HR, 5.20; 95%CI, 4.86-5.57) and alcohol (HR, 3.38; 95%CI, 3.24-3.53) presented the strongest associations. Abuse of hallucinogens (HR, 1.86; 95%CI, 1.43-2.41), sedatives (HR, 1.68; 95%CI, 1.49-1.90), and other substances (HR, 2.85; 95%CI, 2.58-3.15) increased the risk significantly as well. The risk was found to be significant even 10-15 years subsequent to a diagnosis of substance abuse. Conclusions Our results illustrate robust associations between almost any type of substance abuse and an increased risk of developing schizophrenia later in life.

Talk 2 EQIIP SOL: Study Measuring the Impact of Adding an Intensive Outreach Team for Homeless Youth Suffering From Psychosis and Substance Use Disorders to an Early Psychosis Specialised Clinic

Virginie Dore Gauthier[1], Didier Jutras-Aswad[1], Clairélaine Ouellet-Plamondon[1], Nicolas Girard[1], Julie-Marguerite Deschesnes[1], Laurence Ledoux[1], Yannie Codere[1], Amal Abdel-Baki[1]; [1]Universite De Montreal

In Canada, every night, about 6000 youths are homeless. Those suffering from psychosis and substance use disorder (SUD) are at higher risk for homelessness. Today's literature suggests the need for dedicated interventions for this population. In 2012, an intensive outreach team (ÉQIIP SOL (ES)) was created at the CHUM, to help homeless youth suffering from psychosis and SUD (HYPS). Objective: Explore the impact of ES added to an early intervention for psychosis clinic (EIC) on service use and the symptomatic and functional outcome for the HYPS. Method: Longitudinal study comparing the outcome of HYPS who received care from ES in addition to an early intervention for psychosis clinic (EIPC) (2012-2015) to an HYPS historical cohort who received care from EIPC only (2005-2011). Housing stability (main outcome), living arrangement autonomy, global assessment of functioning scale (SOFAS), clinical global assessment scales (GAF, CGI), SUD severity (AUS, DUS) and services use (Emergency consultations and hospitalizations) have been collected prospectively for 24 months. Results: With ES + EPIC, there is a higher rate of HYPS in stable housing than with EIPC only (RR=2,38, p=0,017). Symptomatic and functional outcomes as well as drug and alcohol misuse are somewhat similar for the 2 groups. Conclusion: The addition of ES to an EIPC seems to benefit HYPS in increasing housing stability. However, poor prognostic factors of HYPS and the high intensity of the comparator treatment (EPIC) may explain why ES does not seem to have an additional impact on short-term symptomatic, functional and SUD outcome.

Talk 3 Family Motivational Intervention for Carers of Cannabis Using First Episode Psychosis Patients: Feasible and Effective

Lieuwe de Haan[1], Maarten Smeerdijk[2], Bas van Raaij[1], Gerard Schippers[1], Don Linszen[1], Rene Keet[2]; [1]AMC Psychiatry, [2]GGZ NHN

Purpose: Cannabis use by adolescents with a first psychotic episode is associated with poor outcome and family distress. Current interventions to reduce drug use in this patient group have limited efficacy. We evaluated the feasibility and long term effectiveness of a family-based motivational interviewing and interaction skills training (Family Motivational Intervention, FMI) in reducing cannabis use. Materials and methods: RCT in which 97 parents were randomly assigned to either FMI (n=53) or routine family support (n=44). Results: FMI appeared to be a feasible method for increasing MI skills in parents. Frequency and quantity of cannabis use was significantly more reduced in FMI than in routine family support, 3 months and 15 months after the intervention. Conclusions: Training parents in motivational interviewing and interaction skills is feasible and effective in reducing cannabis use among young adults with recent-onset schizophrenia. Given the profound difficulties in reducing cannabis use in psychotic patients, this is a very important finding.

Talk 4 Family intervention for Expressed Emotion in patients with early psychosis

Giovanni Patelli[1], Alessia Pisano[1], Maria Meliante[1], Emiliano Monzani[1], Anna Meneghelli[1]; [1]Programma 2000 Mental Health Department Niguarda Hospital Milan Italy

Purpose: To verify the 1-year outcome of a multimodal program devoted to improve adherence and involvement in the therapeutic process of the caregivers of young patients with first-episode psychosis (FEP) or at ultra high-risk of developing psychosis (UHR) accessing the Programma2000, an early intervention center operating in Milan, Italy. Materials and Methods: Two hundred and eighteen families were involved in an individualized, multi-componential intervention that has been structured in at least 8 sessions over one year. Outcome measures were the scores on the Camberwell Family Interview (CFI) and the classification of the family as with high or low expressed emotion. Results: In both families of FEP (n = 118) and UHR (n = 100) patients, about 25% of patients' families were classified as high EE, with emotional over-involvement (EOI) being the most frequent reason for a family to be classified as high EE. At one year, data was available for 82 families of a FEP patient and 65 families of a UHR patient, with no relevant change in the proportion of high or low EE families. Over time, up to 3 year since the start of the intervention, there was a 30% decline in the number of high EE families, with no difference between FEP and UHR patients. Conclusion: A multi-component program dedicated to the caregivers of people diagnosed with FEP or judged UHR was found acceptable to the families of the patients and improved their knowledge of the disorder and their abilities of coping with its symptoms.

Talk 5 Expressed emotions as a predictor of transition to psychosis

Stephan Ruhrmann[1], Theresa Haidl[1], Marlene Rosen[1], Frauke Schultze-Lutter[2], Dorien Nieman[3], Raimo K.R. Salokangas[4], Joachim Klosterkötter[1], and the PRONIA Group; [1]Dept. of Psychiatry and Psychotherapy, University of Cologne, [2]University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern, [3]Dept. of Psychiatry, Academic Medical Centre, Amsterdam, [4]Dept. of Psychiatry, University of Turku

Background: The psychological construct of expressed emotions (EE) relates to the extent of criticism, hostility and emotional involvement in social relationships and is considered as a reliable and valid predictor of adverse clinical outcomes in schizophrenia patients, particularly the risk of relapse. Thus, EE may also have an impact on the risk for a first outbreak of the illness in subjects clinically at-risk of psychosis (CHR). Methods: In the European Prediction of Psychosis Study (EPOS), a six-center study taking place in four European countries, 245 CHR subjects were investigated, follow-up period was 18 months, 37 converted to psychosis. Perceived EE were assessed with the "Level of Expressed Emotion Scale" (LEE), composed of four subscales: lack of emotional support, intrusiveness, irritability and criticism. Baseline scores were used to predict final outcome. Results: 'Irritability', describing the perceived degree of uncertainty of the main reference person, but none of the other LEE subscale turned out to be predictive. A risk score combining perceived 'irritability' with the positive sub-score of the Structured Interview for Psychosis-Risk Syndromes (SIPS) enabled the differentiation of three risk classes. Discussion: To the best of our knowledge this is the first study showing that perceived EE are a predictor of transition to psychosis. It can be assumed that stress-prone e.g. family members may not be able to provide the desired external support to high-risk-patients who are already irritated by their changing experiences.

Talk 6 Are cannabis induced psychotic-like experiences (PLEs) associated with the frequency of cannabis use?

Leanne Hides[1], Catherine Quinn[1]; [1]Centre for Children's Health Research, Institute of Health & Biomedical Innovation, School of Psychology & Counseling, Queensland University of Technology

Cannabis use has been strongly associated with presence of PLEs, with up to 90% of young cannabis users reporting PLEs the same week as cannabis use. However, it is unclear if these PLEs are the effects of cannabis intoxication alone. This paper determines if cannabis-induced paranoid-dysphoric and euphoric experiences are associated with the frequency of lifetime and recent cannabis use. Participants were 748 young (18-25 years) lifetime cannabis users with no history of a psychotic disorder. The age of onset and frequency of lifetime, past 12 month, past month and time since last cannabis use was assessed. The 13-item Cannabis Experiences Questionnaire-Short Form assessed the frequency of euphoric and paranoid-dysphoric experiences when intoxicated with cannabis. Paranoid-dysphoric symptoms were associated with female gender, the lifetime frequency of amphetamine use and were negatively associated with the frequency of cannabis use in the past year. Euphoric symptoms were associated with younger age, and the lifetime, past year and past month frequency of cannabis use, as well as time since last cannabis use. Findings suggest cannabis users who report euphoric experiences when intoxicated with cannabis are more likely to be recent cannabis users than those who report dysphoric-paranoid symptoms. Further research is required to compare the frequency and intensity of PLEs among cannabis use when they are intoxicated and not intoxicated with cannabis.

