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Plenary Lecture 1

Ethics and psychiatry: global challenges

Norman Sartorius

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The low priority given to psychiatry and to the care of people with mental illness in most of the developing countries is among the main reasons for the severe insufficiency mental health care in terms of coverage and quality. Other reasons for this situation include the inappropriateness of postgraduate training of psychiatry for work in low income countries and the stigma that is attached to mental illness and to all that is connected to it - patients, facilities, medications and mental health workers. Numerous ethical problems emerge in this context - ranging from poor distributive justice to a severe neglect of basic human rights of people with mental illness.

In industrialized countries mental health care receives more attention and has a high (yet often still insufficient) priority in the field of medicine.

While it could be expected that some of the ethical problems prevalent in low and middle income countries have been resolved they are still a major concern in many of the wealthier countries.

The presentation will focus on ethical challenges common in both types of countries and discuss ways of approaching their solution.

Plenary Lecture 2

Brain imaging in ADHD - what have we learned and where is it going?

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I will present our recent meta-analyses on structural, functional and biochemical brain abnormalities in ADHD patients, on specificity of brain structure and function abnormalities relative to other child psychiatric disorders, effects of ADHD medications, and discuss brain-based neurotherapy in the form of fMRI neurofeedback in ADHD.

Our meta-analysis of cross-sectional structural MRI studies shows that ADHD children have most consistent abnormalities in the basal ganglia, which parallels our meta-analysis of positron emission tomography (PET) studies showing consistently reduced striatal dopamine transporter levels in medication-naïve ADHD patients. Our meta-analyses of functional MRI studies show cognitive domain-specific abnormalities in dissociated fronto-striatal and fronto-cerebellar networks mediating inhibition, attention and timing functions as well as problems to deactivate the default mode network, both together associated with impaired performance. Disorder-specificity of brain abnormalities will be elucidated by several meta-analyses comparing brain structure and function between patients with ADHD and patients with OCD and with autism. Our meta-analysis of acute stimulant effects on the function of the ADHD brain shows most prominent effects in the upregulation and normalisation of right inferior frontal and striatal activation. Long-term stimulant medication treatment appears to be associated with more normal brain structure and function but with abnormal dopaminergic neurochemistry. Clinical translation of neuroimaging findings in ADHD is only just emerging in the form of neurotherapy. An exciting new avenue is real-time fMRI-Neurofeedback in ADHD of areas that are dysfunctional which will be presented at the conference.

Plenary Lecture 3

Neurobiology of psychotherapy

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The outcome of psychotherapy and the mechanisms of change that are related to its effects have traditionally been investigated on the psychological and social levels, eg. by measuring change in symptoms, psychological abilities, personality or social functioning. The advent of functional neuroimaging, including SPECT, PET and fMRI, however, has made it possible to study changes at the brain systems level (eg. by measuring changes in brain blood flow or metabolism), but increasingly also at the molecular level using SPECT and PET in the living human brain. So far, more than 40 studies on brain changes after psychotherapy for depression, anxiety disorders and borderline personality disorder have been published. These studies clearly show that psychotherapy induces changes in the brain. In many of the studies, the effects of psychotherapy on brain function are comparable to those of medication. This, however, is not the case in all of the studies. Psychotherapy seems to result in normalisation of brain activity, but also to the recruitment of additional areas where no altered activation before the psychotherapy was found. The possibility for neuroimaging to generate individual patient level predictions that could guide clinical decision-making will be discussed.

Plenary Lecture 4

Using large scale epidemiological cohort studies to unravel etiologic mechanisms: the GenerationR study

Frank Verhulst

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Cohort studies allow for the identification of modifiable risk factors. GenerationR is a study in which 9,778 pregnant women and their offspring in Rotterdam, The Netherlands were followed. Findings indicate that exposures associated with maternal psychopathology, including depressive symptoms, cigarette smoking, cannabis use, family stress, and use of antidepressant medications impact prenatal physical outcomes such as fetal growth. However, whether these prenatal exposures or fetal growth parameters influence later cognitive and behavioral functioning of the child is less clear. Preliminary findings indicate that some prenatal exposures (e.g. fetal growth) have no effect on child problem behavior; other prenatal exposures (e.g. cigarette smoking) have effects best explained by confounding; still other exposures (e.g. maternal depression) had little direct intrauterine effects but had a spill over effect on later parental functioning; and some prenatal exposures (e.g. maternal subclinical thyroid problems) had consistent effects on later child problem behavior. Disentangling the influence of prenatal factors on later child problem behavior from associ-

ated postnatal risks and confounding factors is challenging. The findings from GenerationR suggest that individual differences in a child's wellbeing in multiple domains arise from a number of causal factors, with each contributing a relatively small effect. This cumulative risk model suggests that the additive contribution of genetic, perinatal, and environmental risks puts the child at a progressively greater risk, despite the small impact that any single factor is likely to have. These findings may inform intervention approaches aimed at reducing the total number of risks to which a child is exposed.

Plenary Lecture 5

Early intervention in psychiatry: Achievements and challenges

Ingrid Melle

University of Oslo and Oslo University Hospital

The introduction of early intervention services has made significant impact on how we perceive- and treat severe mental disorders. The first formulation of the early intervention paradigm was based on observations of the link between treatment delay and poor outcome in schizophrenia spectrum disorders; thus questioning the notion of their inevitable downhill course. Focusing on the possible plasticity of the early phases of manifest illness, the first generation of early intervention programs was aimed at the prevention of severe outcomes. This was followed by even more ambitious efforts i.e. identifying persons at high risk for emerging psychosis with the aim of preventing the first psychotic episode. These approaches have later been developed further into early interventions for other mental disorders than the psychotic part of the spectrum, and into general models for low-threshold approaches to youth at risk. In addition to the impact on clinical services, several early intervention approaches were genuine multidisciplinary and has thus been the basis for later translational research. One of the major challenges to the early intervention paradigm has paradoxically been linked to its success. The clinical approach to patients with established illness is well liked and often integrated into services without previous research trials; this makes it very difficult to evaluate their concrete effects. The main challenge has however been the disappointments of the primary prevention interventions where initial good results in pioneering pilot studies have been difficult to replicate in larger contexts.

Symposium 1.A: Internet-based treatment for anxiety and depressive disorders

Internet-based Cognitive Behaviour Therapy in Routine Psychiatric Care - Lessons learned from implementation in Sweden

Erik Hedman

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Internet-based cognitive behaviour therapy (ICBT) has been shown to be efficacious for anxiety disorders and depression in more than 100 randomized trials. There is however limited knowledge regarding the feasibility and effectiveness of ICBT when implemented in routine care. Before disseminating the treatment on a large scale gaining more insight in these issues is of high importance. Since 2009, The Internet Psychiatry Clinic in Stockholm, Sweden, provides ICBT for panic disorder, social anxiety disorder and depression as part of regular psychiatric care. In five years, more than 3000 patients have received treatment. This oral presentation will give an overview of the concept of ICBT, how it has been implemented in psychiatric care in Stockholm, and its advantages and disadvantages. In addition, effectiveness data from the clinic's different ICBT applications will be presented.

Internet-psychiatry: Internet-based therapy for depressive disorders

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Depression is a serious and prevalent disorder. Cognitive behavioural therapy (CBT) has been shown to be an efficient treatment for major depressive disorder. However, dissemination has proven to be difficult. Over the past two decades, researchers have been investigating delivery of CBT via the internet as guided self-help (iCBT). Several meta analyses have demonstrated this to be efficient, and able to produce treatment results comparable to those obtained in face-to-face CBT.

In a recent government funded project, the Region of Southern Denmark (1.2 mill inhabitants) implemented iCBT for depression as part of routine care. The service was offered with self-referral. All applicants underwent a pre-treatment assessment via video-conference by a psychologist using standardised questionnaires (MDI) and semi-structured interviews (SCID-II and either PSE or MINI). Applicants were included if they met criteria for MDD and did not meet criteria for substance abuse, bipolar affective disorder, psychotic illness, obsessive compulsive disorder or cluster a or b personality disorders. Included applicants were offered a 10 weeks treatment programme including access to an online treatment platform comprising CBT for depression (primarily behaviour activation, cognitive restructuring, restructuring of beliefs, interventions for rumination and relapse prevention) during which they were offered weekly support from a psychologist. After treatment, a post-treatment interview was carried out. Preliminary results on symptomatic levels of depression (IDS, MDI), quality of life (EQ5D) and patient satisfaction (CSQ-8) are presented.

Feasibility study of internet-delivered Acceptance and Commitment Therapy for Health Anxiety

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Background: Health anxiety (HA), or hypochondriasis, is characterized by a preoccupation with fear of having a serious illness, which interferes with daily functions and persists despite medical reassurance. HA is costly in terms of patients' use of health care services, and untreated the disorder seem to be chronic.

Aim: To develop an internet-delivered Acceptance and Commitment Therapy (iACT) program for HA, based on an existing ACT-group manual, and to test its feasibility in an open trial before a larger randomized controlled trial.

Methods: 10 patients with severe HA will receive 7 sessions of iACT, which is a guided self-help program containing psycho education, written exercises, mindfulness and value-based exposure. During treatment, email support will be provided. Self-report questionnaires will be obtained at baseline and at end of treatment. Illness worry (Whiteley-7) will be the primary outcome measure.

Perspective: iACT for HA may be a feasible and flexible treatment form, which can be delivered to a broader patient population, e.g., younger patients or patients with less severe symptoms.

Internet-delivered ACT in the treatment of depressive symptoms: Two randomized controlled trials investigating efficacy and participant experiences

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A guided internet-delivered program for depression based on Acceptance and Commitment Therapy (ACT) was investigated in two randomized controlled trials. The first study (n = 38) compared a 6-week face-to-face ACT-treatment to an ACT-based Internet program (iACT) including two sessions (pre and post). The second study (n = 39) compared iACT without face-to-face contact to a waiting-list control group. Both studies included outpatients reporting mild to severe depression symptoms. Both the guided internet-delivered and face-to-face ACT interventions showed a clear reduction in most measures at post-treatment as well as at 18-month follow-up (study 1). However, there was tendency for better maintenance effect in the internet-group. The study 2 indicated the internet-delivered ACT intervention without any face-to-face contact was superior to the waiting list control group. Clients were satisfied with the treatments and would recommend the treatments to others. Internet-delivered ACT with or without face-to-face sessions but combined with weekly contact via Internet is possibly an alternative for self-referred mild-to-severe depression clients. Possibilities to use Internet-delivered interventions will be discussed.

Symposium 1.B: Intellectual disability and mental health across the life-span

Mild Intellectual Disability in children - from an ESSENCE perspective

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Introduction: Developmental disorders most often co-occur. This has been extensively studied in children with ADHD and in children with autism. Mild intellectual disability (ID) has also been studied from this point of view, although not to the same extent. Co-occurrence of neurodevelopmental disorders are now often subsumed under the umbrella term of ESSENCE (Gillberg 2010). Method: To investigate co-occurring developmental disorders in children with mild ID a study was conducted in two municipalities in south-western Sweden. Parents of 33 children out of a population-based group of 56 eligible children with mild ID, age 7-15 years, participated in the study. The parents completed a questionnaire, the Nordic Five-To-Fifteen (FTF), covering a broad range of developmental/neuropsychiatric symptoms from eight symptom domains. The FTF has been validated and has age and gender specific norms. In addition to parents, a set of items from FTF was also given to the child's teacher. All children attended special schools for children with mild ID. Results: Very high rates of symptoms, indicating a definite problem, were found in all investigated domains; language, perception, motor skills, memory, social skills, emotion regulation and executive functions, in addition to the learning domain (Lindblad et al. 2011). Discussion: Children and adolescents with mild ID are in need of a comprehensive work-up covering not only general cognitive abilities, but also many other areas. Such broad assessment, taking the entire ESSENCE panorama into account will enable a better basis for understanding the special needs of support for this group through life.

Physical health associated with lifestyle in adolescents and young adults with intellectual disability

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Introduction: Already at three years of age, obesity has been reported to be more prevalent in children with developmental delay compared with their typically developing peers (Emerson 2009). Children with intellectual disability (ID) participating in Special Olympics from high income countries show higher prevalence of obesity (18%) compared to participants from lower income countries (3-6%) (Lloyd 2014). Physical health in children and adolescents with ID has been insufficiently studied in Sweden.

Method: Swedish adolescents with ID (n=66) attending one upper secondary school were compared to adolescents without ID from schools nearby (n=90). One third of the participants (n=23 with ID, n=30 without ID) were measured again after transition to young adulthood. One age group of the students with ID (n=11) had a new assessment after two years of daily physical activity and healthier food during school hours. Body composition, blood lipids, blood pressure and cardiovascular fitness were measured.

Results: Higher prevalence of cardio-metabolic risk factors together with lower cardiovascular fitness was found in adolescents with ID. When measured again as young adults the differences in cardio-metabolic health persisted and had reached the same levels in cardio-metabolic risk and cardio-vascular fitness as reported in the general Swedish middle-aged population. The multifactorial school-based intervention resulted in a positive trend in several measured cardio-metabolic risk factors and without any increase in fat mass.

Discussion: Health promotion initiatives at school level appear to be one way to limit unhealthy weight gain. Healthcare needs to be aware of this group's worse cardiovascular health.

Psychiatric illness in adults with intellectual disability. A register study

Lena Nylander

Vuxenpsykiatri Lund, Lund, Sweden

Introduction: It has been extensively shown that individuals with intellectual disability (ID) are at risk for somatic and psychiatric health problems. However, not much is known about the diagnoses these patients get in psychiatry, or their use of psychiatric care. The aims of this study was to gain more knowledge about patients with ID in general psychiatry.

Methods: Data regarding all patients with any diagnosis equivalent of ID were extracted from the patient register from 1990 to 2013 in an adult psychiatric clinic in southern Sweden.

Results: Three hundred and eighty-five patients with ID were found, slightly more males than females. More than 50% had been in-patients, and 21% had been subject to compulsory care. Psychotic disorder was the most common diagnosis, registered in 25%, while affective and anxiety disorders each were diagnosed in one fifth of the patients. Twenty-one per cent of the patients had no other diagnosis than ID.

One fifth of the patients had been in-patients for more than 99 days, and the total use of inpatient beds by the group equalled 5 beds for every day of the studied 24-year period.

Discussion: Individuals with ID comprise a small but highly service-consuming group, often with severe psychiatric illness, in adult psychiatry. A case could be made for specialist services for these patients.

Parenthood and intellectual disability - from a child perspective

Ida Lindblad

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Introduction: The estimated population prevalence of individuals with Intellectual Disability (ID) who become parents varies across countries and there is a lack of knowledge about parenting and ID.

Children born to mothers with ID are at an increased risk of being exposed to lack of care. They also inherently have an increased risk of developmental disorders, including ID. There is limited information about this group as grown ups.

Methods: Results from a population-based study from the Gillberg Neuropsychiatry Centre, Gothenburg University, Sweden, demonstrated the importance of providing early support and longitudinal developmental follow-up of children growing up with a mother with ID.

Results: In that study half the group (52%) had not been primarily raised by their biological mother and the group as a whole was found to have been exposed to several risks. These included neglect and abuse in the family. It was found that 35% of the young individuals had mild ID and that the rate of ADHD in the group was considerably higher than in the general population without ID (29%).

Discussion: Individuals with ID who become parents need tailored support from society and their child should be ascertained the right to develop physically, mentally and socially in a healthy, safe and normal manner.

To support this already vulnerable parental group, the social support systems need to be well developed, coordinated and adapted to meet the needs of this group. An important challenge for society!

Symposium 1.C: From Pioneers to Scientists: Establishing Evidence-Gathering Models in Trauma Mental Health Services for Refugees

The Treatment and Research Integrated Model: TRIM

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Abstract:

Outcome studies on treatment of trauma-affected refugees have been published but are limited in design and quality. In this presentation, we discuss possible impediments to pursuing research aimed at gathering evidence to support the efficacy of treatments in the field and the challenges in carrying out such inquiries. We then present a working model that demonstrates the feasibility of integrating outcome research into clinical settings. The aim of this model is to involve all personnel in generating research of high quality with minimal additional costs and time commitment. We conclude that although challenges remain in carrying out treatment outcome studies, they can be overcome by careful consultation and negotiation in a setting with an established ethos of commitment to the scientific endeavor. Ultimately, identifying the most effective interventions will provide better treatment and quality of life for the large number of traumatized refugees seeking assistance for mental health problems.

The acceptability and effect of treatment of traumatised refugees with cognitive behavioral therapy and antidepressants - a randomised controlled clinical trial

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Aims: To estimate the acceptability and short and long-term treatment effect of TF-CBT and antidepressants (Sertraline and Mianserin) in traumatized refugees.

Methods: Randomized controlled clinical trial with 2x2 factorial design. Patients included were immigrants and refugees with war-related traumatic experiences from their country of origin, PTSD and without a psychotic disorder. The manualized treatment consisted of weekly sessions with a

physician and/or psychologist over a period of 6 months. The treatment effect was evaluated with a combination of blinded and un-blinded observer ratings and self-ratings. Outcome measures included symptoms of PTSD, depression, anxiety, pain and somatization and quality of life and level of functioning (HTQ, HSCL-25, SCL-90, WHO-5, SDS, VAS, Hamilton, GAF). Long-term effect was estimated with 6- and 18 months follow-up after treatment, and the acceptability of treatment was evaluated with a patient satisfaction questionnaire.

Results: 280 patients were included and 217 patients completed treatment (78% completion rate). A small but significant effect of treatment with antidepressants was found on depression and anxiety symptoms, headache and self-rated level of functioning. A large significant effect was found on level of functioning after treatment with medicine compared to waiting list controls. No effect of psychotherapy was detected and there was no interaction between psychotherapy and medicine. The satisfaction with treatment was associated with treatment outcome. Follow-up data are being analyzed.

Conclusion: Treatment with antidepressants and psycho-education has a small to moderate effect on the condition of traumatized refugees and the treatment is overall acceptable to the patients.

Stress Management versus Cognitive Restructuring: a randomised clinical study on traumatised refugees

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There is a lack of evidence regarding which kind of psychotherapy that is the most effective when treating traumatised refugees. Studies on the effect of psychotherapy among other patient groups with PTSD suggest a good effect using Cognitive Behavioural Therapy (CBT). The Competence Centre for Transcultural Psychiatry (CTP) has specialised in the treatment of traumatised refugees. Both research results and the clinical experience at CTP suggest that Cognitive Restructuring is not always a useful tool and that stress reducing techniques could be more useful. This hypothesis was tested in the present study.

The objectives were to study the effect of CBT with a focus on either Stress Management or Cognitive Restructuring in a clinical sample of traumatised refugees with PTSD and to identify predictors for the treatment effect. Methods: All patients referred to CTP from June 2011 - March 2012 and fulfilling the inclusion criteria were offered to participate in the study. Participants (n=143) were offered combined treatment with a psychiatrist (psycho-education and psychopharmacological treatment when needed) and a psychologist (CBT). The duration of the treatment was 6-7 months. The participants were randomised to either: CBT with a focus on Stress Management or CBT with focus on Cognitive Restructuring. The primary outcome was PTSD measured by the Harvard Trauma Questionnaire. The results are presently being analysed and will be presented at the symposium.

The treatment of traumatised refugees with Sertraline versus Venlafaxine in combination with psychotherapy - a randomised study

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Background and aim: Today we lack sufficient evidence to conclude which type of treatment approach that is the most effective when it comes to traumatised refugees. That is a problem for both patients and doctors as well as for society. Also there is a lack of studies which examine the relation between psychosocial resources and treatment efficiency, in order to find reliable predictors of treatment outcome. This study therefore aims to produce new evidence within this field in order to optimise treatment for multi-traumatised refugees with complex PTSD.

Materials and Method: The study included 207 patients referred to Competence Center for Transcultural Psychiatry (CTP) between April 2012 and September 2013. Patients were randomised into one of the two treatment groups: a Sertraline group (n=109) or a Venlafaxine group (n=98). Patients in both groups received the same manual based Cognitive Behavioural Therapy, specially adapted to this group of patients. The trial endpoints were PTSD and depression symptoms and social functioning, all measured on validated ratings scales.

Furthermore the study examined the relation between expected outcome of treatment from a range of predictors and the relation to the treatment results for the individual patient.

Results: The study was completed in October 2014 and results are not yet analysed, but will be ready for the conference.

Conclusion: The study is among the largest randomised studies ever conducted on medical treatment among traumatised refugees. It is expected to bring forward new knowledge about clinical evaluation and medical treatment of traumatised refugees.

Sleep disturbances in traumatised refugees

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Background and aim: Sleep disturbances are often referred to as the hallmark of posttraumatic stress disorder (PTSD). Based on self-ratings by traumatised refugees treated at Competence Center for Transcultural Psychiatry (CTP) 97% reported some degree of sleep disturbances and 98% reported some degree of recurrent nightmares. Sleep disturbances can affect the efficacy of first-line PTSD treatment and constitute a risk factor for poor outcome of psychiatric treatment. Nevertheless research on the treatment of sleep disturbances in traumatised refugees is very scarce. The aim of this study is to examine the effect of treatment of sleep disturbances in traumatised refugees with PTSD.

Materials and Method: The study will include 250 refugees, diagnosed with PTSD, referred to CTP. Patients who give informed consent will be randomised into four treatment groups: Treatment as usual (TAU); pharmacological treatment according to algorithm and manual based Cognitive Behavioural Therapy, TAU and add-on treatment with mianserin, TAU and add-on treatment with Imagery Rehearsal Therapy (IRT), TAU and add-on treatment with mianserin and IRT. Trial endpoints are sleep, nightmare, PTSD and depression symptoms, all measured on validated ratings scales.

Results: The study is planned to begin inclusion of patients during 2016. Results are not available.

Conclusion: During the presentation the underlying principles behind the randomised study, the hypotheses and the methods will be discussed. There is little knowledge on treatment of sleep disturbances in traumatised refugees. This study is expected to bring forward new knowledge on both medical and therapeutic treatment of sleep disturbances in traumatised refugees.

Symposium 1. D: Prenatal stress – what are the mechanisms leading to adverse child outcomes?

Cytokine profile in maternal depression and anxiety in mid-pregnancy - The FinnBrain birth cohort study

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Introduction: Maternal stress during pregnancy predicts child health outcomes. Alterations in prenatal functioning of the inflammatory systems provide potential mechanisms linking maternal stress with child health. We investigated correlations between maternal stress and a set of cytokines in mid-pregnancy.

Methods: The study population comprises consecutive 139 women from a larger, ongoing FinnBrain Birth Cohort Study which is a general population-based pregnancy cohort. Standardized questionnaires for prenatal stress, i.e. symptoms of depression, overall anxiety and pregnancy-related anxiety, were used. The cytokine concentrations were analyzed from serum samples using Multiplex bead arrays from samples drawn at the gestational week 24.

Results: The concentrations of interleukin (IL)-9, IL-12 and IL-13 correlated positively with both prenatal depression and anxiety, while IL-5, IL-7 and interferon (IFN)- γ /IL-4 ratio correlated with depression only. Pregnancy-related anxiety correlated positively with IL-9 and IL-13 concentrations. The IL-16 concentration correlated negatively with overall anxiety. The concentrations of tumor necrosis factor (TNF)- α and IL-6 were not associated with the prenatal stress measures. Maternal age, body mass index (BMI), self-reported asthma or allergies, smoking or alcohol consumption were not significantly associated with individual cytokine concentrations. The IFN- γ /IL-4 ratio associated with maternal age and asthma.

Discussion: We observed a positive correlation between maternal stress in mid-pregnancy and concentrations of proallergenic cytokines but also with the IFN- γ /IL-4 ratio and depression. Since prenatal maternal stress is associated with the development of asthma in the offspring, our findings suggest that cytokine milieu is altered in stressed mothers-to-be bridging prenatal stress with childhood asthma and allergy development.

Maternal cortisol concentrations during pregnancy and newborn brain integrity

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Because fetal brain development proceeds at an extremely rapid pace, the intrauterine environment can shape the trajectory of neurodevelopment. Alterations in brain anatomy and connectivity have been associated with a range of neuropsychiatric disorders, including affective disorders. Studies in non-human primates and rodents have shown that such alterations can be induced in the offspring of mothers by prenatal exposure to exogenous glucocorticoids or chronic stress. We have previously presented the first evidence in humans that elevated maternal cortisol concentration during pregnancy is associated with a larger right amygdala volume and more affective problems in 7-year old girls. We sought to replicate this effect in newborns, allowing the assessment of prenatal effects on limbic structures not confounded by postnatal influences. Data from an ongoing prospective longitudinal study in pregnant women and their newborn children will be presented. Maternal cortisol physiology during pregnancy is assessed by 5 ambulatory assessments of cortisol concentration over the course of 4 days in each trimester of pregnancy. Newborn brain integrity is characterized based on brain magnetic resonance imaging (MRI) scans that were that were acquired at ~3 weeks age.

Interrelationship between Mood Variables during Pregnancy and their Impact on Postpartum Parenting Stress

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For women, it is common to experience some feelings of anxiety across the period of pregnancy, particularly when they are pregnant for the first time. Indeed, anxiety during pregnancy is relatively common; about 10-15% of all pregnant women experience mild to moderate levels of anxiety or depression (Dayan et al., 2006). While this may be regarded as a normal process during an important transitional life-phase, high levels of maternal anxiety during pregnancy may have detrimental effects on both the mother and her child (e.g., Glover, 2014; Dunkel Schetter & Tanner, 2012). In this study, we first examined how pregnancy specific anxiety and general anxiety are interrelated across pregnancy and second, how these maternal mood variables are predictive of her parenting stress three months after birth. For the first aim, the relationship was modeled with between state, trait (STAI) and pregnancy specific anxiety (PRAQ-R) levels across pregnancy, using longitudinal data from three data-waves of a large-scaled sample (N=1059) of nulliparous Dutch pregnant women. For the second aim, we examined the extent to which prenatal scores on state, trait and pregnancy specific anxiety, along with prenatal symptoms of depression, were independent predictors of parenting stress at three months postpartum. Our results show that cross-lagged, cross-time pathways from pregnancy specific anxiety to trait anxiety and vice versa were positively significant. These anxiety scores were independent predictors of parenting stress. We conclude that is of importance to preventively target pregnancy specific anxiety and trait anxiety in vulnerable women.

Maternal prenatal stress predicts infant emotional reactivity: exposure timing- and stressor-related effects

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Introduction: There is evidence that maternal prenatal stress is related to subsequently higher infant reactivity, especially elevated infant negative affect. In some studies, infant temperament is related to maternal pregnancy-specific anxiety only but little research exists on the timing of fetal prenatal stress exposure. The objective of this study is to examine the effects of maternal prenatal stress on infant reactivity.

Methods: Study sample (n=282) is a subsample from FinnBrain Focus Cohort. Our sample consists of one group of 110 mothers who reported severe stress during pregnancy and a comparison group of 172 mothers reporting low stress during pregnancy, based on scores of EPDS, SCL-90 and PRAQ-R, respectively, and their babies. Infant temperament was assessed at 6 months with mother-reports (IBQ-R) and at 8 months with observational methods (Lab-TAB).

Results: Initial results indicate that:

Infants of prenatally stressed mothers were higher in mother-reported surgency ($t(280)=2.160$, $p=0.032$) and negative affect ($t(279)=3.451$, $p=0.001$) compared to the infants of mothers with low stress during pregnancy.

Mother-reported infant surgency was significantly predicted by maternal depressive and anxiety symptoms in early pregnancy ($\beta=0.183-0.188$, $p=0.014-0.017$) after adjusting for maternal postnatal stress. Mother-reported infant negative affect was predicted specifically by pregnancy-related anxiety ($\beta=0.178-0.213$, $p=0.001-0.005$) and depressive symptoms ($\beta=0.144-0.174$, $p=0.016-0.043$) in mid- and late pregnancy after controlling for postnatal stress.

Discussion: This study provides new evidence of maternal prenatal stress effects on postnatal infant temperament, focusing on different aspects of infant emotional reactivity that might be dependent upon the timing of stress exposure.

Symposium 1.E: Sleep and mental health

The effects of psychological stress on sleep

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The cause of primary insomnia is considered to be long-term exposure to stress. However, there are rather few prospective empirical studies of this link. We know for example little about the effects of normal life stress on subsequent sleep polysomnography (PSG). Here will be summarized the effects in real life field studies and in laboratory experiments trying to isolate the mechanism (anticipation). We will also discuss the effects of stress on later sleep disturbances in representative samples using epidemiology, as well as the role of factors like work demands, work preoccupation and general stress. Finally, we will also bring up reverse causality - disturbed sleep causing increased stress responses.

Symptoms of depression and difficulty initiating sleep from early adolescence to early adulthood: A longitudinal study

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Abstract:

Objectives: To assess the direction of the relationship and degree of shared associations between symptoms of depression and difficulty initiating sleep (DIS) from early adolescence to early adulthood.

Methods: Data stem from a cohort of 1105 (55% male) who took part in the Norwegian Longitudinal Health Behaviour Study (NLHB) and participated in the study at least once across seven data collection waves during the years 1990-2000. Analyses included both cross-sectional and longitudinal assessment of the symptoms of depression-DIS association during each data collection wave from early adolescence (age 13yr) to early adulthood (age 23yr).

Results: Symptoms of depression and DIS were associated in all of the data waves, and one-step cross-lagged bivariate correlations were significant and comparatively high for both factors. Structural equation modelling indicated that DIS and symptoms of depression at wave 1 remain relatively stable across waves (all $p<0.001$). In addition, a significant and consistent unidirectional cross-lagged effect was noted running from symptoms of depression to DIS from the time of early adolescence to early adulthood. DIS is only marginally and inconsistently associated with the lagged symptoms of depression score across waves.

Conclusions: These results suggest that symptoms of depression established in early adolescence are a moderate predictor of DIS in early adulthood.

These findings are in contrast to previous findings that typically suggest sleep problems as a risk factor for the later development of depression.

The longitudinal link of poor sleep and depressive disorders in adults

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In the presentation, data evidencing for the role of sleep problems in aetiology of depression will be discussed. Our data from a nation-wide cohort > 18 000 adult twins strongly suggested for the unidirectional temporal relationship between disturbed sleep and mood: within a 6-year time frame,

poor sleep predicted life dissatisfaction, an approximation for depressed mood, in a consistent pattern with a 2-3-fold risk, while life dissatisfaction did not predict poor sleep. The shared genetic component was relatively modest further supporting the hypothesis that poor sleep may have direct effects on mood (Paunio et al., 2009). Self-reported poor sleep quality was found to be associated with disability retirement due to depressive disorders with a 3-fold risk (Paunio et al, 2014). Finally, symptoms of insomnia and depression correlated strongly with frequent nightmares in a sample of 14 000 individuals from general population (Sandman et al, 2015). Out of the different component of symptoms of depression, only the component reflecting negative attitude towards self, the key component of depression, remained as an independent risk factor for nightmares.

The findings emphasize the impact of sleep on regulation of mood and the probable causative role of poor sleep quality in aetiology of mood disorders. They also emphasize the importance of early detection and treatment of poor sleep in order to prevent depression.

References: Paunio T, Korhonen T et al. Am J Epidemiol. 2009;169:206; Paunio T, Korhonen T et al. J Affect Disord. 2014;172C:381; Sandman N, Valli K et al. Sleep 2015;38:507

Symposium 1.F: Health anxiety/illness anxiety. Treatment and beyond

Health anxiety - clinical characteristics and long-term outcome.

Per Fink

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Severe health anxiety or illness anxiety (previously Hypochondriasis) is frequent and costly, yet rarely diagnosed or treated. Studies on health anxiety have been hampered by lack of valid diagnostic criteria, but recently an empirically-founded and more valid diagnosis was introduced.

This presentation will give an overview of the diagnosis, comorbidity, prevalence of the condition, sociodemographic characteristics, impact on mental and physical health, health-related quality of life, disability, use of health care services and the prognosis.

The Influence of family factors in the development of health anxiety - a systematic review

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Background: The aetiology of health anxiety is proposed to be multifactorial with involvement of both genetic and environmental factors. The aim of this systematic review is to review the existing research literature on the possible influence of childhood family factors for the later development of health anxiety. In this context family factors will encompass various social, psychological, physical and/or genetic factors.

Method: The literature search is performed according to the PRISMA guidelines with a combined and systematic search in Embase, Psycinfo and Pubmed. All abstracts and articles are assessed by pairs of randomly allocated blinded reviewers. The review group independently assessed quality of and the risk of bias in the included studies by considering: selection of participants (selection bias), information bias, confounding and use of statistical method.

Inclusion criteria: The article; addresses hypochondriasis, health anxiety, illness phobia, illness disease or illness anxiety disorder on symptom or diagnostic level addresses family relationships in childhood as a factor associated with health anxiety is peer reviewed is published in the period 01.01.1985 - 11.17.2014

Findings: A descriptive analysis of the findings from the included studies will be presented.

Discussion: The evidence of associations of exposure in childhood for various family factors with the later development of health anxiety as a disease or on symptom level will be discussed. The review can offer increased knowledge on potential early and modifiable risk factors for health anxiety which can be crucial for the creation and implementation of preventive strategies.

Health anxiety in preadolescence -associated health problems, costs, and continuity in childhood

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Background: Epidemiological data on the distribution, persistence, and clinical correlates of health anxiety (HA) in childhood are scarce. We investigated continuity of HAA-symptoms and associated health problems and medical costs in primary health services in a general population birth cohort.

Methods: HA symptoms were assessed in 11-12 year old children (N=1886) from the Copenhagen Child Cohort using the Childhood Illness Attitude Scales (CIAS) together with information on socio-demographics and the child's somatic and mental status and healthcare expenditure. Non-parametric statistics and regression analysis were used to compare groups with low (N=184), intermediate (N=1539), and high (N=161) HA symptom scores. The association between HA symptoms assessed at age 5-7 years and HA symptoms at 11-12 years was examined by Stuart-Maxwell test.

Results: HA symptoms were significantly associated with emotional disorders ($\chi^2(2)=43.50$, $p<.001$) and unspecific somatic complaints ($\chi^2(2)=162.45$, $p<.001$), but not with chronic physical conditions. In regression analyses controlling for gender and physical comorbidity, healthcare expenditure peaked in children with the highest HA symptom score (Wald test: $f(2,1740)$, $p=0.027$), that is these children used on average approx. 150 euros more than children with the lowest score during the 2-year period preceding inclusion. HA symptoms at age 5-7 years were significantly associated with HA symptoms at age 11-12 years ($\chi^2(2)=555.55$, $p<.001$).

Conclusions: HA symptoms, including hypochondriacal fears and beliefs, were non-trivial in preadolescents; they showed continuity from early childhood and association with emotional disorders, unspecific somatic complaints, and increased healthcare expenditure. Further research in the clinical significance of childhood HA is required.

Acceptance and Commitment Group Therapy (ACT-G) for Health Anxiety: A randomized, controlled trial.

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Introduction: Severe health anxiety (also known as hypochondriasis or illness anxiety disorder) is frequent and costly, yet rarely diagnosed or treated. Earlier treatment studies show problems with recruitment, dropout and recovery. The aim of the study was to test the effect of Acceptance and Commitment Group Therapy (ACT-G) compared to waitlist in patients with severe health anxiety.

Methods: 126 consecutively referred patients during March 2010 to April 2012 meeting research criteria for severe health anxiety were block-randomised (1:1) into ACT-G or a 10-month waitlist (Clinicaltrials.gov, no. NCT01158430). Patients allocated to ACT-G were treated in seven groups of nine patients between December 2010 and October 2012 and received nine weekly 3-hour group sessions and a booster session consisting of ACT-techniques. The primary outcome was decided a priori as the mean change in self-reported illness worry on the Whiteley-7 Index from baseline to the 10-month follow-up. Secondary outcomes were among others improvement in emotional distress and health-related quality of life at 10-month follow-up.

Results: Intention-to-treat analysis showed a statistically significant mean difference of 20.5 score points (95% CI 11.7-29.4, $p < 0.001$) on the Whiteley-7 Index between the groups at 10 months and the between groups effect sizes were large (Cohen's $d = 0.89$, 95% CI 0.50-1.29). The number needed to treat was 2.4 (95% CI 1.4-3.4, $p < 0.001$). Diagnosis and treatment were well accepted by patients.

Discussion: ACT-G seems feasible, acceptable and effective in treating severe health anxiety.

A group-based CBT treatment for Health Anxiety. Design for the CHAG-Trial and preliminary results from the pilot study.

Mathias Skjernov

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Introduction: No randomised controlled trials for the outcome of classical CBT delivered solely in groups for patients with Health Anxiety(HA)/hypochondriasis has yet been conducted (The CHAG-Trial).

Aims: 1)to examine the effectiveness of group-CBT for patients with severe health anxiety compared to a wait-list group, 2)to perform a categorical and dimensional assessment of personality, 3)to examine predictors of outcome especially comorbid personality disorders.

Methods: 84 patients referred from Medical Doctors during 2014-15 will be included and block randomised per 14 patients to either weekly group-CBT with 7 patients and 2 therapists for 3 hours a week in 12 weeks or wait-list for 9 months.

Inclusion: Severe Health Anxiety (dominating disorder), score on Whiteley Index 7 (WI-7) > 21.4 , age 18-65 years, Danish reading/speaking.

Exclusion: Risk of suicide or psychosis, a serious somatic disease, pregnancy, dependency of drugs, alcohol or medication.

Diagnostics: Research criteria for severe health anxiety and semi-structured interviews, SCAN and SCID-II.

Outcome measures: Primary: Questionnaire for health anxiety (WI-7) and cure. Secondary: e.g. Questionnaire for health anxiety (HAI), personality disorders (PID-5) and global functioning (F-GAF) and register data.