Talk 7 Parental substance abuse predicts schizophrenia in offspring

Carsten Hjorthøj[1,2], Stine Mai Nielsen[1,2], Merete Nordentoft[1,2]; [1]Copenhagen University Hospital, Mental Health Center Copenhagen, [2]iPsych

Background Increasingly, studies have identified a strong link between use and abuse of substances, in particular cannabis, and schizophrenia. The most common interpretation of the association appears to be that cannabis use is a component cause of schizophrenia. Another theory postulates that the association may not be causal at all, but may be due to the presence of a common underlying factor. In the present study we sought to investigate the role of parental abuse versus the individual's own abuse. Methods We used the nationwide Danish registers to investigate the study question. Parental abuse was split into two categories depending on whether it was first diagnosed before or after the birth of the offspring. The outcome of schizophrenia was identified in the Psychiatric Central Research Register. Results Maternal cannabis abuse was associated with a hazard ratio for schizophrenia of 6.0 (3.9-9.2) if diagnosed before the birth of the child, and of 5.9 (4.8-7.2) if diagnosed after. For paternal cannabis abuse, the associations were similar, at 5.5 (4.0-7.5) and 5.5 (4.8-6.4), respectively. Maternal alcohol abuse diagnosed before the birth of the child was strongly associated with schizophrenia (HR 5.6 (4.7-6.6)), but less after the birth of the child (HR 1.9 (1.8-2.0)). For fathers, the picture was similar with HR 4.4 (4.0-5.9) and 1.8 (1.7-1.8). Discussion Second-hand exposure to cannabis is apparently linked to schizphrenia. Other substances, e.g. alcohol, are not very conducive to second-hand exposure, which could explain the much lower associations observed after birth for these substances.

Talk 8 Investigating mood instability in psychotic disorders using natural language processing (NLP)

Rashmi Patel[1], Theodore Lloyd[1], Richard Jackson[1], Michael Ball[1], Hitesh Shetty[2], Matthew Broadbent[2], John R Geddes[3], Robert Stewart[1], Philip McGuire[1], Matthew Taylor[1]; [1]Institute of Psychiatry, Psychology & Neuroscience, King's College London, [2]South London and Maudsley NHS Foundation Trust, [3]Department of Psychiatry, University of Oxford

Purpose: Mood instability is an important clinical problem but it has received relatively little research attention. Natural Language Processing (NLP) is a novel method which can used to automatically extract clinical data from electronic health records (EHRs). We extracted mood instability data from EHRs using NLP and investigated its impact on clinical outcomes. Materials and Methods: Data on mood instability were obtained from 27,704 adults receiving care from the South London and Maudsley NHS Foundation Trust (SLaM) for affective and psychotic disorders. These data were used to investigate the association of mood instability with hospitalisation and treatment outcomes. Results: Mood instability was present in 12.1% of people included in the study. It was most frequently documented in people with bipolar disorder (22.6%), but was also common in personality disorder (17.8%) and schizophrenia (15.5%). It was associated with a greater number of days spent in hospital (B coefficient 18.5, 95% CI 12.1, 24.8), greater frequency of hospitalisation (incidence rate ratio 1.95, 1.75-2.17), and an increased likelihood of prescription of antipsychotics (2.03, 1.75-2.35). Conclusion: Using NLP, it was possible to identify mood instability in a large number of people which would otherwise not have been possible by manually reading clinical records. Mood instability occurs in a wide range of mental disorders including psychotic disorders. It is generally associated with poor clinical outcomes. These findings suggest that clinicians should screen for mood instability across all mental health disorders, including people with psychotic disorders.

Oral Session 18

Saturday, October 22, 1:00 - 2:30 pm, Parini

Discussion: From p-value to person-value

*Chair: Patrick McGorry, Orygen, Melbourne, Australia; University of Melbourne, Australia
Co-Chair: Dorien Nieman, Academic Medical Centre, Dept. of Psychiatry, Amsterdam, Netherlands*

Why have suicide rates increased in many countries with 25% or more in the past years? Can psychiatric disorders be reduced to brain disorders? Is the DSM a valid diagnostic system? How can we stop the ever increasing burden and health care costs associated with psychiatric disorders? What could be the role of prevention and early intervention in such an endeavor?

The goal of this session is to candidly discuss with the participants these and other difficult questions in mental health care as well as opportunities and possibilities for change. Most symposia, oral and poster presentations revolve around data and p-values. However, the above mentioned important questions can often not be reduced to a p-value in a scientific research design. In this discussion session we would like to make progress from p-value to person-value together with the audience: trying to find consensus about for example alternatives to the DSM and the current paradigm to improve prognosis for the individual with (emerging) psychiatric symptoms.

Oral Session 19

Saturday, October 22, 1:00 - 2:30 pm, Porta

Physical Health - Moving Forward

*Chair: Jackie Curtis, Co-Chair: Philip Ward
Speakers: Katherine Boydell, Abner Poon, Jackie Curtis, David Shiers, Mariella Sarno, Carmen Paz Castañeda, Lisa Griffiths, Philip B. Ward*

Talk 1 **Keeping the Body in Mind over Time: Mapping Experiences of Young People with Psychosis**

Katherine Boydell[1,2,3], Jackie Curtis[2,4], Adele de Jager[1], Megan Kalucy[2,4], George Khut[2], Julia Lappin[2,4], Simon Rosenbaum[1,2,5], Anna Tewson[1], Philip Ward[2], Andrew Watkins[4]; [1]Black Dog Institute, [2]University of New South Wales, [3]University of Toronto, [4]The Bondi Centre, South Eastern Sydney Local Health District

Keeping the Body in Mind (KBIM) is an intensive 12-week, strengths-based multidisciplinary lifestyle intervention commenced at the initiation of anti-psychotic treatment in young people experiencing first-episode psychosis. The KBIM lifestyle intervention program was highly acceptable to program participants and the perceived program benefits moved beyond improved physical health outcomes to a broad range of psychosocial benefits (Curtis et al., 2016). At two year post-intervention follow-up, improved physical outcomes were maintained; consequently, it is critical to explore the perspectives of participants post-intervention regarding the long-term impact of the program on their holistic health, including but not limited to issues of physical health, mental health, and psychosocial function. This presentation will outline the experiences of young people involved in the lifestyle program (KBIM) 2-years post intervention. We use in-depth qualitative interviewing and a process of engaging participants in body mapping (de Jager et al, 2016) to document a visual story of how involvement in KBIM impacts participants' bodies, mental and physical health, relationships and community. Body maps enable us to gauge the full sense of how individuals think about their own lives and identity, and give voice and visibility to participants themselves via engagement in a critical examination of the meaning of their unique experiences. This presentation will feature the results from the body mapping sessions and subsequent in-depth qualitative interviews.

Talk 2 Physical Health and Wellbeing of Caregivers of Young People with First Episode Psychosis

Abner Poon[1], Celia Loneragan[2], Ann Howard[3], Megan Kalucy[2,3], Julia Lappin[2,3], Jackie Curtis[2,3], Andrew Watkins[3], Philip Ward[2]; [1]University of New South Wales, School of Social Sciences, [2]University of New South Wales, School of Psychiatry, [3]The Bondi Centre, South Eastern Sydney Local Health District

Purpose: Carers of people with serious mental illness (SMI) may experience negative impacts on their own lives, including psychological distress, poor physical health and poor quality of life. Importantly, although carers' psychological distress and diminished quality of life remained unchanged over time, their poor baseline physical health status worsened significantly (Poon et al., 2016). Most care-giving studies have focused on carers of people with established SMI. In contrast, this study examined the physical health and wellbeing of carers of young people with first episode psychosis (FEP). Patient-related and carer factors contributing to carers' health and wellbeing were explored. Methods: We recruited 40 carers of young people with FEP from a community-based youth mental health services in Bondi, Sydney. Standardised, validated questionnaires were administered to measure wellbeing, including the Kessler-10 to assess psychological health, WHOQOL-BREF to measure quality of life, AUSDRISK calculator to assess risk of diabetes and the RAND 36-Item to measure physical health functioning. In addition, body mass index, blood pressure and waist circumference of carers were obtained. Illness-related information of the young people with FEP was obtained from their clinical records. Statistical analyses were conducted to examine carers' current physical health, and to explore relationships between physical health and wellbeing measures. Results: Preliminary findings show the importance of addressing carers' physical health concerns in youth mental health services. Conclusion: The findings will inform future development of targeted psycho-education and physical health-related interventions to improve the physical health status in both carers, and those for whom they care.

Talk 3 y-QUIT? Tobacco cessation and prevention for youth with psychosis

Jackie Curtis[1,2], Esther Pavel-Wood[2], Hannah Myles[3], Matthew Large[1,2], Myna Hua[1,2], Julie Dixon[2], Philip Ward[1], Andrew Watkins[2]; [1]School Of Psychiatry, University of New South Wales, Sydney, [2]South Eastern Sydney Local Health District, Sydney, [3]School Of Psychiatry, University of Adelaide

Smoking is a major contributor to the gap in life expectancy of 15-20 years between people experiencing severe mental illness and the general population. Up to 80% of people with psychosis are daily smokers compared to 12.8% of the general Australian population, and commence smoking younger, smoke more and are more dependent. Young people with psychosis are five times more likely to smoke (59%) than their peers. Local target group consultation indicated 65% of young consumers who smoked regularly were interested in quitting. The international HeAL (Healthy Active Lives: www.iphys.org.au) declaration aims to halve smoking rates in young consumers experiencing psychosis. The y-QUIT project is a novel early intervention smoking cessation strategy, which seeks to deliver smoking cessation to young

consumers (15-25 years) currently engaged with youth community mental health services, in an integrated care setting embedded into the successful Keeping the Body in Mind program. A smoking cessation toolkit for clinicians, carers and consumers was developed utilising input from stakeholders, a literature review, and positive outcomes from a recent feasibility trial. This project builds on a landmark 2015 UK smoking cessation intervention (Gilbody et al, 2015), including NRT, customised motivational interviewing and CBT designed specifically for people with psychosis. In that project, integrated delivery of smoking cessation interventions by mental health practitioners as part of mental health care, in collaboration with service providers, increased long-term cessation by approximately 50% compared to general population smoking cessation services. Our project will adapt that successful UK intervention to a youth context.

Talk 4 Right from the Start – a Consumer-led Resource Development from Manchester (UK) to Improve Physical Health in FEP

David Shiers[1,2], Astrid Johnson[3], Sophie Parker[1,2], Paul French[1,2]; [1]Manchester University, [2]Psychosis Research Unit of Greater Manchester West NHS Foundation Trust, [3]Astrid Johnson Graphic Design, Manchester

RIGHT FROM THE START (RFTS) is a new resource developed from collaboration between service users and Early Intervention Service practitioners to encourage greater attention to cardiometabolic health in early psychosis, building on the existing Healthy Active Lives (HeAL) and Lester resources. By empowering service users and their families to find out how health professionals can help them to live healthier lives, Greater Manchester West Mental Health NHS Foundation Trust and its Psychosis Research Unit have found an innovative way to drive up the quality of physical health care offered. The participation of service users in determining content and design of RFTS was central to a process that was conducted in three participative workshops held over a four-month period. This accorded with the commitment from the organization to deliver service improvements by listening and learning from the experiences of those using its services. This qualitative appreciation has added an often-neglected dimension in how an organization and its practitioners interpret their role in addressing the physical-health consequences of psychosis and its treatments. Failing to engage concerns about early avoidable cardiovascular risk in a way that makes sense to those who use services may thwart improvement. In this presentation we will argue that the qualitative insights gained in the RFTS initiative have helped translate evidence into a practical resource that can broker more shared understanding and decision-making between those who use and those who provide services.

Talk 5 The Healthy Active Lives goals in Italy: the role of Programma 2000 in developing and implementing improved physical health outcomes for young people with FEP and UHR.

Mariella Sarno[1], Max Benatti[1], Maddalena Fontanella[1], Maria Meliante[1], Emiliano Monzani[1], Marta Scilipoti[1], Anna Meneghelli[1]; [1]Programma 2000 – MHD Niguarda, Milano

Background: In the last two years Programma 2000 has continued to focus on physical health in FEP and UHR youth, in collaboration with "Changing the route" (Cambiare la rotta) Association, following the principles of the HeAL Declaration, following translation into Italian by our group (2013). We have targeted lifestyle modification of young patients, borrowing strategies from health psychology and physical science. Method: Since 2014 three groups were implemented including: a motivation and self-efficacy group, a "healthy food" group, and a physical exercise and sport group. Measures included: BMI, waist circumference, personal satisfaction in physical functioning (related item of Satisfaction Profile). In the last year individual sessions for families on physical well-being and healthy habits were implemented (two sessions, with six monthly monitoring). Moreover a qualitative interview to increase knowledge of obstacles and facilitators to the attendance at the groups and the motivation to change has being administered to all participants in Programma 2000. Results: The one-year follow up will compare the results of the "intervention" group with the "waiting list" group. Conclusion: The Programma 2000 and Cambiare la rotta involvement in the HeAL objectives is not limited to the service alone. Dissemination has been conducted, endorsement promoted (AIPP, WAPR-Italia), collaborations with research centers, consumers associations and social agencies have been set up. Increased attention to, and implementation of, interventions aimed at improving physical health outcomes in young consumers in the initial phase of illness in a preventive perspective is now a reality in Italy.

Talk 6 The impact of Physical Health in Young People with Psychosis: a Chilean Sample

Carmen Paz Castañeda[1], Alfonso González-Valderrama[1,2], Felipe Mancilla[1,2], Rubén Nachar[1,2]; [1]Early Intervention Program, J.Horwitz Psychiatric Institute, Santiago, Chile, [2]Finis Terrae University, Santiago, Chile

Physical health in young people experiencing a first episode of psychosis (FEP) has been a matter of concern in recent years. It is known that side effects of antipsychotic treatment put clients in a riskier health situation compared to aged matched peers in the general population. Our early intervention program (EIP) treats young people (15-24 years) that have either experienced FEP or have been diagnosed with a non-affective psychosis syndrome. We conducted an observational, comparative, cross-sectional and retrospective study including measurement of blood pressure, metabolic and anthropometric parameters in a cohort of 84 clients (mean age 21.4, 56 males, 28 females) and compared their results to data from young people gathered by the National Health Survey (González et al, 2013). Results were similar to those of other EIP services: cardiometabolic risk presents itself early in this population (Curtis et al, 2012). Currently we are conducting a randomised-controlled trial (n=90) that examines the impact of exercise on the physical and mental health of those diagnosed with schizophrenia within the previous five years. We will compare metabolic, anthropometric and inflammatory parameters, BDNF and cognition outcomes in those in the exercise program to those who received treatment as usual. We hypothesize, that less severe psychotic symptoms and improved functional and physical health outcomes will be found in those completing physical exercise 3 times a week for 12 weeks, promoting healthy lifestyles in alignment with our mission as an EIP service and consistent with the goals outlined in the Healthy Active Lives (HeAL) declaration.

Talk 7 Exercise and Lifestyle Therapy Improves Weight Maintenance in Young People with Psychosis: A Service Evaluation

Lisa Griffiths[1], Jo Smith[1], Marie Band[1], Rachel Hird-Smith[1], Briony Williams[1], Justine Bold[1], Eleanor Bradley[1], Veronica Wilkie[1], Dominic Horne[1]; [1]University of Worcester, UK

Background: Young people with psychosis typically have higher rates of premature cardiovascular disease and metabolic disorders compared to non-psychotic peers due to unhealthy lifestyle habits and higher rates of obesity. This study presents outcomes from a 12 wk exercise and lifestyle intervention entitled Supporting Health and Promoting Exercise (SHAPE) Programme for young people with psychosis. Methods: Participants (n=26) engaged in weekly 45' healthy lifestyle education sessions (e.g. substance/smoking cessation, nutritional advice) followed by 45' exercise session (e.g. group aerobic and resistance training, yoga). Anthropometric data were measured at baseline, 12 weeks and 12 months post-intervention. Lifestyle behaviours and clinical measurements (resting heart rate, blood pressure, blood lipids, HbA1c and prolactin) were assessed at baseline and 12 mos. Results: Mean baseline data suggests participants were at an increased health risk with elevated values in mean BMI (70% overweight/obese), waist circumference, resting heart rate, and triglycerides. Over 50% reported smoking daily and 52% of participants were prescribed highly obesogenic antipsychotic medications (Clozapine, Olanzepine). At 12 weeks and 12 months, no changes were observed in mean BMI, waist circumference or any other clinical variable (p > 0.05). Positive impacts on lifestyle behaviours included 7 participants eating ~400g of fruit/vegetables daily, 2 ceased substance use, 2 ceased alcohol use, 4 ceased smoking and 5 were less sedentary. Conclusions: SHAPE supported participants to attenuate their physical health risk following a 12-week intervention which was sustained at 12 months follow up. Participants also made positive lifestyle behaviour changes contributing to weight maintenance and physical health.

Talk 8 Replicating positive physical health outcomes for youth with psychosis: Extending the Bondi 'Keeping the Body in Mind' program to new FEP settings

Philip B. Ward[1], Andrew Watkins[2,3], Scott Teasdale[1,2], Oscar Lederman[1,2], Megan Kalucy[1,2], Julia Lappin[1,2], Katherine Samaras[1,4], Simon Rosenbaum[1], Annette White[2], Gabrielle Smith[2], Jackie Curtis[1,2]; [1]UNSW Australia, Sydney, Australia, [2]South Eastern Sydney Local Health District, Sydney, Australia, [3]Faculty of Health, University of Technology, Sydney, [4]Garvan Institute of Medical Research, Darlinghurst, Australia

Background: We recently published an initial evaluation of the Bondi "Keeping the Body in Mind" (KBIM) program, a multidisciplinary, 12-week intervention aimed at attenuating weight gain and improving metabolic outcomes in young people (15-25 years) recently commenced on anti-psychotic medication (Curtis et al, Early Intervention in Psychiatry, 2016). The KBIM intervention resulted in markedly lower rates of weight gain, and no change in waist circumference compared to best-practice FEP. Eighty-seven percent (87%: 14/16) of the intervention group did not experience clinically significant weight gain, whilst 75% (9/12) of the comparison gained more than 7% of baseline weight. Methods: We now report data from a second cohort of young people with FEP, who have participated in the KBIM

program at one of three public community mental health services in a large catchment area in south-eastern Sydney. Results: Physical health outcome data were obtained for 17 young people (mean age 22.6 years, 12 males, 5 females), all of who were prescribed antipsychotics and/or mood stabilisers. Mean weight gain post-intervention was 1.2kgs. Mean waist circumference change post-intervention was 0.01cms. These results are very similar to those obtained in the original cohort (1.8kgs and 0.1cms respectively). Conclusions: Individualized, multidisciplinary early lifestyle interventions can attenuate weight gain and prevent waist circumference increases in young people with FEP recruited from a range of clinical settings. The KBIM program constitutes an evidence-based means of achieving the key Healthy Active Lives (HeAL) targets (www.iphys.org.au), and reducing the life-expectancy gap currently experienced by those living with psychosis.