Preliminary Results: 14 patients (ITT). Females=64%. Mean age=39.6 years. Mean duration of HA=9.3 years. Comorbid depressive disorders=14%, anxiety disorders=42%, personality disorders=64%. Drop-out=7%. Mean reduction on WI-7=10 points. Response (1/2 SD)=64%. Significant response (1 SD)=29%. Cured=50%. Mean reduction on HAI=7 points. Mean increase on GAF-F=9 points.

Discussion: The group-CBT seems acceptable with a low drop-out on 7% and effective, when 50% of the patients were cured for severe Health Anxiety, and even though the reduction on WI-7 were non-significant, the reduction on HAI and increase on F-GAF were significant.

Symposium 2.A: The MINI International Neuropsychiatric Interview and DSM-5 – A DUAG symposium

The LEAD approach to Diagnostic Validity

Janet Williams

Columbia University, PRINCETON, NJ, United States of America

Prior to DSM-III the diagnostic accuracy of most clinicians was unquestioned. And in fact, diagnostic decisions in psychiatry were simpler, with far fewer nuances and categories than today. With the publication of DSM-III in 1980 and its provision of specified diagnostic criteria for all disorders, the stakes for diagnostic accuracy were raised. The Structured Clinical Interview for DSM-III (SCID; 1990), and MINI (1998), offer different approaches to diagnostic practice. Today, it is unthinkable for a psychiatric researcher to select subjects for most research studies without using some standardized diagnostic instrument. But how do we know that these systematic approaches to diagnosis are valid? Whether one trusts evidence of validity to a fully structured interview guide, such as the MINI, or a semi-structured interview guide such as the SCID, against what ultimate validity criteria should the instrument be judged? Following on a now-classic paper by Robins and Guze on psychiatric validity in 1970, in 1983 Spitzer proposed the application of a LEAD standard, which includes consideration of Longitudinal observation of the patient, what diagnoses Experts would give the patient, and consideration of All Data available. This talk will review the history leading to the development of the LEAD standard, and how this standard might be applied to current day diagnostic interviews such as the SCID and the MINI.

History of the Development of the Mini International Neuropsychiatric Interview (MINI)

David Sheehan

University of South Florida College of Medicine, Tampa, United States of America

The Mini International Neuropsychiatric Interview (MINI) was first developed in 1992 by David Sheehan in the US in close collaboration with Yves

Lecrubier in France as a joint US-European collaboration. It was designed to be briefer and easier to navigate than existing structured interviews. Its initial use was for screening patients into international clinical trials. Versions for both ICD and DSM were developed. Committed teams of academic colleagues, in many countries (particularly in Nordic countries) developed the early translations. Subsequently MAPI, the translation and linguistic validation service in France collaborated with many of these teams to further refine and standardize the translation and linguistic validation process, so that it is now available in over 70 languages or language variants in linguistically validated versions. It also has value in standardizing data acquisition for diagnosis in non-research clinical settings and as a training tool.

Several variants of the standard version were developed: MINI (standard version), MINI for Psychotic Disorders studies which had a much more detailed module to help identify all the subtypes of Psychotic Disorders (by Patricia Amorim), MINI Kid (for children and adolescents), MINI Kid for Psychotic Disorders studies. MINI Kid Parent (for parents of children and adolescents), MINI Kid parent for Psychotic Disorders studies, MINI Screen for Family Practice settings, and computerized versions of the MINI in 69 languages. All these versions evolved to map to DSM III-R, DSM-IV, and now to DSM-5. Lessons learned in the clinical application of the MINI will be discussed.

MINI neuropsychiatric interview in Norway: A success story

Ulrik Malt, Eva Malt

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MINI is widely accepted and used routinely in clinical psychiatry in Norway. Health authorities endorse its use. There are several reasons for this development. 1) The paper version of the MINI is available free of charge for all professionals working within non-profit *publically funded* health services. 2) *Clinically based* training courses on the use of MINI are offered. 3) The course stresses that MINI *supplements*, does not replace, interview focusing on psychosocial issues and the patients' understanding of their distress (meaning aspects). 4) Using semi-structured application of MINI is encouraged to provide more valid and clinical meaningful information. 5) Applying the module principle is recommended. E.g. adding ADHD or schizophrenia modules from MINI-plus if working mainly with adolescents or psychotic patient populations respectively. 6) The course points out pitfalls of the current MINI versions. I.e. modules of drug abuse, OCD and inclusion of melancholia module only in the MINI-plus version. The latter fact increases the risk of overlooking bipolar spectrum mood disorders. 6) Lectures about relevant descriptive psychopathology; etiological research and differential diagnoses is an integrated part of the training courses. 7) The importance of considering the whole specter of diagnoses before reaching a diagnostic conclusion is emphasized. E.g., panic disorder and alcohol abuse may be manifestations of an underlying bipolar disorder. Feedback indicates that, across different health providers, the clinical oriented courses within a context of understanding the whole person have been crucial to achieve the high acceptance of MINI as a natural part of psychiatric assessment in Norway.

Brief, valid rating scales for the measurement of severity of mental disorders

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Introduction: Severity assessment of mental disorders is a crucial part of clinical psychiatry and psychiatric research. Since surrogate biologic markers of illness severity are not yet available for mental disorders, formalized clinical assessment must necessarily form the basis for determining severity. As a consequence, clinical assessment has been operationalized in a number of rating scales, which allow quantification of the symptomatology of mental disorders. In this lecture, the development and validation of three such scales will be presented.

Methods: We have subjected the 6-item Hamilton depression rating scale (HAM-D6), the 11-item Psychotic Depression Assessment Scale (PDAS), and the 6-item Positive and Negative Syndrome Scale (PANSS-6) to psychometric evaluation to determine whether the scales are clinically valid and "scalable" (unidimensional).

Results: Our psychometric evaluation of the HAM-D6, PDAS, and PANSS-6 has demonstrated that these brief rating scales are valid for the measurement of depression, psychotic depression and schizophrenia, respectively. Furthermore, our results indicate, that the scales from which these brief versions are derived (the 17-item Hamilton depression rating scale (HAM-D17), the Brief Psychiatric Rating Scale (BPRS) and the PANSS) are not as psychometrically valid as the brief versions.

Discussion: When assessing the severity of depression, psychotic depression and schizophrenia, we suggest using the HAM-D6, the PDAS, and PANSS-6 respectively.

Symposium 2.B: Early intervention in psychosis. Experiences from the Nordic countries

Early intervention services in Denmark. From research to practice

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Background: The early phases of psychosis have been hypothesized to constitute a critical period, a window of opportunity. At the same time, the early phases of psychosis are associated with increased risk of unwanted outcome, such as suicidal behaviour and social isolation. This was the background for the emergence of early intervention services, and in Denmark, the OPUS trial was initiated as part of that process.

Methods: Modified assertive community treatment, together with family involvement and social skills training, constituted the core elements in the

original programme. A total of 547 patients with first episode psychosis were included in the trial.

Results: To summarize briefly the results of the OPUS trial: 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.

Discussion: OPUS treatment was implemented throughout Denmark. Training courses were developed and manuals and books published. Regional health authorities had access to national grants for implementing early intervention services; as a result, OPUS teams were disseminated throughout the country. 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.

Early intervention/TIPS in Norway

Jan Olav Johannessen

Stavanger University Hospital, RANDABERG, Norway

Background: Psychiatric disorders develop in phases or stages. In a dimensional view on mental disorders it is possible to intervene in each one of these stages to prevent further deterioration of a disorder, and thus prevent the more serious manifestations of mental disorders.

There is now a rich literature showing that it is possible to achieve secondary, and possibly primary prevention also in psychotic disorders and in psychosis-risk syndromes.

Methods: The TIPS-project (Early inTervention In Psychosis) was started as multicenter project in the mid 90-ties (DK,N,US). In the original TIPS-project (inclusion 1997-2000) 301 patients were included, since then an additional 350 patients have been included in what is called the TIPS II.

Results: It demonstrated that it is possible to reduce Duration of untreated psychosis down to 4,5 weeks (median), and that early intervention achieves radically better long-term outcome and full recovery in First episode psychosis, even after 10 years.

Discussion: Early intervention services have only been implemented in some regions in Norway, and Norway lacks a plan for a nationwide implementation of early psychosis services. The Norwegian medical association initiated in 2010-12 a nationwide "Break-through project" on early intervention, with 25 participating sites. The new Norwegian guidelines for assessment, treatment and follow-up of psychosis build on the ideas of early intervention, and one recommendation is that DUP should be shorter than 4 weeks.

Now some projects and services also aims at reaching into the psychosis-risk stages.

Early intervention in psychosis: The Icelandic Model

Nanna Briem

Landspítali University Hospital, Reykjavik, Iceland

Background: In 2010 the first early intervention service for young people with first episode psychosis was initiated at Landspítali the National University Hospital and has been under development since.

Methods: The service has been implemented in small but increasing steps for the last 4-5 years. It started as an inpatient ward but developed into a day-care based service with an assertive outreach part. In 2013 a multi-disciplinary case management team was included in the service-model. In 2014 a assessment team for all new cases of FEP was established and a cooperation project with a closed psychosis ward was initiated.

Results: Today the service is mainly a day-service with assertive outreach. There is also a small open ward with 7 inpatient beds. Since 2010 there has been an increase from 14 patients to over 70 in 2015. Dropout is low. Each patient has a case manager and a support counselor and the service is offered for up to 5 years. The treatment program is varied and includes psychoeducation, CBT, vocational rehabilitation based on the Individual Placement and Support model, family work and a focus on healthy lifestyle.

Discussion: Further development of the service is necessary and more focus on research is under way. Many challenges lie ahead; decreasing the DUP, dual diagnosis and finding ways to offer early intervention outside of Reykjavik and surrounding areas. But one of the main challenges will be the discharge of patients, because of lack of appropriate services in the community.

The treatment of first-episode psychosis, a description of the situation in Sweden

Lena Flyckt, Johan Cullberg, Maria Mattsson

Karolinska Institutet, BROMMA, Sweden

Background: First episode psychosis (FEP) patients differ in many aspects from patients with chronic psychotic disorders. They respond more promptly to antipsychotic medication and the suicide risk is augmented compared later stages of psychotic disorders. Therefore, this period of the psychotic illnesses has been focussed in national guidelines, in clinical research and in implementation strategies in Sweden.

Methods: The emphasis of the Parachute intervention was to treat with low doses of antipsychotic medication combined with psychosocial interventions to patients and their families. There should be continuity in psychiatric contacts during the first 5 years, and adapted in-patient care. Of a total of 253 patients, 175 agreed to participate from 17 centers in Sweden covering a catchment area of 1, 2 million inhabitants.

Results: At the one-year follow up, the functional level were significantly higher than in the comparison group. In-patient care days were fewer and dosages of antipsychotic medication were lower. The direct costs for in- and out-patient care per patient were about half of those in the comparison group.

Discussion: The treatment of FEP patients should include psychosocial intervention and low doses of antipsychotic treatment. The Parachute results contributed to a national implementation strategy that organized meetings and promoted regional professional networks to be formed. Currently, two national guidelines have been launched, one describing evidence-based psychosocial interventions (2011) and one dealing with antipsychotic treatment (2014). These two guidelines have been launched in a nation-wide implementation initiative, "Bättre Psykosvård", financed by the government.

Symposium 2.C: Optimal use of clozapine in treatment-resistant schizophrenia

Risk of progression from neutropenia to agranulocytosis during clozapine treatment

Oddur Ingimarsson, Engilbert Sigurdsson
Landspítali, Reykjavík, Iceland

Introduction: Around 20-30% of patients with schizophrenia are treatment resistant. Clozapine is the sole drug of choice for those patients. The aim of this study is to describe the risk associated with neutropenia in this patient group in Iceland.

Materials and methods: The sample consisted of 201 patients with schizophrenia or schizoaffective disorder who were confirmed to have used clozapine.

Results: Mean age at first treatment with clozapine was 37.8 years. Mean follow-up period on clozapine was 11.1 years. Out of 201 patients 147 (73.1%) remained on clozapine when this was assessed. Median number of days between neutrophil measurements during the first 18 weeks of treatment was 21 days. After these 18 weeks the median dropped to 124 days. For mild neutropenia (neutrophils 1600/mm³-1900/mm³) there was no progression of 23 cases to agranulocytosis although 19 patients had continued on clozapine for more than 1 year following their neutropenia. For patients with moderate neutropenia (900/mm³-1500/mm³) one patient out of 12 progressed to agranulocytosis and survived. Eight of these 12 patients had remained on clozapine for more than one year after developing neutropenia.

Discussion: Mild neutropenia did not result in agranulocytosis in this sample. The risk of agranulocytosis was only 8.3% for those with moderate neutropenia. Neutrophil monitoring in Iceland has for decades been far less stringent than guidelines recommend but that has not resulted in any known fatalities yet. The risk of suicide and ongoing psychosis must be balanced against the small risk of agranulocytosis in this patient group.

Genome wide association studies for typical antipsychotics

Dan Rujescu
University of Halle, Halle, Germany

One major drawback of the therapy with psychopharmacologic agents is the lack of efficacy in many of the patients and the occurrence of side effects that can both limit therapy and compliance. Thus, the availability of a predictive tool for the response to psychopharmacologic agents in the therapy of psychiatric disorders is desirable opening a unique avenue for a real personalized psychiatry.

Typical antipsychotics, like Haloperidol are benchmark drugs for the pharmacological treatment of Schizophrenia but the genetics of its efficacy is still to be elucidated. As Haloperidol can lead to serious side effects, a predictive genetic risk profile before treatment would be of greatest benefit. Therefore we performed a genome-wide association analysis in a sample of patients treated with haloperidol and the results were replicated in a larger sample of patients treated with second generation antipsychotics or perphenazine. PANSS % score decrease was the outcome in both samples. The period of observation was restricted to one month in the replication sample and the most severe cases were included, to best balance the replication. Dan Rujescu will present newest results on this GWA and discuss them in the context of literature.

Effective management of the adverse side-effects of clozapine treatment

James MacCabe
King's College London, London, United Kingdom

Clozapine is uniquely effective in the management of treatment-refractory psychosis. However, many patients who are eligible to receive clozapine do not receive it, either because they have previously experienced adverse effects, or because of a reluctance to undergoing mandatory blood monitoring. This presentation will combine research evidence and our own experience at the UK National Psychosis Unit to offer advice on improving the acceptability and tolerability of clozapine. I will cover common but troublesome problems such as hypersalivation and sedation, as well as the approach to re-challenging patients who have previously experienced suspected blood dyscrasias or cardiovascular complications of clozapine.

Optimizing clozapine treatment

Jimmi Nielsen
Aalborg University Hospital, Aalborg, Denmark

Clozapine remains the drug of choice for treatment resistant schizophrenia and up to 50% may respond despite non-response to previous non-clozapine antipsychotics. According to most treatment guidelines, indication of clozapine is after insufficient response to at least two antipsychotics. Despite the clear advantages of clozapine, psychiatrists hesitate to prescribe clozapine timely. The aim of this presentation is to provide a short brush-up how to optimize clozapine therapy and provides information on how to manage the most common adverse effects and monitoring obstacles.

Despite no well-defined therapeutic reference interval, therapeutic drug monitoring (TDM) is widely used. Response to clozapine occur at all plasma levels, whereas most adverse effects are dose-dependent. For defining partial or non-response to clozapine, maintain plasma levels above 1800 nmol/L for at least six months. Fluvoxamine may increase plasma levels to threshold levels when used in patients with ultra-high CYP1A2 activity, i.e. young male smokers.

Discontinuation due to poor compliance to hematological monitoring can be minimized by using point-of-care devices for hematological monitoring. Measuring troponins during the first months of treatment may minimize fatality of myocarditis. Treatment with aripiprazole may reduce the metabolic burden. Atropine drops may reduce hyper-salivation. Treatment with beta-blocker may reduce palpitations and correct heart rate in patients with sinus tachycardia. In conclusion, clozapine is a complex drug to use and warrants that psychiatrists know how to optimize clozapine treatment and minimize the risk of serious adverse effects.

Symposium 2.D: Studying underlying dimensions of psychopathology in children and adolescents at higher risk for mental disorder

Do symptoms of Attention-Deficit/Hyperactivity Disorder (ADHD) and co-occurring disorders in young preschool children represent a high risk for chronic psychopathology?

Pål Zeiner

Oslo University Hospital, Oslo, Norway

In many children who are diagnosed with ADHD in school years, parents report that the symptoms have been present for several years. However, we lack studies that can help us identifying preschool children with a high risk of developing ADHD and co-occurring disorders. In order to study the continuity and discontinuity of ADHD symptoms from preschool to school years 1200 preschool children with high scores on parental reports of ADHD symptoms were recruited from The Norwegian Mother and Child Study and assessed with psychiatric interview with parents, neuropsychological tests, and other clinically relevant assessments. The children will be reassessed at age eight years. Data from the clinical assessments at age three years will be presented along with some preliminary data on the longitudinal course.

The long-term impact of autism spectrum disorder symptoms on function in adolescence

MB Posserud

Haukeland University Hospital, Bergen, Norway

Background: Autism is a serious disorder where the prevalence is estimated to affect 1-2% of the childhood population. The huge rise in prevalence in the last decades has undoubtedly been at least partly due to a shift in the concept and in the diagnostic criteria. Little is known about the long-term outcome of this new generation of children with autism, and it is not known whether the presence of autistic traits in childhood affect functioning later in life.

Method: The Bergen Child Study has carried out four cross-sectional assessments between 2002 and 2012 in Bergen, Norway. The first wave in 2002 comprised the Autism Spectrum Screening Questionnaire (ASSQ) to all parents and teachers of school children age 7-9 years. The fourth wave in 2012 comprised self-reports from adolescents in high-school age 16-18, and grades and attendance from school registers.

Results: Having an elevated ASSQ score in early school age increased the odds for non-response and for being in touch with child protection services, mental health services and school psychology services in adolescence, but did not increase the risk for contact with the school nurse or general medical care and affected school performance less.

Conclusion: A high childhood ASSQ was associated to poorer outcome and also predicted non-response in adolescence. The overall impact on adolescent function of a high childhood ASSQ score is therefore likely underestimated based on the participating youth.

The Danish High Risk and Resilience Study-VIA 7 - a study of 500 seven- year old children in Denmark born to parents with either schizophrenia or bipolar disorder or controls

Anne Thorup¹, Jens Jepsen¹, Nicoline Hemager¹, Camilla Christiani¹, Anne Ranning¹, Aja Greve², Ditte Gantriis², Birgitte Burton¹, Ditte Ellersgaard¹, Katrine Spang¹, Mette Skjærbæk¹, Ole Mors², Merete Nordentoft¹, Kerstin Plessen¹

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Background: Abundant literature documents the genetic vulnerability in children of individuals with schizophrenia and bipolar disorder. Recently a genetic overlap between the two disorders has been suggested. However, neither developmental pathways of psychopathology in children at risk, nor the implications of resilience factors have been assessed sufficiently in a crossdiagnostic perspective.

Methods: We will examine 200 7 year old children with a parent with schizophrenia, 100 children with a parent with bipolar disorder and 200 controls as well as their parents. We will use a wide range of validated interviews and questionnaires and direct observations, cognitive tests and biological specimens to map symptoms, motor and social development, intelligence and cognition, resilience factors, and finally the environment and emotional climate at home. We recruit participants via Danish Registers to establish a representative cohort and make sure that children at high risk and controls are matched on gender, age and community.

Results: We hypothesize that children at familiar high risk for bipolar disorder and schizophrenia will show higher rates of psychiatric disturbances at age 7. Moreover, we expect that children at high risk will show impairments of underlying developmental traits, such as delayed motor development and impaired coordination, and poorer cognitive function and poorer social cognition. Selected preliminary results will be presented.

Perspectives: The perspectives of this study are multi-fold. Perspectives for early intervention for high-risk families using developmental psychopathological measures will be discussed, both for the mean of lowering their burden and for preventing further development of severe mental disorders.

VIA 11-Neurobiology in children at genetic high risk at 11 years of age-a projectplan

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Introduction: The overall objective of the presentation is to discuss approaches to study underlying neurobiology in young individuals at high genetic risk for developing severe mental disorders, exemplified within the VIA11 study. Using a strategy of "enriched recruitment" will further shed light on the specific behavioural and neurobiological profile of several domains of development, such as gross motor development, coordination, cognitive and social cognition in groups of children at high risk. It is unclear, whether function in these domains continues to decline over time in those vul-

nerable individuals, or if they stabilize at a specific, lower level.

Methods: We will examine 200 children at age 7 and 11 with a parent with schizophrenia, 100 children with a parent with bipolar disorder and 200 controls (defined as not diagnosed with SZ or BP). Given their genetic liability, we will focus on underlying potential endophenotypes and map the development of such transdiagnostic constructs (in concurrence with the "Research domain criteria") between age 7 and 11. Beyond the use of age-adjusted clinical instruments and neuropsychological tests, we will assess the children with anatomical and functional magnetic resonance imaging (MRI), electroencephalography (EEG) and event related potentials (ERP). The use of Diffusion Tensor Imaging (DTI), functional MRI and EEG will allow for the study of connectivity in the brain across multiple modalities. Neurobiological outcomes will be analysed together with environmental exposures through pregnancy, perinatal period and childhood, familial risk status and severity of parental mental disorders, and polygenic risk scores for schizophrenia and bipolar disorder.

Negative affect, mental disorders, and exaggerated Theory-of-Mind in children with psychotic experiences

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Background: Psychotic experiences (PE) are common in individuals of the general population and may mark the early expression of the psychopathology underlying psychosis. This study aimed to examine the prevalence, developmental and clinical correlates of PE in preadolescent children.

Methods: We investigated 1,632 children from the general population Copenhagen Child Cohort 2000 by semi-structured interviews using the K-SADS-PL-items on psychotic and affective symptoms. The Development and Well-Being Assessment (DAWBA) was used independently to diagnose DSM-IV-mental disorders. Exaggerated Theory-of-Mind (HyperToM) was measured by the ToM-Storybook-Frederik. Multivariate, mutually adjusted logistic regression analyses were performed to test the correlates of PE, and the specificity of correlates of PE versus correlates of any DSM-IV-mental disorder.

Results: The weighted lifetime prevalence of PE at age 11-12 years was 10.9% (CI 9.1-12.7). The majority of children with PE (n=172) either had a DSM-IV-mental disorder (31.4%) or sub-threshold subjective difficulties (31.4%). The risk of PE increased with emotional and neurodevelopmental disorders, and sub-threshold depressive symptoms, regardless of whether PE were expressed as hallucinations and/or delusions. The highest correlations were seen for emotional and multiple disorders. HyperToM was associated with PE, and specifically with PE without concurrent mental disorder or developmental precursors.

Conclusions: PE represent a trans-diagnostic marker of psychopathology and subjective distress, being particularly common in children with emotional disorders. HyperToM may have a specific role in the risk trajectories of PE.

Symposium 2.E: The inner clock revisited: Circadian rhythm disturbances in insomnia and psychiatric disorders

Physiological mechanisms of sleep-wake circadian regulation

Poul Jennum

Danish Center for Sleep Medicine, Copenhagen, Denmark

Sleep and wake are fundamental behavioral states highly regulated by. Brain states and body functions change dramatically between sleep and wake, are regulated by circadian and homeostatic processes which is highly regulated by brain stem and midbrain structures. The circadian and homeostatic processes are in common named the two-process of sleep-wake regulation. The circadian process serve to adapt to external light dark cycle, whereas the homeostatic process serve as an integrated part of wake-sleep process; the homeostatic pressure builds up during wakefulness, Sleep-wake transitions require the coordination of several brain regions and engage multiple neurochemical systems, including neuropeptides. Neuropeptides serve two main functions in sleep-wake regulation. First, they represent physiological states such as energy level or stress in response to environmental and internal stimuli. Second, neuropeptides excite or inhibit their target neurons to induce, stabilize, or switch between sleep-wake states. Central in this regulation is the wake-sleep-stabilizing hypothalamic neuropeptides hypocretin and melanin-concentrating hormone. Thus, neuropeptides integrate physiological subsystems such as circadian time, previous neuron usage, energy homeostasis, and stress and growth status to generate appropriate sleep-wake behaviors.

The system and its regulation of sleep-wake is highly influenced by pharmacologic manipulations, disease processes (sleep, neurodegenerative and psychiatric disorders).

Sleep-wake rhythm fragmentation: causes, consequences and opportunities for treatment improvement in depression and insomnia

Eus Van Someren

Netherlands Institute for Neuroscience, AMSTEDAM, Netherlands

Insomnia, chronic poor sleep, is the most common health complaint and has serious consequences. It is the major risk factor for the development of depression. Still, our understanding of underlying brain mechanisms is limited. Age-related changes in the hypothalamic suprachiasmatic nucleus, the biological clock of the brain, may contribute to the steep increase in sleep complaints with age, especially to fragmentation of the sleep-wake

rhythm. Fragmented sleep in turn could in part be responsible for what has usually been regarded mere age-related changes in brain function and cognition. Support of the clock by means of bright light may improve the sleep-wake rhythm amplitude and daytime function. Remarkably, many people with insomnia do not suffer from a lack of sleep, but rather of fragmentation of sleep. Fragmentation of periods of sleep and wakefulness may interfere with complex processes, from the molecular to the systems level, that require multiple steps and therefore sufficient time within a specific state to be completed. A recent observation of particular relevance to psychiatry is that the fragmentation of REM sleep that is most characteristic of chronic insomnia, interferes with the resolution of emotional distress and thus contributes to accumulating hyperarousal. The states of sleep and wakefulness may thus reflect an organizational principle, evolved to separate processes, ranging from the molecular to the behavioral, that would, if taking place simultaneously, be detrimental to the organism.

Effects of melatonin and benzodiazepine dose reduction on circadian rest-activity patterns in patients with schizophrenia or bipolar disorder

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Introduction: Patients with schizophrenia often suffer from disruptions in circadian rest-activity cycles, which might partly be attributed to psychopharmacological medication. Benzodiazepines are frequently administered for prolonged periods, despite recommendations of only short-term usage. Melatonin, a naturally occurring nocturnal hormone, has the potential to stabilize disrupted circadian rhythmicity.

Methods: Data were derived from a randomized, double-blinded clinical trial with 24 weeks follow-up. Participants were randomized to add-on treatment with prolonged-release melatonin (2 mg) or matching placebo, and usual benzodiazepine dosage was gradually tapered. Here we report the results of 72 hours of actigraphic assessment of activity-rest cycles performed pre and post tapering.

Results: A subsample of 48 patients participated in the actigraphic assessment: 20 patients in the melatonin group and 28 patients in the placebo group. Rest-activity cycles varied from regular to highly disrupted. Melatonin significantly increased the interdaily stability and at a trend level decreased the intradaily variability compared with placebo. Benzodiazepine dose reduction was not associated with circadian rhythm variables.

Activity counts were higher in patients post benzodiazepine tapering compared with pre tapering, but only significantly so during afternoon hours.

Discussion: Melatonin might be of relevance for patients distressed by disrupted circadian rest-activity cycles during benzodiazepine withdrawal. Benzodiazepine tapering seems to result in diminished daytime sedentary behavior adding to the perceived overall benefits of general recommendations to minimize long-term benzodiazepine prescribing.

Symposium 2.F: Early career: How to write and publish a scientific paper?

Writer's block and publication considerations before the project starts

Povl Munk-Jørgensen

Aarhus University Hospital, Department of Organic Psychiatric Disorders and Emer, Risskov, Denmark

Povl Munk-Jørgensen is a former professor of clinical psychiatry at Aarhus University Hospital in Denmark. He is also the present editor-in-chief of *Acta Psychiatrica Scandinavica*. He has many years of experience in both clinical research and epidemiology and his publication list includes more than 200 articles in peer-reviewed journals, books, book-chapters and editing of books. He has been teaching on all levels in the health care system since 1972 from nursing schools to PhD courses.

His presentation will focus on the considerations you can do before your project starts to enhance your chances of publication and how to avoid or work your way out of a writer's block.

Peer Review and Publication

Niels Okkels

Aarhus University Hospital, Risskov, Risskov, Denmark

What happens to your article after submission? What typical mistakes do researchers make the first time they submit an article? What is a peer review and who is a peer? How should you respond to reviewers comments if you want to have your article accepted?

In this talk Niels Okkels will explain the basics of publication and peer review. He will tell about his mistakes and about the manuscripts that were rejected - hopefully so that you can avoid a few of the mistakes he made.

Niels Okkels is a newly graduated medical doctor with a passion for clinical psychiatry and research. He is a Psychiatric Resident and Research Associate at Aarhus University Hospital, Risskov. In 2012 he founded the *Psychiatric Research Academy* that now engages 14 medical students with an interest in psychiatric research. For the past 3 years Niels has been a reviewer for three international, scientific journals and since 2014 a Trainee Advisory Board Member at the *Acta Psychiatrica Scandinavica*.

Challenges in writing methods, results, discussion and limitations

Clara Reece Medici

Aarhus University Hospital, Aarhus, Denmark

Clara Medici is in her 5th year of Medical School at Aarhus University. Being part of the Psychiatric Research Academy she has experiences with

both clinical and registry research. Clara will address the challenges in explaining methods adequately, relaying results clearly and comprehensibly, making a discussion relevant and a critic to one's own study. She has faced a very common problem in clinical research: missing responses. Even when a study is thoroughly planned Murphy's law will apply. How does this impact a study and how does one convey this properly to the reviewers? This and other examples of common puzzles in scientific writing will be addressed.

Scientific papers: Title, introduction and basic principles on effective writing

Linda Marie Kai

Aarhus University, Aarhus C, Denmark

Linda Marie Kai is an 8th semester medical student at Aarhus University. She has been a member of the Psychiatric Research Academy since 2013. In the beginning of 2015 she finished a research year at Translational Neuropsychiatry Unit at Aarhus University Hospital in Denmark. Currently, Linda is engaged in preclinical psychiatric research in collaboration with Aarhus University and University of Prince Edward Island. Her presentation will focus on some of the challenges that faces young researchers as they venture off to write their first scientific paper. Specifically, she will go through some basic principles on effective writing and address important considerations when choosing a title and writing the introduction for a scientific paper.

Symposium 2G:

Epidemiology of affective disorders in the Baltic countries - terra incognita?

Epidemiology of affective disorders on the European map

Elmars Rancans

Riga Stradins University, Riga, Latvia

Affective disorders, a major depression in particular, are one of the most common mental disorders annually affecting approximately 30 million people in Europe alone (1). Mood disorders are causing significant burden to patients, families and society as a whole, annually costing more than 110 billion EUR (2).

Majority of epidemiological research in Europe was performed in the Western European countries and even the latest review from 2010 has estimated prevalences of mental disorders from the Eastern Europe mostly based on the expert opinions (1).

The Baltic countries have undergone significant societal and economical changes over the last 20 years. Suicide rates were constantly ranking in the top five in Europe and pronounced changes in suicide rates have also been observed (3).

Mental health care underwent different structural reforms, but reliable epidemiological data were missing. During the recent years several epidemiological studies of affective disorders in the general population and different medical setting have been performed in the Baltic countries. Prevalence figures, associated sociodemographic and clinical risk factors will be presented during symposia.

1. Wittchen, H.U. et al. The size and burden of mental disorders and other disorders of the brain in Europe 2010. *European Neuropsychopharmacology* 2011, 21: 655-679

2. J. Olesen et al. The economic cost of brain disorders in Europe. *European Journal of Neurology* 2012, 19: 155-162

3. WHO Regional Office for Europe. Health for All European mortality database (MDB). <http://data.euro.who.int/hfamdb/> accessed March 25th, 2015

Major depression in Estonia: prevalence, associated factors, and use of health services

Anne Kleinberg

Tallinn Children Hospital, Tallinn, Estonia

Aim: to study the prevalence of major depression and associated factors in Estonia; and 12-month help-seeking for emotional problems among the general and depressed population.

Methods: The major depressive episode and help-seeking was assessed within the nationally representative, cross-sectional 2006 Estonian Health Survey, in which non-institutionalized individuals aged 18-84 years (n = 6105) were interviewed using the Mini-International Neuropsychiatric Interview.

Results: The point prevalence of major depressive episode in the Estonian population was 5.6%. Depression was higher among females, in the non-Estonian ethnic group, among people older than 40 years, and in the lower-income group. The prevalence of 12-month help-seeking for emotional symptoms was 4.8%. The rate of 12-month help-seeking in the depressed sample was 34.1%. Depressed people used non-mental health services 1.5-3 times more than non-depressed persons. Low frequency of contacts with one's friends and parents, emotional loneliness, external locus of control and emotional dissatisfaction with couple relations were significant factors predicting depression.

Conclusions: Prevalence of major depression in the Estonian population is comparable with other population surveys, being a little higher than the average.

Age, income, ethnicity, health status, self-rated health, and previous depressive episode were independent associates of depression.

Help-seeking of depressed persons was most of all associated with severity of depression. Help-seeking of depressed persons depends on locus of control, interactions of emotional loneliness, locus of control and contacts with the parental family. Low level of diagnosis and undertreatment leads to an increased use of expensive but non-specific health services by depressed persons.

Prevalence of depression and associated sociodemographic correlates in the general population and primary care in Latvia

Jelena Vrublevska

Riga Sradins University, Riga, Latvia

Aim: The aim was to estimate point prevalence, 12-month prevalence of depression in the general population of Latvia, as well as in primary care settings, and to assess possible correlative socio-demographic factors.

Methods: Prevalence of depression in the general population was estimated in two nationally representative surveys - the point prevalence was determined in 2011 using the Patient Health Questionnaire-9 in the sample size of 4493 persons; the 12-month prevalence was estimated within the FINBALT health monitoring survey in 2012 with total net sample size of 3003 persons, who were interviewed using the Mini-International Neuropsychiatric Interview. A pilot study in 2014 was carried within the framework of the National Research Program BIOMEDICINE to assess prevalence and detection of mental disorders in primary care settings in Latvia.

Results: The point prevalence of depression was 6.7%. The odds of having depression were higher in females, in urban dwellers (though not in the capital city, Riga), in persons with non-Latvian ethnicity, with alcohol dependence, with poor subjective health status and having a dissatisfaction with life. The 12-month prevalence of depression was 7.3%. Use of any health services during the last 12 months was higher among those with depression (73.1% and 85.8%). Current depression was present in 13.6% of those who visited their primary care physician.

Conclusions: The 12-month prevalence of depression and prevalence of current depression in primary care settings is above average depression rates in Europe. Certain socio-demographic and health related factors are associated with higher risk of morbidity with depression.

Trends of prevalence of depression in Lithuania

Virginija Adomaitiene

Lithuanian University of Health Sciences, Psychiatry department

Background: Depression is a long stay illness. The treatment of depression often is problematic. Affective disorders are the second leading group of all mental illness (depression takes 95,0% of all affective disorders in 2014) in Lithuania. There are 107 primary outpatients mental health care centers under State Mental Health Center of Lithuania. The population of Lithuania during this period had decreased from 3097300 to 2944459 inhabitants (-9,5%).

Methods: The data was collected from Lithuanian Department of Statistics under Ministry of Health during the five years period (2010-2014).

Results: The prevalence of first and recurrent episodes of depression had increased from 1582,36/100000 to 1842,73/100000 inhabitants during the period 2010 – 2014. The incidence of first episode depression during this period had gradually decreased in 38,7%, from 1134 (female-76,5%) to 695 (female-78,4%) outpatients. While the prevalence linked to stay approximately at the same position, from 12541 (female-79,5%) to 12973 (female-79,0%) outpatients. The incidence of recurrent depression during the same period had decreased in 21,8%, from 979 (female-83,2%) to 765 (female-83,8%) outpatients. While the prevalence had gradually increased in 6,0%, from 11198 (female-83,0%) to 12639 (female-82,5%) outpatients. Trends of use of antidepressants are growing from 19,16 (2010) to 23,40 (1012) DDD/1000/day.

Conclusion: Depression is a leading affective disorder in Lithuania. During the last five years the prevalence of depression is growing while the population is decreased. More than two thirds of all depression outpatients are females.

Symposium 3.A: The Forensic Psychiatric Patients in Denmark: diversity and challenges

'Who is entitled to a bed? - Forensic inpatients in general psychiatry'

Jette Møllerhøj

Mental Health Services, Capital Region, Roskilde, Denmark

The aim of this presentation is to outline the challenges of nursing and treating a growing number of patients sentenced to psychiatric treatment. The number of mentally ill offenders in Denmark has increased substantially over the last 20 years. The majority of these patients are treated in outpatient services (80 %). The remaining 20 % requiring inpatient treatment and care are treated in either dedicated forensic psychiatric units or in general psychiatric units. Concurrently with a reduced number of beds in general psychiatry, there has been a nationwide increase in the number of beds dedicated to forensic patients. However, the majority of mentally ill offenders are still cared for in general psychiatry. All in all, forensic patients represent only 4 % of all psychiatric patients treated in mental health services, but they take up disproportionately more resources and attention.

According to the existing visitation criteria, the specialised forensic psychiatry takes care of the most complex patients in terms of psychopathology and dangerousness, whereas general psychiatry is supposed to take care of the rest.

This presentation will identify the major reasons as to why the task of nursing and treating mentally ill offenders in general psychiatric units is experienced as a difficult, unclear and uncomfortable task among managers and nursing staff.

Mentally ill offenders in the Danish Penal Act - psychiatric diagnosis and judicial measures

Mette Brandt-Christensen

Psychiatric Center Glostrup, Glostrup, Denmark

In Denmark the number of persons with psychiatric treatment sanctions has been on a constant rise for the last 10 years and presently comprises 4000 individuals. This development differs substantially from the other Nordic countries.

The Danish Penal Code's § 16 states that psychotic offenders are exempt from punishment. Ordinarily this group receives treatment sanctions. § 69 states that offenders with less severe degree of mental illness might be also receive treatment sanction instead of punishment if it is considered expedient.