Oral Session 20

Saturday, October 22, 1:00 - 2:30 pm, Monti

Follow-up studies of first episode psychosis

Chair: Paddy Power, Co-Chair: Sue Cotton
Speakers: Paddy Power, Sue Cotton, Donal O'Keeffe, Andrew Thompson, Matthew Taylor, Donal O'Keeffe, Laoise Renwick, Erlend Strand Gardsjord

Talk 1 Neighbourhood social deprivation predicts relapse and outcome in first episode psychosis

Paddy Power[1,2], Ricardo Coentre[3], Pablo Blanco Polaina[4], Silvina Fontes[5], Helen L. Fisher[6], Nicky Reynolds[6], Lucia Valmaggia[6], Eduardo Iacoponi[6], Philippa Garety[6], Thomas Craig[6], Philip McGuire[6]; [1]St Patrick's University Hospital, Dublin, [2]Trinity College Dublin, [3]University of Lisbon, Portugal, [4]University of Seville, Spain, [5]University of Porto, Portugal, [6]Institute of Psychiatry, Psychology and Neuroscience,Kings College London

Purpose: There is well established evidence that the incidence of psychosis is considerably higher in inner city areas especially in neighbourhoods with greater levels of social deprivation. The exact underlying factors remain unclear but if social deprivation increases a local population's risk of psychosis then one would expect that these same factors might also increase the risk of relapse and worsen outcome. Method. The LEOCAT study followed up a sample of all first episode psychosis patients (n=150) who presented to mental health services in Lambeth, south London, during a 2 year period. Demographic details (including local electoral districts) and clinical measures were recorded at baseline. Demographic details, clinical interventions and clinical outcome were rated at 18 months follow-up. Local neighbourhood social deprivation scores were rated using the Mini2000. Results: 70.3% of the sample achieved full remission and 25.6% partial remission with treatment but 32.6% relapsed within the first 18 months. A further 3% were treatment resistant. Patients living in areas of higher social deprivation were significantly more likely to have poorer outcomes at 18 months follow-up (p=0.01). This remained true after correcting for age, sex, nationality, crime, education and level of recovery. The mean mini2000 measure of social deprivation was 1.47 for those who relapsed vs. 1.39 for those who didn't. This association appeared to be driven primarily by those electoral districts with the highest levels of social deprivation. Conclusions: Local neighbourhood levels of social deprivation not only predict incidence but also relapse and outcome in first episode psychosis.

Talk 2 The First Episode Psychosis Outcome Study: preliminary data on the long-term follow-up of first episode psychosis patients who were treated at the Early Psychosis Prevention and Intervention Centre between 1998-2000

Sue Cotton[1,2], Andrew Mackinnon[1,2], John Gleeson[3], Leanne Hides[4], Debra Foley[1,2], Helen Herrman[1,2], Kate Filia[1,2], Michael Berk[1,2,5,6,7], Philippe Conus[8], Martin Lambert[9], Benno Schimmelmann[10], Patrick McGorry[1,2]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, Australia, [2]Centre of Youth Mental Health, The University of Melbourne, Australia, [3]Australian Catholic University, Australia, [4]Institute of Biomedical Innovation, School of Psychology and Counselling, Queensland University of Technology, Australia, [5]The Florey Institute of Neuroscience and Mental Health, Australia, [6]School of Medicine, Deakin University, Australia, [7]Department of Psychiatry, University of Melbourne, Australia, [8]Département de Psychiatrie CHUV Université de Lausanne, Prilly, Switzerland, [9]Centre of Psycholosocial Medicine, University Medical Centre, Hamburg-Eppendorf, Germany, [10]University Hospital of Child and Adolescent Psychiatry, University of Bern, Switzerland

Specialist early intervention (SEI) service models are designed to treat symptoms, promote social and vocational recovery, prevent relapse, and resource and up skill patients and their families. While the immediate benefits of SEI are clear, and have been demonstrated, the long-term impact of SEI on illness course is less clear. The First Episode Outcome Study involves the long-term follow-up of a representative sample of first episode psychosis patients who were treated at the Early Psychosis Prevention and Intervention Centre (EPPIC) between 1998 and 2000. The aim of this presentation is threefold: (i) to describe the methodology of FEPOS long-term follow-up; (ii) to present preliminary mortality data; and (iii) examine the preliminary characteristics of those who have been contacted and interviewed. Between January 1998 and December 2000, 661 patients between the ages of 15-29 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 long-term outcomes of this cohort are now being examined in a new study (known as FEPOS15). Characteristics of 46 individuals who are deceased will described. The clinical, functional, physical health and quality of life characteristics of the first 100 individuals who have been contacted will also be discussed. This follow-up study is one of the longest, largest and most comprehensive studies of the multidimensional outcomes of a SEI service for psychosis.

Talk 3 The meaning of and influences on recovery in psychosis: A systematic review and meta-synthesis of service user perspectives

Donal O'Keeffe[1,2], Brian Keogh[1], Angela Kearney[3], Carla Senf[3], Mary Clarke[2,4], Agnes Higgins[1]; [1]School of Nursing and Midwifery, Trinity College Dublin, Dublin 2, Ireland, [2]Dublin and East Treatment and Early Care Team (DETECT) Services, Blackrock, Co. Dublin, Ireland, [3]Saint John of God Library and Information Services, Saint John of God Hospital, Stillorgan, Co. Dublin, Ireland, [4]School of Medicine and Medical Science, University College Dublin, Belfield, Dublin 4, Ireland

Purpose: The literature has demonstrated the complexity of the concept of recovery in the context of 'psychotic illness'. Much can be learned from qualitative explorations of recovery from the viewpoint of the service user. Materials and Methods: A systematic review and meta-synthesis were undertaken to synthesise the findings of qualitative studies exploring the meaning of recovery and factors that influence recovery from the perspective of adults aged 18+ diagnosed with 'psychotic illness'. A pre-planned comprehensive search strategy to identify all available studies that answered these two research questions was adopted. A quality assessment and a meta-synthesis of included articles guided by the method of analysis detailed by Walsh and Downe (2005) was completed. Results: 12 articles which met criteria for this review were included in the meta-synthesis. A number of overarching themes emerged across both research questions. Findings indicate that recovery as defined by the service user with experience of psychosis is a nuanced, multifaceted concept. Conclusion: The themes identified provide an understanding of recovery as perceived by people with psychosis which may guide service provision, provide new ideas for future research, and enable the development of innovative strategies and interventions to support recovery. This understanding can be utilised to direct mental health service policy and developments towards a recovery orientated approach. Findings further clarify the concept of recovery as it applies to 'psychotic illness'.

Talk 4 Short-term outcome of first episode diagnosis of substance induced psychotic disorder in a large UK cohort

Andrew Thompson[1,2], Steven Marwaha[1,3], Catherine Winsper[1], Linda Everard[4], Peter Jones[5], David Fowler[6], Tim Amos[7], Nick Fremantle[8], Swaran Singh[1], Max Marshall[9], Vimal Sharma[10], Max Birchwood[1]; [1]Division of Mental Health and Wellbeing, University of Warwick, UK

Background The outcome of first episode Substance Induced Psychotic Disorder (SIPD) is unclear. We aimed to compare the 1-year outcomes of those given a SIPD diagnosis by clinicians compared to other psychosis diagnoses in a first episode cohort. Method Data was from a large (n=1027) cohort of First Episode Psychosis (FEP) patients admitted to early intervention services in the UK (National Eden). Diagnosis, including that of SIPD, was made by treating psychiatrists at baseline using ICD10 criteria. Details on symptoms, functioning, quality of life, relapse and recovery were available at baseline and 12 months. Results There were 67 cases of SIPD (6.5% of the cohort). At baseline SIPD patients were no different to other psychoses on symptoms, functioning and quality of life. At 12 months there was no difference in SIPD and other psychoses on functioning, quality of life or relapse and recovery rates. Levels of psychotic and general symptomatology were similar but depressive symptoms were higher in the SIPD group. Conclusions FEP patients with

a diagnosis of SIPD do not appear to have better outcomes that those with other primary psychotic diagnoses in the short term. The higher levels of depressive symptoms may be a specific marker in these patients.

Talk 5 **Who needs AESOP? Predicting long term readmission rates from routine EI team discharge information**

Matthew Taylor[1], Rocio Perez-Iglesias[1]; [1]King's College London

Purpose: It is well recognised that prognosis following early psychosis is highly variable. Understanding local patterns of relapse and readmission allows for informed clinical discussions, and can guide rational service design. Some centres have access to local prognostic information through involvement in substantial long-term research studies such as AESOP, but this is rare. We sought to understand how well routine team discharge information might allow prediction of long-term readmission prognosis. Methods: We reviewed the records of 253 people at the point of discharge from local Early Intervention services and counted the number of times they had experienced a serious relapse. The distribution of numbers of relapses was modelled and extrapolated forward to a predicted 10 year outcome using R. Model predictions were compared with published data from the AESOP study. Results: Numbers of relapses varied substantially, with 57% having no relapses before discharge, and 7% having four or more. A simple mathematical model based on these discharge rates predicted after ten years 26% would have had no relapses, and 5% ten or more relapses. These predictions match well the observed 10 year follow-up data (25%; 6%). Conclusion: A simple model can describe the distribution of numbers of relapses among people discharged from EI services, and predict longer-term outcomes matching those observed in formal research. This low cost approach could allow EI services to develop locale-specific information on readmission risk for their population.