A forensic psychiatric assessment is requested if it is assumed, that the offender suffers from any of the conditions comprised in §16 or §69. The number of individuals undergoing forensic psychiatric assessment also has increased substantially, and is estimated to be between 1000 and 1200 annually.

In two different studies the development concerning psychiatric diagnosis and judicial measures was addressed. Study design was comparative, retrospective and based on forensic psychiatric assessment and verdict reports. Results show that the majority of forensic psychiatric patients in Denmark suffer from schizophrenia, are men, often with substance abuse and on average older than other delinquents. The primary criminal charges are violence, however also comprising theft and trading narcotics. 30% or more are non-psychotic offenders. A substantial number has contact to mental health services prior to offending without being recognized as potential offenders. For the non-psychotic offenders treatment sanctions became more frequent during study period (10 years) and some the diagnostic pattern changed was observed, from personality disorders towards ADHD and back again.

Diversity and flexibility: Forensic Assertive Community Treatment (FACT) teams in Capital Region of Denmark

Liv Os Stølan, Hans Raben, Lis Sørensen, Ulla Almegaard, Lilli Beder, Jette Møllerhøj, Mette Brandt-Christensen
Mental Health Services Capital Region Denmark, Roskilde, Denmark

Background: According to the Danish Penal Code, offenders, who at the time of the crime were psychotic, mentally retarded or mentally disordered in some other way, are not punishable, but instead sentenced to some measure of psychiatric treatment, including outpatient treatment.

The Assertive Community Treatment (ACT) model can also target forensic patients, and the first FACT (Forensic ACT) inspired team in Denmark was established in the Mental Health Centre Sct. Hans in 2006, and the second FACT-inspired team in the Capital Region was established at Mental Health Centre Glostrup in 2011.

Aims: To map the patient populations: Demographic/clinical data, psychiatric/criminal history, rehospitalisation/recidivism during the treatment period.

To analyse the practices in the applied assertive community treatment in the two teams.

To provide better understanding of challenges and obstacles in the forensic assertive outreach community treatment in a Danish context.

Methods: Cohort studies, including data from all clinical pathways, combined with a sociological approach to analyse the daily practices in the teams.

The study includes app. 125 terminated clinical pathways, and app. 130 ongoing clinical pathways.

Preliminary results and discussion: The patients referred to the teams, are considered 'difficult patients', and too 'troublesome' for the general outreach teams. Key characteristics are aggressive behaviour, dual diagnosis, noncompliance, and sentences due to serious crime. The study confirms that the patient population is characterised by complexity, but also great diversity (i.e. number of previous convictions/number of offences; psychiatric history), and flexibility and highly individualised approaches characterises the team's work.

The Role of The (Forensic) Psychologist in Danish Forensic Psychiatry

Tine Wøbbe

Mental Health Centre Sct.Hans, Mental Health Services, Capital Region of Denmark, Roskilde, Denmark

The role, as well as work functions and assignments, of the forensic psychologist in Denmark has changed dramatically over the past decade.

Focus has shifted from 'traditional psychologist tasks' such as individual psychotherapy and perhaps group therapy to training and supervision of other staff members, playing an often key role function in milieu therapy, continued psychological testing of patients and not at least: risk assessment with regards to risk of either future or recidivism to violence.

The forensic psychologist today in Denmark hence is required to master several in itself major areas of psychology (psychotherapy, psychological testing and assessment, teaching, supervision etc.) but also often has to shift in between involvement in the treatment of patients and being actively involved in the staffs continued education as well as providing psychological aid in critical situations.

The aim of this presentation is to map out an overview of the forensic psychologists in Denmark, both with regards to demographic data and work tasks and with a retrospective view upon the perceived changes in work assignments over the last decade, both locally and nationwide.

Offset is the largest forensic department in Denmark (Dept. R, Psychiatric Centre Sct. Hans) and this will serve as the comparative foundation for other departments nationwide.

The presentation will identify both joint tasks for the forensic psychologists in Denmark as well as outline the diversity still within the field, both nationwide and locally.

Symposium 3.B: Current understanding of somatoform disorders and functional somatic syndromes, and new treatment strategies in youth

Overview of illness mechanisms in somatoform disorders and functional somatic syndromes

Andreas Schröder

Aarhus University Hospital, Aarhus C, Denmark

Background: Contemporary illness models for somatoform and related disorders are often biased. Health care professionals tend to focus on either biological or psychological / social mechanisms, rather than trying to integrate current knowledge from various disciplines.

Methods: Based on a clinical review, this presentation will focus on some important illness mechanisms that have been found consistently across a range of functional somatic syndromes and somatoform disorders.

Results: A growing body of evidence suggests that both the 'psychiatric' somatoform disorders and the 'medical' functional somatic syndromes (e.g.

fibromyalgia, irritable bowel syndrome and chronic fatigue syndrome) are expressions of the same underlying illness phenomenon with various subtypes. We name the underlying phenomenon 'bodily distress'; it manifests as patterns of multiple and disturbing bodily sensations. Bodily distress may best be understood as a result of pathophysiological responses to prolonged or severe mental and/or physical stress in genetically susceptible individuals. Altered autonomic balance, stress-axis dysfunction, disruption of somatosensory processing, and activated inflammatory response are pathophysiological mechanisms that may have the potential to produce and maintain bodily distress. Moreover, psychological factors such as trait negative affectivity, symptom catastrophizing, biased cognitive and memory processes and dysfunctional illness behaviours are consistently linked to the development and maintenance of bodily distress.

Conclusion: A number of predisposing, precipitating and perpetuating factors of bodily distress syndromes have been identified, some of which may be addressed in intervention studies. Especially perceptual and cognitive processes, but also emotion regulation and illness behaviours are targets of new psychological interventions for these disorders.

Neuroticism and maladaptive coping in patients with functional somatic syndromes

Heidi Frølund Pedersen, Lisbeth Frostholm, Eva Ørnbøl, Jens Søndergaard Jensen, Andreas Schröder
Aarhus University Hospital, Aarhus C, Denmark

Objective: The etiology of functional somatic syndromes (FSS) such as fibromyalgia and chronic fatigue syndrome is considered multi-factorial consisting of predisposing, precipitating, and perpetuating factors. In this study, we sought to investigate three questions that can be drawn from the cognitive-behavioural model of FSS: 1) Do patients with FSS show higher levels of neuroticism than healthy individuals? 2) Does neuroticism affect physical health either directly or indirectly through coping strategies? 3) Does more adaptive coping mediate the effect of CBT on physical health?

Method: We used data from a randomized controlled trial in which 120 patients with a range of FSS were randomized to group CBT or enhanced usual care. Patients completed questionnaires at referral, baseline, and 4, 10, and 16 months after randomization. Our hypotheses were explored through a series of cross-sectional (linear regression and structural equation models) and longitudinal (mediation) analyses.

Results: Patients with FSS had significantly higher levels of neuroticism than the general population, and neuroticism was cross-sectionally associated with higher catastrophizing. Mediation analyses at baseline found catastrophizing to mediate the association between neuroticism and poorer physical health. Finally, decreased symptom catastrophizing mediated the long-term effect of CBT on improved physical health.

Conclusion: The results support a cognitive-behavioural model of FSS. Targeting symptom catastrophizing may be an essential component in CBT for patients with a range of FSS.

Family based treatment for children with functional somatic symptoms: A systematic literature review.

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³Department of Child and Adolescent Psychiatry, University of Southern Denmark, Odense, Denmark

Background: Young patients with Functional Somatic Symptoms (FSS) are common and may present in all clinical settings. Clinical presentation varies from self-limiting to severe and disabling symptoms with impairment in several domains of daily life. In daily clinical practice there is no consensus on which treatment to offer children and adolescents with FSS. Research in adults shows that different FSS respond to the same kind of treatment, with the effect of cognitive behavioural therapy being well established. In the understanding of mental health issues in children, it is well established that family issues play a role. Thus there is an increasing focus on interventions targeting the whole family, and empirical support for family-based treatment for children with mental health problems is growing. However systematic research on the subject is challenged by the fact that family based treatment is broadly defined and encompasses a wide range of interventions.

Aims: As part of a PhD study on family based treatment for children with FSS a systematic review of the literature will be performed in which the type and characteristics of existing family based psychological interventions for children and adolescents with FSS will be explored and described.

Methods: The review is conducted with reference to the PRISMA guidelines. A review protocol has been published on Prospero and can be accessed with this number: CRD42015016703

Results: Descriptive data on type and methods of family based intervention as well as a systematic evaluation of the quality of included studies will be presented.

The importance of psychological flexibility for behavioural changes - effective mechanisms of change in Acceptance and Commitment Therapy for pain in young patients

Rikard Wicksell, Linda Holmström, Mike Kemani, Camilla Wiwe-Lipsker, Marie Kanstrup, Gunnar Olsson
Karolinska University Hospital; Karolinska Institutet, Stockholm, Sweden

Despite recent advantages, chronic pain still results in debilitating effects for a large number of children and adolescents. Traditional pharmacological and psychological strategies are many times insufficient in reducing symptoms and facilitating recovery. Although studies indicate the utility of interventions based on cognitive behavioural therapy (CBT), improvements are commonly modest and sustained effects are difficult to achieve. Also, the process by which CBT is effective is still rather unclear.

Recently, an approach that promotes acceptance (e.g. ACT) of pain and distress has been suggested. In ACT, avoidance of pain-related stimuli is considered central to disability and reduced quality of life. Rather than focusing on alleviation of pain, ACT seeks to minimize the influence of pain on behaviour, i.e. *pain interference*. Specifically, the treatment objective in ACT is to improve functioning by increasing the individual's ability to act effectively in accordance with long-term goals and values, i.e. psychological flexibility.

In this presentation, an ACT approach for working with pediatric chronic debilitating pain will be described. In addition, results from two recent

studies will be presented. First, results from a recent research illustrates that pain interference mediates the relationship between pain and levels of disability, as well as between pain and depression (Holmström, under review). Second, mediation analyses from a previously conducted RCT illustrates that psychological flexibility is a specific mediator of improvement in pain interference. Furthermore, implications for future research and clinical development will be discussed.

Acceptance and Commitment group therapy for adolescents with a range of functional somatic syndromes: presentation of study design and pilot data.

Karen Kallesøe¹, Charlotte Ulrikka Rask¹, Tua Preuss¹, Rikard Wicksell², Per Fink¹, Andreas Schröder¹

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²Karolinska Institute, Stockholm, Sweden

Background: Approximately 5-10% of adolescents report recurrent functional somatic symptoms. Some experience persistent symptoms and may receive functional somatic syndromes (FSS) diagnoses, characterised by severe disability and reduced quality of life. Despite a high need for care, there is lack of empirically supported treatments for these adolescents.

Aim: To examine the efficacy of group based Acceptance and Commitment Therapy (ACT) for adolescents with severe FSS.

Method: 120 adolescents, 15-19 years, with severe FSS will be randomized to either Standard treatment: a single consultation with a psychiatrist or Standard treatment plus manualized ACT. The ACT program is specifically developed for adolescents with FSS and consists of 9 modules (i.e. 27 hours) and one follow up meeting (3 hours). Treatment effect will be evaluated by self-reported questionnaires and objective markers for physiological stress response. Primary outcome variable is physical health (SF36). Secondary outcome variables include symptom interference, stress, quality of life and global improvement.

19 adolescents tested the feasibility and overall effect of the manualized therapy in a pilot study.

Results: In the pilot study all patients reported an overall positive impression of change and would recommend the treatment to a friend with similar problems. Further pilot-data regarding primary and secondary outcome variables will be presented.

Discussion: This is one of the first larger studies which aims to develop effective, evidence based treatment for adolescents with severe, disabling FSS. If the treatment is effective this may result in significant improvement in the well-being and overall quality of life of these young patients.

Free Communication 3.C: Diagnosis and comorbidity

From Insania Simplex to ICD-10

Malin Appelquist¹, Louise Brådvik¹, Marie Åsberg²

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Introduction: Psychiatry developed a lot in Sweden during the second half of the 19th century. Many patients got care at a local hospital due to few psychiatric hospitals. Then as today a recurring attitude was that they in the past knew nothing and today we know a lot. We have made an empirical, consecutive historic study of mental illness and its classification.

Methods: 208 mental and 589 hospital case records from Kristianstad, Sweden, from 1896 to 1905 have been studied. Patients with a mental case record were rediagnosed with an ICD-10 diagnosis. Data from in-patients from Kristianstad during 2011 was used for comparison.

Results: Patients with a mental case record in the historical sample were very ill. Totally neuroasthenia was the most common diagnosis. The ICD-10 diagnosis corresponding quite well to the historic diagnosis. The historic diagnosis had a clear function of dividing patients into less and more severe illness. Illness was described in a similar way as today and had similar distribution.

Discussion: A citation from an old medical book dated 1902 says 'The madhousedoctors are far from united concerning the classification of mental illnesses'. It is still alive today in a time between DSM V and ICD 11. The discussion about psychiatric diagnosing seems to be a never ending story. Searching for a useful psychiatric diagnostic instrument continues, but it is important to reflect about the past.

Psychiatric disorders among obese patients seeking bariatric surgery

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Background: Obesity and mental disorders are burdensome health problems commonly observed in general population and clinical samples. However, non-standardized assessment and small size of the sample might hamper conclusions of the investigations.

Objective: To estimate, through standardized interview, the frequency of mental disorders and correlated factors among obese patients seeking bariatric surgery.

Design: Cross-sectional

Methods: The sample was composed by 393 treatment-seeking obese patients (79.1% women; mean age 43.0 years, mean BMI: 47.8 kg/m²), who were recruited from a university-based bariatric center. Trained clinicians assessed the participants through Structured Clinical Interview for DSM-IV Axis I Diagnosis (SCID-I/P).

Results: The rate of current frequency of any mental disorders was 57.8% (57.6% men vs. 58.5% women). Anxiety disorders were the most frequent diagnosis (46.3%) among those participants with current disorder. Age, educational level and global functioning were associated with the likelihood of presenting current mental disorders. The lifetime rate of any mental disorders was 80.9% (81.7 men vs. 80.7% women). Lifetime affective disorders were the most frequent diagnosis (Total 64.9%, bipolar disorders 35.6%, and depressive disorders 29.3%). Among those respondents present-

ing any lifetime mental disorders, about half of the sample presented 3 or more concurrent disorders.

Conclusions: Mental disorders are frequent conditions among obese patients before bariatric surgery. High rates of mental disorders suggest both disorders might exert mutual causal relationships or share common etiological factors. Prognostic implications of mental disorders on surgery outcome should be demonstrated in follow-up study.

Support for this study: Fapesp process 2012/17498-9 and 2012/17435-7

Schizophrenia and Induced Abortion

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Background: Raising a child and suffering from schizophrenia can be difficult since patients often suffers from social skills deficits along other challenges. Therefore, women with psychotic disorders are often discouraged from having children. This suggests that women suffering from schizophrenia more often choose induced abortions but only few studies have investigated this issue.

Methods: We used Danish nationwide registries to identify all births, induced abortions and miscarriages in Denmark between 1997 and 2012.

Women with a diagnosis of schizophrenia were identified from the National Hospital Registry and data on use of antipsychotic medication was from the National Prescription Registry. Cox proportional hazard regression models were used to calculate the hazard of induced abortion.

Results: We found that women suffering from schizophrenia were more likely to have an induced abortion as an outcome of pregnancy compared to women not suffering from schizophrenia (hazard ratio 1.6 (95%CI: 1.4-1.8)). They were also more likely to have a late termination of pregnancy (hazard ratio 3.9 (95%CI: 2.3-6.5)). Women with schizophrenia not receiving antipsychotic medical treatment within one year before pregnancy had the same hazard of induced abortion compared to women receiving antipsychotic drugs.

Discussion: Both an increased hazard of induced abortion and late termination of pregnancy were expected among women with schizophrenia.

However, not being in antipsychotic treatment could be an indication of recovery and we therefor expected a lower hazard of induced abortion in this group. Knowledge of reasons for choosing induced abortions is limited

Quality of life and association with clinical characteristics in patients with schizophrenia

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Introduction: Patients with schizophrenia experience lower quality of life (QOL) than the general population. Improving QOL is both challenging and desirable.

Aims: To assess QOL in patients with schizophrenia and examine the relation of QOL with a) illness duration b) antipsychotic treatment (adjusted daily doses, add), c) body mass index (BMI) and d) smoking.

Methods: In this naturalistic, cross-sectional study patients were interviewed to obtain smoking habits, they completed a QOL questionnaire (WHO-QOL-Bref, composed of a physical, psychological, social and environmental domain) and had height and weight measured. Patients were grouped as first-ever diagnosed or long-term ill. Characteristics were correlated to QOL using multiple regression analysis.

Results: 82 patients were included. QOL was significantly lower in the patients compared with the general population ($P < 0.01$). In first-ever diagnosed patients, QOL was associated with BMI (regression coefficient (RC): physical -0.73, psychological -1.44, environmental -0.55; all $P < 0.05$), add (RC: physical 3.71; psychological 4.37; environmental 2.94; all $P < 0.10$) and smoking (RC: physical -0.69; $P < 0.01$). In the long-term ill patients, QOL was associated with BMI (RC: physical -1.19, psychological -1.28; all $P < 0.05$) and illness duration (RC: physical 1.38; $P < 0.05$).

Conclusion: Patients with schizophrenia experienced a low QOL. The following characteristics were significantly associated with lower QOL in a) first-ever diagnosed: high BMI, low add and smoking habits and b) long-term ill: high BMI and short illness duration.

Regaining control and taking care of oneself - a key to keep on living 42-56 years after a suicide attempt. A follow-up of persons with severe depression.

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Introduction: Mood disorder is the strongest diagnostic risk factor for suicide ideations, plans and attempts. Thus trying to understand suicidality in this group is important. So far, there are few qualitative studies on aspects important for overcoming being suicidal. The aim of this study was to look at personal strategies for overcoming being suicidal and how this experience affects life.

Method: Thirteen former in-patients diagnosed with severe depression (1956-1969) participated in a follow-up 42-56 years after their last suicide attempt. Semi-structured interviews were performed, using an interview guide and analysed according to grounded theory technique.

Results: The category *Being caught in too demanding situations* describes the pathway to the suicide attempt. After the suicide attempt three categories were identified: *coming under professional care*, *experiencing a relief in the personal situation* and *making a decision to continue to live* emerging in the core-category labelled "regaining control and taking care of oneself".

Discussion: A stepwise process describing the pathway to taking control and taking care of oneself as a key to keep on living after a suicide attempt is proposed. The results indicate that overcoming suicidal behavior does not automatically follow upon recovery of depression, and reversed the latter is not a precondition for becoming less suicidal. Adding some kind of psychosocial treatment to initial somatic treatment seems important.

Symposium 3.D: Anxiety in the ESSENCE framework – Autism and ADHD influencing anxiety disorder presentation and treatment in children.

Anxiety in the ESSENCE framework - Autism and ADHD influencing anxiety disorder presentation and treatment in children.

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In 2010, Professor Gillberg suggested the term ESSENCE - Early Symptomatic Syndromes Eliciting Neurodevelopmental Clinical Examination - to describe that very young children with problems in one domain often suffer in several other domains as well. The ESSENCE framework calls for a general awareness of the large degree of overlap in mental health problems and the pervasiveness of problems albeit in differing appearances through life.

Anxiety is one of the most common mental health problems, appearing early in life. Even though it may be the first sign of enduring mental health problems, studies have shown that many children fulfilling criteria for anxiety disorders are not in contact with mental health services. As such, although not included as one of the domains of ESSENCE, the ESSENCE framework may be relevant for understanding more about service use and needs in anxiety disorders. The traditional division between internalising and externalising problems may cause a too narrow approach to the patient as these disorders often overlap. Going beyond the overt and presenting symptoms is vital to identify anxiety in children with autism spectrum disorders (ASD) and attention deficit /hyperactivity disorders (ADHD) and vice versa. Although anxiety may be the presenting symptom, disorders such as ASD and ADHD may be comorbid and hard to distinguish among the anxiety symptoms. Conversely, anxiety disorders may be overlooked in children with ADHD and ASD, and further impair and distress the child.

Anxiety in children with ADHD: Cognitive functions to take into consideration when targeting treatment

Lin Sørensen

Autism spectrum disorders and ADHD affecting treatment outcome in standard CBT in children with anxiety.

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Among children with autism spectrum disorders (ASDs) and attention deficit/hyperactive disorder (ADHD) the prevalence of anxiety disorders is high - ranging respectively from 25 % to 50 %. Cognitive behavioural therapy (CBT) for anxiety in children is a "well-established" treatment. Research on CBT for children with ASD and ADHD has in comparison lagged behind. Can CBT developed for the treatment of the main anxiety disorders also be used effectively among children with ASD or ADHD, or, is there is a need for adaption of the CBT framework? Furthermore, is the long-term outcome for youth treated for anxiety disorders dependent on comorbid ASD/ADHD?

As part of a randomized controlled effectiveness study (N = 182), examining the effect of CBT for social phobia, separation- and generalized anxiety disorders in children age 8-15 years, a four year follow-up was conducted. Outcome among children who received an ASD or ADHD diagnosis post-treatment was examined. These children (N = 21) showed significant poorer recovery rates regarding loss of anxiety diagnosis and symptom decline compared to those without ASD or ADHD. Social phobia was the most common primary diagnosis among these children.

The results highlight the need for careful assessment in identifying comorbid diagnosis among children treated for anxiety disorders. The results contribute to our knowledge of the effect of comorbid disorders on the outcome of anxiety treatment with CBT and indicate possible paths of customization of a CBT program that can improve on treatment effectiveness for these children. These possible improvements are presented and discussed.

Adapting CBT to children with ASD and comorbid anxiety.

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Anxiety disorders in children with autism spectrum disorders (ASD) are frequent, disabling and refractory to commonly known methods of treatment. Cognitive behavioral therapy (CBT) is shown to be very effective in the treatment of anxiety in normal developed children. However, children with ASD seem to respond less favourably to standard CBT anxiety programs and thus, treatment has mostly consisted of environmental therapeutic intervention and pharmacological treatment.

Recent studies suggest that CBT programs specifically designed for children with ASD and anxiety are highly efficient in treating anxiety disorder and thereby reducing the co-morbid symptoms that otherwise untreated may lead to extra impairment in daily life skills.

Since children with ASD often experiences difficulties in cognitive areas such as Theory of Mind, Empathy and Communication a group based manualised CBT anxiety program was adapted to suit children with ASD by modifying the approach in these areas 'Cool Kids ASD'.

Through a large randomized controlled trial we propose to examine the efficacy of this program on anxiety in Danish children with ASD.

The program has been translated into Danish and a pilot study was run in winter of 2014 showing encouraging results with a reduction in anxiety symptoms of up to 60%.

Training anxiety reduction skills and diminishing anxiety and maybe even other co-morbid disorders in children with ASD may have great impact on the severity of the ASD, insuring better psychosocial development for the child in general and in addition, may aid in improving the quality of life for the whole family.

Free communications 3.E: Therapy - what works?

Psychodynamic group therapy is effective for psychiatric outpatients: A RCT with 7-years follow-up of short- and long-term dynamic group therapy

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Background: Psychodynamic group therapy is a cost-effective treatment, but more studies are needed, especially of the significance of treatment duration. Methods: In three Norwegian sites, 167 outpatients (48 % with PDs) were randomized to manualized group treatments of 20 or 80, 90 minutes weekly sessions. Nine therapists each conducted one short- (STG) and one long-term group (LTG), altogether 18 groups. Patients were evaluated at baseline and at three years with clinical interviews and a battery of measures (IIP, SCL-90-R, GAF, SASB). Self-reports of symptoms and interpersonal problems were filled in every six months, and a 7 year follow-up was performed via mail. Outcome was analyzed with Linear Mixed Models statistics. Results: The typical (average) patient showed no difference in improvement between STG and LTG across 3 years (except for self-esteem, where patients improved more in LTG). Patients with PD did better in LTG, while those without PD did not profit from longer treatments. From 3-7 years, there was a delayed improvement in LTG in symptoms and interpersonal problems for both the typical and for PD patients, while the effect in STG was maintained. Discussion: The delayed change in LTG may be explained by a more thorough change in internal object relationships, brought about by a longer time for working through. Conclusion: Both STG and LTG are effective for outpatients with mixed diagnoses. Patients with PD need longer treatment, while STG may be sufficient for patients without PD.

Prospective, comparative, longitudinal, multicentre study of psychodynamic psychotherapy of first-episode psychosis of consecutively referred patients.

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Background: During recent decades, psychodynamic treatment has lacked empirical, systematic outcome studies of interventions for patients with schizophrenia spectrum disorders.

Design and Sample

The study was designed as a prospective, longitudinal, comparative, multi-centre investigation of non-selected, consecutively referred/admitted patients with a 1.episode schizophrenia spectrum disorder. Patients were offered either: 1) manualised Supportive Psychodynamic Psychotherapy as a supplement to treatment as usual (named SPP), or 2) TaU for two years (called the TaU).

Both groups included rural and urban sites, university and non-university clinics, as well as large and small departments

Fourteen psychiatric centres participated. The SPP group consisted of 119 patients consecutively admitted to eight centres, and the TaU group consisted of 150 patients consecutively admitted to nine centres

A test battery was given at inclusion and repeated after two and five years.

At 2 years, we found significantly higher levels of improvement in the SPP group than in the TaU group for GAF_{function} and GAF_{symptom}, and close to for significance for PANSS_{pos}.

At 5 year, the analysis of the clinical data using the mixed model for repeated measurement revealed a significant difference between the two treatment groups in favor of SPP for social functioning, for overall symptoms, and for positive psychotic symptoms

Conclusion: The investigation affirms the role of psychodynamic psychotherapy as evidence-based treatment for persons with 1.episode psychosis. Further research in the field is necessary.

Cognitive-behavioural group treatment for functional somatic syndromes - a cost-effectiveness analysis

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Background: Functional somatic syndromes (FSS) such as fibromyalgia and chronic fatigue syndrome are associated with excess healthcare and societal costs. In psychiatry, these conditions are often referred to as somatic symptom disorders. Cognitive-behavioural treatment (CBT) improves functioning and quality of life in FSS; however, knowledge about its cost-effectiveness is limited. We aimed to compare the medium-term (16 months) cost-effectiveness and the long-term (40 months) economic consequences of group CBT with that of enhanced usual care (EUC).

Methods: 120 participants from a randomised controlled trial (BJP 2012;200(6):499-507) were followed by means of public registries as regards societal (labour-market-related and health-related benefits) and healthcare (primary and secondary care and medication) costs. QALYs gained were estimated by means of the SF-6D questionnaire. Costs were calculated as per capita public expenses in 2010 €

Results: If society is willing to value a QALY at 35,000 € the probability for group CBT to be cost-effective in the medium term was 95 % from a healthcare and 55 % from a societal perspective. In the long term, group CBT was associated with stable reductions in healthcare expenditures and increasing savings in societal benefits, leading to an ultimate difference in annual societal costs during the third year of -8803 € [95% CI -12256 to -5350, p<0.001] in favour of group CBT.

Conclusion: Group CBT for functional somatic syndromes was cost-effective and associated with lasting cost reductions. A wider implementation may lead to large savings in public expenses.

Unified Protocol for Transdiagnostic Treatment of Emotional disorders for Groups: A descriptive study

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Introduction: A growing body of evidence suggests positive effects of transdiagnostic cognitive-behavioral treatments, focusing treatment on shared psychopathological processes across the anxiety and related disorders. These treatments might be more suitable for the complex comorbid anxiety disorders seen in the mental health care system. The Unified Protocol for Transdiagnostic Treatment of Emotional Disorders (UP) has proven efficacious in individual therapy for anxiety disorders. Recently, the manual has been adapted for group therapy.

Method: An ongoing descriptive study examining the pre-post treatment effects of a 15 weeks UP group program for anxiety patients recruited in a mental health psychotherapeutic unit. Patients are assessed with ADIS-IV and a number of self-rating scales as well as clinician-rated Hamilton Anxiety Scale (HARS) and Clinical Global Impression (CGI) scores. Primary outcome measures are improved CGI, HARS and WHO well-being index (WHO-5).

Results: 26 patients (19% males, 81% females, mean-age=36,1 years) with a principal diagnosis of anxiety (35% Agoraphobia, 23% GAD, 23% SAD, 19% PDA) have been enrolled so far. 69% of the participants have a co-morbid anxiety disorder and 50% have a co-morbid depressive disorder. Anxiety is moderate to severe at the beginning of treatment (HARS mean=24,3, STD=8,7; CGI mean=5,2, STD=0,1). Results at end of treatment will be presented.

Discussion: Our result will be compared to the only study that till date has been conducted using UP for groups. Specific implications of the findings related to the mental health care setting will be highlighted.

Conclusion: Awaits the data analyses in June 2015.

PRIME an investigation of the IMR-program's effect on client's recovery

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The aim of this presentation is on clients' personal and clinical recovery 21 months after attending the IMR-program. Clients participating in this study came from three different Community Mental Health Centers in the Capital Region of Denmark. Illness Management and Recovery (IMR) is a curriculum-based rehabilitation program based on five empirically psychosocial intervention; 1) Psycho-education, 2) Cognitive-behavioral approach, 3) Relapse prevention, 4) Social skills training and 5) Coping skills training. The hypothesis behind IMR is that if the psychosocial interventions are practiced as an integrated and intensive program, the combined effect will be greater on the clients' illness-self-management skills than the sum of the individual interventions. Clinical and personal recovery can occur after a considerable period of time. The focus of the RCT is the clients' level of functioning in the community, socially, and vocationally as well as their level of symptoms as indicators of clinical recovery. IMR's foundation is based on motivation, setting and achieving personal recovery goals. Empirical evidence is equivocal regarding the efficacy of goal setting as well as to set recovery goals in different approaches to rehabilitation.

The study employs a mixed method design that includes randomized controlled trial (RCT) with standardized outcomes, and qualitative, interviews focusing on the following themes: goals, hope, recovery, personal responsibility. Furthermore, two research assistant with lived experiences are participating in designing the two qualitative studies.

The preliminary results of the 21 month's follow-up on RCT study on IMR-program will be presented at the conference.

Free communication 3 F: Affective disorders, comorbidity and treatment

Transdiagnostic cognitive behavioural therapy

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There is a growing consensus among mental health professionals that cognitive behavioural therapy (CBT) has the strongest evidence base amongst current psychotherapies with over 325 published outcome studies. These studies lay the foundations for evidence focused clinical guidelines which propose that CBT should be offered to clients with depression and/or anxiety before drug treatment is commenced. While efficacy studies have shown that disorder specific CBT's are efficacious for different mental health problems it is also apparent that these treatments share some common features. Based on these similarities, a new treatment approach, transdiagnostic CBT (TCBT), has been developed that combines similar or the same underlying CBT treatment principles from disorder specific treatment manuals. Most TCBT efficacy studies have focused on treatment for eating disorders and on group therapy for various anxiety disorders. The reported results have been promising. Unfortunately, less effort has been devoted to carry out research on TCBT for depression and/or anxiety disorders. No research does exist on the efficacy of transdiagnostic treatment on psychosis.

In this Symposium we will describe an Icelandic TCBGT, which is a group therapy program for people with anxiety and/or depressive disorders, its development and efficacy and the effects of antidepressants and sedatives on the effectiveness on treatment effectiveness. In the second part of the symposium possible explanations on why the Icelandic TCBGT is effective will be discussed and whether it is realistic to use this approach in the treatment of psychosis.

No association of 5-HTTLPR with depression after colorectal cancer

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Introduction: Meta-analyses find evidence that the serotonin-transporter-linked polymorphic region (5-HTTLPR) is associated with risk for depression after stressful life events. Studies of populations with medical illnesses provide some of the most consistent positive results. Using objective register-based assessment of stress exposure and depression, we tested the hypothesis that risk for depression following diagnosis of colorectal cancer is associated with bi- and tri-allelic genotypes of 5-HTTLPR. Further, we performed a meta-analysis of all studies evaluating the association between biallelic 5-HTTLPR genotype and depression in cancer patients.

Methods: We performed an exposed-only cohort study of 849 colorectal cancer patients from the Danish Diet, Cancer and Health cohort study applying redeemed prescriptions of antidepressants as a register-based measure of depression. Using Cox regression models and competing risk analyses we evaluated the association between 5-HTTLPR genotype and depression after colorectal cancer according to bi- and triallelic genotype. We used random-effects models for meta-analysis.

Results: In the present study 5-HTTLPR genotypes were not associated with risk for depression after colorectal cancer. Estimated hazard ratios ranged from 0.92-1.08 and we observed no statistically significant associations across biallelic and triallelic genotypes in crude as well as adjusted models. Based on four previous studies and our present study the meta-analysis included 1484 cancer patients and showed no statistical significant association between biallelic genotype and depression in cancer patients.

Discussion: Based on the present study and meta-analysis we do not find evidence supporting an association of 5-HTTLPR with depression in cancer patients.

Somatic disease among psychiatric inpatients with affective disorders

Patrik Rosquist, Jarl Torgerson, Steinn Steingrímsson

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Introduction: Psychiatric patients have increased mortality due to both unnatural and natural causes. The natural causes are due to an increased rate of somatic illness. The aim of this study was to describe the somatic burden in relation to medication and lifestyle among psychiatric inpatients with an affective disorder.

Methods: A cross-sectional study was carried out on inpatients with an affective disorder (ICD F30-F39 + F41.2). A structured protocol was designed for collecting data from medical records, interviews and examinations.

Results: In total, 99 patients were included, mean age was 43 years and 71% were women. In 72% of the cases at least one somatic disease had been diagnosed (median number of diagnoses was 2), most commonly hypertension (23%), hypothyroidism (21%) and diabetes mellitus (17%). Furthermore, two thirds had medical treatment for at least one somatic disease. In total, 37% had a body mass index (BMI) classified as obesity or morbid obesity, however, according to waist circumference, 63% were obese. BMI was registered in the medical records of 45%. A higher number of psychiatric medication was associated with a higher risk of somatic illness. Available blood tests showed that 30% had impaired glucose tolerance and 81% hypercholesterolemia.

Discussion: Almost 3/4 of inpatients with an affective disorder had at least one diagnosis of a somatic disease and obesity was present in the majority. Effective and proactive measures for lifestyle and co-morbid disease needs to be implemented and continuously monitored.

Compulsory care of manic inpatients at a single centre

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Background: Manic episodes can present with severe symptoms including agitation, aggression and loss of insight. In some cases, compulsory care and even coercive measures are unavoidable. The aim of this study was to measure the pattern of compulsory care among bipolar patients admitted during a manic episode with a focus on sex differences.

Material: This is a single center study of all manic inpatients in Gothenburg where medical records were reviewed for a two year period. Data was collected by diagnostic codes for different forms of mania, and descriptive statistical analysis was used.

Results: A total of 161 patients were admitted 224 times with a discharge diagnosis of different forms of mania. The mean age was 45.9 ± 14.6 years and 65% were women. In total, 57% of the admissions (95%-confidence interval (CI) 50-63%) were compulsorily. Forced medication was the most common coercive measurement with 24% of compulsory admissions (95%-CI 18-33%), followed by physical restraint with 23% (95%-CI 15-31%). Length of stay was 22 days among men compared to 32 days among women (p=0.001), with an even more pronounced difference among those compulsorily admitted of 13 days (p=0.003).

Discussion: More than half of admissions were under compulsory care and physical coercive measures were used in less than half of the compulsory admissions. A large sex difference was found for length of stay, which needs further clarification.

Symposium 3.G Early career: How to get published

How to get published in Acta Psychiatrica Scandinavica

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The *Acta Psychiatrica Scandinavica* (APS) publishes original articles, reviews, meta-analyses and clinical overview articles of relevance to the clinical working psychiatrist and the clinical psychiatric researcher with an overlap to the clinical neuropsychologist working in psychiatry. Acknowledging that the most urgent problem in clinical psychiatry is not a lack of knowledge but a lack of use of existing knowledge, the Journal sees it as its mission to circulate readable papers of relevance to the clinician.

Many specialities within psychiatric research isolate themselves behind a shop-lingo not understandable outside the clubs. Therefore, the APS invests much effort in publishing papers *translated* into proper readable English.

The Journal was established in 1926 by Munksgaard Publishing as *Acta Psychiatrica et Neurologica*. The APS is now owned by Wiley.

The Journal is acting worldwide receiving approximately 650 manuscripts per year from around 50 countries. Some 90 articles are published every year. In 2014, the APS was registered for 400,000 fulltext downloads and close to 1,800,000 abstract downloads.

In 2014, *Acta Psychiatrica Scandinavica* was cited 11,800 times.

During the reign of the present board, the APS has improved its Impact Factor from 1.5 (1998) to 5.5 (2014), now ranking 15 among 135 journals registered in the ISI section of Psychiatry.

The present editor has through his entire editorship given priority to teaching young researchers how to write and publish a scientific paper just as he is training young colleagues in editing work, e.g. within the *Acta Psychiatrica Scandinavica Trainee Advisory Board*.

Acta Neuropsychiatrica

Gregers Wegener

Translational Neuropsychiatry Unit, Aarhus University, Denmark

Acta Neuropsychiatrica (NEU), the official Journal of Scandinavian College of Neuropsychopharmacology (SCNP), is an international journal focusing on translational neuropsychiatry. It publishes high-quality original research papers, perspectives, meta-analyses and reviews. The Journal's scope specifically highlights the pathway from discovery to clinical applications, healthcare and global health that can be viewed broadly as the spectrum of work that marks the pathway from discovery to global health. The steps of translation that are within the scope include: 1) fundamental discovery, 2) bench to bedside, 3) clinical trials, 4) translation to clinical guidelines, 5) health policy and usage, and 6) global health. Research covering molecular biology, genetics, pharmacology, imaging and epidemiology is welcome as it contributes to enhancing the field.

The Journal was established in 1989 by the Interdisciplinair Genootschap voor Biologische Psychiatrie, and originally published entirely in the Dutch language by MAarsen. From 2000, the journal was published in English by Munksgaard Publishing, later John Wiley and Sons. From 2013, the journal was acquired by the SCNP, and made the official journal of the SCNP. It is today published by Cambridge University Press.

The journal is an international Journal receiving and accepting submissions from all over the world. It receives approximately 200 papers every year, and publishes about 50 per year.

Nordic Journal of Psychiatry

Martin Jørgensen

Psychiatric Centre Copenhagen, Copenhagen, Denmark

The *Nordic Journal of Psychiatry*, which was first published in 1947, is the professional scientific organ for the Nordic Psychiatric Associations. The journal is distributed to members of the Nordic Psychiatric Associations as well as to most members of the Nordic Associations for Child and Adolescent Psychiatry, and to the members of the Psychiatric Associations in the Baltic countries. The journal also has many subscribers among psychologists, social workers and psychiatric nurses. The 2013 Impact Factor was 1.500 and the 5-year Impact Factor 1.452. The contents cover original articles, review articles, special topic issues, and supplements. All areas within psychiatry are represented: Child and adult psychiatry, psychotherapy, pharmacotherapy, social psychiatry, psychosomatic medicine, psychiatric genetics and epidemiology. All articles are published in English and are reviewed by referees, with a single-blind routine (i.e. authors will not know the identity of the reviewers, but the reviewers will see the name of the author). The Journal is published by Informa Healthcare which as of January 2015 is part of Taylor & Francis Group.

Plenary Lecture 6

Implementation of WHO's Global Mental Health Action Plan 2013-2020

Shekhar Saxena, Director, Department of Mental Health and Substance Abuse, World Health Organization
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Adoption of the Comprehensive Mental Health Action Plan 2013-2020 by the World Health Assembly in May 2013 provides the clearest example to date of the increasing commitment by governments to enhance the priority given to mental health within their health and public policy. The fact that all countries - large and small, rich and poor, and from all regions of the world - have agreed on a common vision for mental health along with objectives to reach defined targets within a specified time period, gives ample testimony to the strength of current political commitment for mental health across the world. WHO has recently published Mental Health Atlas-2014 containing data from 171 countries as a baseline to monitor progress. The findings reveal continued severe shortage of resources assigned to mental health as well as marked inequality in distribution across the world. Only 1% of the global health workforce works in mental health and low and lower middle income countries allocate less than USD 2 per capita to mental health care. Challenges and opportunities in implementing the Action Plan, especially in low and middle income countries will be discussed, including technical assistance available from WHO.

Plenary Lecture 7

Essential psychosocial interventions in treatment of patients with severe mental illness

Merete Nordentoft

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The early phase of psychosis is the most vulnerable phase with high risk of suicidal acts and social marginalisation. The evidence for the effectiveness of specialized assertive early intervention services was summarized in a metaanalysis showing that there are positive effects on service use, psychotic and negative symptoms, on substance abuse and user satisfaction.

It should be considered which treatment elements are the most crucial in treatment of severe mental illness. There is increasing evidence of positive effects of cognitive remediation through errorless training of cognitive functions or identifying techniques to overcome cognitive difficulties. There is some evidence for the positive effects of the program Individual Placement and Support compared to prevocational training. For all severe mental disorders, morbidity and mortality is increased compared to the general population, and this indicates that prevention and treatment to improve the physical health of patients with schizophrenia is highly needed.

Relevant for later phases of psychosis, a recent metaanalysis of assertive community treatment was carried out in the Danish National Board of Health. On the basis of that it is now recommended that patients, who cannot take part in usual outpatient services, such as community mental health centers, should be offered assertive community treatment.

Moreover people with severe mental illness who are responsible for children might have specific needs.

Symposium 4.A: Multimodal Research in Antipsychotic-Naïve First-Episode Patients with Schizophrenia: Findings and Perspectives

Dopamine D₂ receptor availability and reward processing in antipsychotic-naïve first-episode schizophrenia patients: Relation to treatment outcome

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Identification of markers for treatment outcome and the influence of antipsychotics on brain structure and function are hotly debated issues in schizophrenia research. We have explored associations between treatment outcome and baseline D₂ receptor binding potentials (BP), D₂ receptor blockade and reward abnormalities in antipsychotic-naïve first-episode schizophrenia patients. Two cohorts of patients underwent psychopathological, cognitive, MRI/fMRI, and SPECT examinations before and after their first antipsychotic treatment with risperidone or zuclopentixol (cohort A, N=25) or amisulpride (cohort B, N=28). Patients in cohort A were scanned with SPECT using ¹²³Iepidepride for assessment of frontal D₂ receptors. In cohort B, we assessed caudate D₂ receptors with ¹²³I-labeled iodobenzamid.

The results showed an association between high frontal and low caudate BP at baseline and reduction of PANSS positive scores after treatment. In the responders, normalization of reward abnormalities were linked to blockade of D₂ receptors. In contrast, we found a negative influence of D₂ blockade on certain cognitive measures and function. The data further pointed to a potential protective effect of D₂ blockade after 3 months of treatment.

The results support that the effect of antipsychotics depend on dopamine activity before treatment. D₂ blockade was positively correlated with normalization of reward disturbances whereas we observed detrimental effects on cognition and function. The finding of a seeming protective, rather than harmful, effect of D₂ blockade on brain structure is most likely the result of careful titration of low doses. Generally, the data emphasize the importance of an individualized response to D₂ receptor blockade.

CHANGES IN BRAIN STRUCTURE IN MONKEYS AND RATS FOLLOWING EXPOSURE TO ANTIPSYCHOTIC MEDICATION

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Many imaging and postmortem studies have found subtle structural brain changes in subjects with schizophrenia. However, typically the studied subjects have received antipsychotic medication. Thus, it is important to determine to what degree treatment with antipsychotics contributes to these brain changes. This is essential for better understanding of the disease process itself as well as the effects of antipsychotic medications—these effects being both therapeutic and adverse.

Several research groups have recently conducted experimental studies of non-human primates or rats to examine the effect of antipsychotic medication on brain structure. In one study, we exposed three groups each consisting of six macaque monkeys to haloperidol, olanzapine or placebo treatment, respectively, for approximately two years. Post-treatment brain weight as well as weight and volume of the left hemisphere were ~10% smaller in both the exposed groups. Subsequent histological analysis using stereological methods found no difference in total neuron number in the parietal cortex in combination with a significant 21% lower astrocyte number and a non-significant 13% lower oligodendrocyte number in the antipsychotic-exposed monkeys.

Recently, several studies in antipsychotic-exposed rats, including longitudinal MRI, have been published by other groups. In general, the rat studies also report finding ~10% reduced brain or hippocampal volume, with a preserved total neuron as well as glial cell number.

All in all, the findings from the animal studies consistently suggest that chronic antipsychotic medications might cause some of the structural changes identified in schizophrenia.

Brain structure in antipsychotic-naïve first-episode schizophrenia patients: Effects of drug abuse, serotonin 2A- and dopamine D2 receptor blockade

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Structural brain changes in schizophrenia patients are present even before the onset of overt psychosis and initiation of antipsychotic treatment. However, preclinical as well as recent large-scale clinical studies have indicated direct detrimental effects of antipsychotics on brain structure. Here we present longitudinal data from three different cohorts of initially antipsychotic-naïve first-episode schizophrenia patients treated with: quetiapine for six months; zuclopentixol or risperidone for three months; or amisulpride for six weeks.

We find that previous substance abuse is associated with more hippocampal volume gray matter reduction in the antipsychotic-naïve state. In patients treated with quetiapine, we find differential, dose-dependent structural in striatum and hippocampus. Clinically, more baseline positive symptoms are associated with more striatal and hippocampal loss during six months.

In zuclopentixol / risperidone treated patients, extrastriatal dopamine D_{2/3} receptors are not associated with gray matter changes. Rather we find that initial short-term risperidone monotherapy is associated with frontal gray matter increases. Moreover, improvements in negative symptoms may be associated with gray matter preservation.

In the antipsychotic-naïve state, patients display subtle deficits in white matter, and psychotic symptoms appear specifically associated with frontal fasciculi integrity. However, six weeks of amisulpride treatment appear to normalize white matter integrity.

To obtain the full picture on effects of antipsychotic-induced brain changes in specific brain regions and in different brain tissue, the clinical concern raised by the recent large-scale clinical studies, should take into account these less discouraging findings based on advanced longitudinal multi-modal clinical studies on antipsychotic-naïve patients.

Symposium 4.B: Young scientist oral presentation - the Pontoppidan competition

Predicting symptom profiles in FEP: the role of DUP, premorbid functioning, childhood adversities and metacognition

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Background: There is emerging evidence that metacognition is an important predictor of positive and negative symptoms. This study aimed to compare metacognitive abilities in people with FEP with non-clinical control persons and examine metacognition and childhood adversities in addition to more established predictors of positive and negative symptoms in people with FEP.

Method: We compared 97 persons with FEP to 101 non-clinical control persons matched by age, gender and parental socio-economic status.

Metacognition was assessed with semi-structured interviews and the Metacognitive Assessment Scale-Abbreviated (MAS-A). Four groups based on positive and negative symptom profiles were identified by cluster analysis and compared by MANOVA on metacognition, childhood and adolescent adversities in addition to DUP and premorbid social and academic adjustment.

Results: The FEP group had poorer metacognitive abilities on all four metacognitive sub-scales, and the identified FEP subgroups differed on metacognition. Groups with high levels of negative symptoms had poorer metacognitive abilities. The group with high positive/low negative symptom scores did not have poorer metacognitive abilities than the groups with Low Positive/Low Negative. Post-hoc analyses revealed that the metacognitive differences were caused by the sub-scales Self-reflectivity, Decentration and Mastery.

Conclusion: Metacognition appears to a better predictor of negative symptoms than DUP, premorbid adjustment and number of childhood and adolescent adversities. Inclusion of metacognition in models of psychosis could promote current explanatory models and possibly improve interventions by increasing both services' and users' metacognitive abilities.

Any hampering symptoms affecting your daily life? Schizophrenia outpatients' somatic complaints

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People with schizophrenia carry a burden of somatic problems. Guidelines for schizophrenia stress the importance of physical health monitoring in order to diminish morbidity and mortality due to somatic illnesses. To our knowledge, no studies exist on schizophrenia patients' somatic symptoms. We aimed to explore physical complaints in this patient group.

A GP executed a structured health check comprising of medical history taking, basic measurements, laboratory tests, and clinical examination. A health check was offered to patients with schizophrenia spectrum disorders (SSD) treated in the outpatient clinic of Kellokoski Hospital, Finland, offering treatment for all patients with SSD in three municipalities. We classified patient-reported symptoms according to the International Classification of Primary Care (ICPC)-2 system.

Of the patients invited to the study, 276 participated (participation rate 67.5%). Their mean age was 44.9 years (SD 12.6), and 55% were male. 44.9 % of the study group reported somatic symptoms affecting daily life. 29.0% patients reported 1, 13.0% 2, and 2.9% 3 somatic symptoms. Musculoskeletal, gastrointestinal, and neurological ones were most often mentioned physical complaints. Women reported more somatic symptoms than men ($P=.0002$). 32.6% patients reported hampering psychological symptoms. Our descriptive cross-sectional study shows that outpatients with SSD suffer from multiple somatic symptoms. The finding is striking keeping in mind patients' mean age and that they were invited to a health check, not seeking for help. More time and effort should be put to somatic care of patients with SSD.

Does specialization of treatment influence mortality in eating disorders?

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Introduction: Eating disorders (EDs) are psychosomatic disorders associated with high morbidity and mortality. It has been reported that anorexia nervosa (AN) has the highest mortality rate of any psychosomatic disorder. It has been recommended that ED patients be treated in a collaborated setting, but no evidence of decreased mortality in this type of setting has been established. This study reports mortality rates in a large sample of ED patients and compare these results to previous data from the same catchment area before the establishment of a multidisciplinary centre.

Method: Patients referred to the Centre for Eating Disorders, Odense University Hospital, with an ED diagnosis between 1994-2004 were included in this study. Standardized mortality ratios (SMRs) were calculated and compared to the mortality rates for the patients referred between 1977-1986.

Results: 998 patients were referred between 1994-2004 and 21 patients had died at the end of follow-up. Between 1977-1986 132 patients were referred and at the end of follow-up 22 had died. We found a SMR for AN of 3.13 in the latter cohort and 11.16 in the first. We calculated crude ratios of SMR to compare the cohorts and adjusted for age, body mass index (BMI) and diagnosis and found a decrease in mortality of 55% in the latter cohort.

Discussion: When comparing two retrospective cohorts it is not possible to draw an absolute conclusion, however the present study supports that integrating a somatic unit in a multidisciplinary centre may have a favourable influence on mortality in AN.

Learning acute suicide risk assessment and management in a clinical setting

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Introduction: Suicide is a rare but serious outcome in psychiatry that is often preventable if special care is given to assessment and management. Helping students and younger colleagues to learn how to meet, assess and manage suicidal patients seeking psychiatric emergency care is a true challenge. An emphasis on educational perspectives and a learner-centred approach is required to train clinical decision-making in suicidal encounters and build up self-confidence and professional attitude among learners.

Method: An educational analysis of suicide risk assessment and management is presented based on 1) an online survey of students' attitude, 2) literature review and 3) authors' own teaching and clinical experience. In the analysis, Kolb's experiential learning cycle and a socio-cultural perspective was used.

Results: Suicide risk assessment is a highly complex skill where a mixture of theoretical knowledge is integrated with clinical skills and professional attitudes. Student's observation of an experienced clinician assessing a psychiatric patient was followed by a mutual reflection and a theoretical discussion. Reflection and discussion focused understanding patient's experiences, assessing suicidal risk and how to manage a clinical intervention. Here, learners were involved as legitimate peripheral participants within a community of practice. Optimally, this phase included feedback and critical appraisal. Teacher's knowledge of the workplace was yet an important factor.

Conclusion: Learners and teachers (i.e. clinicians assessing patients) can benefit from knowledge of theoretical educational models when training assessment of suicidal patients. Good clinical example is necessary along with emphasis on the effect of good care on suicide prevention.

Excess Mortality in Borderline Personality Disorder

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Introduction: Borderline personality disorder is a common mental disorder. The patients with borderline personality disorder have been found to have an extensive use of treatment, high rates of emergency contacts and high rates of suicide.

Aims: To determine the standardized mortality ratio and causes of death in patients with borderline personality disorder.

Methods: The Danish Psychiatric Central Research Register and The Danish Register for Causes of Death were used to identify first-ever diagnoses of borderline personality disorder (ICD-10: F60.31) between 1995 and 2011 together with time and causes of death in the period. Age and gender standardized mortality ratio was calculated compared to the general Danish population. Causes of death were categorized as natural death, accident, suicide, homicide/violence or not specified.

Preliminary results: A total of 11,450 patients with a borderline personality disorder diagnosis were identified in the period, of which 87.1 % female. A total of 542 died in the period, around 25 % registered as suicide. The standardized mortality ratio of the whole period is 4.8 (95%-CI: 4.1-5.4). In

the most recent five years it is stabilized around 3.5 (95%-CI: 2.7-4.2).

Conclusion: The three to four times higher standardized mortality rate in the patients with borderline personality disorder adds further information to the severity of this disorder. Furthermore, the high rate of suicide suggests that this is an important area of preventive action.

Symposium 4.C: Individual Placement and Support – implementation, outcomes and future development in a Scandinavian context

Individual Placement and Support (IPS) supplemented with cognitive remediation and work related social skills training in Denmark

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Background: Individual Placement and Support (IPS) appears to be an effective vocational intervention in order to obtain competitive employment for people with severe mental illness. However, long-term job retention and economic self-sufficiency have not yet been clearly demonstrated. A way to address these issues could be by integrating methods such as cognitive remediation and work-related social skills training.

Methods/Design: The trial design is a randomized, assessor-blinded, multi-center trial. A total of 708 patients with severe mental illness will randomly be assigned into three groups: 1) IPS; 2) IPS enhanced with cognitive remediation and work related social skills training; and 3) service as usual, at two sites in Denmark. The primary outcome is number of hours in competitive employment or education at 18 months follow-up. Secondary and exploratory outcomes are money earned, days to first employment, symptoms, functional level, self-esteem, and self-efficacy at 18 month follow-up. 30 and 60 months follow-up will be performed register-based.

Discussion: Implementation of the method in Denmark will be discussed and the supplement of cognitive remediation and work related social skills training will be presented.

Individual Placement and Support in a Swedish context: Vocational, non-vocational and implementation outcomes

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Over the last 7 years, the Individual Placement and Support (IPS) approach to vocational rehabilitation has been studied in Sweden. In this presentation, the effectiveness of IPS on vocational and non-vocational outcomes will be addressed among persons with severe mental health problems.

Critical facilitating and hindering factors for the implementation of IPS in the community mental health service (14 sites) and the mental health care (1 site) will also be targeted.

The effect evaluation of Individual Placement and Support (IPS): Vocational rehabilitation for people with moderate to severe mental illness in Norway

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Background: Approximately one third of all disability pensions in Norway are issued for mental and behavioral disorders. The vocational rehabilitation approach offered to this group has been dominated by train-and-place approaches. Individual Placement and Support (IPS) applies a place-and-train approach in real-life competitive work settings, and has shown great promise for patients with severe mental illness elsewhere.

Methods/design

The effect-evaluation of IPS is a multicenter Randomized Controlled Trial (RCT). It includes effect evaluation, process evaluation, and a cost/benefit analysis. IPS will be compared to high quality treatment as usual (TAU), with work participation and educational activity at 12 months follow-up as primary outcome. Primary outcome will be measured using register data. The project will include long-term outcome data (4 years). Secondary outcomes include mental health status, disability and quality of life. Study population comprise patients undergoing treatment for moderate to severe mental illness (unemployed or on sickness or social benefits). The estimated total sample size of 400-500 will be randomly assigned to the interventions. To be eligible, participants must have an expressed desire to work, and sufficient Norwegian reading and writing skills to fill out the questionnaires.

Discussion: The Effect Evaluation of Individual Placement and Support (IPS) will be one of the largest randomized controlled trials to date investigating the effectiveness of IPS on competitive employment, and the first study to evaluate the effectiveness of IPS for patients with moderate to severe mental illness within a Norwegian context.

The effect of IPS modified to people with mood and anxiety disorders in Denmark

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Background: Mood and anxiety disorders can be disabling and significantly impact peoples' ability to work. In Denmark people with a mental disorder, and mainly non-psychotic disorders, represent a substantial and increasing part of those receiving disability pensions. Previous studies have indicated that Individual Placement and Support (IPS) has a positive effect on employment, when provided to people with severe mental illness. We have modified the IPS intervention, aiming at supporting people with recently diagnosed mood or anxiety disorders in their return to work or education, without pre-vocational training. The IPS-modified for mood and anxiety (IPS-MA) consists of individualized mentor support; coordination of activities; career counselling; help clarifying personal finances; and support in obtaining jobs, and keeping them.

Aim: To investigate whether the IPS-MA has an effect on employment or education, when provided to people with recently diagnosed mood or anxiety disorders.

Methods: The trial is a randomised, assessor-blinded, clinical trial of IPS-MA in addition to treatment as usual compared to solely treatment as usual for 324 participants diagnosed with mood or anxiety disorders, living in the Capitol Region of Denmark. Primary outcome is competitive employment or education at 24 months. Level of symptoms, functioning and quality of life are secondary outcomes. Participants are followed-up 12 and 24 months after baseline.

Perspectives: This trial will add to the evidence of how best to support people's return to employment or education after a psychiatric disorder.

JobPrescription: A Norwegian initiative to optimize work and study engagement for young people with first episode psychosis

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Background: In 60%-90% of cases, psychosis disrupts vocational or academic engagement[1, 2]. JobPrescription aims for employment/studies through Individual Placement and Support (IPS). Sixty-one participants with psychotic disorders entered a pilot project (2010-2012). 41% attained regular paid employment, 20% attained internships. The mean time from project inclusion to employment was 3.6 months (SD 0.7). However, these figures have not been compared to a control group, and the group was a mix of chronic and first episode patients.

Objective: To evaluate the effect of this intervention in a homogeneous group of First Episode Psychosis (FEP) patients

Methods: FEP patients ages 15-65 are referred by the TIPS (early Treatment and Intervention in Psychosis[3]) project. They are compared to matched controls from a recent historical TIPS cohort receiving psychosis treatment without IPS and followed-up over 2 years. Primary outcome measure is employment/study status. Secondary outcomes are levels of psychopathology and self-efficacy. Neuropsychological functions are analysed as covariates.

Results: By April 2015, 50 patients were included (25 in the experimental and 25 in the control group). Preliminary results will be presented. Study inclusion continues until 40 participants/40 controls.

Discussion: The project has been well received by employers and participants. Effects were meant to be assessed through an RCT. However, following new guidelines, IPS has become part of standard treatment. Consequently, the risk of randomisation to a wait-list condition resulted in a refusal rate > 50%. Therefore, the current matched control-design is the trial that will answer questions regarding effectiveness of the IPS intervention.

Symposium 4.D: Early Onset Psychotic Disorders, clinical characteristics and antipsychotic treatment response

Quetiapine versus aripiprazole in early onset psychosis - the randomised, blinded clinical Tolerability and Efficacy of Antipsychotics (TEA) trial. Main outcomes.

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Background: The evidence for choices between antipsychotics for children and adolescents with schizophrenia and other psychoses is limited. The objective of the Tolerability and Efficacy of Antipsychotics (TEA) trial is to compare the benefits and harms of quetiapine ER versus (vs) aripiprazole in early onset psychosis (ClinicalTrials.gov:NCT01119014). The research hypothesis is that there is a difference between quetiapine and aripiprazole after 12 weeks of treatment of at least 3 on the primary outcome measure Positive and Negative Syndrome Scale (PANSS) positive score, and that aripiprazole causes more akathisia than quetiapine; and quetiapine causes more sedation and metabolic adverse effects than aripiprazole.

Methods: In this Danish investigator-initiated, independently funded, multi-centre, randomised, blinded clinical trial (RCT) patients aged 12-17 years with a first-episode of psychosis were 1:1 randomised to a 12-week, double-blind intervention with quetiapine ER vs aripiprazole. Benefits and harms were assessed 2, 4, and 12 weeks after randomisation.

Results: A total of n=113 patients (schizophrenia (n=75), schizoaffective disorder (n=23), affective psychosis (n=8) and other psychoses (n=7)) were randomised. Mean age was 15.8 years (SD 1.36) years and 30% were males. We will report results on the hypothesis driven outcomes: PANSS positive score change, frequency of akathisia and sedation, weight change and change in homeostatic model assessment of insulin resistance (HOMA-IR). Furthermore, rates of discontinuation, response and remission, and change in additional psychopathology scores will be reported.

Conclusion: In this first RCT comparing quetiapine and aripiprazole for the treatment of early onset psychosis, we will present the main outcomes.

Quetiapine versus aripiprazole in children and adolescents with psychosis - the Tolerability and Efficacy of Antipsychotics (TEA) trial: Extrapyramidal symptoms.

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Background: The objective of the TEA trial is to compare the benefits and harms of quetiapine extended release (ER) versus aripiprazole in early onset psychosis (EOP). Compared to adults, children and adolescents treated with antipsychotics are more prone to adverse reactions such as extrapyramidal symptoms (EPS). We hypothesize that EPS are more severe and occur more frequently in patients treated with aripiprazole compared to quetiapine.

Methods: In this Danish investigator-initiated, independently funded, multi-centre, randomized, blinded clinical trial (RCT) patients aged 12-17 years with a first-episode of psychosis were randomized 1:1 to a 12-week, double-blinded intervention with quetiapine ER vs aripiprazole. EPS were assessed by the Abnormal Involuntary Movement Scale, the Simpson Angus Scale, the Barnes Akathisia Rating Scale and the UKU (Udvalget for Kliniske Undersøgelser) side effect rating scale at 2, 4, and 12 weeks after randomization. In addition, we registered all between-assessment events of EPS and the use of anticholinergic medication.

Results: A total of n=113 patients (schizophrenia (n=75), schizoaffective disorder (n=23), affective psychosis (n=8) and other psychoses (n=7)) were randomized. Mean age was 15.8 years (SD 1.36). 30% were males. We will report the severity and frequency of parkinsonism, akathisia and tardive dyskinesia, and the incidence rates of the use of anticholinergic medication, as well as discontinuations due to EPS.

Conclusion: In this first RCT comparing quetiapine and aripiprazole for the treatment of EOP, we will present data comparing the neuromotor effects during treatment with quetiapine vs aripiprazole.

Trial registration: ClinicalTrials.gov: NCT01119014

The early treatment response as a predictor of clinically significant effects of antipsychotic medication in youth patients

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Background: Early response/early non-response (ER/ENR) to antipsychotics 2 weeks after initiation of treatment has proven to be a robust predictor of the ultimate response/ultimate non-response (UR/UNR) in adult patients. The early antipsychotic response paradigm is far less studied in youth patients. The present study will explore the optimal scale, threshold and time point for the establishment of the ER/ENR as predictor of the UR/UNR in treatment of youth patients.

Methods: Patients aged 12-17 years and included in the TEA-trial were randomized to a 12 weeks blinded intervention with quetiapine vs aripiprazole, and assessed at week 2, 4, and 12. The ER was defined as $\geq 20\%$ reduction of the Positive and Negative Syndrome Scale (PANSS)-total-score at week 2 and 4. The UR was defined as a PANSS- total-score reduction of $\geq 30\%$, or $\geq 40\%$ at week 12. Alternative measures of ER was "minimally improved" on the Clinical Global Impression Improvement scale (CGI-I) at week 2 and 4, with the alternative UR defined as "much" or "very much improved" on the CGI-I at week 12.

Results: A total of n=113 patients (schizophrenia spectrum psychosis (n=105), affective psychosis (n=8)) were randomized. The sensitivity, specificity, and the predictive values of the ER as predictor of the UR after 12 weeks of antipsychotic treatment will be presented.

Conclusions: The study will provide evidence on the optimal scale, symptom threshold and time point for the establishment of the ER/ENR in order to individualize treatment decisions of when to continue or abort a given antipsychotic.

Health Related Quality of Life in children and adolescents with psychosis treated with antipsychotics

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Introduction: Health Related Quality of Life (HRQoL) has rarely been measured in children and adolescents with mental health problems, and never in children and adolescents with psychosis. These populations often have an impaired level of daily functioning; therefore HRQoL measurements can be of great importance as both the psychosis and the psychopharmacological treatment may affect the quality of life. In order to assess the expected level of quality of life in a patient population, a parallel investigation of a matched healthy control (HC) group is valuable. The aim of the present RCT is to compare HRQoL in children and adolescents with psychosis vs. HC at baseline, and to investigate whether treatment with aripiprazole vs quetiapine ER have differential effects on HRQoL after 12 weeks of treatment.

Methods: The study is part of the Tolerability and Efficacy of Antipsychotics (TEA) trial. 113 patients, aged 12-17 years, randomly assigned 1: 1 to a

12 week double-blinded intervention period of treatment with quetiapine ER vs aripiprazole. The HRQoL is examined with the 52-item self-administered questionnaire KIDSCREEN, at baseline and after 12 weeks in both patients and HC.

Results: A total of n=86 patients (schizophrenia (n=58), schizoaffective disorder (n=18), affective psychosis (n=4) and other psychoses (n=6)) were randomized and assessed with KIDSCREEN. Mean age was 15.7 years (SD 1.32) years and 30% were males.

Conclusion: We will present comparisons on baseline HRQoL in children and adolescents with psychosis vs. HC, and differential HRQoL effects after 12 weeks of quetiapine or aripiprazole treatment.

Quetiapine versus aripiprazole in children and adolescents with psychosis - the Tolerability and Efficacy of Antipsychotics (TEA) trial. Cardiometabolic adverse effects.

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Background: The objective of the Tolerability and Efficacy of Antipsychotics (TEA) trial is to compare the benefits and harms of quetiapine extended release(ER) versus aripiprazole in early onset psychosis (EOP). Compared to adults, children and adolescents treated with antipsychotics are more prone to the development of adverse effects including metabolic changes and cardiac signal conduction disturbances (prolongation of the corrected QT (QTc) interval). Our hypothesis is that treatment with quetiapine results in more frequent and severe cardiac and metabolic adverse effects than treatment with aripiprazole.

Methods: In this Danish investigator-initiated, independently funded, multi-centre, randomised, blinded clinical trial (RCT) patients aged 12-17 years with a first-episode of psychosis were 1:1 randomised to a 12- week, double-blind intervention with quetiapine ER vs aripiprazole. Height, weight, waist circumference, heart rate, blood pressure, electrocardiogram and laboratory tests were performed before treatment initiation and at follow-up visits after 2, 4 and 12 weeks.

Results: A total of n=113 patients (schizophrenia (n=75), schizoaffective disorder (n=23), affective psychosis (n=8) and other psychoses (n=7)) were randomised. Mean age was 15.8 years (SD 1.36) years and 30% were males. We will report differences in changes in body composition, laboratory tests and QTc interval during treatment.

Conclusion: In this first RCT comparing quetiapine and aripiprazole for the treatment of early onset psychosis, we will present data comparing the cardiac and metabolic effects during treatment with quetiapine versus aripiprazole in EOP.

Trial registration: ClinicalTrials.gov: NCT01119014

Keywords: antipsychotics, quetiapine, aripiprazole, psychosis, schizophrenia, children, adolescents, randomised trial, benefits, harms.

Symposium 4.E: Hallucinations: How to understand their essence and classification? Conceptual, phenomenological and clinical aspects

Hallucinations' conceptualization and classification since the birth of the psychiatric clinic until our days

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One describes frequently the hallucinations as "a perception without object" since the French psychiatrist Esquirol defined it in the beginning of the 19 th Century. Hallucinations are seen as a well-delimited and defined symptom, considered independently from the person, who experiences them. In the beginning of the 21 th Century, hallucinations are defined in DSM V in this way: "perception-like experiences that occur without an external stimulus. They are vivid and clear, with the full force and impact of normal perceptions, and not under voluntary control...". Since the beginning of the modern psychiatry and nosology in the 19. th Century the sensorial quality is the way to classify the hallucinations: the "auditive", the "visual"... A phenomenological analysis consists in an interview with the hallucinated person with the purpose to catch the quality of the experience of the subject. As proposed by the French phenomenological psychiatrist H Ey in 1973, one could in stead try to classify hallucinations by the changes in states of consciousness. It would prevent considering the hallucinations just as a symptom detached from its context.

Development of psychosis: from subjective abnormal experiences to hallucinations

Peter Handest

Mental Health Center Ballerup, Ballerup, Denmark

Anomalous subjective experiences have been described since the early 20th century and are thought to be intrinsic features of schizophrenia. Anomalous subjective experiences described as self-disorders are pervasive or frequently recurrent experiences in which one's first-person experiential perspective or one's status as a subject of experience or action is distorted. In recent decades subjective experiences of cognitive and dynamic deficiencies (basic symptoms) have been shown to be precursors of schizophrenic psychosis and transition sequences have been established. In the mid-20th century K. Conrad gave a major contribution to the phenomenologically based description of the development of schizophrenia. Drawing upon the transition sequences, Conrad's models of developing psychosis and recent research of self-disorders, (EASE), a phenomenologically orientated description of the development of auditory hallucinations in schizophrenia is presented.

The phenomenology of hallucinations in somatic illness and intoxication - how can these be differentiated?

Karl Erik Sandsten

Mental Health Center Hvidovre, Broendby, Denmark

Hallucinations occur not only in psychiatric illness but also in somatic illness and intoxication. This may pose difficulties in differential diagnosis and hence treatment.

On the basis of a literature review the phenomenology of hallucinations in acute organic psychosis, delirium tremens and LSD-intoxication is presented. Differences in sensory modality, content, theme, emotional lability and relation to the private-intersubjective sphere - when comparing to schizophrenic hallucinations/delusions - are discussed.

What is a pure hallucination without delusion (eidolie)? The phenomenology of Charles Bonnet Syndrome and Musical Hallucinations.

Nicolai Damgaard-Moerk

Mental Health Center of Sankt Hans, Roskilde, Denmark

Non-delusional visual hallucinations or auditory musical hallucinations may occur among patients with impaired vision/blindness or impaired hearing/deafness, respectively. How can these phenomena be described and understood?

On the basis of a literature review the phenomenology of Charles Bonnet Syndrome and Musical Hallucinations is presented. This is put into a neuro-phenomenological perspective regarding possible pathways and precipitators for the emergence of specific types of hallucinations.

Hearing voices' among normal people. Are they hallucinating?

Rasmus Maltesen

Mental health of Ballerup, Ballerup, Denmark

It has been debated since several centuries and is currently still debated whether nonclinical subjects, who hear voices, hallucinate and/or they suffer of psychotic disorders. The purpose of this presentation is to show some qualitative and quantitative results from the international literature. Thereafter we will discuss how these studies contribute to the debate, whether "auditive- verbal hallucination (AVH)" are just normal phenomena or pathological experiences, which always are related to a psychotic disorder.

The analyses of the frequency of AVH in the nonclinical population stay inconclusive because of several methodological problems: by face-to-face interview or by telephone, the interviewer's background, the target-group, self-rating or semi-structured interview. The frequency of AVH can vary from 15% to 84%. It asks the question whether one examine the same phenomena through the different studies. It appears a qualitative difference in the experience of AVH between the non-clinical population and the psychotic group. Nonclinical subjects hearing voices comparing with patients suffering of schizophrenia describe a more neutral and pleasant content, are less disturbed by the voices, their function level (GAF) is not affected and they do not experience disturbed identity or self-disorders. In conclusion, one could remember the sentence of Henri Ey: "hallucination is a pathological phenomena, if not it is not an hallucination". AVH has to be defined and classified conceptually to qualify the debate about AVH among nonclinical subjects.

Symposium 4.F: Treatment resistant major depression – physical treatments

Novel pharmacological treatment options targeting treatment resistant depression

Gregers Wegener

Translational Neuropsychiatry Unit, Aarhus University, Denmark

Treatment-resistant depression (TRD) presents major challenges for both patients and clinicians. Although there is no universally accepted definition of TRD, previous studies indicate that after the failure of two treatment trials, the chances of remission decrease significantly. Several pharmacological and non-pharmacological treatments for TRD may be considered when optimized therapy has not produced a successful outcome and a patient is classified as resistant to treatment. The present presentation will highlight some established treatment options, as well as focus at novel strategies, which may become future alternatives when properly studied.

The application of pulsed electromagnetic fields (PEMF) for treatment resistant depressions. Mode of action: Electric fields, mRNA synthesis and protein secretions.

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Introduction: Pulsed electromagnetic fields (PEMF) were constructed to mimic the changes in electrical potentials (E-fields) that can be measured outside single neurons using extracellular recordings. We found that such E-fields cause patients suffering from treatment resistant depressions to experience remission after 5 and 8 weeks of treatment (*Martiny et al., (2010), Straasø et al., 2014*).

Results: We applied the E-fields (50 Hz) on human umbilical endothelial cells (HUVEC) and human dermal microvascular endothelial cells (HDMEC) and found an enhanced phosphorylation of the cytoplasmic tyrosin kinase (Src) after 5-30 min that plays an essential role in facilitating signalling events from receptor tyrosine kinases. Consequently, we also found increased phosphorylations of Akt, MAPK and PLC β that are essential signalling proteins. Using Q-PCR we found upregulations of mRNA's for fibroblast growth factor receptor1 (FGFR1), interleukin 8 and 6. Secretion of IL-8 was

confirmed in an ELISA assay. In an adrenergic neuroblastoma cell line (SHSY-5Y) we found upregulation of mRNA for BDNF. In a Chorion Allantois membrane we found an enhanced angiogenesis in eggs exposed to PEMF and in the mouse cornea model VEGFA -induced angiogenesis was further enhanced when mice were exposed to PEMF for 12 hrs/day over 5 days.

Conclusions: Our data are all consistent with PEMF inducing an enhanced angiogenesis and blood flow in patients during treatment as well as secretion of growth factors and interleukines from capillaries. These effects might result in an enhanced brain plasticity causing the improved mood in patients treated with PEMF.

PEMF - a new treatment option

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Objectives: The aim of the presented studies was to investigate the effect of a new physical treatment with transcranial pulsating electromagnetic field therapy (PEMF) for treatment resistant depression.

Methods: The PEMF is given by using a treatment helmet that incorporates 1 pair of coils in the anterior and 1 pair in the posterior temporal region on both sides, 1 pair in the upper parietal region and 1 coil in the centre of the lower occipital region. The helmet is connected to a power source (220 V), which leads to induction of a pulsating magnetic field. All patients were treated for 30 min in a session. Coil applicators introduced pulsating electrical fields (50 Hz) of a very low magnitude (0.1 - 4 mV/cm) into brain tissue. The pulses were constructed to mimic the pulsating electrical fields (E-fields) measured outside excitable tissue. The E-fields induced into neural tissue by the coils were five orders of magnitude (10⁻⁵) smaller than the E-field across a biological membrane with a V_m of -70 mV. Thus, this device distinguishes itself in this regard from rTMS and ECT.

Results: In our first randomized double blind controlled trials we achieved remission in 34% after 5 weeks (25 patients in each group) vs. 4% in the sham group. In our second randomized double blind controlled trial (34 vs 31 in each group) after 8 weeks remission rate was 70% and didn't change if treatment was given once or twice daily. The second study did not have a sham group.