Talk 6 **Looking back, moving forward (20 years after first episode psychosis diagnosis): A qualitative analysis of service user experiences of mental health service use and their recommendations for service change**

Donal O'Keeffe[1,2], Ann Sheridan[3], Aine Kelly[4], Roisin Doyle[1], Kevin Madigan[5], Elizabeth Lawlor[1], Mary Clarke[1,6]; [1]Dublin and East Treatment and Early Care Team (DETECT) Services, Blackrock, Co. Dublin, Ireland, [2]School of Nursing and Midwifery, Trinity College Dublin, Dublin 2, Ireland, [3]School of Nursing Midwifery and Health Systems, University College Dublin, Belfield, Dublin 4, Ireland, [4]Research Department, Saint John of God Hospitaller Ministries, Stillorgan, Co. Dublin, Ireland, [5]Saint John of God Community Mental Health Services Limited, Co. Dublin, Ireland, [6]School of Medicine and Medical Science, University College Dublin, Belfield, Dublin 4, Ireland

Purpose: Internationally, the delivery of mental health services has changed dramatically over the last 20 years. In Ireland, this transformation has been guided by the national policy document A Vision for Change (2006). This policy shift is underpinned by a recovery orientated approach which emphasises: service user and family/carer/supporter involvement; recovery optimism; access and engagement; continuity of care; social inclusion; and mental health promotion. In Ireland, little is known about service user experiences of mental health services before and after this policy change. An understanding of mental health service use experiences may assist efforts to improve help seeking, engagement, satisfaction with services, and recovery outcomes. Materials and Methods: Participants were purposefully sampled from the Dublin First Episode Psychosis Cohort which comprises 171 individuals who were diagnosed with a First Episode Psychosis between 1995 and 1999. Semi-structured 45-90 min interviews were conducted using an interview guide. Interviews focused on two research questions: (A) experience of mental health service use over 20 years and (B) recommendations for service change. Interviews were audio taped and transcribed. Data was analysed using Thematic Network Analysis. Basic, organising, and global themes were identified. Results: Themes identified detail a wide range of service use experiences. Findings can inform the education of mental health professionals, clinical practice, and the improvement of recovery orientated mental health services. Conclusion: Results may facilitate the development of new treatment strategies to promote recovery and enhance and optimise mental health service provision for those who experience psychosis.

Talk 7 **Predictors of social networks, support and satisfaction following a first episode psychosis**

Laoise Renwick[1,2], John Lyne[2,3,4], Brian O'Donoghue[2,5], Eric Roche[2,6], Caragh Behan[2,6], Jonathan Drennan[7], Ann Sheridan[8], Mark Pilling[1], Eadbhard O'Callaghan[2,6], Mary Clarke[2,6]; [1]School of Nursing, Midwifery and Social Work, University of Manchester, Manchester, UK, [2]Detect and East Treatment and Early Care Team, Blackrock, Ireland, [3]Royal College of Surgeons, Dublin, Ireland, [4]North Dublin Mental Health Service, Dublin, Ireland, [5]Orygen Youth Health Research Centre, University of Melbourne, Australia, [6]School of Medicine and

Medical Science, University College Dublin, Dublin, Ireland, [7]School of Leadership, University of Southampton, Southampton, UK, [8]School of Nursing, Midwifery and Health Systems, University College Dublin, Dublin, Ireland

There is compelling evidence that social network shrinkage pre-dates the onset of psychosis. Social networks that are maintained are smaller, comprise fewer confidants and non-kin contacts with whom less contact is made. Few studies have measured the social networks development after first treatment. We examined change in composition, function and satisfaction with social networks during early psychosis. Participants were assessed at presentation and one year with a comprehensive battery of assessments comprising socio-demographic, diagnostic (SCID-DSM-IV) and clinical (SANS, SAPS) instruments. Social networks and support were measured using the WQLI Provider and Client Versions and self-reported count of social contacts. We used mixed effects modelling and linear regression to assess the effect of DUP and other covariates on social relations over time and at one year. Of the 222 participants, 97 (61% of 158 eligible participants) were seen for face-to-face interviews at follow-up. There was no statistically significant difference between the distribution of social network size over time (McNemar-Bowker x^26= 3.81, p = .702). There was a significant effect of time on social support, social relations were significantly improved at 12 months (p = .005) and social network and support was predicted by DUP (β = -0.94, p = 0.009), remission status (β = 1.21, p = 0.003) and premorbid adjustment (β = -2.62, p = 0.035). As this study has demonstrated a link between DUP and social network size and support, we conclude that the socially disruptive influence of the DUP is evident even after treatment for the first episode.

Talk 8 **Remission of psychotic symptoms influence which factors being associated with S-QoL**

Erlend Strand Gardsjord[1,2], Kristin Lie Romm[2], Jan Olav Johannesen[3,4], Wenche ten Velden Hegelstad[3], Inge Joa[3,4], Ingrid Melle[1,2], Jan Ivar Røssberg[1,2]; [1]Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, Norway, [2]Division of Mental health and Addiction, Oslo University Hospital, Norway, [3]Psychiatric Division, Network of Clinical Psychosis Research, Stavanger University Hospital, Norway, [4]Faculty of Social Sciences, University of Stavanger, Norway

Background: Subjective quality of life (S-QoL) is an important outcome measure in first episode psychosis (FEP). The main aim of this study was to investigate if status of remission 10-year after a FEP was related to S-QoL-level. Furthermore, we wanted to investigate if different factors are important for S-QoL-level depending on remission status at 10-year follow-up. Methods: A representative sample of 272 patients with a FEP was included from 1997 through 2000. At 10 year follow-up 186 patients participated. QoL was measured by the Lehman's Quality of Life Interview. Remission was defined as having no current positive psychotic symptoms. T-tests, bivariate correlations and multiple regression analysis were performed. Preliminary results: S-QoL was significantly higher among patients in remission compared to non-remission. In the non-remission group more daily activities were associated with higher S-QoL at 10-year follow-up. No PANSS symptom components were significantly associated with S-QoL in this group after controlling for other variables. In the remitted group lower depressive symptoms and better financial situation were associated with higher S-QoL at 10-year follow-up. Conclusions: Among patients in non-remission from positive psychotic symptoms S-QoL-level is not explained by other symptoms but rather by differences in level of daily activities. In remitted patients depressive symptoms and financial situation are most important for S-QoL. The findings have important implications for clinical practice.

Oral Session 21

Saturday, October 22, 2:45 - 4:15 pm, Porta

New treatments and mobile technology

Chair: Gillan Haddock, Co-Chair: Mario Alvarez-Jiminez
Speakers: Ahmed Jerome Romain, Nicholas Meyer, Gillian Haddock, Mario Alvarez-Jimenez, Sarah Bendall, Rachel Loewy, Nev Jones, Zsuzsa Litvan

Talk 1 **Effects of physical activity among overweight individuals with psychosis - preliminary results**

Ahmed Jerome Romain[1], Cedine Fankam[1], Antony D Karelis[2], Gladys Mikolajacks[1], Elaine Letendre[3], Emmanuel Stip[1,3,4], Amal Abdel-Baki[1,3,4]; [1]University of Montreal Hospital Research Centre (CRCHUM), [2]University of Quebec at Montreal, [3]University Hospital of

Montreal (CHUM), [4]University of Montreal

Purpose. To measure the feasibility and effects of a 6-month interval training (IT) program on metabolic, anthropometric, psychiatric/functional outcomes. Methods: Randomized controlled trial comparing the effects of a bi-weekly 30 minutes supervised IT to a waiting list in overweight individuals with psychosis. Outcome measures were collected at baseline and every 3 months. Results. On the targeted sample of 66 individuals, 48 participants with psychosis (27 men, mean age: 31.42±7.41; mean BMI: 32.32±5.68 kg/m²) of which 24 were first-episode psychosis (FEP), already completed the study. 22% dropped-out the study and about 70% of the active group were adherent to the IT program. Effects of IT were significant on waist circumference (-3.08 cm, SE = 1.46; p = 0.04), diastolic blood pressure (-5.91 mmHg, SE = 2.87; p = 0.04), HDL cholesterol (0.14 g/l, SE = 0.06; p = 0.03), and social functioning (SOFAS) (5.84, SE = 2.33; p = 0.01), with a trend on apoliprotein B (0.11 mg/dl, SE = 0.06; p = 0.07). Effects of exercise in the FEP sub-group were similar to those of the entire cohort. Conclusion. These preliminary analyses show promising results suggesting that IT can be used successfully in the management of metabolic complications and possibly improve social functioning in FEP. Further studies are needed to understand if IT could prevent weight gain and metabolic complications if used before these comorbidities emerge in FEP treatment and to understand factors associated with the persistence of exercising.