Deep Brain Stimulation

Poul Videbech

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Major depressive disorder (MDD) is a widespread, severe, debilitating disorder that markedly diminishes quality of life. Psychotherapy, medication and ECT are commonly effective, but 20-30 % of patients are refractory to any treatment.

The recent development of neuromodulation therapy, especially deep brain stimulation (DBS), has enabled controlled studies with sham stimulation and presents a potential therapeutic option that is both reversible and adjustable.

Systematic reviews of the literature pertaining to DBS for treatment-resistant depression have been performed to evaluate the safety and efficacy of this procedure. Overall, the published response rate to DBS therapy, defined as the percentage of patients with > 50 % improvement on the Hamilton Depression Rating Scale, is reported to be 40-70 %, and outcomes were comparable across studies. DBS for MDD shows promise, but further RCTs are necessary. A Danish proposal is mentioned in the presentation.

Symposium 5.A: New insights from recent gene discoveries in psychiatric disorders?

Genetic risk for autism spectrum disorders

Christina Hultman

Genome wide association study of five mental disorders in the Danish population

Anders Børglum

Aarhus University, Aarhus, Denmark

During the recent years genome wide association studies (GWASs) have identified several risk loci in mental disorders, providing new insights into the biological underpinnings of the disorders. Moreover, assessments of the SNP-heritability from GWAS data have shown that common genetic variation accounts for a substantial part of the complex, highly polygenic etiology of several mental disorders and that increasing sample sizes will likely lead to detection of common risk variants in these disorders.

In Denmark, nationwide screening of new-borns for phenylketonuria and other metabolic diseases has been carried out since 1975 and since 1981 surplus of the samples have been stored in the Danish Newborn Screening Biobank (DNSB) that presently contains dry blood spot samples from more than 2 million individuals.

As part of the Danish *i*PSYCH program and in collaboration with the Broad Institute and the Psychiatric Genomics Consortium (PGC), we have initiated GWAS of five mental disorders - schizophrenia, bipolar disorder, depression, autism, and ADHD - primarily based on DNSB samples. By coupling the samples with information from the Danish Psychiatric Central Research Register we have identified all individuals born in Denmark between 1981 and 2005 that have been diagnosed with one or more of the five disorders (~ 55,000) and selected a large random population based control group (~30,000).

Here we will present results from the first data freeze consisting of around half of the *i*PSYCH sample and meta-analysis with previous PGC GWAS data, including presentation of the first genome wide significant finding in ADHD.

Shared genetic background for psychiatric disorders.

Ole Andreassen

Oslo University Hospital & Institute of Clinical Medicine, Norway

Recent technology development has enabled large scale genetic studies, and the recent genome-wide association study (GWAS) samples included in the international Psychiatric Genomics Consortium now is close to 200 000 participants, all genome-wide genotyped. This has led to discoveries of novel risk genes, as highlighted by the recent Nature paper presenting 108 new gene loci for schizophrenia. The large datasets can also be used for investigating overlapping or shared genes between psychiatric diagnostic categories, and thus guide psychiatric nosology, as well as improve understanding of psychiatric disease mechanisms.

A series of studies have investigated overlapping gene loci, and there is evidence that CAGNA1c, a gene involved in calcium signaling, is associated across several psychiatric diseases. Further, heritability estimates have shown that there is a large degree of shared heritability between psychiatric disorders, especially schizophrenia and bipolar disorders. We have used new statistical tools to investigate shared genetic loci between schizophrenia and bipolar disorders, and shown a large degree of polygenic overlap. Further, several gene loci are overlapping between the two disorders, while the immune region of the genome (MHC), seems not to be shared. Further, using enrichment tools, we showed how bipolar disorder GWAS can help increase gene discovery in schizophrenia, and vice versa.

The current findings suggest a strong overlap both in individual risk gene loci, as well as the 'polygenic architecture' between psychiatric disorders, especially schizophrenia and bipolar disorders.

Rare disease-causing variants and gene-environment interactions behind the missing heritability

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Recent large genome-wide association studies have demonstrated substantial polygenic components underlying major psychiatric diseases such as schizophrenia or bipolar disorder. Despite the success, there is still a wide gap between the additive genetic heritability estimates from twin studies and the polygenic risk components from the genome-wide studies of patient cohorts. As traditional genome-wide association analyses cover only common genetic variations, part of the unexplained portion of the heritability estimates ("missing heritability") for the major psychiatric diseases may be explained by rare high-impact variants, not discovered by the commonly applied genotyping platforms and analysis techniques. Furthermore, genetic code does not express itself in isolation but in interaction with the environment. This is a particularly valid aspect for brain, a plastic organ with a wide capacity to adapt its function to environmental requirements.

In the presentation, recent discoveries from the Finnish population on genetic risk for major psychiatric disorders, and on interplay between the genetic and environmental factors, will be discussed. All in all, the data evidences for contribution of both common and rare genetic risk variants to genetic liability to schizophrenia. The genetic risk factors are likely to interact with environment, but this interaction is complicated and may encompass both protective and predisposing factors that act in a developmental phase-specific manner.

Symposium 5.B: Young scientist oral presentation - the Pontoppidan competition.

What is the dose dependent relationship between benzodiazepines and the efficacy of ECT in the treatment of depression

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Introduction: Electroconvulsive therapy (ECT) has been used for more than half a century and is presently an apt treatment for mood disorders. With benzodiazepines' anti-convulsive properties they are considered contraindicated in persons receiving ECT, although this is considered a relative contraindication. This is a result of the tentative conclusions the literature has drawn until now.

AIMS

In this study we aim to find if the literature has statical evidence of a reduction of ECT efficacy in groups of mood disorder patients taking benzodiazepines. Further we examine if any modalities of ECT alleviate benzodiazepine's effect on ECT.

METHOD: A review of the literature in Pubmed and Embase databases including the Mesh terms Mood, disorder, Benzodiazepines and Electroconvulsive therapy. Articles were screened for relevant information by title and abstracts by one researcher.

RESULTS: 11 articles meet the criteria: Four prospective and seven retrospective studies. Four of these studies showed a statically significant correlation between the use of benzodiazepine and suboptimal ECT. These were characterized by large dosages of benzodiazepine or unilateral ECT.

CONCLUSION: Neither dosage dependent response nor effects of different ECT modalities could be proven. There is a pattern of studies of low dosage benzodiazepine showing no effect on ECT and studies of high dosage showing effect on ECT outcomes, which is most clear when looking at unilateral ECT. This makes it probable that bilateral ECT ameliorates benzodiazepine's negative effect on the efficacy of ECT. Further research, especially with data on medication dosage, is needed.

Tickling rats: A new preclinical screening -tool for depression?

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Introduction:Rats produce high-frequency sounds (USVs) inaudible to humans. The experimenter can imitate the rough-and-tumble play of rats through a tickling-like stimulation, leading to an increased sound production - said to reflect positive emotions. The forced swim test (FST) is a widely used screening tool for depression in preclinical research. The current study investigates whether USVs produced during tickling stimulation can be utilized as an alternative non-stressful screening tool for depression-like behavior in the Flinders Sensitive Line (FSL) rats, a genetic model of depression. Furthermore, the effect of tickling on the gene expression of kallikrein, a supposedly stress-sensitive protein, in the submandibular glands was investigated.

Methods: The FSL rats' sound-profile was investigated during six weeks of tickling. Flinders Resistant Line rats, Sprague Dawley rats and light-touch groups were used as controls. Depressive-like behavior was evaluated with the FST. Rats were euthanized by decapitation and their submandibular glands dissected and immediately frozen. mRNA analysis was carried out with quantitative real-time polymerase chain reaction.

Results: The FSL rats produce significantly more calls than the control rats during tickling stimulation on all days investigated. Tickling did not affect the gene expression of kallikrein in the submandibular glands, however, a significant strain difference was found.

Conclusion: The FSL rats display an increased sound production compared to controls, indicating increased positive emotions. This questions whether it is born depressive-like or merely with a predisposition. The gene expression of kallikrein suggests that the FSL rats present a distinct phenotype.

The effect of homelessness on mortality: a nationwide register-based cohort study

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Introduction: The excess mortality among homeless people has reached very high levels. However, whether homelessness is a risk factor of death independent of psychiatric disorders is uncertain. Better knowledge of this relationship can have implications for future efforts aiming at improving homeless people's health.

Methods: We conducted a nationwide register-based cohort study of the Danish population for the period 2000 through 2011. The association between homelessness and all-cause and cause-specific mortality was analyzed taking into account relevant confounders. We also compared mortality rates among homeless people with the general population according to specific psychiatric diagnoses.

Results: For death from medical conditions, after adjustment for psychiatric diagnoses, homeless men and women had a MRR [mortality rate ratio] of 2.85 (95% confidence interval [CI], 2.73-2.98) and 3.66 (95% CI, 3.37-3.97), respectively, compared with the general population. For death from external causes, the figures were for men and women 5.23 (95% CI, 4.85-5.64) and 11.74 (95% CI, 10.18-13.55). Even after full adjustment including socioeconomic factors in a sub-cohort born 1982-1993, homeless mortality was about four times that of the general population (MRR=3.94, 95% CI, 3.10-5.02). Strikingly high mortality rates were found for homeless people with a psychiatric diagnosis.

CONCLUSIONS

The excess mortality among homeless people can to a high degree but not fully be explained by psychiatric morbidity. People experiencing homelessness and psychiatric disorders have severe health problems. However, homelessness should be regarded as a predictor of mortality independent of other known predictors.

The amount of methylphenidate (MPH) extracted from available MPH drugs by i.v. substance abusers in Iceland.

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Introduction: Methylphenidate (MPH) is a stimulant commonly prescribed for attention-deficit hyperactivity disorder. In recent years MPH prescription rates have increased globally. The potential for oral MPH abuse is well described while less is known about intravenous (i.v.) abuse. In a recent study in Iceland it was found that MPH is the most commonly abused i.v. substance. Three MPH preparations are available in Iceland: immediate-release (IR), slow-release (SR) and osmotic-release (OROS). The aim was to measure the amount of MPH extracted by a group of i.v. abusers and a group of healthy individuals.

Methods: Four male i.v. MPH abusers and four healthy controls participated. The methods used by the i.v. abusers for preparing the samples for i.v. abuse were monitored and the healthy controls then used the same methods. The amount of MPH in the preparations was measured with high-performance liquid chromatography.

Results: The mean age of i.v. abusers was 39 years and mean duration of i.v. abuse was 15 years. Both i.v. abusers and controls extracted over 50% of MPH from IR and SR formulations but less than 20% from OROS. It took both groups longer to manipulate the OROS preparations. No significant group differences were observed.

Discussion: To our knowledge, this is the first study measuring the amount of MPH extracted from prescription drugs by i.v. abusers. More than 50% of MPH can easily be extracted from IR and SR MPH but much less from OROS preparations.

Symposium 5 C: Do psychedelics and MDMA have a future in psychiatry

An update on MDMA - pro's and con's for use in treatment

David Erritzoe

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MDMA (3,4-methylenedioxy-N-methylamphetamine, also known as ecstasy) is still a popular recreational drug. However, the long-term effects of recreational use of this drug is still a subject of controversy despite extensive brain research within this field. It is a potent releaser of serotonin and is typically categorized between the central stimulants and the psychedelic compounds, sometimes being referred to as an "empathogen". Based on its unique psychological effects an increasing number of studies have investigated a possible role for MDMA as an adjunct to psychotherapy in the treatment of a variety of psychiatric conditions, including addiction, post-traumatic stress, anxiety, and depression. The availability of functional and molecular brain imaging techniques has provided not only a better understanding of the long-term on the brain of recreational of MDMA but also the biological mechanisms underlying its psychological effects. In this talk, data on both acute and long-term effects of MDMA will be presented and the drug's potential role as an alternative pharmacological approach to intervention in psychiatry will be discussed.

Psilocybin as a medication to facilitate behavior change in addiction and and cancer related anxiety and depression

Matthew Johnson

Johns Hopkins, Baltimore, United States of America

This presentation will describe results from recent studies examining therapeutic effects of psilocybin. The presentation will first present data from a recently completed controlled trial examining psilocybin in the treatment of cancer related anxiety and depression. Results show that high dose psilocybin, compared to a low dose comparison condition, significantly decreases measures of anxiety and depression. This presentation will also describe an open-label pilot study using psilocybin with cognitive behavioral therapy to treat tobacco addiction. Results showed 80% of participants were abstinent at 6-month follow up, a success rate substantially higher than conventional treatments. The presentation will also show data from an online survey which characterized the stories of >1100 people who claimed to have quit or reduced smoking after using a classic psychedelic. Collectively, these results suggest psilocybin holds considerable promise as a behavior change agent for therapeutic purposes.

Neural correlates of the psychedelic state as determined by brain imaging studies with psilocybin and LSD - implication for treatment of depression

Robin Carhart-Harris

Imperial College London, CfNPP, London, United Kingdom

This talk will detail my latest research with psychedelic drugs with a focus on a recently completed LSD neuroimaging study (fMRI and MEG). I will attempt to describe some key principles by which psychedelic drugs alter brain function to alter consciousness and this will be linked in with their potential therapeutic application. Some preliminary data from an ongoing psilocybin for depression trial will also be presented.

Symposium 5.D: OCD in children and adolescents. Results from the NordLOTS study

OCD in children and adolescents. Results from the NordLOTS-study

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Introduction: This multicenter, Nordic study examined the acute effectiveness of manualised exposure based CBT with a family based treatment for paediatric OCD.

Methods: 269 participants, age 7-17, with OCD received treatment for 14 weekly sessions. Treatment response was defined as CY-BOCS-score of less than 15 at post treatment. The association of 20 potential predictors was evaluated.

Results: 241 participants (89.6 %) completed all 14 weeks of treatment. Mixed effects model revealed a statistically significant effect of time, the mean symptom reduction on the CY-BOCS was 52.9 %, treatment response among the completers was 72.6 %. The older the participant, the more severe OCD; higher rates of internalising and externalising symptoms lead to significantly poorer outcomes.

Conclusion: Only age predicted better treatment outcome in the multivariate model. These findings underscore the feasibility of implementing exposure based CBT for paediatric OCD in regular child and adolescent mental health settings.

Continued cognitive-behavior therapy versus sertraline for children and adolescents with OCD that were non-responders to CBT: Treatment outcome and moderator analysis

Skarphedinsson Gudmundur
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Objective: To investigate the effectiveness of sertraline (SRT) versus continued CBT in children and adolescents that did not respond to an initial course of CBT and to evaluate whether the presence of tic disorder is negatively associated with SRT outcomes.

Method: The study was a part of the Nordic Long-Term OCD Treatment Study (NordLOTS). Intent-to-treat sample included 50 participants (classified as non-responders to CBT following 14 weekly sessions), age 7-17 years, with DSM-IV primary OCD, mean age 14.0 (SD=2.7) and 48% (n=24) males randomized to CBT (n=28) or SRT (n=22). Primary outcomes were the CY-BOCS total score and clinical response (CY-BOCS<16). Results: Twenty-one (75%) completed CBT and 15 (69.2%) completed SRT. The CY-BOCS total score did not reveal a significant difference between the treatments ($p=.351$). Within-group effect sizes were large and significant across both treatments. Twelve out of 50 (24.0%) participants were diagnosed with comorbid tic disorder, with seven receiving continued CBT and five SRT, respectively. In patients without tic disorder, results showed no significant between-group differences. However, in patients with comorbid tic disorder, those who received SRT had significantly lower average CY-BOCS scores when compared to those who received CBT.

Conclusion: The large within-group effect sizes suggest that continued treatment is beneficial. However, there was no significant between group differences in SRT or CBT at post-treatment. Children and adolescents with OCD and comorbid tic disorder, who are non-responders to an initial 14-week course of CBT, may benefit more from a serotonin reuptake inhibitor (SRI) than from CBT.

Treatment effects on Quality of Life in children and adolescents with OCD (results from the NordLOTS study)

Bernhard Weidle
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Introduction: Quality of Life (QoL) assessment is a well-established outcome measure in both somatic and psychiatric treatment studies. However, in contrast to adult OCD, little is known about QoL in children with OCD.

Methods: As part of the Nordic Longterm OCD treatment study, QoL was assessed at baseline and after treatment with 14 sessions of cognitive behavioural therapy in children and adolescents with OCD and compared with the general population. The QoL study comprised 135 children and adolescents, 7-17 years, with moderate to severe OCD according to DSM-IV criteria. QoL was assessed by self-report and caregiver proxy reports on the Questionnaire for Measuring Health-related Quality of Life in Children and Adolescents (KINDL-R) and compared with a matched sample from the general population.

Results: Before treatment, QoL was markedly reduced in children with OCD, both in self-reports and in parents' reports, compared with the general population. Children with higher comorbidity had lower QoL in parents' proxy reports. After treatment, QoL ratings in treatment responders were in the same range as in the general population, while non-responders rated no change in QoL. Comorbidity, family accommodation and psychosocial functioning were not associated with changes in QoL after treatment.

Discussion: QoL assessment with the KINDL-R supported outcome measures for symptom reduction used in the study to define treatment outcomes. Based on our findings, we suggest employing QoL assessment in order to have a more comprehensive understanding of childhood OCD.

The long term outcome of children and adolescents treated with CBT (results from the NordLOTS study)

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Introduction: Pediatric obsessive-compulsive disorder (OCD) is a disabling disorder, and it is often associated with distress and impairment in many domains. Moreover, there is a high risk of relapse and developing a chronic illness. However, there is little known about the long-term outcome of treatment.

Methods: As a part of the NordLOTS study the patients have been assessed 6, 12, 24 and 36 months after the initial CBT-treatment (14 weeks). The assessments includes semi structured interviews and ratings focusing on e.g. severity, functional impairment, family accommodation, comorbidity and comorbid symptoms. This part of the follow-up study included 175 patients, 7-17 years, who completed and responded to the CBT-treatment. The 36 month assessments are on-going, expected to be completed in the end of 2015. The presence and severity of OCD symptoms were assessed by a semi-structured interview the Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS).

Results: The severity of symptoms continues to improve after the treatment. However, there many different courses, patients get better as time goes by, other has fluctuations in symptoms after treatment, patients who relapse, etc. In the analysis we are going to compare patients and identify factors associated with long-term treatment outcome.

Discussion: We expect that results of the analyses from this follow-up assessments will provide us with valuable information about the course after treatment completion. Knowing when the patient is rather stabilized or which factors contribute to either lasting symptom reduction or relapse after treatment.

Family and non-family occurrence of OCD in children/adolescents - a differential influence of parental psychiatric predisposition and gender (the NordLOTS study).

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Introduction: Obsessive compulsive disorder (OCD) is a heterogeneous psychiatric disorder. Both genetic and environmental factors are known to be important etiological factors. The present study examined the impact of familial occurrence of OCD, tic, anxiety and depression on the presentation of OCD in offsprings.

Methods: As part of the NordLOTS study, the families were asked about the occurrence of OCD, tic, anxiety and depression in three generations. The parents were the primary informants.

Results: We showed a differential effect of gender and type of psychiatric disorder in families on the presentation of OC symptoms and on the occurrence of comorbidity. Not only OCD, but also anxiety, tic and depressive disorders affected the presentation. If the father presented OCD, the familial form of OCD was associated with an increased risk of an early onset of OC symptoms. There was an increased risk of checking, repeating, counting and symmetry compulsions. Familial tic disorders increased the risk of panic disorder, generalized anxiety, and tic disorders in the proband. Furthermore, familial tics was associated with both sexual obsessions and somatic/counting compulsions. Only tic disorders increased baseline severity score in OCD probands.

Discussion: The study supports previous findings concerning the importance of familial factors. Furthermore, the study adds new knowledge concerning the importance of other psychiatric disorders pointing towards a differential parental influence both on age of onset, comorbidity, the presentation and baseline severity score. The present study adds to the understanding that adolescent OCD is a heterogeneous disorder influenced by genetic and environmental factors.

Symposium 5.E: What can we learn from the Nordic Twin Registers about the major psychiatric disorders?

Heritability of schizophrenia and schizophrenia spectrum in the nationwide Danish twin and health registers, including aspects of age at onset and sex

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Background: Twin studies have provided strong evidence for the influence of both genetic and environmental factors on the risk of developing schizophrenia. Previous twin studies have varied methodologically in terms of sample selection, diagnostic criteria and analytical strategy, limiting the comparability and representativity of the findings. Few studies have investigated the heritability of males vs. females and the effect of age at illness onset among twins. With population-based ascertainment, strict diagnostic criteria and a considerable follow-up time we optimize the estimates of heritability by applying a novel statistical method accounting for all censored observations.

Methods: Linkage of two nationwide registers, the Danish Twin Register and the Danish Psychiatric Case Register, identifies a sample of twins born 1951-2000 (N=31524 pairs). Liability threshold models adjusting for censoring and including inverse probability weighting is used to estimate probandwise concordance rates and heritability of the diagnoses of schizophrenia and schizophrenia spectrum disorder. We further investigate sex specific heritability estimates and apply survival analysis to estimate the risk of disorder in the second twin using the age of onset in the first diagnosed twin as a predictor.

Findings: We find a moderate probandwise concordance rate of schizophrenia in monozygotic (MZ) twins, 0.37%, and a higher rate when expanding illness outcome to schizophrenia spectrum disorders, 55%. The corresponding variance of liability explained by additive genetic effects is 77% and 73% in schizophrenia and schizophrenia spectrum, respectively. The higher genetic similarity between monozygotic twins is accompanied by proximity of their diagnoses compared with that of dizygotic (DZ) twins. Additionally, the risk of schizophrenia in the second diagnosed twin was 4.5 times higher when the first diagnosed co-twin had early onset schizophrenia (below 22) compared to late onset (above 22).

Discussion: The key strength of this study is that a novel statistical method accounting for censoring in the follow-up period is applied to an unbiased, nationwide twin sample. Results do not conflict with previous findings, but indicate a substantial genetic risk of illness covering both a broad and a narrow phenotype. Furthermore our studies indicate the importance of a genetic component in the timing of illness onset in twin pairs and that an early age at illness onset is caused by a more severe genetic predisposition.

Neuromapping of Endophenotypes for Affective disorders: A twin study of neurocognitive, neuroimaging, cellular and epigenetic markers

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In this twin study of affective disorders, we aim to investigate candidate endophenotypes across different levels of investigation. At the epigenetic and cellular levels we examine DNA methylation, histone modification and microRNA and biomarkers related to oxidative stress, neuroinflammation, and metabolic respectively. Using structural and functional magnetic resonance imaging (MRI) and cognitive testing, we investigate gray matter volume as well as neural and behavioral measures of affective cognition, including emotional biases, affective regulation, mental imagery and reward processing. Three main hypotheses will be tested: 1. Candidate endophenotypes are associated with the degree of genetic disposition, 2. Abnormalities in these endophenotypes are interrelated on different levels 3. Unaffected twins discordant for unipolar and bipolar disorder will differ in their profiles of endophenotypes.

Monozygotic twins only are recruited through record linkage between the Danish Twin Register and the Danish Psychiatric Register. Twins discharged from a Psychiatric hospital between 1994 and 2011, diagnosed with either unipolar or bipolar disorder and in clinical remission (HDRS and YMRS scores ≤ 14), are eligible for inclusion. We aim to include 200 participants, of which 120 will undergo MR scan: Forty twin-pairs concordant ($n=40$) or discordant ($n=40$) for unipolar disorder, forty twin-pairs concordant ($n=40$) or discordant ($n=40$) for bipolar disorder and twenty twin-pairs ($n=40$) with no psychiatric history.

The project is in its inclusion phase, and at present 26 participants are included.

What can we learn about schizophrenia from Swedish twin studies: Future perspectives and possibilities of merging the Nordic Twin Registers

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Background: Schizophrenia research has achieved unprecedented advances the last decade. Scandinavian registers have been important for these advances with population-based ascertainment in genetically sensitive designs and in large samples sizes. Twin studies have constituted a solid basis for estimation of heritable traits and lately been powered by sibling and cousin designs based on Multigeneration registers. However, for studies on environmental risk factors in schizophrenia, biomarkers, brain structure and function, potential endophenotypes and substantial genetic overlap with bipolar disorders, we are often encountered with power problems in our twin designs. Methods: We have collected clinical, brain imaging, cognitive and molecular genetic data on 386 Swedish twins where one or both twins have schizophrenia or bipolar disorder and matched controls. Subgroups have been recruited for PET studies and for CSF studies. Discussion: Among our findings is evidence of microscopic particles in CSF associated with genetic vulnerability, rather than state-dependent factors in twins with schizophrenia, schizoaffective disorder or bipolar disorder. We have studied potential shared endophenotypes for schizophrenia and bipolar disorder and found evidence of moderate to high levels of heritability for subfacets. Ongoing studies on epigenetic mechanisms and biomarkers seem to generate interesting results. The Nordic countries have large twin registers, now also partly complemented by molecular genetic data. There is a large potential to empower studies, to create comparison material for replication, to develop biostatistical methods and to learn from each other in this era of expanding schizophrenia research

Free communication 5.F: Genetic and environmental risk factors for mental disorders

Polygenic Risk Score, Parental Socioeconomic Status, Family History of Psychiatric Disorders and the Risk of Schizophrenia: A Danish Population-Based Study

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Introduction: The objective was to estimate 1) how strongly the risk of schizophrenia relates to the mutual effect of the polygenic risk score, parental socioeconomic status, and family history of psychiatric disorders, 2) the fraction of cases that could be prevented if no one was exposed to these factors, 3) whether family background interacts with an individual's genetic liability, so that specific subgroups are particularly risk prone, and 4) to what extent a proband's genetic make-up mediates the risk associated with familial background.

Methods: Danish registers were used to identify 866 cases with schizophrenia and 871 controls. Genome-wide data, family psychiatric and socioeconomic background were obtained from neonatal biobanks and registers. Results from a separate meta-analysis (34600 cases and 45968 controls) were applied to calculate polygenic risk scores.

Results: Schizophrenia was associated with the polygenic risk score (odds ratio, 8.01 [95% CI, 4.53-14.16]), socioeconomic status (odds ratio, 8.10 [3.24-20.3]) and a history of schizophrenia/psychoses (odds ratio, 4.18 [2.57-6.79]). The β -values were: polygenic risk score (3.4% [2.1%-4.6%]), parental socioeconomic status (3.1% [1.9%-4.3%]) and family history (3.4% [2.1%-4.6%]). Socioeconomic status and psychiatric history accounted for 45.8% [36.1%-55.5%] and 25.8% [21.2%-30.5%] of cases. There was an interaction between the polygenic risk score and family history ($P=0.026$). 17.4% [9.1%-26.6%] of the effect associated with family history of schizophrenia/psychoses was mediated through the polygenic risk score.

Conclusions

Schizophrenia was associated with the polygenic risk score, family psychiatric history and socioeconomic status. Our study demonstrates that family history of schizophrenia/psychoses is partly mediated through the individual's genetic liability.

Childhood adversity specificity and dose-response effect in non-affective first-episode psychosis

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Background. Reviews conclude that childhood and adolescence sexual, physical, emotional abuse and emotional and physical neglect are all risk factors for psychosis. However, studies suggest only some adversities are associated with psychosis. Dose-response effects of several adversities on risk of psychosis have not been consistently found. The current study aimed to explore adversity specificity and dose-response effects of adversities on risk of psychosis.

Method. Participants were 101 persons with first-episode psychosis (FEP) diagnosed with ICD-10 F20 - F29 (except F21) and 101 non-clinical control persons matched by gender, age and parents' socio-economic status. Assessment included the Childhood Trauma Questionnaire and parts of the Childhood Experience of Care and Abuse Questionnaire.

Results. Eighty-nine percent of the FEP group reported one or more adversities compared to 37 % of the control group. Childhood and adolescent sexual, physical, emotional abuse, and physical and emotional neglect, separation and institutionalization were about four to 17 times higher for the FEP group (all $p < 0.01$). The risk of psychosis increased two and a half times for each additional adversity. All associations between specific adversities and psychosis decreased when they were adjusted for other adversities.

Conclusion. Our findings suggest that there is a large shared effect of adversities on the risk of psychosis. Contrary to the call for further research into specific adversities, we suggest a search for mechanisms in the shared effects of traumatization. Clinical implications are thorough assessment of adversities and their possible effects.

PRENATAL VITAMIN D DEFICIENCY AND INCREASED RISK OF ADULT SCHIZOPHRENIA. RESULTS FROM A SOCIETAL EXPERIMENT IN DENMARK

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INTRODUCTION. Animal experiments have demonstrated that prenatal vitamin D-deficiency may influence brain structure and function. Also, a few human observational studies have suggested a relation between prenatal vitamin D-status and schizophrenia. However, results are inconsistent.

METHODS. In Denmark, a mandatory fortification programme adding vitamin D to margarine took place 1961-1985. Vitamin D from margarine supplied 13% of daily average intake. We used this "social experiment" to examine the risk of schizophrenia among individuals from entire birth cohorts exposed and not-exposed to the extra vitamin D during foetal life. Individuals born two years before ($n=149.580$) and two years after ($n=161.766$) initiation of the fortification programme (1961) and born two years before ($n=106.627$) and two years after ($n=116.149$) termination of the fortification programme (1985) were selected from Danish registries via personal ID, and stratified according to season of birth and trimester. All ID-numbers were screened in the Danish Psychiatric Register for diagnosis of schizophrenia. The observation period was 24 and 53 years, respectively.

The analyses showed a lower risk of schizophrenia for compared to prenatally exposed and non-exposed individuals born May-July, both around the initiating mandatory fortification (HR=0.62, CI?) and the termination (HR=0.63, CI?).

DISCUSSION. Extra vitamin D from fortification during foetal life reduces the risk of adult schizophrenia, particularly for those who born early summer, eg. those with 1. and 2. trimester during winter. Consequently, supplementing small amounts of to pregnant women during winter months may reduce the risk of schizophrenia among their offspring.

Factors Influencing the Risk of Relapsing in Depression in the Lundby Study

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Introduction: Depression afflicts about every third woman and every fifth man in Sweden. 31% of the men and 34% of the women with depression suffers from a relapse. Identifying risk factors for relapsing depression makes aimed intervention and efficient use of preemptive medication and therapy possible.

The aim of this study is to identify factors which affect the risk of relapsing in depression among afflicted subjects in the Lundby study.

Methods: The Lundby study is a community based longitudinal study with focus on mental health which started in 1947. The cohort consists of 3563 subjects. Data from 508 subjects afflicted by depression were used in this study. Odds Ratios were calculated by logistic regression. Factors investigated were age at first episode of depression, depression severity, melancholic depression, gender, heredity, personality, socioeconomic status and marital status.

Results: Factors significantly increasing the risk of recurrent depression were presence of melancholic traits, young age at onset of first episode and nervous/tense personality independent of gender.

Discussion: In accordance with previous research, two of three factors affecting the risk of relapsing in depression were inherent in the depression episode. Supporting the theory of melancholic depressions uniqueness, presence of melancholic traits was a risk factor independent of severity and heredity.

Pituitary gland volume and diurnal cortisol in ultra high-risk and first episode schizophrenia patients.

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Introduction: The stress-vulnerability model suggests that the combination of genetic susceptibility and stressors confers a vulnerability to psychosis. More knowledge about how these different aspects interact can advance our understanding of the link between psychosis and the HPA axis, one of the potential mediators between stress and the onset of psychosis.

Method: We examined different aspects of the stress response in 41 ultra high-risk (UHR) and 40 antipsychotic-naïve first episode schizophrenia (FES) patients and compared them with 47 matched controls. Stress scales were used to assess the stress levels. We measured diurnal salivary cortisol, and manually traced the pituitary gland volume on structural MRI.

Results: Both the UHR and FES patients experienced higher levels of perceived stress ($p < 0.001$) and recent life events ($p < 0.001$) compared to healthy controls. The UHR patients had significantly higher cortisol reactivity compared to healthy controls ($p = 0.009$). We found no between-group differences in other cortisol measures, covering the cortisol awakening response (CAR), diurnal cortisol or pituitary gland volume. In a multivariable analysis, we found an inverse association between CAR and recent life events ($p = 0.027$).

Conclusion: We suggest that recent life events and cortisol are associated and seem to be affected during early stages of illness (UHR patients) and that the HPA-axis could be one of the mediators between stress and onset of psychosis or other severe mental illness. Longitudinal studies of UHR patients would be useful in order to examine how the course of illness is affected by the stress levels.

Symposium 6.A: Prevalence, presentation and interpretation of mental health symptoms across cultures

Transcultural psychiatric assessment and treatment of migrants in Denmark

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Migrants have a higher risk of some psychiatric diagnoses than the native population (Bhugra et al. 2011; Cantor-Graae and Selten 2005). A Cultural sensitive approach is important because of the risk of misdiagnosing mental disorders in migrants. (Adeponle et al. 2012). The previous edition of the Cultural Formulation Interview (CFI) from DSM-5 was found to reduce misdiagnosing (Rosso and Bäärnhielm 2012; Adeponle et al. 2012).

Research questions:

What is the prevalence of psychiatric diagnoses among migrants compared to native Danes and do migrants have a higher number of diagnostic shifts compared to native Danes? *Do migrant patients change diagnoses during the course of referral, assessment and evaluation of the treatment at the Competence Centre for Transcultural Psychiatry (CTP) and if so, what are the possible causes for the changes?*

Does the clinician find that the use of the Cultural Formulation Interview (CFI) provides important information for the diagnostic process and treatment plan? The first study is based on registry data to investigate whether migrants have higher prevalence of mental disorders than native Danes and a higher risk of diagnostic shifts than native Danes. The second study is an observational study on the assessment and treatment at CTP. The number of diagnostic shifts and factors that can influence the diagnostic process and validity will be examined. In the last study we will investigate if the use of the CFI provide the clinicians with important information for diagnoses and treatment plans to overcome potential problems with diagnostic validity.

Culture and PTSD - Identification of similarities and differences, and adaptation of measurement tools

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Existing studies show that symptom patterns in PTSD, depression and anxiety vary between cultures, but included samples are small and refugee populations from the Middle East have received limited attention. Diagnostics and measurement of treatment outcome with trauma-affected refugees is therefore hindered by limited knowledge of the symptom structure in these cultures, as well as the validity of the relevant measurement tools. The current project uses Item Response Theory (IRT) and Confirmatory Factor Analysis (CFA) to assess the responses of approx. 900 refugees on the Harvard Trauma Questionnaire (HTQ) and the Hopkins Symptom Checklist-25 (HSCL-25) for depression and anxiety. Preliminary results show how key symptoms vary in their display across cultures, as well as across alternative scale implementations and translations. An illustrative example is the role of suicidal thoughts in depression. Such thoughts are considered unacceptable by many Muslim patients. Care should be taken in the formulation of such a question, if they are to contribute in the assessment of depression across cultures. Although IRT has received little attention in cross-cultural psychiatry, it may serve to identify and inform reformulation or retranslation of items displaying limited validity.

The encounter between clinicians and migrant patients in Danish outpatient psychiatric services. A qualitative study on the Cultural Formulation Interview

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Migrants constitute more than 8% of the Danish population. Migrants are at increased risk of mental illness, which is attributed to distress before, during and after the migration. Studies show that Danish clinicians find it difficult to understand, diagnose and treat migrant patients. Moreover, migrants experience less understanding and more discrimination in the health care system than ethnic Danes.

Psychiatry in particular is faced with challenges in the encounter with migrant patients because the presentation, interpretation and treatment of mental health symptoms vary across cultures.

Enhancing clinicians' cultural competences can be an answer to those challenges. Cultural competence can lead to a better communication and understanding between clinicians and patients, thus improving several aspects of psychiatric care, including the diagnostic process, treatment, patient adherence and patient satisfaction.

This study takes its point of departure in the Cultural Formulation Interview (CFI) from DSM-5, which has a narrative approach and serves as a clinical resource for the systematic and individualised evaluation of cultural dimensions in psychiatric assessment. Empirical data will be generated at 5 Danish outpatient psychiatric services in the Capital Region and includes participant observation, focus groups with clinicians and interpreters, interviews with migrant patients and visual recordings of 20 CFIs. The main objective is to understand and describe what the different parties of the encounter accentuate in relation to good psychiatric care and the handling of cultural issues. Furthermore, the objective is to test and evaluate the clinical relevance of a Danish translation of the CFI.

PERCEIVED CAUSES AND TREATMENT OF MENTAL ILLNESS IN RWANDA

Henrik Schalén, Denmark

Introduction: This research was done in order to expand the knowledge of how mental illness is interpreted and managed in Rwanda.

Aims: To find out how mental illness is explained and interpreted in Rwanda, that is what kind of explanatory models that exist. To describe what roles psychiatry, traditional healers and pastors have in the treatment of mental illness in Rwanda

Methodology: In order to collect data the validated instrument EMIC (Explanatory Model Interview Catalogue), a semi-structured interview protocol was adapted for use in Rwanda. In total 35 interviews were conducted with patients, traditional healers, pastors and health care providers in Rwanda. Thematic content analysis was done with support of the computer program Open Code 4.02.

Findings: All traditional healers described supernatural forces and supernatural beings that play an essential role in explaining psychiatric symptoms. They mentioned witchcraft, evil spirits and angry ancestors as perceived causes of mental illness in Rwanda. Treatment includes herbal medicine and rituals in which animals are sacrificed. Pastors described mental illness as caused by the Devil and demons. In churches prayers and exorcism were used for treatment. The mental health staff explained psychiatric symptoms according to DSM-IV and medicines were used in the treatment. Various factors influence the help-seeking behaviour, among them the patients' beliefs, education, socioeconomic status and the availability of care providers. However, patients tend to make a choice that coheres with their explanatory model of mental illness.

Psychotic-like experiences in a war-affected setting: emic and etic understanding

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Background: Psychotic-like experiences (PLEs) are frequent in general populations and may impact level of functioning even if the full criteria for psychotic disorders are not met. Traumatic experiences are risk factors for presence of PLEs but research on the PLEs in war-affected populations are scarce.