Talk 2 **Detecting early signs of relapse in psychosis using remote monitoring technology: acceptability and feasibility of a passive sensing approach.**

Nicholas Meyer[1], Maximilian Kerz[2], Amos Folarin[2], Richard Jackson[2], Philip McGuire[1], Richard Dobson[2], James MacCabe[1]; [1]Institute of Psychiatry, Psychology and Neuroscience, King's College London, UK, [2]NIHR Maudsley Biomedical Research Centre (BRC) Bioinformatics Core, King's College London, UK

Novel approaches to the early detection and prevention of relapse in psychosis are urgently needed. Wearable and mobile devices incorporating accelerometers and heart-rate sensors are increasingly ubiquitous and affordable. These allow the objective and longitudinal sampling of variables that are known to be disrupted during relapse, including sleep and circadian rhythm, autonomic function and motor activity, with minimal user input. We undertook a pilot study which 1) developed the technology, consisting of smartphone, wearable device and data-handling infrastructure, for monitoring these variables and transmitting them to the research team in real-time; 2) tested its feasibility and acceptability in 15 individuals with schizophrenia, each using the system for eight weeks; and 3) generated preliminary data for investigating the association between objective variables and self-reported fluctuations in mental state. We demonstrated high rates of compliance with the technology in individuals with a range of symptom severity at baseline (mean PANSS score (SD) = 59.2 (14.6)), with a mean wear-time of 88% of the total study duration, and 100% of participants meeting acceptability criteria of >70% wear-time. We report findings from the usability and acceptability questionnaire which highlight facilitators and barriers to long-term use, and discuss the promise and challenges of remote monitoring for the early detection of relapse in the context of early psychosis.

Talk 3 **Active Assistance for Psychological Therapy (ACTISSIST): A cognitive behavioural therapy informed smartphone intervention for early psychosis**

Gillian Haddock[1], Sandra Bucci[1], Christine Barrowclough[1], John Ainsworth[1], Rohan Morris[1], Katherine Berry[1], Matthew Machin[1], Richard Emsley[1], Shon Lewis[1], Dawn Edge[1], Ian Buchan[1]; [1]University of Manchester

Aim: Psychological interventions are recommended for treatment of psychosis; however, only a small proportion of service users have access to these interventions. Given advancements in mobile phone technology, it is possible to provide ecologically-valid interventions via smartphones. There is emerging evidence that smartphone technology using software applications (apps) could increase access to psychological approaches for psychosis. This paper reports on a clinical trial of a cognitive behaviour therapy-informed smartphone intervention for early psychosis and will report preliminary findings regarding feasibility and acceptability. Method: We conducted a single-blind randomised controlled trial comparing a CBT-informed software application (Actissist) plus Treatment As Usual (TAU) with a symptom monitoring software application (ClinTouch) plus TAU in early psychosis over a 12-week intervention period. We randomly assigned 36 participants from early intervention services (EIS) across the North West of England, UK in a 2:1 ratio to each arm of the trial. Our primary objective was to determine whether the Actissist app was feasible to deliver and acceptable to use. Secondary aims were to determine whether Actissist impacted on predictors of relapse and enhanced empowerment, functioning and quality of life. Assessments were

conducted at baseline, 12 weeks (post-treatment) and 22-weeks (10 weeks post-treatment) by assessors blind to treatment condition. Results: Preliminary findings regards feasibility and acceptability of the intervention will be reported. Conclusion: Mobile applications designed to deliver a psychologically-informed intervention offer new possibilities to extend the reach of traditional mental health service delivery across a range of serious mental health problems.

Talk 4 The Momentum Project: A Novel Online Social Media, Strengths-based intervention to Improve Functional Recovery in Ultra High Risk (UHR) Patients

Mario Alvarez-Jimenez[1,2], John Gleeson[3], Simon D'Alfonso[4], Dina Eleftheriadis[1,2,3], Lisa Rumney[5], Patrick McGorry[1,2], Barnaby Nelson[1,2]; [1]Orygen, The National Centre of Excellence in Youth Mental Health, [2]Centre for Youth Mental Health, The University of Melbourne, [3]Australian Catholic University, School of Psychology, Melbourne, Australia, [4]The Department of Computing and Information Systems, The University of Melbourne, [5]Orygen Youth Health

Aims: Psychological and pharmacological treatments have been demonstrated to reduce rates of transition to psychosis in Ultra High Risk (UHR) patients. However, recent research shows that UHR patients may have a poor functional outcome regardless of transition to psychosis. This has resulted in calls for new treatments aimed at improving functioning (in addition to preventing transition to psychosis) in the UHR group. The aim of this study was to determine the safety, acceptability and feasibility of an advanced online social media based intervention specifically designed to enhance social functioning in UHR patients. Methods: Our multi-disciplinary team of 35 professionals has developed a novel online social media intervention (Momentum) in close collaboration with end-users. Momentum integrates: i) peer-to-peer social networking, ii) individually tailored therapeutic interventions (including mindfulness, loving-kindness meditation and self-compassion), iii) expert and peer-moderation, and iv) a strength-based framework. The acceptability, safety and feasibility of Momentum were tested through a 2-month pilot study with 18 UHR participants. Results: Participants reported Momentum to be engaging, easy to use and relevant to their needs. There were no incidents during the pilot study and participants reported feeling safe, empowered and more socially connected using Momentum. Conclusions: Momentum is engaging, safe and may improve social outcomes in UHR patients. During the presentation we will showcase Momentum including interactions between users and provide data on the relationship between usage and clinical outcomes.

Talk 5 TRauma-informed Psychotherapy for Psychosis: Results of a Pilot Trial for the Symptoms of Trauma in First Episode Psychosis

Sarah Bendall[1], Mario Alvarez-Jimenez[1], Sylvia Collinetti[2], Shona Francey[2], Richard Bell[2], Patrick McGorry[1], Eoin Killackey[1], Henry Jackson[3]; [1]Orygen: The National Centre of Excellence in Youth Mental Health, [2]Orygen Youth Health, [3]School of Psychological Sciences, University of Melbourne

Interventions for the symptoms of trauma are urgently needed to aid treatment of first episode psychosis (FEP). Recent data shows that traumatic experiences and resultant post-traumatic stress disorder (PTSD) are common in FEP. Thus far, trials of the treatment of trauma symptoms have been conducted in chronic psychosis groups and have been focused on PTSD symptoms. However, other potential sequelae of trauma, such as dissociation, have been found to be prevalent in those with trauma and psychosis, and have been implicated in the development of hallucinations and delusions. Our research also shows that clinicians are concerned that any intervention for trauma symptoms in FEP must not cause psychotic symptom exacerbation. Based on this, we have developed and piloted a manualised TRauma-Informed Psychotherapy for Psychosis (TRIPP). Method: Twenty participants with trauma and PTSD symptoms were recruited from the Early Psychosis Prevention and Intervention Centre in Melbourne, Australia. Participants received TRIPP within standard case management. PTSD; psychotic symptoms, and dissociation were assessed at baseline and treatment completion. Participants also completed satisfaction questionnaires and a sub-set completed in-depth qualitative interviews regarding their experiences of TRIPP. Results: The study has completed recruitment with four participants currently receiving treatment. Preliminary results suggest that TRIPP is safe, feasible and acceptable. Results of the feasibility, acceptability, safety and treatment benefits of the trial will be reported. Conclusion: TRIPP should continue to full trialing, as evidence-based trauma interventions are urgently needed in FEP.

Talk 6 Improved Cognition and Positive Symptoms with Targeted Auditory Processing Training in Recent-Onset Schizophrenia

Rachel Loewy[1], Melissa Fisher[2], Danielle Schlosser[1], Cameron Carter[3], Tara Niendam[3], J. Daniel Ragland[3], Bruno Biaganti[1], Felix Amirfathi[1], Sophia Vinogradov[2]; [1]University of California, San Francisco, [2]San Francisco Veterans Affairs Medical Center, [3]University of California, Davis

Background: Cognitive deficits in first-episode schizophrenia predict functional outcomes and should be aggressively targeted for early intervention. Methods: This two-site double-blind randomized controlled trial investigated targeted cognitive training of auditory/verbal processing in young individuals with recent-onset schizophrenia. Participants performed 40 hours of auditory training (AT) or commercial computer games (CG) via laptop computer. They were assessed on symptoms, functioning and an abbreviated MATRICS-recommended neurocognitive battery at baseline, post-training and 6-month follow-up. A measure of auditory processing speed (APS) was embedded in the auditory training. Results: 104 participants completed baseline and post-training assessments and 87 completed 6-month follow-up. In an Intent To Treat analysis, AT participants (N=56) showed significantly more improvement from baseline to post-training compared to CG participants (N=48) in global cognition (p=.002), speed of processing (p=.03), and verbal memory (p=.01), with significantly more improvement in speed of processing (p=.02) and a significant trend (p=.08) in global cognition from baseline to follow-up. There was a significant Group X Time interaction from baseline to follow-up for PANSS Positive symptoms (p=.02), with AT participants improving more than CG individuals. APS improvements were significantly associated with Global Role Functioning gains from post-training to follow-up (r=-.58, p=.001), and baseline to follow-up (r=-.39, p=.04). Conclusions: Neuroscience-informed cognitive training represents a promising treatment approach for cognitive dysfunction in young adults with recent-onset schizophrenia that merits future investigation to improve training adherence, personalization, and combination with psychosocial interventions to more strongly impact real-world functioning.