Aims: The aim of this study was to examine the prevalence of PLEs in general population in a war-affected setting. We investigated risk factors for PLEs and the impact of trauma exposure on rate of these symptoms.

Methods: A cross-sectional community survey (n = 1200) was conducted in South Sudan. MINI was used to assess PLEs. The bizarreness of the PLEs was evaluated by local health workers. HTQ was used to assess participants' exposure to traumatic events. Regression analyses were conducted to determine the impact of trauma exposure on the presence of PLEs/ bizarre PLEs.

Results: Prevalence of at least one PLE was 33% of which 36.4% were characterized as bizarre. Urban residency, regular income and exposure to traumatic events were significantly associated with higher number of PLEs. Risk factors for bizarre PLEs were younger age, being unemployed, having lower level of education, having traditional belief (compared to being Christian or Muslim), and higher number of traumatic exposure.

Conclusions: Presence of PLEs in individuals exposed to traumatic events should be given due consideration by clinicians. The similarities /differences in the patterns of risk factors for PLEs and bizarre PLEs are discussed in light of emic and etic understanding of PLEs.

Symposium 6.B: Early career: How can e-learning technologies endorse learning in psychiatry?

From VISION (Virtual Interviews for Students Interacting Online) to Empower the User - Teaching Key Communication Skills through online simulations

Brian Fitzmaurice

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Background Review: A novel set of online simulations to teach communication skills developed for local medical students were trialed in external Medical Schools (University of Edinburgh, Imperial College, London). It was important to validate their usefulness within independent university settings in advance of developing communication simulations for other areas.

Results: A. Validity of Simulations for learning Communication Skills - 80% of students thought it a valid tool for learning communication skills, highlighting the different learning objectives and skills one needs to conduct effective interviews. Over 50% thought they could translate what they learnt online into clinical settings.

B. Perceived Usefulness of Video Based Simulations: 60% logged on at least twice, 70% logged onto teaching tool for > 30 mins, 90% wished to log on again, 40% wishing to log on > 5 times more, 70% thought that video clips were essential and could not be replaced by text/audio clips. Students wished to see scenarios developed for scenarios which might be seen less commonly on inpatient wards (e.g. Obsessive Compulsive disorder).

Conclusions: Online simulations are a valid, reliable and useful way to teach communication skills in medicine and other fields. Technology devel-

oped in a psychiatry department has now been adapted for commercial use in diverse fields through a university-based company called Empower the User Reference Fitzmaurice, B., Armstrong, K., Carrol, V., Dagger, D., Gill, M. (2007) Virtual Interviews for Students Interacting Online for Psychiatry: a novel resource for learning clinical interview skills *Psychiatric Bulletin*, 31, 218-220.

The impact on confidence when learners train by using a virtual patient system in transcultural psychiatry

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Objectives: Virtual patients, which are proven as efficient and safe training contexts in healthcare education, has yet not been much used to teach students in psychiatry and especially in clinical care of traumatized refugee patients. This study had the aim to assess the impact of training with a virtual patient in different aspects of providing clinical care for traumatized refugee patients.

Methods: Our developed educational tool based on virtual patient's methodology presented the case of "Mrs. K", a traumatized refugee woman with symptoms of depression and PTSD. A group (N=32) of resident psychiatrists in Sweden tested the system and their confidence in various aspects of providing clinical care for this patient group and was evaluated by pre- and post-test by using a validated confidence questionnaire.

Descriptive statistics were used for demographic data and were presented as the mean \pm SD. Matched-pair t-test was used to estimate changes between pre- and post-test values of self-reported confidence. P-values \leq 0.05 were considered as evidence of statistical significance.

Results: The overall confidence of the residents was significantly improved and also in specific domains of clinical care. Identifying and evaluating trauma-related diagnoses and disability had the most prominent improvements.

Conclusions: The refugee trauma VP-system may have an impact on physicians' improvement of confidence in providing clinical care for traumatized refugee patients. Further studies are needed in the impact on actual competence, as measured by objective outcomes i.e. clinical care outcomes.

E-learning during placement in psychiatry: Will it endorse learning?

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Objectives: Medical students frequently complain of idle time during the day at the wards. We introduced e-learning tools to be used during 3 weeks placement in psychiatry. Three e-learning tools with very different aims and structure were tried by the students. The aim was to investigate if e-learning tools could be used as a supplement to clinical training.

Methods: Three groups of students were given an iPad and instructed how to use the iPad for the e-learning tools. They were asked to participate in e-learning sessions introducing and trying specific e-learning tools. The students were also encouraged to use the e-learning tools during idle time at the wards. We investigated the students overall attitude to E-learning tools through interviews combined with observations of the introductory sessions focusing on the students approach to the tools. At the end of the placement students were interviewed in group interviews about their experience and asked to answer a web-based survey about their placement.

Results: The results of the quantitative data analyses and preliminary qualitative analyses will be presented.

Conclusions: Results from the study are expected to bring new knowledge about how students work with E-learning tools, when used as a supplement to the clinical training, and if they find it useful.

Free communication 6. C: Suicide and increased risk of death from cardiovascular diseases

Suicidal communication before suicide and undetermined death. A combined pseudo-prospective clinical and medico-legal study of drug abusers.

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Background: Substance use disorders are related to premature death including suicide and undetermined death. Suicidal communication is common before suicide and suicidal ideation and attempt and may be predictive of suicide, but this is less investigated in substance abuse disorders.

Methods: All consecutive, autopsied patients who had been in contact with Addiction Centre in Malmö University Hospital from 1993 to 1997 inclusive were investigated. Drug abuse and suicidal behaviour were blindly investigated in the case records and related to the cause of death in 388 subjects, out of whom 91 had been in contact within three months before death and 153 were remembered by the staff. An interviewer blind to the manner of death interviewed the staff at the time of death. Risk of suicide was blindly estimated by staff and afterwards related to manner of death. **Results:** Suicidal ideation was related to suicide as well as undetermined death. Suicide attempt was related to suicide. There was a very good negative prediction (98%) of suicide but less good positive prediction of suicide (47%) or undetermined death (35%). Suicidal ideation was more often considered non-serious before undetermined death, as compared to before suicide. There was no evidence that people who died by suicide and undetermined death sought help at the clinic shortly before death as compared with those who died by other manners of death. **Conclusions:** Suicidal ideation and communication should be taken seriously in substance use disorders. Undetermined death could be better predicted, if all communication would be taken seriously.

Relatives attitude towards assisted suicide and euthanasia

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Centre for Suicide Prevention, Copenhagen S, Denmark

Background: Assisted suicide and euthanasia are often topics in public debate, but not so often in psychiatric congresses or journals. However, the trend in some countries indicate that the movement for the 'right to die' or a 'dignified death' also will reach psychiatric patients.

Some studies or surveys about the attitude towards assisted suicide and euthanasia are often conducted in general public, and thus do not reveal the attitude in populations that are patients or relatives to patients where death or suicide is a real potential option.

We want to elucidate the attitude among relatives to elderly psychiatric patients, which is a group of people that may consider death and suicide as a solution.

Metod: 50 psychiatric patients 65 or older are asked for permission to interview one relative. The relatives are interviewed about: Age, sex, relation to the patient, at work or pensioner, perceived burden of care, attitude toward influence on and involvement in patients' treatment, attitude towards a law legalising assisted suicide and/or euthanasia.

Results: So far we have only some few results, but we intend to present results about relatives' attitude towards assisted suicide and/or euthanasia, possible related to age, sex and relation to patient, burden of care, influence and involvement in treatment.

Discussion: Results will be discussed for relatives that have patients that potentially could ask for assisted suicide or for euthanasia.

Also how relatives' own age, sex, relation to patient and influence on and involvement in treatment possible can influence the attitude.

Cannabis, alcohol, and hard drugs predict mortality in schizophrenia, bipolar disorder, or unipolar depression

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Background: People with severe mental illness have both increased mortality and increased rates of substance use disorders (SUD).

Methods: This was a register-based cohort study on all people with schizophrenia, bipolar disorder, or unipolar depression born in Denmark in 1955 or later. Hazard ratios for all-cause and subhazard ratios for cause-specific mortality were calculated for SUD of alcohol, cannabis, or hard drugs.

Standardized mortality ratios (SMR) were calculated to compare the mortality in the study populations to that of the background population.

Findings: In schizophrenia, the SMR in those with lifetime SUD was 8.46 (95% confidence interval (C.I.) 8.14-8.79), compared to 3.63 (95% C.I. 3.42-3.83) in those without lifetime SUD. In bipolar disorder, the corresponding SMRs were 6.47 (95% C.I. 5.87-7.06) and 2.93 (95% C.I. 2.56-3.29), respectively. In depression, the corresponding SMRs were 6.08 (95% C.I. 5.82-6.34) and 1.93 (95% C.I. 1.82-2.05), respectively. In schizophrenia, all substances were statistically significantly associated with increased risk of all-cause mortality. In bipolar disorder or depression, only alcohol and hard drugs increased risk of all-cause mortality. No substances were consistently associated with suicide.

Interpretation: Mortality rates in mental illness are much more increased in those with SUDs than in those without, particularly misuse of alcohol and hard drugs. Mortality-reducing interventions should focus on dual-diagnosis patients, and probably seek to prevent and/or treat substance use disorders.

Metabolic syndrome in patients with first-episode schizophrenia. A one year follow-up study.

Lene Nyboe, Poul Videbech
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Introduction: Patients with schizophrenia have a 15-20 years shorter life expectancy mainly due to somatic illness, e.g. cardiovascular disease (CVD). The metabolic syndrome (MetS) is a significant risk for CVD and highly prevalent in patients with schizophrenia. Few studies have focused on MetS in patients with first-episode schizophrenia (FES).

Methods: We compared the prevalence of MetS in patients with FES to healthy controls, investigating changes in the prevalence of MetS and predictors of MetS. MetS was defined as fulfilling the IDF criteria of waist circumference (WC), triglycerides (TG), high-density lipoprotein (HDL), blood pressure (BP) and fasting glucose. Data on physical activity, physical fitness, smoking and dietary habits, and sleeping quality were assessed for all participants and for patients also data on psychotropic medication, GAF, SANS and SAPS.

Results: Patients with FES had significantly higher prevalence of MetS ($p=0.07$), increased WC ($p<0.01$), FG ($p=0.04$), and TG ($p<0.01$), and decreased HDL ($p=0.02$). Patients had significant increase in MetS ($p=0.03$), in WC ($p=0.04$), and TG ($p=0.01$) during follow-up. Antipsychotics and especially low physical activity were significantly correlated to increased metabolic abnormalities. In multivariate analyses low physical fitness was 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 physical fitness is a significant predictor of metabolic abnormalities indicating that low physical activity warrant more attention in psychiatric treatment and rehabilitation.

Symposium 6.D: ADHD in children and adolescents. Factors effecting long term outcome

The course of ADHD from childhood to adulthood - does early identification and treatment improve the prognosis?

Pål Zeiner
Oslo University Hospital, Oslo, Norway

An overview will be given on the course of ADHD from preschool years to adulthood. Special emphasis will be given to the questions: Can early identification of ADHD alter the course of the disorder? Can treatment improve the prognosis of ADHD?

The moderators and mediators for outcome in adolescents with ADHD

Jorun Schei

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Moderator variables identify subgroups with better or worse outcome. Predictors of school age and long-term outcome have been indicated, and include symptom severity, cognitive function, and family factors in preschool years (Cherkasova et al., 2013; Costello & Maughan, 2015). Children with ADHD and comorbid conduct disorder and worse psychosocial functioning (Mordre et al., 2012), as well as emotional problems (Halmoy et al., 2009) were at higher risk of working disability than children with ADHD alone. A large European study that assessed multiple factors that are possibly associated with QoL among children and adolescents with ADHD found that the presence of peer problems and emotional problems was most strongly associated with poor QoL outcomes (Riley et al., 2006). Furthermore, comorbid conduct disorder and substance use disorder increased the mortality rates of adolescents with ADHD (Dalsgaard et al., 2015).

Mediators explain how and why factors are associated. Personal dispositions (structured style, social competence and personal competence) were mediators of the relationship between emotional problems and QoL in adolescents with ADHD, while social support mediated the relationship between both emotional and conduct problems and QoL (Schei et al., 2015). It has been indicated that the relationship between ADHD symptoms and occupational outcome is mediated by task-related performance and social functioning (Gjervan et al., 2013).

Sleep and ADHD

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Background: ADHD is the most prevalent neurodevelopmental disorder in child psychiatry with a prevalence of 5% and up to 70% of children with ADHD have reported sleep problems. Research in this field is challenged by the heterogeneity of ADHD and the many ways to assess sleep. The impact of the medical treatment with methylphenidate on objectively measured sleep has sparsely been the primary focus of research and deserves further scrutiny.

Methods: School children diagnosed with ADHD underwent both subjective and objective assessment of sleep. After approximately 12 week of treatment with methylphenidate, eligible children were reassessed with the same measures of sleep as before treatment. One year after the initiation of treatment with methylphenidate the sleep questionnaires were repeated. In the statistical analyses a mixed models method was applied.

Results: Seventy-six children underwent the sleep assessment before treatment. After 12 weeks, 53 children were eligible for follow-up. A total follow-up was made on 28 children. We found no changes in reported sleep problems at either 12 or 52 weeks. After 12 weeks the objective measures were unaffected or even ameliorated to some extent.

Conclusion: Despite the well known side effect, insomnia by the use of methylphenidate, our data suggests that methylphenidate could have a beneficial effect on sleep in children with ADHD.

The impact of treatment on injuries and crime.

Søren Dalsgaard

National Centre for Register-based Research, Aarhus University, Aarhus, Denmark

Observational studies offers increasing evidence for the benefits of pharmacological ADHD treatment, in addition to reducing the impairing core symptoms. In a recent study we found that ADHD was associated with an increased risk of premature death and accidents was the most common cause of death. Another recent study found medication to reduce the risk of injuries and emergency ward visits in children with ADHD, by up to 45%. Medication is also associated with a reduced risk of juvenile delinquency with police contacts before age 15 in adolescents with ADHD. Clinical implications and research perspectives of these recent findings will be discussed.

Free communication 6. E: Psychiatric services. How to improve practise?

The Psychiatric Emergency Services in Copenhagen 1985-2012. A 27 year follow-up study

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²Dr. Høegh is the presenting author!, Roskilde, Denmark

³Psychiatric Center Copenhagen, Copenhagen, Denmark

Introduction: Since 1985, the organization of the psychiatric services in Copenhagen has underwent considerable changes. Our aim was to examine how these changes has influenced the activities in the psychiatric emergency units (PEU) in the same catchment area over the past 27 years.

Methods: We conducted a follow-up study comparing 1985-variables with same measures in 2012. Using the same study design, a random sample of all visits every 10.day in 2012 (N=1126) to three PEU's was registered and compared to identical data collected in 1985. We have focused on clinical, social and triage-related variables.

Results: The number of visits has decreased significantly from 367 visits/year/10.000 inhabitants in 1985 to 225 in 2012. The frequency of affective disorders, neurotic and stress disorders has increased throughout the 27 years, while the frequency of schizophrenia, personality disorders and alcoholism are almost unchanged. The rate of acute admission from PEU to a psychiatric ward has increased from 36% in 1985 to 61% in 2012. In 1985 21% of the visits ended up without referrals, compared to 5% in 2012. Analyses of the initial triage showed that this new procedure fulfilled the

intentions of an immediate and relevant treatment plan.

Discussion: Since 1985 the expansion of psychiatric outpatient facilities has reduced the number of visits to the PEU's. The diagnostic distribution has changed into more severe conditions requiring acute admissions from PEU's to intensive wards.

Screening of patients referred to an early detection program for psychosis (TOP) in Denmark

Ulrik Haahr¹, Lene Hastrup², Jens Jansen², Pia Jørgensen², Marlene Pedersen¹, Lotte Jensen¹, Karina Gulstad¹, Tine Krarup-Christensen¹, Elin Bang¹, Erik Simonsen²

¹Psychiatry East, Roskilde, Denmark

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Introduction: Delays in initiating treatment are associated with poor clinical and functional outcomes in first-episode non-affective psychosis (FEP). An early detection team (TOP) consisting of specially trained psychiatric staff was implemented in 2012 in Region Zealand, Denmark, in order to help patients between 15-25 years of age with FEP to access mental health care treatment.

Method: The aim is to test PANSS as a diagnostic screening tool for possible FEP. At initial screening psychiatric symptoms were measured by the PANSS in patients with a possible psychosis. Register data from the patient registration system and files were collected from the first three years of the program, in order to obtain the clinical diagnosis.

Results: Out of 878 referrals, 305 were evaluated with a PANSS interview. One hundred and fifty-two were referred to further assessment as probably suffering from psychosis. The positive predictive value (PPV) of the referral diagnosis of FEP was 64 percent and the negative predictive value (NPV) was 96 percent. 5 percent was diagnosed with schizotypal disorder. The rest of the patients were distributed mainly between substance abuse, affective disorders, anxiety disorders and personality disorders. The median time from assessment to start of treatment of FEP was 22 days.

Discussion: It is possible to establish a detection team with specially trained psychiatric staff in the psychiatric treatment system and obtain a sufficient diagnostic accuracy of FEP, resulting in quick referral of FEP cases.

Causes of institutionalization of children and adolescents in a shelter in Brazil, analysis from 2000 to 2015.

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²Contestado University, Mafra, Brazil

Shelters or orphanages are institutions responsible for ensuring the physical and mental integrity of children and adolescents who had their rights violated or neglected, whether from a social-leavers, is at personal risk to which they were exposed or the negligence of its parents; in Brazil about 20 thousand children and adolescents living in 589 registered shelters that receive funds from the federal government.

We evaluated the records of institutionalized children and adolescents from the foundation of municipal shelter in Rio Negro, Paraná State, Brazil since June/2000 to February/2015. Institutionalization of the causes cited were: lack of family/guardian material resources, abandonment by parents/guardians, domestic violence, substance abuse of parents/guardians, street experience, orphans and others.

In Brazil, poverty and extreme poverty are closely related to the institutionalization of causes of children and adolescents. Census data in 2010, the Brazilian Institute of Geography and Statistics (IBGE) indicate that 40% of Brazilians living in poverty are girls and boys up to 14 years in a total of approximately 23 million individuals. Poverty denies children and adolescents their rights, representing a vulnerability which predisposes to some causes of shelter.

Vibroacoustic therapy as an add-on treatment for depression

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Introduction: HALFMIS (High Amplitude Low Frequency Music Impulse Stimulation) is a new form of vibroacoustic therapy, created by two Danish neurologists for treating pain. Furthermore, the HALFMIS treatment has shown positive effects on conditions, such as ADHD, anxiety and depression. During a 20 minute HALFMIS-session, the patient lies on a specially designed chair, embedded with a transducer, which transmits computer-generated frequencies into vibrations. The vibrations are in sync with music the patient can hear through headphones. Similar methods have been used over two decades, with promising results. However, most of the reports are of anecdotal nature and clinical trials are non-existent.

Method: This pilot study is a randomized open clinical trial, which includes 60 patients (ICD-10 diagnosis F32-F33 for depression) in total, 30 patients who receive HALFMIS as an add-on treatment and 30 controls, who receive treatment as usual. The patients Hamilton depression score (HDRS) before and after receiving 8 HALFMIS-treatments over a 3-weeks time, is compared.

Results & Discussion: The primary aim of the ongoing study is to investigate if vibroacoustic therapy leads to significant (HDRS) symptom reduction. Our goal is also to investigate the feasibility of vibroacoustic therapy as an add-on treatment for depression, including effect, drop-out rate and possible side effects. If proven right, we hope to introduce an effective treatment for depression that is easy to use, safe, non-invasive, drug-free and hopefully without side-effects and thus improve life quality for the many suffering from depressive disorder.

Free communication 6. F: Therapeutic issues in children

High prevalence of autism spectrum disorders in 24-hours hospitalized children and adolescents with anorexia nervosa

Thomas Tellier

Child and Adolescent Psychiatric Center Copenhagen, Copenhagen/Kgs. Lyngby, Denmark

Associations between anorexia nervosa (AN) and autism spectrum disorders (ASD) have long been debated. Gillberg even suggested that AN could be a subtype of Aspergers Syndrome. Recent publications suggests that shared features indicates a continuum between the disorders, and that individuals with combined AN and ASF have more severe and treatment resistant AN. The object of this publication was to investigate this hypothesis on the basis of a simple clinical cross-sectional design.

Methods: The prevalence of ASF is investigated in a population of 50 adolescents, admitted to the inpatient programme at Department of Eating Disorders, Child and Adolescent Psychiatric Center, Copenhagen. The investigation period comprised of a 2-year period from June 2012 to June 2014. Associations between ASF and prolonged hospital-stay, re-admissions, and coercive measures were investigated. The point-prevalence of ASF was investigated at 9 consecutive quarters, and the period prevalence was determined.

Results: The prevalence of psychiatric disorders was high in the population; 61,5 percent had psychiatric comorbidity. The point-prevalence of ASF ranged from 37,5 - 62,5 percent but period-prevalence for the two-year period was 14/50 or 28 percent. Individuals with ASF had significantly longer admission-time, averaged higher quotient of re-admissions, and the use of coercive measures were significantly more frequent in this patient group.

Conclusions: The prevalence of ASF in the AN-population indicates, that selection of an inpatient group makes way for a positive selection for ASF. The results support the evidence that individuals with combined AN and ASD have longer, more treatment resistant disease-courses than individuals without ASD.

Increased mortality among persons with anxiety disorders: a total population study

Sandra Melanie Meier, Denmark

Background: Anxiety disorders and depression are the most common mental disorders worldwide with striking impact on global disease burden. Though depression has consistently been found to increase mortality; the role of anxiety disorders in predicting mortality risk is unclear. In this study, we assessed the prevalence and risks of excess mortality among persons with specific anxiety disorders.

Method: Using nationwide Danish register data we conducted a prospective cohort study with over 30 million person-years of follow-up assessing the mortality risk among persons with anxiety disorders.

Results: 1066 (2.1%) persons with anxiety disorders died during the average follow-up of 9.7 years. The fully adjusted all-cause mortality rate ratio for persons diagnosed with anxiety disorders was 1.66 (1.56-1.77) compared to persons without these diagnoses. The risk of death by both natural and unnatural causes of death was significantly elevated among persons with anxiety disorders (natural 1.39, 1.28-1.51; unnatural 2.46, 2.20-2.73) compared to the general population. Of those who died from unnatural causes, 16.5% had comorbid diagnoses of depression (11.72, 10.11-13.51).

Conclusions: Anxiety disorders significantly increased mortality risk, independent of comorbid depression. Comorbidity of anxiety disorders and depression played an important part in the increased mortality.

Therapeutic e-mails and manualised narrative family therapy for families challenged by multiple and/or complex psychiatric problems

Hanne Karkov¹, Nina Tejs Jørring¹, Birgitte Borgbjerg Moltke¹, William Madsen²

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The Family Therapy Team, part of CAHMS, Capital Region of Denmark provides family therapy with families challenged by multiple and/or complex psychiatric problems, based on poststructuralist ideas, inspired by William Madsen: Collaborative Therapy with Multi-Stressed Families (Madsen, 2007). The therapists write therapeutic e-mails to the families after each session as an integrated part of the treatment. The inspiration for writing therapeutic e-mails comes from David Epston and William Madsen (Epston 1994 and Madsen 2007). Written documentation and letters have been used therapeutically in many settings. Combining the possibilities of using the internet and letter writing has resulted in a revised practice of letter writing, with greater possibilities for instantaneous feedback, easy access, dialogical continuation etc. Results from an internet based survey of the perceived effects of this therapeutical technique will be presented. The survey focuses on the families' perspective of the letter writing. They rate which aspects of the e-mails are considered most important or effective, best time to get the e-mail, importance of answer-opportunities, the therapeutic effect of one e-mail compared to one session of family therapy, etc. Descriptions of different types of contents of the e-mails, i.e. questions, wonderfulness's, mattering or witnessing will be presented. Examples of how the e-mails connect the individual sessions together, obstacles (such as HIPPA) and supports for implementing this practice in a daily clinical setting and the "supervisorial" effects on the team members will be discussed.

Psychometric measurements of manualized narrative family therapy.

Nina Tejs Joerring¹, Hanne Karkov¹, Birgitte Borgbjerg Moltke¹, William Madsen²

¹BUC, Brøndby, Denmark

²Family Centered Services, Massachusetts, United States of America

The Family Therapy Team, part of CAHMS, Capital Region of Denmark provides family therapy with families challenged by multiple and/or complex psychiatric problems, based on poststructuralist ideas, inspired by William Madsen: Collaborative Therapy with Multi-stressed Families (Madsen,

2007). Most effect studies focus on well-defined groups of patients, excluding patients suffering from complex psychiatric diagnosis. The treatment of families challenged by multiple and/or complex psychiatric problems is complex and hard to standardize (fx de Melo et al., 2011; Weisz et al., 2012). This study researches a psychotherapy designed for this group.

To this date, no existing, tested manual exists for collaborative therapy (Ejbye-Ernst, 2013; Epston, Stillman & Erbes, 2012; Vromans, 2008). Narrative therapy is often considered theoretically, philosophically and practically incongruent with the use of quantitative research methods. Few studies have investigated the effect of narrative therapy by means of valid and reliable psychometric measures and quantitative research methods (Ejbye-Ernst, 2013). This study tests if quantitative measurements on child symptomatology (Beck Youth Inventories) before and after treatment. Research questions: Is narrative family therapy significantly helpful for children challenged by multiple and/or complex psychiatric problems? And what are the preliminary results of the treatment?

Plenary Lecture 8

The Changing Face of Suicide: Epidemiology, Assessment, and Pharmacological Treatment

David Sheehan

University of South Florida College of Medicine, Tampa, United States of America

Long cherished views of suicide are undergoing revision. Once thought to be mainly a complication of depression, suicide is elevated in a range of neuropsychiatric disorders, including schizophrenia, PTSD, panic disorder, social anxiety disorder, anorexia nervosa, substance dependence and fibromyalgia. There is increasing evidence that suicidality may have a genetic component that may be transmitted independently of transmission of depression and other Axis I and Axis II psychiatric disorders.

We face new questions about the effectiveness of current treatments for suicidality. Antidepressants, once the mainstay of treatment, increase suicidality in some people up through age 24 and only improve suicidal symptoms compared to placebo in people over age 65. Other medications, not formally classified as antidepressants (e.g. lithium, clozapine and ketamine) appear to lower suicidality. Understanding the mechanisms of action of anti-suicidality medications and having a good animal model for suicidality could lead to the future development of medications that target suicidality more specifically.

These revisions in our understanding of suicidality have led to calls for more sophisticated methods of assessment of suicide, the need for a phenotypic classification of suicide disorders and improved and more targeted anti-suicidality medication treatments. It has resulted in the development of new assessment interviews and scales to capture these domains of suicidality with greater precision and reproducibility.

Suicidality is the leading cause of mortality in psychiatry. It merits more research investment than it currently receives.

The presentation will challenge and stimulate the audience to rethink cherished views on suicidality.

Plenary Lecture 9

Epidemiology in Psychiatric Genetics: putting the E into the GxE

Preben Bo Mortensen

National Centre for Register based Research

Severe mental disorders as schizophrenia, bipolar affective disorder, depression, autism spectrum disorders and ADHD, include some of the most disabling and costly disorders affecting mankind. Their causes are likely to include both important genetic and environmental risk factors. It has become increasingly clear that aetiologies overlap across disorders and that interaction between genetic and environmental factors is key to the pathogenesis.

However, although early 19th century population-based psychiatric genetic studies are among the earliest examples of chronic disease epidemiology, studies of genetic and environmental causes of mental illnesses, respectively, have for many years led relatively separate lives.

In my talk I will present a Danish total national birth cohort study, iPSYCH, that integrates longitudinal information on individual and familial exposures, and molecular genetic data. With early results from this study I will illustrate how environmental data, as well as the traditional epidemiological focus on sources of bias and confounding in observational studies, might inform and assist the current rapid progress in psychiatric genetics.

Symposium 7.A: Current trends in Nordic and Baltic psychiatry

Challenges in Estonian mental health care

Andres Lehtmets

Current trends in psychiatry in Finland

Tiina Paunio

Current trends in psychiatry in Denmark

Torsten Bjørn Jacobsen

Current trends in psychiatry in Norway

Ketil Ødegard

Current trends in psychiatry in Latvia

Elmars Terauds

Current trends in psychiatry in Sweden

Hans-Peter Mofors

Current trends in psychiatry in Iceland

Thorgunnir Arselddottir

Challenges in Lithuanian mental health care

Alvydas Navickas

Current trends in Finnish psychiatry

Jyrki Korkeila Korkeila

University of Turku, Turku, Finland

The Finnish economy took a trend towards recession a couple of years ago increasing pressure on fiscal sustainability of public services. A plan to reorganize municipal structures in order to contain the costs was a failure. A concerted action to reform health service and legislature was, likewise, a failure. This made it necessary to postpone the reform. Finland continues to have the most decentralized service system. Use of antidepressants has been debated in the media and there has been some tension between psychiatrists and clinical psychologists. Education of psychotherapists is now coordinated by universities independently or in collaboration with various psychotherapy organizations. Responsibility of training residents has been moved from Ministry of Education and Culture to Ministry of Social Affairs and health. The consequences of this are yet to be seen. The education will be coordinated at national level and the education does not any more result in university degree, albeit universities still have the responsibility for the quality and content of the training. Recruitment of residents continues to be a problem, but perhaps to a lesser degree than in the near past. The prospects of the future in terms of availability of labour do not seem bright, as a great number of psychiatrists will be on pension in a few years.

Symposium 7.B: Pharmacological and non-pharmacological interventions to reduce cardiovascular disease in patients with schizophrenia

Cardiovascular Risk in Patients with Severe Mental Illness: Causes, Status and Solutions

Christoph U Correll

The Zucker Hillside Hospital, New York, United States of America

Obesity and related cardiovascular disorders are among the most pressing pandemics of modern times. While the prevalence of these general medical conditions has been growing in developed and developing countries, patients with severe psychiatric disorders are even more afflicted by them, shortening their life expectancy by 25-30 years. This premature mortality is predominantly related to higher prevalence rates of obesity, metabolic syndrome, diabetes and cardiovascular illness as well as related mortality in the psychiatrically ill compared to the general population.

The increased cardiovascular morbidity and mortality in the mentally ill is due to complex web of factors that include underlying genetic vulnerability, low socioeconomic status, unhealthy lifestyle, as well as treatment related adverse effects. Data indicate that antipsychotic related weight gain and metabolic abnormalities contribute considerably to the premature mortality in people with severe mental disorders, representing a prime target, alongside the promotion of healthy lifestyle behaviors, for preventing cardiovascular risk accumulation.

This presentation will summarize recent data on the cardiometabolic risk accumulation in youth and adults receiving antipsychotics as well as ways to counter these adverse effects with potentially serious long-term consequences. Pooled and meta-analyzed data on the quantifiable effects of various risk mitigation strategies will be summarized, including behavioral weight management interventions, antipsychotic switching and augmentation with weight loss agents and those targeting metabolic complications.

Risk factors for diabetes development in schizophrenic patients treated with clozapine or olanzapine. A cross sectional study

JR Larsen, L Vedtofte, K Koyuncu, ML Jakobsen, HS Jespersen, MI Jakobsen, CU Correll, T Vilsbøll, A Fink-Jensen, Denmark

Background: Obesity, metabolic disturbances and diabetes among antipsychotic-treated patients are major health problems as well as known risk factors for cardiovascular disease. The reasons underlying these associations are most likely interactions of antipsychotic medications, genetics and unhealthy lifestyle. Especially two of the most efficacious antipsychotics, clozapine and olanzapine, also cause the most weight gain and metabolic disturbances. The glucagon-like peptide-1 (GLP-1) analogue liraglutide improves glycaemic control and induces weight loss in diabetic patients. Methods: This is a 16-week, double-blinded, randomized, parallel-group, placebo-controlled clinical trial, designed to evaluate the effects of liraglutide on glycaemic control compared to placebo in overweight and obese (body mass index (BMI) ≥ 27 kg/m²) patients with prediabetes diagnosed with

a schizophrenia-spectrum disorder and on stable treatment with clozapine or olanzapine. The primary endpoint is the change in glucose tolerance from baseline (measured by area under the curve for the plasma glucose excursion following a 4-hour 75 g-oral glucose tolerance test (OGTT)) to follow-up at week 16. Secondary endpoints include changes of dysglycaemia, body weight, waist circumference, blood pressure, secretion of incretin hormones, insulin sensitivity and beta cell function, dual energy x-ray absorption scan (body composition), lipid profile, liver function and measures of quality of life, daily functioning, severity of the psychiatric disease and alcohol consumption from baseline to follow-up at week 16.

Results: Seventy-one schizophrenia patients on stable treatment with clozapine or olanzapine were examined at baseline. Forty-five (63.4 %) of these had prediabetes and were included. Compared to the 26 (36.6 %) excluded non-diabetic patients, the pre-diabetic patients were significantly more obese (BMI: 34.6 vs 31.2 kg/m², P=0.017) and had larger waist circumference: 120.2 vs 110.4 cm, P=0.003). Prediabetic patients also had a higher two-hour plasma glucose concentration during OGTT (9.5 vs 6.3 mmol/l, P<0.0001), higher glucose levels (HbA1c: 37.7 vs 34.9 mmol/mol, P=0.002) and fasting plasma glucose: 5.8 vs 5.2 mmol/l, P<0.0001), and higher insulin levels (1436 vs 979 pmol/l, P=0.001). No differences were found between the groups regarding other baseline data, including age, gender, antipsychotic treatment, alcohol intake or psychopathological scores.

Status of the project: We report baseline data from this first prospective trial investigating the effects of liraglutide on glycaemic control in obese pre-diabetic schizophrenia spectrum disorder patients receiving antipsychotic treatment with clozapine or olanzapine. At baseline, the pre-diabetic group had significantly higher BMI and waist circumference and showed signs of poorer glycaemic control compared to the non-diabetic group.

Trial registration: ClinicalTrials.gov: NCT01845259, EudraCT: 2013-000121-31.

CHANGE: a randomized clinical trial assessing lifestyle coaching plus care coordination versus care coordination alone versus treatment as usual to reduce risks of cardiovascular disease in adults with schizophrenia and abdominal obesity

Helene Speyer, Hans Christian Brix Nørgaard, Carsten Hjorthøj, Thomas Axel Madsen, Søren Drivsholm, Charlotta Pisinger, Christian Gluud, Ole Mors, Jesper Krogh, Merete Nordentoft, Denmark

Background: Life expectancy in patients with schizophrenia is reduced by 20 years for males and 15 years for females compared to the general population. About 60% of the excess mortality is due to physical illnesses, with cardiovascular disease being the single largest cause of death.

Methods/design: The CHANGE trial is an investigator-initiated, independently funded, randomized, parallel-group, superiority, multi-centre trial with blinded outcome assessment. 450 patients aged 18 years or above, diagnosed with schizophrenia spectrum disorders and increased waist circumference, will be recruited and randomized 1:1:1 to 12-months interventions. We will compare the effects of 1) affiliation to the CHANGE team, offering a tailored, manual-based intervention targeting physical inactivity, unhealthy dietary habits, and smoking, and facilitating contact to their general practitioner to secure medical treatment of somatic comorbidity; versus 2) affiliation to a care coordinator who will secure guideline-concordant monitoring and treatment of somatic comorbidity by facilitating contact to their general practitioner; versus 3) treatment as usual to evaluate the potential add-on effects of lifestyle coaching plus care coordination or care coordination alone to treatment as usual. The primary outcome is the 10-year risks of cardiovascular disease assessed at 12 months after randomization.

Discussion: The premature mortality observed in this vulnerable population has not formerly been addressed specifically by using composite surrogate outcomes for mortality. The CHANGE trial expands the evidence for interventions aiming to reduce the burden of metabolic disturbances with a view to increase life expectancy. Results will be ready for presentation by August 2015.

PHYSICAL ACTIVITY ENHANCEMENT IN INPATIENT HOSPITAL DEPARTMENTS FOR PSYCHOSIS TREATMENT - preliminary report from a clinically centered combined practice-improvement and research project

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Background: People with severe mental disorders carry a significantly higher risk for premature deaths due to cardiovascular disease. Unhealthy lifestyle habits and lack of attention from care-providers on cardiovascular risk factors are important possible causes. Negative symptoms, including demotivation, withdrawal and passivity, are the most debilitating aspects of schizophrenia spectrum disorders and current treatment regimens seem ineffective. Inpatient hospital departments care for the most severely ill for prolonged periods of time and have a substantial potential for influencing lifestyle and improving medical care. There is little knowledge about the feasibility and efficacy of programmes aiming at improving these factors by enhancing physical activity patients in hospital settings.

Methods: A major inpatient department with 70 beds at the Oslo University Hospital implemented a quality-improvement programme with the aim to reduce cardiovascular risk in patients by increasing levels of physical activity in patients and improve monitoring of cardiovascular risk factors. The majority of patients had schizophrenia spectrum disorder. All personnel received training by certified instructors in motivational interviewing (MI), infrastructure for physical activity was improved and rigorous monitoring routines were implemented. As part of the evaluation, personnel and patients were interviewed with qualitative semi-structured interviews about their experiences.

A research project was established relying on data documented by the clinicians in the medical charts seeking to answer the following research questions: 1) Is it possible by planned efforts to increase the level of physical activity in the patients; 2) Will cardiovascular risk or mental health be improved by these efforts. Levels of physical activity, physical status, symptoms, motivation, well-being and blood samples were measured at baseline and at intervals up to one year after start of interventions.