Talk 7 Behind the Numbers: A Mixed Methods Investigation of EIP Clients' Vocational Trajectories and their Perceived Relationship to Longer-Term Career Development

Nev Jones[1], Amanda Downing[1], Julia Godzikovskaya[1], Zhen Zhao[1], Adriana Furuzawa[1], Dina Tyler[1], Rachel Loewy[2]; [1]Felton Institute, [2]University of California at San Francisco

Objective: A central goal of early intervention in psychosis services (EIP) is the improvement of clients' vocational functioning. Much existing EIP research, however, has utilized metrics that prioritize quantity over quality and/or fail to assess vocational experiences in terms of their impact on longer-term career development. Our objective was to utilize a mixed methods approach, centering clients' perspectives, to deepen our understanding of these issues. Methods: We analyzed quantitative vocational outcomes data for 459 clients treated at five community-based EIP programs, all with supported education/employment components, at baseline, 6, 12, 18 and 24 months and qualitative data from 15 individual client interviews and 4 client focus groups (total qualitative N = 54). Transcripts were systematically coded for themes related to vocational functioning, trajectories of change and perceived contribution to career development. Results: At each time-point, approximately 40% of clients reported no vocational activity, 45% reported part- or full-time school, and 15%, part- or full-time work. Correlations between vocational activity and clinician-rated global role functioning were moderate but significant at all time-points. Analysis of client transcripts complicates interpretation of this data, revealing disconnects between both quantitative and qualitative data and current vocational activity and its perceived impact on longer-term career development. Clients frequently reported lowered self- and family expectations, and significant gaps between pre-morbid and post-onset career goals. Conclusions: Our analyses underscore the importance of refining common vocational metrics and developing interventions that explicitly address lowered self-expectations and center activities likely to contribute to longer-term career development and success.

Talk 8 The importance of metacognitive functioning in individuals at ultra-high risk for psychosis – a systematic review

Zsuzsa Litvan[1], Barbara Hinterbuchinger[1], Alexander Kaltenboeck[2], Fabian Friedrich[1], Nilufar Mossaheb[1]; [1]Medical University of Vienna, [2]The University of Edinburgh

Purpose: Alterations in metacognition might contribute to the development or maintenance of several psychotic symptoms, as well as to the course and outcome of psychosis. A systematic review of the literature was conducted to assess the current state of knowledge on metacognitive functioning in individuals at ultra-high risk for psychosis (UHR). Materials and Methods: A search was conducted using MEDLINE, PsycINFO, EBM Reviews, PSYNDEX, Scopus and CINAHL databases through the Ovid interface, complemented by an examination of the studies' reference lists. Search terms applied were "metacognit*" in combination with "at-risk mental state", "ultra high risk", "ultrahigh risk", "clinical high risk", "prodrom*",

"psychosis", "psychotic" and "schizophren*". Only studies published in peer-reviewed journals and published abstracts using established criteria for high risk status were included. Results: The search provided 3929 studies. Only 12 studies matched our inclusion criteria. The identified studies investigated maladaptive metacognitive beliefs or deficits in metamemory in UHR individuals. Dysfunctional metacognitive beliefs were assessed mostly using the Metacognitions Questionnaire (MCQ). Most studies revealed that UHR individuals show more maladaptive beliefs than healthy controls, but less than those with manifest psychosis. Only a few studies considered the relevance of co-occurring symptoms of anxiety and depression. Conclusion: This is the first systematic review on metacognitive impairments in UHR individuals. The available data, though sparse, suggest that metacognitive impairments are indeed present in this population. Furthermore, similarly to other cognitive domains, such as neurocognition and social cognition, alterations in UHR individuals are situated between those of patients with psychosis and healthy controls.

Oral Session 22

Saturday, October 22, 2:45 - 4:15 pm, Monti

New findings in ultra high risk studies

Chair: Frauke Schultze-Lutter, Co-Chair: Giampaolo Perna
Speakers: Frauke Schultze-Lutter, Nikolai Albert, Inez Myin-Germeys, Gemma Modinos, Esther Opmeer, Matilda Azis, Liz Rietschel, Rahel Flückiger

Talk 1 The European Psychiatric Association's (EPA) guidance on the early detection of clinical high risk states of psychoses.

Frauke Schultze-Lutter[1], on behalf of the EPA CHR writing group[1,2]; [1]University of Bern, [2]diverse affiliations

The EPA Guidance project aims to improve the quality of mental health care in areas where guidelines are lacking. One of these areas is the early detection of a clinical high risk (CHR) for psychosis for that recommendations are so far based on experts' consensus. To develop the first evidence-based recommendations, we conducted meta-analyses of studies reporting on conversion rates to psychosis in CHR samples according to ultra-high risk (UHR) and/or basic symptoms criteria with special attention to potential moderators. Conversion rates in the identified 42 independent samples with altogether more than 4000 CHR patients who had mainly been identified by UHR criteria and/or the basic symptom criterion 'cognitive disturbances' (COGDIS) showed considerable heterogeneity. While UHR criteria and COGDIS were related to similar conversion rates until 2-year follow-up, conversion rates of COGDIS were significantly higher thereafter. Differences in UHR operationalizations did not seem to impact on conversion rates. The 'genetic risk and functional decline' UHR criterion was rarely met and only showed an insignificant pooled sample effect. Although more research into potential sources of heterogeneity in conversion rates is needed to facilitate improvement of CHR criteria, six recommendations for an early detection of psychosis were developed, all but one based on the meta-analyses. In brief, these include the recommendations to alternatively employ the two symptomatic UHR and COGDIS criteria irrespective of the level of psychosocial functioning exclusively in help-seeking samples, in that they should be assessed – or at least their assessment be supervised – by specifically trained mental health professionals.

Talk 2 Transition rates from schizotypal disorder to psychotic disorder within an established specialized early intervention service. A randomized clinical trial of prolonged integrated treatment vs standard treatment – The OPUS II trial

Nikolai Albert[1,2], Louise Birkedal Glenthøj[1,3], Carsten Hjorthøj[1,2], Marianne Melau[1], Heidi Jensen[1], Merete Nordentoft[1,2]; [1]Mental Health Centre Copenhagen, Copenhagen University Hospital, [2]Copenhagen University, [3]Centre for Clinical Intervention and Neuropsychiatric Schizophrenia Research

Purpose: One of the CAARMS criteria used to establish UHR status is schizotypal personality disorder. An earlier study of the OPUS I cohort showed that the specialized early intervention (SEI) treatment provided in the OPUS teams reduced the transition rate of patients with a schizotypal disorder to psychotic disorder from 33% to 8% over a 12 month period. In this study we wish to investigate the transition rates of patients with a schizotypal personality disorder treated in an early intervention service and if the prolonged treatment affect the transition rates.

Materials and Methods: The study is part of a randomized controlled trial investigating the effect of prolonged early intervention compared to treatment as usual after end of standard SEI treatment. Patients were recruited at 1 ½ year into their SEI treatment and randomized for all together five years of SEI treatment or discontinuation after the standard two year of treatment. Totally 400 patients were recruited for the study and 84 of them were diagnosed with a schizotypal personality disorder at baseline. Results: Preliminary analysis shows that approximately 30% of the patients with a schizotypal personality disorder were re-diagnosed with a psychotic disorder 3 ½ year after the baseline interview. The transitions rates were not affected by treatment site. Conclusion: The transition rate seen in this study is much higher than in recent UHR studies, which might imply that persons with a schizotypal personality disorder are group with a higher risk of developing psychosis than others meeting CAARMS criteria.

Talk 3 Stress in those at risk for psychotic disorder: a possible role for momentary stress in the exacerbation of affective and psychotic symptoms.

Inez Myin-Germeys[1], Yori Van der Steen[2], Judith Gimpel-Drees[3], Wolfgang Viechtbauer[2], Michael Wagner[3], Tineke Lataster[2]; [1]KU Leuven, Center for Contextual Psychiatry, [2]Maastricht University, School for Mental Health & Neuroscience, [3]Department of Psychiatry and Psychotherapy, University of Bonn

Increased sensitivity to daily life stressors has been found in patients with psychotic disorder, as well as in individuals at (clinical high) risk for psychosis. Aim of this study was to further examine the association between momentary stress and both affective and psychotic symptoms in everyday life of individuals at CHR, compared to chronic psychotic patients and healthy controls, in search for evidence of early stress-sensitization. Furthermore, it was examined whether psychotic experiences were experienced as stressful. The experience sampling method was used to measure affective and psychotic reactivity to everyday stressful activities, events and social situations in 22 CHR patients, 24 psychotic patients and 26 healthy controls. Levels of negative affect (NA) and momentary psychotic symptoms were similar in both patient groups. Additionally, group comparisons showed the association strength between NA and activity-related stress to be larger for CHR patients than for psychotic patients, and larger for CHR compared to controls. Similarly, the association strength between activity-related stress and psychotic symptoms was larger in CHR than in patients. Finally, the association strength between NA and symptoms was larger in CHR compared to patients. Overall, the results suggest that those at CHR for psychosis are more sensitive to daily life stressors, in particular activity-related stress, than psychotic patients. In this early phase, psychotic experiences were also perceived as more stressful. Stress sensitization seems to play a role particularly in the early phase of the illness.

Talk 4 Multimodal Imaging in High Schizotypy: A Social Cognitive Neuroscience Approach

Gemma Modinos[1], Anna McLaughlin[1], Meghan O'Sullivan[1], Katrina McMullen[2], Veena Kumari[1], Gareth Barker[1], Christian Keysers[3], Steve Williams[1]; [1]Institute of Psychiatry, Psychology and Neuroscience, King's College London, UK, [2]Centre for Brain Health, University of British Columbia, Canada, [3]Netherlands Institute for Neuroscience, The Netherlands

Schizotypy refers to a set of phenotypic traits thought to reflect the subclinical manifestation of schizophrenia in the general population, making the study of schizotypy an important contribution to etiological research into schizophrenia. Empirical evidence shows that individuals with high schizotypy and patients with schizophrenia show similar but attenuated dysfunctions in social cognition, as well as in brain anatomy and function. Studies using proton magnetic resonance spectroscopy (1H-MRS) have detected altered prefrontal glutamate levels in schizophrenia, associated with functional and structural abnormalities. No study to date has investigated neurotransmitter levels in schizotypy, or how they may relate to functional activation during social cognition. To address this issue, we measured cortical and subcortical responses during an emotional processing task using functional Magnetic Resonance Imaging (fMRI), and glutamate levels in the anterior cingulate cortex (ACC) with 1H-MRS. Forty-three subjects participated in the study: 22 with high schizotypy (HS) and 21 with low schizotypy (LS), as defined with the Oxford and Liverpool Inventory of Feelings and Experiences (O-LIFE), matched by age, gender, IQ, and cigarette smoking status. HS individuals showed greater striatal activation than LS subjects to emotional pictures compared to neutral pictures ($p < 0.05$ FWE). Although glutamate levels did not significantly differ between the groups, HS individuals showed a negative relationship between ACC glutamate levels and striatal activation that was not present in the LS group ($r = -0.472$,

p=0.027). Taken together, these findings suggest changes in neurophysiological and neurochemical function of prefrontal-striatal systems in high schizotypy associated with emotional processing.

Talk 5 Differences in brain activation during self-reflection in ultra-high risk for psychosis

Esther Opmeer[1], Edith Liemburg[1,2,3], Jorien van der Velde[1,2], Lex Wunderink[4], Andre Aleman[1,5]; [1]University of Groningen, University Medical Center Groningen, Neuroimaging Center, the Netherlands, [2]Lentis Research, Center for Mental Health, Groningen, the Netherlands, [3]Rob Giel Research Center, University of Groningen, University Medical Center Groningen, Groningen, the Netherlands, [4]Mental Health Care Friesland, Department of Psychosis studies, Leeuwarden, the Netherlands, [5]University of Groningen, department of Psychology, Groningen, the Netherlands

Disturbances in self-reflective processing have been suggested to be an indicator of vulnerability for psychosis. The cortical midline structures (CMS) of the brain and the insula play an important role in self-reflective processing. Moreover, abnormal activation in these areas has been reported in patients with schizophrenia and people with high psychosis proneness. In the current study, we investigated whether patients at ultra-high risk for psychosis (UHR) had differences in brain activation during self- and other-reflection. Fifteen UHR-subjects and sixteen age-, sex- and education-matched healthy controls (HC) were included in this study. All participants performed a self-reflection task during functional MRI scanning. The task comprised a self-reflection, other-reflection and semantic (baseline) condition. Both reflection conditions contained positive and negative related traits. Threshold was set to p<.05 family wise error corrected on cluster level for the regions-of-interest. UHR-subjects attributed more negative (p=.002) and less positive traits (p<.001) to themselves than HC. There were no differences for other-related traits. UHR showed less activation during self-reflection in the posterior cingulate cortex (PCC), left putamen and left anterior insula and more activation in the right posterior insula and right putamen compared to HC. Moreover, UHR showed less activation during other-reflection in the PCC and anterior cingulate cortex/ventromedial prefrontal cortex. To conclude, UHR was associated with different activation during both self- and other-reflection, suggesting that neural changes are already present before the onset of psychosis. These disturbances in self-reflective processing might be a vulnerability marker and may result in problems in social functioning and psychotic symptoms.

Talk 6 Symptom Dimensions in Individuals at Ultra High Risk for Psychosis

Matilda Azis[1,2], Paul Allen[1,3], Gemma Modinos[1], Ilaria Bonoldi[1,4], Matthijs Bossong[1], Carly Samson[1,2], Beverly Quinn[5], Phillip McGuire[1,4]; [1]Department of Psychosis Studies, Institute of Psychiatry, Psychology and Neuroscience, King's College London, London, UK, [2]The West London Early Intervention service, Imperial College, London, UK, [3]Department of Psychology, University of Roehampton, UK, [4]OASIS prodromal clinic, SLaM NHS Foundation Trust, London, UK, [5]CAMEO Early Intervention Services, Cambridgeshire and Peterborough NHS Foundation Trust, UK

The Ultra High Risk (UHR) state is a combination of genetic and clinical risk factors that are associated with an imminent high risk for psychotic disorder. Clinical features in UHR individuals are assessed using specialised semi-structured interviews, such as the Comprehensive Assessment of At Risk Mental State (CAARMS). Previous studies have found that the range of symptoms measured by the CAARMS can be reduced to underlying symptom dimensions such as negative, disorganised, anxiety, manic and self-harm symptoms. These underlying psychopathological dimensions have been used to predict transition to psychosis. However, studies in different populations have found different factor structures, with either three or five symptom dimensions and neither factor structure has been confirmed in subsequent samples. We aimed to examine the CAARMS factor structure in a new cohort of UHR participants. Preliminary analysis was performed on CAARMS scores completed at clinical interview by one hundred and twenty-two UHR participants recruited from specialist early intervention services in four clinical centres across England. Confirmatory Factor Analysis of both the three and five factor model was performed and Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI) and Tucker Lewis Index (TLI) were used to assess if either solution fitted the data. These indices showed that in this sample, neither model (RMSEA<0.06, CFI and TLI >0.95) fitted the new data. These findings are now being confirmed is in a larger sample of 350 UHR.

Talk 7 Gender Differences in the Prevalence and Clinical Significance of Ultra-High-Risk Symptoms and Criteria in a General Population Sample: Age Sometimes Matters

Liz Rietschel[1], Chantal Michel[1], Benno Schimmelmann[1], Frauke Schultze-Lutter[1];
[1]University Bern University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern, Switzerland

In the early detection of psychosis, developmental and gender specific peculiarities are often neglected. Therefore, the aim of the present study was to (i) examine gender differences in prevalence of ultra-high-risk (UHR) symptoms in different age groups and (ii) to examine gender effects in the association between UHR symptoms and both psychosocial functioning and axis-I disorders. The sample comprised 1486 (736 females; 49.5%) individuals aged 8-40 years from the general population of Canton Bern, Switzerland, enrolled in either of two studies from June 2011 until March 2016. Perceptive and non-perceptive attenuated psychotic symptoms (APS) and brief intermittent psychotic symptoms (BIPS) as well as the respective UHR criteria (incl. onset/worsening and frequency requirements) were assessed using the Structured Interview for Psychosis-Risk Syndromes. Compared to males, females showed a significant higher prevalence of APS (16.4% versus 10.4%), of UHR criteria (1.2% versus 0.4%) and of any axis-I disorder (18.7% versus 9.9%). A gender-specific impact of age was only found for perceptive APS: Compared to the reference group of 20-24-year-olds, girls aged 8-19 years (OR=3.9; CI: 2.0-7.5) as well as boys aged 8-12 years reported more perceptive APS (OR=5.0; CI: 1.9-13.0). No interaction of gender and UHR symptoms was found to affect psychosocial functioning and axis-I disorders. The higher prevalence of UHR symptoms in females and the age-gender interaction for perceptive, but not non-perceptive APS highlights the importance of considering both gender and age in the early detection. Longitudinal studies should address the impact of these findings on prediction of psychosis.

Talk 8 Dimensional Structure among Schizotypy Measures and Clinical High Risk for Psychosis Criteria in Patients from an Early Detection Service

Rahel Flückiger[1], Stefanie Julia Schmidt[1], Stephan Ruhrmann[2], Martin Debbané[3,4], Chantal Michel[1], Daniela Hubl[5], Frauke Schultze-Lutter[1]; [1]University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern, [2]Department of Psychiatry and Psychotherapy, University of Cologne, [3]Developmental Clinical Psychology Research Unit, Faculty of Psychology and Educational Sciences, University of Geneva, [4]Research Department of Clinical, Educational and Health Psychology, University College London, [5]University Hospital of Psychiatry and Psychotherapy, University of Bern

A clinical high risk (CHR) for psychosis is defined by cognitive-perceptive basic symptoms (BS) as well as attenuated or transient positive symptoms. In community samples, particularly psychometrically assessed schizotypy scales like Magical Ideation, Perceptual Aberration and Social Anhedonia showed association with conversion to psychosis. No additional predictive value through these 3 schizotypy scales was found in a CHR sample; surprisingly, only Physical Anhedonia was associated both with CHR and with psychosis conversion when CHR was present. To better understand possible similarities or differences we examined the dimensional structure of schizotypy scales and CHR-symptoms. A factor analysis was carried out in a CHR sample (N=277; aged 8-40, 22±6 years; 28% minors; 60% male) of the 4 WSS, 12 BS and 4 positive-items of the Structured Interview for Psychosis-Risk Syndromes. A negative, positive and a cognitive factor was extracted which corresponded to the 3-dimensional schizotypy structure. The negative factor consisted of both anhedonia scales and explained 9% of the variance, the positive factor consisted of the Magical Ideation and Perceptual Aberration scales, 3 positive items as well as acustic and visual BS (8% explained variance). The cognitive factor consisted of 8 cognitive BS and was complemented by the positive item conceptual desorganisation and explained 22% of the variance. Whereas no correlation was found between the negative and the positive factor, the cognitive factor correlated (0.25) with both of them. It acted as second order factor in a structural equation model, thereby provoking or exacerbating symptoms of the other two factors.

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