Results: A total of 63 patients signed informed consent to participate with their data in the research project. 190 personnel underwent minimum training in MI. 135 investigation forms were filled in and recorded. Qualitative interviews indicated overall satisfaction in both patients and personnel. Preliminary results from the research data suggest nominal reductions of mean time spent in inactivity at baseline vs at discharge (11.5 vs 8.0 hours), and nominal reductions of mean reported well-being at baseline vs at discharge (3.92 vs 3.38, '3' meaning 'somewhat content' and '4' meaning 'not content nor discontent'). A paired t-test of time in inactivity of 14 patients at baseline and at 3 months follow up, showed significant improvement from 14.5 hours to 10.5 hours (p=.046).

Discussion: The interventions were implemented to a large extent and to overall satisfaction, but not without considerable attrition. Staff-related factors seem to be of importance here. Preliminary quantitative results must be interpreted with caution, but suggests that the interventions may have been effective in increasing physical activity. Hopefully, further analyses will confirm this finding and also give answers to potential effects on other cardiovascular risk factors and mental health status.

Treatment of Antipsychotic-associated Obesity with a GLP-1 receptor agonist: protocol for an investigator-initiated prospective, randomised, placebo-controlled and double-blinded intervention study

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Introduction: Antipsychotic medication is widely associated with dysmetabolism including obesity, type 2 diabetes, cardiovascular-related diseases, and early death. Obesity is considered the single most important risk factor for cardiovascular morbidity and mortality. Interventions against antipsychotic-associated weight gain are limited and insufficient. Glucagon-like peptide-1 (GLP-1) receptor agonists are approved for the treatment of type 2 diabetes and recently received FDA approval for obesity treatment.

The purpose of this trial is to examine if treatment with a GLP-1 receptor agonist (exenatide once-weekly) is safe and facilitates weight loss in non-diabetic schizophrenia patients with antipsychotic-associated obesity.

Methods: Forty obese patients with schizophrenia or schizoaffective disorder treated with antipsychotic drugs will be randomised to subcutaneous injection of exenatide once-weekly (2 mg) or placebo for 3 months, adjunctive to their antipsychotic treatment. The primary endpoint is weight loss after 3 months of treatment. Secondary endpoints include several metabolic measurements, psychopathological and cognitive measures, and structural and functional brain magnetic resonance imaging.

Results: The TAO-study is ongoing and the enrolment phase is now completed. Forty-five participants have been enrolled. Thirty-three participants have completed the study and seven participants are currently active. Five participants have dropped out.

Conclusion: This is the first randomised, placebo-controlled, double-blinded trial investigating effects of a GLP-1 receptor agonist in patients with schizophrenia and antipsychotic-associated obesity. The TAO study may provide evidence of the potential weight reducing properties of GLP-1 receptor agonism in patients with antipsychotic-associated obesity. In addition, potential neuroprotective and pro-cognitive effects of GLP-1 agonism may be unraveled. Thus, the outcome may well have direct clinical implications for the future management of antipsychotic-associated obesity.

Symposium 7.C Ethical Dilemmas from a Local to a Global Perspective

Ethical Dilemmas from a Local to a Global Perspective

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Experiences from a regional clinical ethics committee

Background: The daily work of psychiatry confronts us with different ethical dilemmas. To help the health care professionals dealing with these difficult questions, the region of southern Denmark established in 2010 one of the first local clinical ethics committee for psychiatry in Denmark. The members of the committee represents different professions of psychiatry, moreover a priest and an ethicist participate. To secure that all relevant perspectives a representative of patients and relatives are also members of the committee.

Methods: The committee goes through a systematic ethical analysis. They reflect on the following questions: 1. What is the ethical question in this case? 2. What are the facts? 3 Who are involved and how do they see the case from their perspective? 4. Ethical principles and values. 5. What different possibilities of action are there?

Results: Through the presentation of concrete ethical dilemmas analysed in the clinical ethics committee both the typical type of dilemmas and, the praxis of the clinical ethics committee is presented.

Conclusion: The committee is intended to describe the conflict of values, and through that qualify the decision-making process among health care professionals. The experiences of that objective will be discussed.

Attitudes to and knowledge about ethical issues: Results from surveys among psychiatrists and residents in psychiatry in Denmark

Annette Lolk Lolk

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Background: In 2010 The Danish Psychiatric Association established an ethical committee. One of the aims of the committee was to identify issues of ethical concerns. The committee decided to carry out two surveys at the annual meetings of the Association. In 2011, the survey comprised knowledge of the Madrid Declaration and attitudes towards ethical issues in clinical practice and in 2012 about collaboration with the pharmaceuti-

cal industry. In 2014, a third survey was carried out among young psychiatrists attending the theoretical obligatory courses in psychiatry. Results: 112 answered the first survey, 91 answered the second, and 59 trainees the third survey. Knowledge about the current ethical declaration is limited. Most psychiatrists have the possibility to discuss ethical issues with colleagues. Conflicts of interest in relation to pharmaceutical industry seem to be of little concern among Danish psychiatrists.
Conclusion: There is a need for intensifying the discussion of ethical issues in the training of residents

Is there a specific Nordic approach to ethical questions?

Marianne Kastrup
Marianne Kastrup, Frederiksberg, Denmark

In recent years have witnessed an upsurge in the attention paid to the ethical aspects of our profession. Several reasons may be given including the technical advances within the medical field;
the profound secularization that has taken place in society and therefore also is reflected in medicine;
the pluralism seen in modern Western societies with a diversity of ideologies simultaneously present;
and the increasing respect for the autonomy of the patient with a consequent alteration of the therapist-patient relationship.
Within the psychiatric profession we have witnessed the emergence of several guidelines. Many have focused upon the universality of ethical principles, and the WPA Madrid Declaration is a good example of a set of principles that have been adopted by psychiatric associations worldwide. The question is whether we have a particular Nordic approach to the ethical aspects of our profession?
The Nordic countries have a long tradition of collaboration. The countries have many similarities with ethical implications such as a long history of democracy, constitutions securing the freedom and rights of their citizens.
We generally believe in basing our society on a welfare model with a well-founded public system for as well education as health providing easy and equitable access to health services for all citizens.
With globalization such rights are however increasingly challenged and the paper will discuss the implications this has on the Nordic system with particular reference to equity in access to services.

Ethical Problems and Codes of Ethics in Scandinavian and European Psychiatry An EPA Overview.

Wolfgang Rutz, Sweden

Since 3 years matters of ethics are in an increasing way on the agenda of the European Psychiatric Association. Intensive discussions in the associations ethical committee have scrutinized the problems and elucidated the range of ethical dilemmas. A questionnaire sent by the Committee to European Psychiatric Associations has given a panorama of the ethical problems in European Psychiatry and shown their diversity and even communalities. This overview has been presented at different meetings of the EPA and has recently been reviewed, updated and additionally commented by committed European national associations. Hereby, new problems in European psychiatry have emerged or became intensified, e.g. the demand on psychiatry's involvement in end of life issues as well consequences of the limitation of resources , specificities of financing routines in times of resource limitations and ways of prioritizations within medical care and mental health support implied by an all more predominant market economic system.
Other re-emerged problems are questions and problems in contact with private sectors of users organizations, care providers or pharmaceutical industries and the need and strategies for multisectorial involvement in psychiatric education and research support. Here , again a need of ethical guidelines in psychiatrists contact has become actualized , especially regarding the needs of young psychiatrists and is one of the focuses in this symposium.
In this contribution, these newly emerged ethical challenges will be elucidated, the positions of Scandinavian and European national psychiatric associations and their recently updated priorities regarding ethical challenges will be reviewed and the activities and structures of EPAs further activities on ethics will be presented for discussion.

Ethics and psychiatry: global challenges

Norman Sartorius
Action for Mental Health, Geneva, Switzerland

The low priority given to psychiatry and to the care of people with mental illness in most of the developing countries is among the main reasons for the severe insufficiency mental health care in terms of coverage and quality. Other reasons for this situation include the inappropriateness of postgraduate training of psychiatry for work in low income countries and the stigma that is attached to mental illness and to all that is connected to it - patients, facilities, medications and mental health workers. Numerous ethical problems emerge in this context - ranging from poor distributive justice to a severe neglect of basic human rights of people with mental illness.
In industrialized countries mental health care receives more attention and has a high (yet often still insufficient) priority in the field of medicine. While it could be expected that some of the ethical problems prevalent in low and middle income countries have been resolved they are still a major concern in many of the wealthier countries.
The presentation will focus on ethical challenges common in both types of countries and discuss ways of approaching their solution.

Symposium 7.D: Suicidal and self-harming behaviour in children and adolescents – recent research findings from Norway

The lost years: suicide among children and young adolescents. A psychological autopsy study of suicide victims 15 years and younger 1993-2004 in Norway.

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Introduction: this study was conducted in order 1) to investigate if children 15 years and younger who committed suicide in 1993-2004 had common characteristics compared to their peers, represented by children and adolescents who died in accidents, and compared to a community sample, 2) to explore the possible mislabeling of events as suicides or accidents in relation to suicide risk factors, and 3) to examine the suicide notes they left.

Method: we conducted a psychological autopsy, with information from the parents, hospital journals, police reports and autopsy reports.

Results: forty-two (46 %) of the 91 parents of the suicide victims participated. In the comparison groups 42 (44 %) of 96 parents whose children 10-15 years old had died in accidents 1993-2004 participated, and a community sample of 410 children from the Bergen Child Study, matched for age and gender by the suicide group. The suicide victims had depressive symptoms, had showed suicidal behavior, and were in a stressful conflict prior to death significantly more often compared with their peers. The risk factors presented in the suicide group were less obvious and they showed less suicide intent than commonly described for older adolescents. We found few indications of incorrect labeling of suicides vs. accidents. The main messages in the suicide notes were: to explain the reasons for suicide, declare their love, give instructions, and take full responsibility for the act. The note-writers showed more suicidal behavior than the non-note-writers. The notes are equally informative as the notes of older suicide victims.

Contact with child and adolescent psychiatric services among self-harming and suicidal adolescents in the general population: a cross sectional study

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This study aimed to examine the use of child and adolescent psychiatric services by adolescents with both nonsuicidal and suicidal behaviours compared to others, and to assess psychosocial variables that characterize adolescents with both behaviours who report contact.

Data on lifetime self-harm, contact with child and adolescent psychiatric services, and psychosocial factors in a cross-sectional sample of 11,440 adolescents (14-17 years) who participated in a school survey.

Adolescents who reported any self-harm were more likely than other adolescents to have used child and adolescent psychiatric services, with a particularly elevated likelihood among those with both suicide attempts and non-suicidal self-harm (OR=9.3), this remained significant even when controlling for psychosocial variables. In this group, symptoms of depression, eating problems, and the use of illicit drugs were associated with a higher likelihood of contact, whereas a non-Western immigrant background was associated with a lower likelihood.

Adolescents who reported a history of both suicide attempts and non-suicidal self-harm were more likely have used child and adolescent psychiatric services and various psychosocial problems increased the probability. Other studies found that adolescents contact with mental health services increase with the severity of their suicidal behaviour (i.e. from less severe suicidal ideation to actually having a plan to commit suicide) and found that most adolescent with severe suicidal behaviour actually are in contact with mental health services before the onset of the behaviour. This confirms that child and adolescent psychiatric services represents an important area for interventions that aim to reduce self-harming behaviour.

Dialectical Behavior Therapy Compared With Enhanced Usual Care for Adolescents with Repeated Suicidal and Self-harming Behavior: Outcomes over a 1-year Follow-Up

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Previously we have reported on the treatment outcomes in adolescents who participated in a randomized control trial in Oslo where patients were assigned to receive 19 weeks of either dialectical behavior therapy adapted for adolescents (DBT-A) or enhanced usual care (EUC) (Mehlum et al., 2014). The main findings were that DBT was superior to EUC in reducing frequency of self-harm, severity of suicidal ideation and depressive symptoms with large effect sizes for outcomes in the DBT-A condition, but weak or moderate in the EUC condition. Treatment retention was generally good and there were few hospital admissions or emergency-department visits in both treatment groups. In the next step we have followed participants one-year after trial completion to evaluate whether the significantly better treatment outcomes achieved in the DBT-A condition would be sustained one year after treatment. Over this 1-year follow-up DBT-A remained superior to EUC in reducing the frequency of self-harm. For other clinical outcomes such as suicidal ideation, hopelessness and depressive or borderline symptoms and for the global level of functioning inter-group differences apparent at the 19 week assessment were no longer observed, mainly due to participants in the EUC group having significantly improved on these dimensions over the follow-up year. The stronger long-term reduction in self-harm and more rapid recovery in suicidal ideation, depression and borderline symptoms suggest that DBT-A may be a favorable treatment alternative for adolescents with repetitive self-harming behavior.

Suicidal ideation, self-harm, suicide attempts and suicide contagion among Norwegian adolescents.

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Aim: To study if knowing someone who has tried to commit/committed suicide is associated with adolescent self-harm, suicide attempts and suicidal ideation, and if the associations are dependent on the proximity of the relationship to the adolescent.

Methods: A representative sample of 2432 adolescents, mean age 14.9 (SD 0.6, range 13.7- 17.0), from the "Youth and Mental Health Study" was assessed. Information was gathered using a questionnaire.

Results: 8.9 % (n=216) reported self-harm, and 5.3 % (n=129) reported one or more suicidal attempts. Mean Suicidal ideation scores was 0.7 (SD 1.7, range 0 - 10). 48.1 % (n=1169) knew someone that had tried to /committed suicide. It was more than six times more common to self-harm, and four times more frequent to have tried to commit suicide if you knew someone that had tried to commit/committed suicide (Chi-square 132.49 and 46.65, $p < 0.001$).

Multivariate regression analyses, controlled for levels of depression, showed that knowing someone who had tried to commit/committed suicide was related to the respondents own level of suicidal ideation, self-harm and previous suicidal attempts. Knowing someone in the immediate surroundings (i.e. family) was connected to both suicidal ideation, suicidal attempt and self-harm, while knowing someone in the wider community (i.e. friends or others) only showed a relationship with self-harm in the adolescent.

Conclusion: Our results support the hypothesis of a contagious effect of suicidal behavior. Preventive measures in the health and welfare services should be developed and implemented for adolescents at risk.

Longitudinal associations between bullying involvement and suicidal ideation and self-harm from adolescence to adult age. Findings from an epidemiological study.

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Aim: Suicidal ideation and self-harm with and without suicide intent are highly prevalent in adolescents in all Nordic countries. The present study aims to study the relationship between being bullied and suicidality from early adolescence to adult age.

Methods: The Youth and Mental Health Study is a longitudinal study conducted in Mid-Norway. Baseline data were collected in 1998 (T1, n= 2464, MA 13.7), at T2 (n= 2432, MA 14.9), and 12 years later (T4, n=1266, MA 27.2). Victims of being bullied versus non-bullied assessed at T1 was used as a grouping variable.

Results: 233 (9.5%) adolescents reported being bullied at T1. Generalized linear mixed model analyses showed main effects comparing victims with non-victims on suicidal ideation, self-harm without suicidal intent and self-harm with suicidal intent across the three time periods. A main effect for time showed that suicidal ideations were more prominent in early adolescence (T1) and stable from T2, one year after, to young adulthood. A main effect for time showed an increase in self-harm without suicidal intent from T1 to T2 and from T1 to young adulthood. A main effect for time, showed an increase in self-harm with suicidal intent from T1 to T2, and a reduction from T1 to young adulthood. No interaction between bullying status and time occurred.

Conclusion: Being bullied in early adolescence had a lasting effect on suicidal ideation and self-harm with and without suicidal intent in early adulthood. Further, increasing levels with time of self-harm without suicidal intent warrant preventive efforts.

Symposium 7.E: The epidemiology of depressive, anxiety and alcohol use disorders in Finland: Results from the health 2011 studies

Health 2000 and Health 2011 surveys: an overview

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The Finnish Health 2000 Survey (www.terveys2000.fi) conducted in years 2000-2001 was a nationally representative survey of the Finnish population based on a sample of 8028 adults aged 30 years and over and 1894 young adults aged 18 to 29 years (Heistaro, 2008). The study used a two-stage clustered sampling of 15 largest towns and 65 health districts in Finland. The study consisted of a home interview and self-administered questionnaires. In addition, the adult sample was examined in a comprehensive health examination including the Munich version of the Composite International Diagnostic Interview. In total, 7419 persons (93%) participated in at least one part of the study and 6005 (75%) persons of the adult sample took part in the M-CIDI interview.

The Health 2011 Survey (www.terveys2011.info) is a follow-up study of the Health 2000 Survey. In addition, a new population-based sample of young adults was drawn. As in the Health 2000 study, CIDI was a part of the adult sample aged 30 years and over protocol. The response rate to the Health 2011 survey was 73%, and 56% participated in the CIDI interview. Register-based information from nationwide health care registers and the population information system was available for the whole study sample, including the non-responders. This has been used to take into account the effect of non-response in both surveys.

This presentation gives an overview of the Health 2000 and Health 2011 study designs and methodology used in the studies.

Prevalence and correlates of major depressive disorder and dysthymia in an eleven-year follow-up - results from the Finnish Health 2011 Survey

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Introduction. Up-to-date epidemiological data on depressive disorders is needed to understand changes in population health. This study aims to assess the prevalence of major depressive disorder (MDD) and dysthymia in the Finnish population and possible changes during the past decade. **Methods.** In a nationally representative sample of Finns aged 30 and over (BRIF8901), depressive disorders were diagnosed with the M-CIDI in 2000 and 2011. The CIDI response rate dropped from 75% in 2000 to 57% in 2011, and therefore, two methods to account for nonresponse were compared: multiple imputation (MI) utilising data from the hospital discharge register and from the interview in 2000, and statistical weighting. **Results.** The MI-corrected 12-month prevalence of MDD was 7.4% (95% CI 5.7- 9.0) and of dysthymia 4.5% (95% CI 3.1- 5.9), whereas the corresponding figures using weights were 5.4% (95% CI 4.7-6.1) for MDD and 2.0% (95% CI 1.6-2.4) for dysthymia. Women (adjusted OR 2.3, 95% CI 1.6-3.4) and unmarried people (OR 1.5, 95% CI 1.2-2.0) had a higher risk of depressive disorders. There was a significant increase in the prevalence of depressive disorders during the follow-up period from 7.3% in 2000 to 9.6% in 2011. Prevalences were two percentage points higher, on average, when using MI compared to weighting. Hospital treatments for depressive disorders and other mental disorders were strongly associated with nonparticipation. **Conclusions.** Depressive disorders are a growing public health concern in Finland. Non-participation of persons with severe mental disorders may bias the prevalence estimates of mental disorders in population-based studies.

Twelve-month prevalence and correlates of anxiety disorders in Finnish population - An eleven-year follow-up of the Health 2000-2011 Survey

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Introduction: The aim of the current study is to examine change in prevalence rates and socioeconomic correlations of anxiety disorders in a large general population survey followed up for 11 years.

Methods: The 12-month prevalence of general anxiety disorder (GAD), panic disorder with and without agoraphobia, agoraphobia without panic disorder and social phobia were assessed with the Composite International Diagnostic Interview (M-CIDI) in 2000 and 2011

Results: The MI-corrected 12-month prevalence for GAD year 2000 was 1.6% (95%CI 1.2-2.0) and 3.9% (3.0-4.8) in 2011. Corresponding figures for agoraphobia without panic disorder were 1.3% (0.9-1.6) and 2.0% (1.2-2.8), for panic disorder with agoraphobia 0.9% (0.6-1.2) and 2.0% (1.1-2.9), for panic disorder without agoraphobia 1.7% (1.3-2.1) and 1.7% (0.9-2.6), for social phobia 1.4% (1.0-1.7) and 2.4% (1.6-3.1). The trends were relatively similar in men and women and throughout all age groups, except for panic disorder without agoraphobia, where the prevalence increased among men but decreased among women. Prevalence rates calculated using weighting were significantly lower, and the difference between methods increased with increased non-response.

Discussion: The prevalence rates of all measured anxiety disorders seemed to increase during the follow up, except for panic disorder without agoraphobia among women. When the MI and weighting methods were compared in predicting survey data that could be verified from registers (e.g. disability pensions) as outcome variables, MI was found to correct for missingness more accurately than weights. Non-participation of persons with mental disorders seems to lead to unrealistically low prevalence of mental disorders in population-based studies.

Changes in prevalence and correlates of alcohol use disorders in Finland between 2000 and 2011: the Health 2011 study

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Introduction. Alcohol use disorders are a major public health challenge associated with significant mortality, morbidity and social harm. Despite a rise on good quality epidemiological studies using structured and validated methodologies to examine the prevalence of alcohol use disorders, evidence on whether the prevalence is increasing or decreasing is scarce. Based on recent trends on alcohol consumption, we hypothesized that the prevalence of alcohol use disorders in Finland has increased.

Methods. Health 2000 is a nationally representative health examination survey. Health 2011 is the follow-up of those interviewed in the year 2000 using a similar structured mental health interview (M-CIDI). Participation rates in M-CIDI decreased from 75% to 57% between 2000 and 2011. To account for non-participation, statistical weighting and multiple imputation using registry-linked hospitalization data were used. Socioeconomic correlates were examined in year 2000 and 2011 to investigate changes in socioeconomic inequalities in alcohol use disorders.

Results. Preliminary results with non-imputed data show that prevalence of alcohol use disorders has decreased in Finland, however, this might be explained by increased non-participation. Additional analyses using multiple imputation with register-linked data are still underway and final results will be presented in the congress.

Conclusions. If the decrease in prevalence of alcohol use disorders is confirmed, further research is warranted to explain this surprising finding, given the increase in alcohol consumption.

Symposium 7.F: Treatment of severe mental disorders in Iceland: challenges, and progress

Early intervention and the development of one nationwide service

Nanna Briem

Landspítali University Hospital, Reykjavík, Iceland

Background: Based on the available scientific evidence the first early intervention service for young people with first episode psychosis was initiated in 2010 in Iceland at Landspítali University Hospital. The development of the new service highlighted further the needs of the service population especially those with more severe illness.

Methods: The early intervention service - Laugarásinn - has been under development for the last 4-5 years. It started as an inpatient ward but has developed towards a more day-service based model with assertive outreach and case management. In 2014 a assessment team for all new cases of FEP was established and a cooperation project with a closed psychosis ward was initiated.

Results: The FEP service is now a day-service that includes over 70 patients, but there is also a small inpatient ward. Each patient has a case manager and a support counselor and the service is offered for up to 5 years and includes a varied treatment program. The dropout rate is low. The cooperation with a closed psychosis ward seems to enable more severely ill patients to make use of the service.

Discussion: Apart from the further development of the service the main challenges now are concomitant severe drug abuse and the discharge of patients. There is a lack of appropriate services in the community especially for patients with dual diagnosis. Decreasing the DUP and finding ways to offer early intervention outside of Reykjavík and surrounding areas are also important issues.

Developing a psychiatric intensive care unit and effects observed on the incidence of violence

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Introduction: The acute psychiatric wards at Landspítali University Hospital were operated in the same manner for years. The security issues were many and difficult incidents with violence were common. Experience from other countries has shown that violence in psychiatric wards decreases with more space in the inpatient wards. In 2013 a psychiatric intensive care unit (PICU) was opened. The aim of the PICU is to treat acutely ill patients who are seriously behaviorally disturbed and unpredictable and need extra support in secure surroundings. The unit is spacious and easily overviewed. It has 10 patient rooms, with men and women in different corridors.

Methods: One of the acute units underwent extensive changes with focus on space and security. Serious incidents before and after the changes were counted over time. Staff satisfaction was measured.

Results: Before opening the PICU the average number of serious incidents in the acute units was 12 incidents a month. In 2014 the average was 7 incidents a month. 71% of the staff shows increased satisfaction in their work.

Discussion: We have seen a reduction in violence after opening a PICU and our conclusion is that security has increased for patients and staff. Our goal is to reduce violence further and in doing so the focus will be on teamwork and specializing of staff in caring for the severely ill and in methods for reducing violence.

Five years of assertive community treatment in Iceland

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Background: The first assertive community psychiatry team was established in Iceland in 2010. The team has served individuals with severe mental illness, predominantly psychotic disorders, living independently in the urban area of Reykjavík. The team has served 154 individuals during its first 5 years and currently there are 92 service users in the team. The team consists of 3 nurses, 3 specialized nursing assistants, 1 occupational therapist, 1 psychologist, a part time psychiatrist and a part time psychiatry resident.

Methods: Diagnostic and demographic data was collected for all subjects. The number of psychiatric hospital admissions and number of in-hospital days was calculated for the time the clients were served by the team and compared to an equally long period prior to becoming clients of the team.

Results: Schizophrenia was the most common diagnosis (46%), followed by bipolar disorder (19%), schizoaffective disorder (8%) and psychosis NOS (8%). Gender ratio was equal, the mean age of clients was 45 years and the females were significantly older (52 years) than males (40 years) ($p=0.002$). The number of admissions went down from 338 before admission to the team to 226 while in the team (down 33%) and the number of hospital days from 6508 before team to 3555 while in the team (down 45%). One client committed suicide while in the team.

Conclusions: Assertive community treatment has become part of mental health services in Iceland. The number of hospital admissions went down 33% and the number of hospital days 45% for team clients.

Implementing the Recovery Model in psychiatric rehabilitation in Iceland

Lára Björgvinsdóttir

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Introduction: The recovery ideology stems from service users organizations and is a product of the growing understanding that people with severe psychiatric illnesses can lead a satisfying life even with symptoms of their disease. Service users are also demanding that their civil rights are respected. We started making changes in our services in 2012 with this in mind. The model we use comes from England. A small team of staff started adapting the model to our needs and then took steps toward teaching the staff and patients about this approach. The implementing started at an open psychiatric rehabilitation ward.

Methods: Job satisfaction and patients experience were measured before and after introducing the Recovery Model.

Results: Our staff is more satisfied at work after the changes were made and are less intent to quit. Job characteristics have improved. Patients experience more recovery approach in the treatment, higher level of hope, motivation and trust in the ward.

Discussion: The overall experience in implementing the Recovery Model is positive. The model will be implemented in all services in the psychiatric department at Landspítali. It is a challenge to make changes in a big organization and the discussion and learning must be ongoing. A specialized team leads the project. They are available to help other units in the psychiatric department to make necessary changes within the services. More wards are structuring their treatment to promote recovery.

Risk of type 2 diabetes and polygenic risk scores during clozapine treatment

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Background: Clozapine has been associated with weight gain in the treatment of schizophrenia during the first years of treatment and a subsequent increased risk of type 2 diabetes (T2D). Polygenic risk scores can be used to predict individual trait values or risks of disease.

Methods: The sample consisted of 201 patients diagnosed with schizophrenia or schizoaffective disorder at Landspítali-University Hospital in Reykjavik who were confirmed to have used clozapine. Polygenic risk scores (PRS) for body mass index (BMI) were calculated for risk of developing T2D and for clozapine discontinuation.

Results: Mean age at first treatment with clozapine was 37.8 years. Out of 201 patients 147 (73.1%) remained on clozapine when this was assessed. Mean follow-up period on clozapine was 11.1 years. Altogether 29/201 (14.4%) had developed T2D during follow-up. While the majority of these or 17/29 (58.6%) did develop T2D while on clozapine, 6/29 (20.7%) developed T2D before clozapine treatment and the same proportion, 6/29(20.7%), after clozapine treatment had ended. In 4/17 (23.5%) the T2D developed within a year of clozapine treatment commencing, but the remaining 13 patients developed T2D over 25 years of treatment. PRS for BMI were neither significantly associated with clozapine discontinuation nor with the development of T2D.

Conclusions: The risk of T2D developing was greatest during the first year of clozapine treatment when around a quarter of those who developed T2D met those criteria. PRS did neither predict clozapine discontinuation nor development of T2D but power was limited due to the modest sample size.

Symposium 8. A: Psychotherapy

Internet based self-help therapy versus waitlist control group for persons with anxiety disorders: A randomised feasibility study

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Background: Public mental health care services plan to implement internet based self-help psychotherapy (IBT) as an important supplement to ordinary face to face therapy. Although meta-analytic studies show that the effect of IBT is better than no intervention and equals ordinary therapy for common mental disorders, national authorities call for more evidence based on randomised clinical trials.

Objective: To investigate if persons with an anxiety disorder treated in the IBT program FearFighter will improve and recover.

Method: A randomised feasibility study with 64 participants allocated to A) FearFighter or B) waitlist control group. Participants are persons with a diagnosis of social phobia, agoraphobia, phobia or panic disorder. The intervention with FearFighter is a nine step cognitive behavioural self-help therapy program delivered over the internet over nine weeks. Participants are contacted by a support person once a week to secure compliance and progress.

Primary outcome is number of participants recovered measured with Mini International Neuropsychiatric Interview. Secondary outcomes are Beck Anxiety Inventory, Symptom Check List-90R, WHO Well-Being Index and Sheehan Disability Scale. Group differences in number of recovered participants will be analyzed with chi-2 test. Between groups effects on secondary outcome measures will be analyzed with ANOVA.

Results: Results are expected during the autumn 2015. If IBT results in recovery or significant improvement in symptoms, national evidence for IBT is warranted and a larger randomised clinical trial can be planned together with further explorative studies to gain insight in the mechanisms of IBT.

Personality disorders: Can we capture different levels of pathology?

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Background: Since 2010, the Danish Mental Health Services in the Capital Region of Denmark has organized treatment of patients with personality disorder (PD) into two main levels: Level 1, a time-restricted care package (TRP) and Level 2, a specialized treatment program (SP) for the most severely disabled PD patients without standardized time restriction. Stolpegård Psychotherapy Centre offers both types of treatment to patients with PD.

Objective: The study explores whether or not the two treatment levels correspond to differences in levels of symptomatology and global functioning in patients at intake.

Method: The study is naturalistic and examines data collected from a web based quality assurance system. Patients symptoms are assessed by the Symptom check list-90-R (SCL-90-R) and the Inventory of Interpersonal Problems-64 (IIP). Psychosocial functioning is measured by the Global Assessment of Functioning (GAF).

Results: In this presentation the baseline characteristics of 388 patients allocated to treatment for PD between 2010 and October 2014 are presented. Results are discussed in regards to the need for offering personality disordered patients differentiated psychotherapy services according to their level of pathology.

Feedback versus no feedback to improve patient outcome in group psychotherapy for eating disorders (F-EAT): A randomized clinical trial.

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Background: A high rate of dropout in the treatment of eating disorders calls for ways to improve treatment attendance. Research indicates that continuous feedback on patient improvement and the therapeutic alliance reduces the number of dropouts and increases patient outcome. There are, however, only three published randomized trials on the effect of feedback on the treatment of eating disorders showing inconclusive results, and there are no randomized trials on the effect of feedback in group therapy.

Objective: The current randomized clinical trial aims to investigate the impact of continuous feedback on adherence and outcome in group psychotherapy.

Methods/design: The trial is set up in a randomized design for outpatients diagnosed with bulimia nervosa, binge eating disorder, or eating disorder not otherwise specified (DSM-IV). They are allocated 1:1 to the experimental group: Standard treatment (systemic and narrative group psychotherapy) with feedback intervention using the Outcome Rating Scale (ORS) and Group Session Rating Scale (GSRS), or the control group: Standard treatment only. The primary outcome is rate of attendance. Secondary outcome is severity of eating disorder symptoms. Exploratory outcomes are level of psychological and social functioning and suicide or self-harm. This is measured with the Outcome Rating Scale, Symptom Check List, WHO-Five Well-being Index, Sheehan Disability Scale and a modified version of the Self-Harm Inventory.

Results: 159 patients were included in the trial and their post treatment assessment is completed. The design and preliminary results will be presented.

Care package for anxiety disorders: no-show and dropout of standardised, time restricted treatment

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Background: Psychotherapy has shown to be efficacious but therapy effectiveness in mental health services is compromised by patients who fail to show up for assessment, treatment start and stay in treatment. Predictors for patient non-attendance (no-show and dropout) have been identified as patient or therapist characteristics. Organisational variables are sparsely studied although waiting time may affect no-show and dropout. In order to reduce waiting time the Mental Health Services in Denmark have introduced care packages in the treatment of non-psychotic disorders. Care packages are courses of treatment characterised by standardisation, time restriction and pre-coordination. Currently, the impact of care packages on patient non-attendance remains unknown.

Objectives: The aim was to study the influence of care packages treatment organisation on non-attendance for treatment for anxiety disorders and if demographic and clinical variables were predictors for no-show and dropout.

Methods: The study was a quasi-experimental pre-post study in a naturalistic setting in the Mental Health Services, Capital Region of Denmark.

Two samples of patients, aged above 18 years and referred for treatment for anxiety disorders (F40-41) at Stolpegaard Psychotherapy Centre, were included. The treatment as usual sample were patients referred before implementing care packages treatment (1 August 2007 to 31 July 2009) and the post care packages patients were referred from December 1 2012 until April 1 2014. Sociodemographic and anamnestic data and data on symptom severity and attrition were collected using an internet-based registration and questionnaire system.

Results: Data collection was closed by January 2015. Design and results will be presented.

Understanding experiences and outcomes in treatment of binge eating disorder and obesity: A mixed method study

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Background: Binge eating disorder (BED) has recently been recognized as a diagnosis in the DSM-5 (Diagnostic Manual of Mental Disorders). BED is a severe eating disorder with physical, social and psychological consequences. The prevalence of BED is 2-3% and the majority develop weight problems and obesity.

Treatment is found effective in reducing eating disorder symptomatology, but rarely leads to weight loss. It is still unknown how the issue of obesity can be addressed in BED treatment without increasing the risk of binge eating relapse.

Objectives: The study is an explorative investigation of the outcome of a newly developed group based treatment that combines psychotherapy and either weight loss or well-being components for patients with binge eating disorders and obesity.

Methods: The study uses a convergent mixed methods design. Qualitative and quantitative data are gathered using in-depth interviews and self-report measures in a pre-post naturalistic design. An integrating analysis of data from the qualitative and quantitative study will occur through cycles of data analysis to produce a detailed picture of treatment effects and patient needs.

Results: The design of the study and preliminary results will be presented.

Symposium 8.B: The interface between severe mental disorders, cognitive functioning, and aggressive antisocial and psychopathic

A comparison of cognitive tests to identify cognitive speed impairments in forensic psychiatric patients and control subjects

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Cognitive impairments are common in many psychiatric disorders, and cognitive speed is most important for cognitive functions. A relation between general intellectual ability and cognitive speed has been reported, but the concept of cognitive speed is unclear.

The aim of this study was to study compatibility of the findings on cognitive speed between two psychological tests: *WAIS-IV* and *IVA+Plus* on a group of forensic psychiatric patients (n=20) and a non-psychiatric control group (n=20), and to analyze differences between the groups. Both groups were tested with *IVA+Plus* and subtests from *WAIS-IV* (*Symbol Search, Coding, Matrix Reasoning*) and were matched for gender, age and education. The results show that the forensic psychiatric patients were significantly slower on visuomotor processing speed and visual reaction time compared to the control group. There were no significant differences in reaction time on auditory signals or on fluid intelligence between the groups. Results from the tests on cognitive speed were not correlated, reflecting a variation of measured cognitive domains and a need for a further clarification of the definition of cognitive speed. Finally, *WAIS-IV* was more sensitive in detecting cognitive speed impairments for forensic psychiatric patients och more time saving for administration for clinical psychologists compared to *IVA+Plus*.

Executive functioning in relation to psychopathic traits and AD/HD in young violent offenders

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Introduction: Psychopathy has been linked to deficits in executive functioning, although previous results are inconclusive. Repeated calls have been made for more detailed research on the psychopathic personality in relation to executive functions, while also considering the possible effects of comorbid AD/HD. The primary aim of the current study was to predict the degree of psychopathic traits while exploring the impact of AD/HD symptoms.

Methods: Hierarchical regressions were employed with the Psychopathy Checklist-Revised four-facet model and measures of executive function and AD/HD in a cohort of young (18-25 years) violent offenders (N = 230). The offenders underwent clinical assessments and completed tasks testing their spatial working memory, problem solving, mental set shifting and reversal learning abilities using the Cambridge Neuropsychological Test Automated Battery.

Results: The predictive ability of executive functions on the PCL-R facets were small and for most part insignificant. Including AD/HD symptoms in addition to measures of executive functioning significantly increased the predictive power of models using PCL-R total score, PCL-R Interpersonal facet, PCL-R Lifestyle facet and PCL-R Antisocial facet scores as dependent variables.

Discussion: In this study, executive functions were, at best, low impact predictors of psychopathic traits, with AD/HD symptoms significantly improving the predictive power of all but one model. Previous studies have pointed towards deficits in the orbitofrontal cortex and limbic system in relation to higher levels of psychopathic traits. Future research should examine these areas in detail with respect to executive functioning, psychopathic traits and comorbid AD/HD.

Psychosocial maladjustment and the development of aggressive antisocial behaviors

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Introduction: This study aims to describe the criminal history and psychosocial background, including childhood adversities, of a cohort of imprisoned young adult (18-25 years) violent offenders (N = 270), to determine childhood predictors of aggressive antisocial behaviors, and to explore predictive models of childhood adversities and school adjustment problems for aggressive antisocial behaviors.

Methods: Data on psychosocial background and life history of aggressive antisocial behaviors were collected by means of a structured interview protocol, the Structured Clinical Interview guides for Axis I and II disorders (DSM-IV), and the Life History of Aggression during a clinical examination by a psychologist.

Results: Many offenders grew up in the presence of childhood adversities (e.g., repeated exposure to violence at home during childhood, parental substance/alcohol use problems), displayed severe school adjustment problems, and developed diverse and persistent aggressive antisocial behaviors from an early age on. Twenty-six percent reported onset of criminality before or at age 10. Severe school adjustment problems, especially bullying behavior and truancy, were predominant, interacting predictors of higher levels of aggressive antisocial behaviors. Among psychosocial background variables, parental substance/alcohol use problems was the predominant predictor of higher levels of aggressive antisocial behavior.

Discussion: The findings support the cycle of violence hypothesis and clarifies that the antecedents to severe aggressive antisocial behaviors are evident early in childhood and adolescence. The findings also support the notion that severe school adjustment problems could be used as an early identifier of individuals in the risk zone of developing severe and persistent aggressive antisocial behaviors.

Deliberate self-harm behavior among male violent offenders

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Introduction: Deliberate self-harm behavior (DSH) is defined as harmful acts directed towards the own body, with intent ranging from no suicidal intent to suicide. DSH has profound effects on an individuals' quality of life and challenges the health care system. Previous studies have found DSH to be more common in offender populations than in the general population.

This study aims to 1) specify the prevalence of DSH among young violent offenders, 2) identify clinical, neurocognitive, psychosocial, and criminological characteristics associated with DSH, and 3) determine predictors of DSH.

Methods: Data were collected from a nationally representative cohort of 270 imprisoned, male violent offenders, 18-25 years old, in Sweden. Participants were interviewed regarding psychosocial background, criminal history, mental disorders, lifetime aggressive antisocial behaviors, and DSH.

Results: A total of 62 offenders (23%) had engaged in DSH at some point during their lifetime. DSH was significantly associated with AD/HD, mood disorders, anxiety disorders, alcohol substance abuse, being bullied during the school years, and exposure to violence at home during childhood.

Mood disorders, anxiety disorders, and being bullied during the school years remained as significant predictors of DSH in a total regression model.

Discussion: The findings support the overrepresentation of DSH in offender populations, and the notion that mood disorders, anxiety disorders, and childhood adversities are important predictors of DSH. Offenders with DSH could benefit from treatment programs concerning mood disorders and anxiety disorders, but comorbid substance use disorders also need to be considered.

Suicide prevention in forensic psychiatric care

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Background: Previous studies have found that mental disorders are associated with an increased mortality, including death by suicide. Diagnoses like depression, bipolar disorder, anorexia nervosa, schizophrenia, and opioid use all increase the suicide risk more than 10 times compared to the general population. The only Swedish study on suicide among discharged forensic psychiatric patients reported a 4,7 times greater risk of suicide than the general population. In medium secure psychiatric units, studies have found that only one of 18 suicides has been expected. General psychiatric clinics in Sweden often have suicide prevention programs that are suitable in an acute phase. In forensic psychiatry, prevention programs with instruments adapted to detect change in suicide risk factors during the longer hospital stays is needed.

Aims: To develop a suicide prevention program at the Regional Forensic Psychiatric Clinic (RFPC) in Växjö, Sweden, that is easy to understand and use for all employees.

Method: Literature review and interviews with health care professionals at RFPC Växjö.

Conclusion: Suicide risk in inpatients in forensic psychiatric units can change over time. Employees must have knowledge of the possibility of increased risk over the longer stays in forensic psychiatric care, e.g., due to medicine alterations, recovery, insight of crime or losses outside of the forensic unit. By being more successful at detecting risks and by starting to use SSI (Scale for Suicide Ideation) as a complement to clinical estimations it will be easier to intervene in an early phase.

Symposium 8.C: Psychiatric disorders in pregnant and postpartum women -aspects of care and treatment

Epidemiology and impact of pre- and postpartum psychiatric disorders

Poul Videbech

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Psychiatric disorders are frequent during pregnancy and postpartum period. Especially maternal postnatal depression is a major public health issue affecting 6-13 % of mothers in high-income countries and between 5-50% of mothers in low- and middle-income countries where almost 90% of the world's children live. Compared to children of non-depressed mothers, children of mothers with postnatal depression have a higher risk of intellectual, behavioural and attachment problems.

The presentation will review epidemiological data on the frequency of depression, anxiety and OCD during pregnancy and postpartum period as well as studies of the impact of these disorders on the child. Facts that is important to take in consideration when a doctor decides whether to initiate or terminate medical treatment of the mother.

Psychiatry & Obstetrics - a liaison dangereux. Optimizing psychiatric as well as obstetric care by means of an intensified multidisciplinary approach

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In DK, there is no tradition for integrated psychiatric/obstetric clinics. However, it is our experience that pregnant and peri-partum patients with psychiatric disease require a close collaboration between the two specialties.

Pregnancy and the peri-partum period is a high-risk situation regarding mental illness. Women with a prior history of mental illness have a sky-high risk of relapse during pregnancy and peri-partum period, and suicide is a leading cause of maternal death - 70 times more likely in patients with a history of mental illness. The risk of peri-partum psychosis is only 0.1-0.2% in the general population, but among women with schizophrenia or

bipolar affective disorder 30%, and with a family history of peri-partum psychosis >50%.

Many factors may be involved; hormonal changes, physiological changes, the existential psychological challenge of transitioning oneself from an independent person into a mother with the responsibility of a totally dependent baby, etc..

At the same time, early motherhood is unique, precious, fragile and demanding, and the woman ought and wishes to be 'the best version of herself' when becoming a mother.

Supported by case stories, we'll illustrate why women with psychiatric illness during pregnancy or peri-partum period need a multidisciplinary care, integrating psychiatry and obstetrics. We'll refer published "Mother-Baby Unit"-experiences from UK, France, Belgium & Australia, and present our ideas of an integrated "psycho-obstetric" clinic.

Guidelines for use of psychotropic drugs during pregnancy and breast-feeding

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Objective: To write a Danish guideline for use of psychotropic drugs during pregnancy and breast-feeding for daily practice in psychiatry, obstetrics and paediatrics.

Method: As we wanted a guideline with a high degree of consensus among health professionals treating pregnant women with a psychiatric disease we asked the Danish Psychiatric Society, the Danish Society of Obstetrics and Gynecology, the Danish Paediatric Society and the Danish Society of Clinical Pharmacology to appoint members for the working group. A comprehensive review of the literature was hereafter conducted

Results: Sertraline and citalopram are first-line treatment among SSRI for depression. It is recommended to use lithium for bipolar disorders if an overall assessment finds an indication for mood stabilising treatment during pregnancy. Lamotrigine can be used. Valproate and carbamazepin are contraindicated. Olanzapine, risperidone, quetiapine, clozapine can be used for bipolar disorders and schizophrenia. It is important that health professionals treating fertile women with a psychiatric disease discuss if psychotropic drugs are needed during pregnancy and how it has to be administered.

How an Obstetrician treat pregnant women with psychiatric disorders

Merete Hein

Obstetric gynecology dept, Aarhus, Denmark

When a woman with psychiatric disorders, such as bipolar disorder, depression, severe anxiety, or schizophrenia gets pregnant, she is referred to a special obstetric team at our Obstetric outpatient clinic by the general practitioner.

We have special attention on pregnant women with psychiatric disorders during pregnancy and lactation, as they have a higher risk of obstetrical complications and adverse outcomes for mothers and offspring.

To help the pregnant women with psychiatric disorders, it is important, that we as obstetricians are aware of our lack of psychiatric competences and needs of sparring, and therefore we have initiated a special task force of obstetricians and psychiatrists who meets once a month to discuss the challenges and best clinical treatment of the pregnant women with psychiatric disorders. This task force have increased and improved the professional awareness and treatment of this vulnerable group of pregnant women.

Symposium 8.D: Self-disorders in schizophrenia: overview and current status

Clinical aspects of the phenomenology of self-disorders

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Division of Mental Health and Addiction, Heggedal, Norway

Common for the contributions of this workshop, and for all other empirical studies on self-disorders, is that the empirical findings and their validity rely heavily on the quality of the assessments of self-disorders. These clinical assessments are in fact delicate and vulnerable, and have to be skillfully and adequately performed.

On paper, by description, many self-disorders might superficially resemble ordinary, natural experiences of everyday life. The art of making valid clinical distinctions between (even developing) pathology and normality is not easily performed at all. This presentation will address a selection of aspects involved in the clinical encounter with these fleeting and volatile experiential disturbances, yet extremely influential.

One major confusing pit-fall is to consider self-disorders too much as discrete symptoms. These features should rather be seen as overlapping aspects of a full and coherent Gestalt, stemming from one fundamental disturbance of ipseity. Another major challenge is to be aware of the near-ineffability of these enigmatic clinical features. Many patients, particularly adolescents at risk of developing schizophrenia, often struggle hard to subjectively conceive and articulate self-disorder phenomena. At the same time many youngsters will report presence of resembling natural experiences. A further delicate aspect is to find the proper balance between probing questions during systematic examinations on the one hand, and the necessity of eliciting the patients' own validating articulation on the other. These are really not straight-forward tasks, and require psychopathological knowledge, clinical experience, dedication and genuine interest. Some core characteristics of the phenomenologically inspired conversation will be highlighted.

The relationship between self-disorders and neurocognitive dysfunction in Schizophrenia

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Background: Neurocognitive deficits and self-disorders (SDs) have both been suggested as fundamental trait features of schizophrenia.

Aim: To investigate the relationship between SDs and neurocognitive performance in patients with schizophrenia.

Method: In 2008-2009 SDs were assessed in 57 patients in the early phase of schizophrenia by means of the Examination of Anomalous Self-Experience (EASE) instrument. The neurocognitive assessments included measures of psychomotor speed, working memory, executive- and memory functions.

Results: There were few associations between SDs and neurocognitive impairments. However, high levels of SDs were significantly associated with impaired verbal memory.

Conclusion: The reason for the general lack of associations between SDs and neurocognition could be that they represent different basic features of the illness. Verbal memory may however be linked to deficits in the patients' ability to comprehend, direct, remember and reason about their thoughts, functions that are intimately related to the basic sense of self.

The stability and diagnostic value of self-disorders

Julie Nordgaard, Josef Parnas

University of Copenhagen, Broendby, Denmark

Self-disorders (SD) has been described as trait phenomena of the schizophrenia-spectrum that are present before, during and after manifest psychosis. The temporal stability of SD has not been empirically tested, but carry great potential for the diagnostic purposes.

The aim of the study was to examine the temporal stability of SD, and the distribution of self-disorders in a diagnostically heterogeneous sample.

Methods: 100 first admission and diagnostically heterogeneously patients were assessed for self-disorders and other forms of psychopathology. The patients were re-assessed for SD and diagnosis at five years follow-up.

Results: SD show a high degree of temporal stability and aggregate significantly in schizophrenia spectrum disorders but not in other mental disorders.

Conclusion: The results corroborate SD as core features of the schizophrenia spectrum and SD's value in the diagnostic process. The temporal stability of the SD lend validity to SD being trait phenomena present independently of psychotic episodes. These findings have important implications for the diagnostic value of SD.

Common sense disturbances, hyperreflectivity and polyvalence as essential psychopathological phenomena in schizophrenia spectrum conditions

Peter Handest

Mental Health Center Ballerup, Ballerup, Denmark

Loss of common sense was thoroughly described by the German psychiatrist Blankenburg in his book "Verlust der Natürlichen Selbstverständlichkeit" from 1971. Hyperreflectivity or Reflektionskrampf as K. Conrad termed it was described in detail in his book "Die beginnende Schizophrenie" - from 1959. Both designated these psychopathological phenomena as essential features of schizophrenia. Polyvalency can be seen as a result of the loss of common sense and hyperreflectivity. These psychopathological phenomena are in their basic form non-psychotic, but can be precursors of psychosis. Even in their non-psychotic form these symptoms give rise to severe problems for the patients when performing common everyday activities. Knowledge of these disorders is therefore of great importance. They will be described and illustrated by clinical vignette and their impact on patients' daily living and functionality will be outlined.

Self-disorders and double bookkeeping in schizophrenia

Mads Gram Henriksen

Center for Subjectivity Research & Psychiatric Center Hvidovre, Copenhagen, Denmark

The aim of this presentation is to shed new light on the clinically familiar, yet insufficiently grasped phenomenon of double bookkeeping in schizophrenia. The notion of double bookkeeping was introduced by Bleuler (1911) to articulate the frequent co-existence of contradictory attitudes in patients with schizophrenia, often manifest in inconsistencies between the patients' delusions/hallucinations and their behaviour" e.g., a patient who believes that the nurses are trying to poison her may nevertheless happily consume the food they give her; or a patient may take antipsychotics to relieve his tormenting voices while not considering himself mentally ill. Recently, Henriksen and Parnas (2014) have sought to rearticulate Bleuler's notion of double bookkeeping through the prism of self-disorders. They propose that double bookkeeping is a predicament or an ability to simultaneously live in two different worlds, i.e. a shared-social world and a solipsistic-psychotic world (facilitated by self-disorders). What is so puzzling in schizophrenia is that while the patients seem to experience both worlds as relevant and in that sense real, they also usually seem to perceive them as two different, incommensurable, and thus not conflicting realities, thereby allowing them to co-exist and the apparent inconsistencies to emerge and persist. This presentation further develops this proposal by phenomenologically exploring the nature of the solipsistic-psychotic world and by eliciting the psychotic "core" experience in schizophrenia. Finally, some implications for treatment are outlined.

Symposium 8.E: Mental health of immigrant children in Nordic countries

Family violence among traumatised refugee families in Denmark

Edith Montgomery

DIGNITY - Danish Institute Against Torture, Copenhagen Ø, Denmark

Several studies of child and adolescent refugee populations find a high prevalence of mental disorders, particularly within the diagnostic category of posttraumatic stress disorder. But also children who are born in exile can exhibit mental health problems often related to the health situation of their parents. A stressful family situation can disrupt parenting and in this way increase problematic behaviour among children. Exposure to torture is known to have long lasting effects on the individual and often interfere profoundly with family functioning.

The family team at DIGNITY - Danish Institute Against Torture offers treatment to torture survivors and their families. Family related violence is seen in about half of these families, a situation that has a huge impact on the children. In even more families, the children suffer from other kinds of neglect.

A literature review of the scientific evidence concerning the relation between trauma and family related violence showed that family related violence is experienced in 30-50% of the families exposed to different types of traumatic events (war, organized violence, combat) and that people with PTSD has an elevated risk of perpetrating violence in their families.

DIGNITY is currently implementing a project aimed at such families. The project includes multidisciplinary rehabilitation with a focus on the children's situation and developing and evaluating new intervention methods with this group of people. At the conference the results of systematic literature reviews regarding family violence and trauma as well as case studies from the intervention project will be presented.

Autism spectrum disorders and ADHD among children of immigrants in Finland

Venla Lehti

University of Turku, Turku, Finland

Introduction: The etiology of neurodevelopmental disorders such as autism spectrum disorders (ASD) and attention deficit hyperactivity disorder (ADHD) are known to involve genetic and environmental factors. These factors may be associated with parental migration. Studying children of immigrants may thus give important information on the mechanisms of these disorders. In addition, it can give important information on the service needs of children with one or two immigrant parents.

Methods: FIPS-A (Finnish Prenatal Study of Autism) and FIPS-ADHD (Finnish Prenatal Study of ADHD) are case-control studies based on national birth cohorts. Finnish-born people diagnosed with childhood autism, Asperger's syndrome or ADHD were identified from the Finnish Hospital Discharge Register. Matched controls were selected from the Finnish Medical Birth Register. Data on maternal and paternal country of birth as well as mother tongue was collected from the Finnish Central Population Register. National registers were also used for collecting data on covariates. Conditional logistic regression analysis was the statistical method used.

Results: Compared with children with two Finnish parents, the likelihood of being diagnosed with childhood autism was increased among those with two immigrant parents or an immigrant mother. Being diagnosed with ADHD was more common among those with two immigrant parents or an immigrant father. On the contrary, the likelihood of being diagnosed with Asperger's syndrome was decreased among those with two immigrant parents.

Discussion: The findings may help in identifying risk factors of ASD and ADHD, but they also raise questions about diagnostic practices and the service use of immigrant families.

Development of transcultural child psychiatric services in Norway

Aina Basillier Vaage

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Refugee and asylum-seeking children are vulnerable migrants, with high and often unmet needs of mental health services. Post-migratory problems add to the difficulties already experienced before and during flight, with or without accompanying adults. There are many barriers between the child and the health-services.

General Child -and adolescent psychiatric services often are reluctant to engage in these patients, as their problems seem complex and interpreters are needed.

In Stavanger we first established a small project, with a child-psychiatrist working at a large reception-centre. In cooperation with the health-personnel working at the centre consultations were given to the kindergarten, to centre for unaccompanied asylum-seeking children and to families at the ordinary centre, in addition to clinical work with patients at the centre. The methods and experiences from the project were implemented in a newly established Transcultural centre, which is a co-operation between adult psychiatry and child psychiatry. This enables us to take a family-perspective on the suffering of both parents and children. A combination of clinical work, consultation, education and development of new methods are focused. The centre is the only Transcultural centre in Norway for the time being. Experiences and recommendation from the centre will be discussed.

Cultural Formulation as a tool for Child Psychiatric Assessment

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Sociocultural factors can affect how symptoms are expressed and understood in the clinical encounter. This could potentially lead to difficulties in

the assessment process with an over- or underestimation of psychopathology and/or the role of cultural factors. In the DSM-5 a new Cultural Formulation Interview was introduced as a practical tool to support the clinician in transcultural diagnostic process and treatment planning. It consists of 16 questions aimed at exploring the patients' perspective on e.g. understanding of symptoms, its causes, help-seeking behavior, expectations on health care, coping-mechanisms etc. There are 12 supplementary modules to the main interview. In this talk potential pros and cons of the supplementary module specifically addressing school-aged children, adolescents and their parents will be discussed, from the point of view of the presenter.

Posters

P01

Personality traits associated with suicidal behaviors in patients with depression: The CRESCEND study

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Introduction : The aim of the current study was to identify personality traits associated with suicidal behavior in patients with depression.

Methods: Of the 1183 patients screened for an observational cohort study of depression, 334 (28.2%) who completed the Temperament and Character Inventory (TCI) were included for this study. To minimize the effect of current mood state, the TCI was performed 12 weeks after initiation of treatment, and the results were adjusted for severity of depression.

Results: Of the 344 participants, 59 had a lifetime history of at least one suicide attempt, 37 had history of multiple suicide attempts, and 5 attempted suicide during the 12-week study period. At baseline, patients with any history of suicidal attempt presented more severe current suicidal ideation compared to those without, despite the absence of differences between the groups in terms of severity of depressive and anxiety symptoms. Of the seven personality scales of the TCI, lower scores on the self-directedness scale of the character dimension were associated with a history of at least one suicide attempt (OR [95%CI], 0.91 [0.87-0.96]; $p = 0.001$), with a history of multiple suicide attempts (0.91 [0.86-0.97]; $p = 0.003$), and with suicide attempts during study period (0.80 [0.69-0.94]; $p = 0.006$).

Discussion : These findings suggest that depressed patients with a history of suicidal behavior differ from non-attempters with regard to personality traits, especially the character dimension of self-directedness even after controlling for the effect of current mood state.

P02

A 2-year follow-up of patients participating in home-care T-PEMF (transcranial pulsating electro-magnetic fields) augmentation study for treatment resistant depression.

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Background and aim: To evaluate the effect of our home-care T-PEMF augmentation retrospectively in a 2 year follow-up study.

Methods: The follow up included 65 patients. The Longitudinal Expert Assessment of All Data (LEAD) was used. The patients were classified in 4 categories: A, B, C (reflecting the patients' retrospective experience of full, partial or no effect of the T-PEMF) and D (hard to assess). The Symptom Checklist SCL-90 was used as outcome measure. Patients with previous good effect of T-PEMF but now presenting with depressive relapse were offered a new T-PEMF treatment of 8 weeks duration.

Results: In group A (previous full remission on T-PEMF treatment) 13 of the 27 patients had a relapse. They improved significantly after the second course of T-PEMF treatment. The treatment-resistant patients with the best outcome (A) had duration of the index episode of around 12 months, significantly shorter than groups B, C and D.

The group D (hard-to assess group) is a post-hoc exclusion group. In this group time had revealed other serious reasons for distress.

Discussion: T-PEMF is a new add-on treatment for treatment resistant depression. In this follow-up study (analyzing groups A, B and C) 55% of the patients recalled full effect/ remission of the initial T-PEMF treatment. Half of them had experienced a relapse, but improved significantly when given a new T-PEMF treatment course of 8 weeks. Data indicate that it is important to screen for treatment resistance as early as possible.

P03

Regional brain volumes, diffusivity, and metabolite changes after electroconvulsive therapy for severe depression

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Objective: Hippocampal plasticity has been suggested to underlie the antidepressant effect of electroconvulsive therapy (ECT). **Methods:** We used Magnetic Resonance (MR) Imaging, including Diffusion Tensor Imaging (DTI) and proton MR Spectroscopy (¹H-MRS) to investigate hippocampal volume, diffusivity and metabolite changes in 19 patients receiving ECT for severe depression. Other regions of interest included the amygdala, dorsolateral prefrontal cortex (DLPFC), orbitofrontal cortex, and hypothalamus. Patients received a 3T MR scan before ECT (TP1), one week (TP2) and four weeks (TP3) after completion of the ECT series. **Results:** Hippocampal and amygdala volume increased significantly at TP2, and continued to be increased at TP3. DLPFC exhibited a transient volume reduction at TP2. DTI revealed a reduced anisotropy and diffusivity of the hippocampus at TP2. We found no significant post-ECT changes in brain metabolite concentrations, and we were unable to identify a spectral signature at ≈ 1.30 ppm previously suggested to reflect neurogenesis induced by ECT. None of the brain imaging measures correlated to the clinical response. **Conclusions:** Our findings show that ECT causes a remodelling of brain structures involved in affective regulation, but due to their lack of correlation with the antidepressant effect, this remodelling does not appear to be directly underlying the antidepressant action of ECT.

P04

Wake and light therapy for major depression - a randomized controlled trial

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Background: Patients admitted with depression are highly tormented and many are suicidal. Standard treatment offers full effect only after several weeks. Wake therapy is a method that may reduce depressive symptoms within days. In wake therapy the patient stays awake for one night and the following day, in all 36 hours. The response to wake therapy can be transitory, but light therapy and stabilization of circadian rhythm have been shown to maintain the effect.

Aim: To examine the efficacy of using wake and light therapy as a supplement to standard treatment of hospitalized patients with depression.

Methods: In this randomized, controlled study, 74 patients are allocated to standard treatment or to the intervention, which besides standard treatment consists of three times wake therapy in one week, and 30 minutes daily light treatment in the entire 9-week study period. Furthermore, the patients will receive ongoing psychoeducation regarding good sleep hygiene and maintaining a stable circadian rhythm.

Preliminary results: The project was initiated at the beginning of 2014, and patient recruitment is still ongoing. Ahead of project start, a pilot study was conducted where five patients completed the intervention. After 2 weeks, response was seen in 60% of the patients, and three patients were in remission after 9 weeks.

Conclusions: The results from the pilot study are promising, and this study can contribute with more knowledge about the efficacy of wake and light therapy.

P05

Assessment of depressive symptoms among obese patients with full and modified version of the Montgomery- Åsberg Depression Rating Scale-MADRS

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Background: Identification of depressive symptoms in patients seeking bariatric surgery should be performed briefly and systematically. However, vegetative symptoms of depression can be potential confounder to detect depression in this population.

Aims: to investigate the criterion validity of the Montgomery-Åsberg Depression Rating Scale (MADRS) among class III obese patients in comparison with standardized clinical interview; to analyze the performance of shorter versions.

Methods: Obese adults (body mass index >40kg/m²) were recruited consecutively from the waiting list of Bariatric Surgery clinic of the University of São Paulo, Brazil. The assessment tools were (a) 10-item MADRS and (b) the Structured Clinical Interview for DSM-IV (SCID-I). The internal consistency of the MADRS was estimated and Receiver Operating Characteristic curve analysis established the best cut-off point. Following, the performance of the MADRS was examined for 9-item to 5-item versions, after dropping vegetative items.

Results: the final sample of participants is comprised of 374 subjects (women 80%, mean BMI 47 kg/m², mean age 43.3 years). The alpha coefficient was 0.93. The best cut-off point was 13/14, compared with SCID-I, yielding 0.81 of sensitivity and 0.85 of specificity for 10-item MADRS. The overall ability to discriminate depression according to area under the curve was 0.87. Shorter versions of the MADRS presented comparable psychometric performance.

Conclusion: The MADRS is a homogeneous and valid tool to detect depressive symptoms among morbid obese patients seeking treatment. Shorter version of MADRS can be used with reliability and satisfactory validity in obese patients.

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P06

Diagnostic accuracy of the self-rating version of Montgomery Åsberg Depression Rating Scale (MADRS-S) among adolescent psychiatric out-patients

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Introduction: The Montgomery Åsberg Depression Rating Scale-Self assessment (MADRS-S) is often used as a screening tool for Major Depressive Disorder (MDD). However, the diagnostic accuracy of the MADRS-S has not yet been evaluated in adolescents. Aim of the study was to explore the diagnostic accuracy of MADRS-S in adolescent psychiatric outpatients in Sweden.

Method: The study is a cross-sectional, diagnostic accuracy study. One hundred and five consecutive adolescent psychiatric outpatients participated, mean age 15 years, 44% boys. The participants were assessed with the semi-structured diagnostic interview Kiddie Schedule of Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime version (K-SADS-PL) and thereafter they reported on the MADRS-S.

Results: For the whole sample, the area under curve (AUC) was 0.86, 95 % Confidence Interval 0.78-0.93, $p < 0.001$. Optimal cut-off on the MADRS-S was 13, with a sensitivity of 0.84 and a specificity of 0.79, PPV 0.84 and NPV 0.85. However, for this cut-off, the accuracy differed between boys and girls, with higher sensitivity and lower specificity in girls. The optimal cut-off for girls was 16 and for boys 11. Internal consistency (Cronbach's alpha) was 0.87. The MADRS-S and the K-SADS depression symptoms severity score were correlated with a Spearman's rho coefficient of 0.68.

Discussion: Diagnostic accuracy for MADRS-S with a cut off of 13 is good for use in adolescent psychiatric populations. The psychometric proper-

ties of MADRS-S, in adolescent psychiatric patients, are similar to adult populations.

P07

Diagnostic accuracy of the parent version of Montgomery Åsberg Depression Rating Scale (MADRS-P)

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Introduction: Parents are important informants of adolescent depressive symptoms. Parents report on their adolescent child's depressive symptoms by using the Montgomery Åsberg Depression Rating Scale (MADRS-P), which has never been evaluated as a screening tool for Major Depressive Disorder (MDD). Aim of the present study was to explore the psychometric properties of MADRS-P among adolescent psychiatric outpatients. Method: The study is a cross-sectional, diagnostic accuracy study. Consecutive psychiatric outpatients participated (n=101, 45 boys, mean age 15 years). The participants together with one of their parents were assessed with the semi-structured diagnostic interview Kiddie Schedule of Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime version (K-SADS-PL). Thereafter the parents reported on the MADRS-P. Results: Internal consistency of MADRS-P measured as Cronbach's alpha was 0.85. The concurrent validity, assessed as the correlation with the K-SADS depression symptom severity score, was 0.58 (Spearman's rho). The area under the curve in a receiver operating characteristic analysis was 0.79, the 95% Confidence interval 0.69-0.88, $p < 0.001$. Optimal cut-off on the MADRS-P was 15, with a sensitivity of 0.75 and a specificity of 0.75, positive predictive value 0.70 and negative predictive value 0.80. All analyses in the present study of MADRS-P showed similar results for male and female patients. Conclusion: Compared to MADRS-S the psychometric properties of MADRS-P are less optimal. However, MADRS-P can add important information to the evaluation of depressive symptoms among adolescent psychiatric outpatients. MADRS-P is not sufficient for establishing a MDD diagnosis.

P08

Age at time of diagnosis and mortality in bipolar disorder: changes over time

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Introduction: The incidence of bipolar disorder (BD) has increased significantly since the late 1990's. This inspired an overview of age distribution and mortality. Aims: To investigate age at first-ever diagnosis of BD in psychiatric care and examine mortality and causes of death over an 18-year period. Methods: This was a register-based, nationwide cohort study. Patients receiving a first-ever diagnosis of BD (ICD-10 code F31) between 1995 and 2012 were identified in the *Danish Psychiatric Central Research Register*. Causes of death were obtained from *The Danish Register of Causes of Death*. Mean age at time of diagnosis, standardized mortality ratio (SMR) and Kaplan-Meier survival estimates were calculated. Results: In total 15,334 incident cases of BD were identified. From 1995 to 2012 mean age at time of diagnosis decreased from 50.9 years to 43.3 years in males and from 56.6 years to 41.7 years in females (both $p < 0.001$). Mean SMR was 1.7 (95%-CI=1.2-2.1). Causes of death were as follows: 82.1% natural, 14.8% unnatural (mainly suicide) and 3.1% unknown. Compared with females, twice as many males died as a result of unnatural causes. The greater number of deaths from unnatural causes occurred within the first 5 years after diagnosis. Conclusions: The age at time of diagnosis of BD decreased steadily over a timeframe of 18 years. However, mortality remained unaffectedly higher compared to the general population. Focus on both natural and unnatural causes of death is important to lower mortality. Prevention of unnatural death is especially pressing the first years after diagnosis.

P09

Hippocampus in depression, schizophrenia, and suicide: a postmortem stereological study of hippocampal volume and cell number

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Substantial evidence suggests that structural plasticity in the hippocampus may play an important role in the pathophysiology of depression and its treatment. Also, *in vivo* imaging studies indicate that the volume of hippocampus may be reduced in depression. In the present study we search for cellular correlates to these findings. The study is based upon postmortem brain samples from 10 subjects with schizophrenia, 8 subjects with major depression, 11 suicide victims with a history of depressive disorder, and 10 control subjects with no history of psychiatric or neurological diseases. We use stereological techniques to analyze if severe depression, schizophrenia or suicide is associated with reduced volume of the hippocampal formation and/or changes in the numbers of neurons and/or glial cells in the different subregions of the hippocampus. The microscopic analysis is based on state of the art design-unbiased stereological techniques: the Cavalieri estimator is used to estimate the volume of hippocampus and its subregions, and the optical fractionator method is used to estimate the total number of neurons and glial cells in the individual cell layers in four main regions of hippocampus: the granular cell layer, hilus, CA2/3, and CA1. We found the volume and the number of neurons and glial cells reduced in a similar way by approximately 20% to 35% in depressed and schizophrenia subjects relative to control subjects across all hippocampal regions. We hope our results can provide a better understanding of the pathophysiology of depression and help developing new strategies for treatment.

P10

Diagnostic Accuracy of the Depression Self-Rating Scale for Adolescents

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IntroductionThe Depression Self-Rating Scale for Adolescents (DSRS-A) is a modified version of the Depression Self-Rating Scale for adults (DSRS). The scale assesses Major Depressive Disorder (MDD) using depressive episode criteria A in the DSM IV. The aim of the study was to examine the diagnostic accuracy of the DSRS-A in adolescent psychiatric patients. **Methods**Consecutive outpatients (N = 137) from three child psychiatric settings in the counties of Uppsala and Västmanland in Sweden (mean age 15 years, 42% boys) reported on the DSRS-A and were interviewed together with a parent with the Kiddie Schedule of Affective Disorders and Schizophrenia (K-SADS) diagnostic interview. The K-SADS-interviewers (N = 5) showed inter-rater reliabilities of 0.88 for MDD diagnosis and 0.84 for all diagnoses. **Results**The DSRS-A showed sensitivity of 0.81, specificity of 0.68, positive predictive value of 0.66 and negative predictive value of 0.83. The area under the curve in receiver operating characteristic analysis was 0.81 (95% CI, 0.73-0.88; p<0.001). Results for boys and girls showed distinct differences (see the table). **Discussion**The DSRS-A assessed MDD criteria A more accurately than it assessed criteria A combined with impairment. The DSRS-A assessed MDD more accurately in girls. Self-report of impairment might improve if concrete examples of response alternatives were provided. These are not included in the DSRS-A. The diagnostic accuracy of the DSRS-A in child psychiatric patients was not optimal, and was better in girls than boys. However, the DSRS-A could probably be useful in epidemiological studies. There is a need for further validation studies.

P11

The Effect of a Danish Collaborative Care Model, The Collabri Model, on Depression

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Background: Depression and anxiety are common diseases often treated in general practice. However, there are obstacles for optimal treatment e.g. a lack of continuity in disease management, organized collaboration between primary and secondary care and access to psychotherapy. Previous collaborative care studies have shown significant improvements in treatment outcomes for patients with depression and anxiety in primary care; however studies have not yet been carried out in a Danish context. Thus, a Danish collaborative care model, the Collabri model for panic disorder, generalized anxiety, social phobia and depression has been developed. The model includes: a multi-professional approach to treatment including a care manager (e.g. a psychiatric nurse), enhanced inter-professional communication, scheduled monitoring and review and structured treatment plans.

Objective: To investigate whether treatment of people with depression according to the Collabri model has an effect on symptoms. The aim is also to investigate the effect of two detection methods for depression: usual detection and case-finding.

Methods/design: A cluster-randomized, clinical trial is set up to investigate treatment according to the Collabri model compared to treatment as usual for 480 patients diagnosed with depression from general practices in the Capital Region of Denmark. The primary outcome is depression symptoms measured with Beck Depression Inventory (BDI) at 6 months. The GPs will also be randomized according to detection method.

Results/discussion: The results are expected in 2017 and will contribute with important knowledge if collaborative care is to be implemented in Denmark.

P12

Rates and predictors of recurrence and conversion to bipolar disorder after the first lifetime episode of depression.

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Background: In depression, recurrence of depressive episodes and conversion to bipolar disorder are crucial determinants of poor outcome. However, little is known about predictors of the long-term course of illness after the first lifetime episode of depression.

Aim: To assess the effect of demographic and clinical variables on the risk of recurrence and development of bipolar disorder, respectively, among patient with first episode depression.

Methods: A total of 301 in- or outpatients aged 18-70 years with a validated diagnosis of a single depressive episode were assessed from 2005 through 2007. At 5-year follow-up 262 patients were reassessed by means of the Life Chart Method and diagnostic interviews from 2011 through 2013. Cumulative incidences and the influence of demographic and clinical variables on the rates of recurrence and conversion to bipolar disorder, respectively, were estimated by survival analysis techniques.

Results: Within five years 31.5% of the patients, who obtained remission from the first depressive episode, experienced recurrence of depression, and 8.6% converted to bipolar disorder (6.3% within the first two years).

Recurrence of depression increased with severity and treatment resistance of the first depressive episode. Conversion to bipolar disorder also increased with treatment resistance of the first depression and, further, with a family history of affective disorder and comorbid alcohol or drug abuse.

Conclusions: The identified clinical characteristics of the first lifetime episode of depression should guide patients and clinicians for long-term individualised tailored treatment.

P13

The Effect of a Danish Collaborative Care Model, The Collabri Model, on Anxiety

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Introduction: Depression and anxiety are common diseases often treated in general practice. However, there are obstacles for optimal treatment e.g. lack of continuity in disease management and access to psychotherapy. Previous collaborative care studies have shown significant improvements in treatment outcomes for patients with depression and anxiety in primary care; however effect studies have not yet been carried out in a Danish context and only few have investigated the effect on anxiety disorders. Thus, the Collabri model for panic disorder, generalized anxiety, social phobia and depression was developed. The model includes: a multi-professional approach to treatment including a care manager, enhanced inter-professional communication, scheduled monitoring and review and structured treatment plans. It further integrates: recruitment of staff with psychiatric experience, training of general practitioner and care manager, use of instruments for detection and follow-up, education and treatment of patients, supervision and a stepped care approach to treatment. The aim is to investigate whether treatment of people with anxiety disorders according to the Collabri model has an effect on symptoms.

Methods: Three cluster-randomized, clinical trials are set up to investigate treatment according to the Collabri model compared to treatment-as-usual for 364 patients diagnosed with panic disorder, generalized anxiety and social phobia respectively from general practices in the Capital Region of Denmark. For all studies, the primary outcome is anxiety symptoms measured with Beck Anxiety Inventory (BAI) at 6 months.

Results: Results are expected in 2017.

Conclusion: The studies will contribute with important knowledge if collaborative care is to be implemented in Denmark.

P14

Prevalence of depression in treatment seeking population in primary care settings in Latvia - the results of the pilot study of the National Research Project BIOMEDICINE

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Background: Depressive disorders are among the most common mental disorders in primary care. No depression prevalence studies in primary care have been conducted in Latvia up to now

Methods: A pilot study of the National Research Program to assess prevalence and feasibility of detection of depression in primary care in Latvia was conducted in 2014. All treatment seeking primary care patients aged 18 and older at five primary care facilities were invited to participate during one full week. Patients were screened with the PHQ-9 (Patient Health Questionnaire-9) and interviewed with a socio-demographic questionnaire. Within 2 weeks after the visit psychiatrist administered the MINI (the Mini International Neuropsychiatric Interview) as a telephone interview.

Results: A total 367 patients were invited, 43 refused from the survey. The characteristics of those not participating did not statistically differ on main socio-demographic domains from those participating. 272 patients agreed to the interview with the MINI. According to the MINI 22.4% (95%CI 17.7-28.0) of patients had experienced lifetime depression, and 13.6% (95%CI 10.1-18.0) of patients had current depression. Current and lifetime depression was more common for women than men, 15.1% and 10.8%, 24.0% and 19.4%, respectively. Both prevalences of depression were the highest in the age group 40-64 for both genders. Patients with education higher than secondary had lower rate of current and lifetime depression.

Conclusions: Prevalence of depression and main socio-demographic groups were similar with the rates obtained in European studies. The methodology proved applicable for a larger study that is being conducted in 2015.

P15

Management of the agitation episode: The patient-provider alliance; the patient perception of the importance of a treatment plan

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Background: Agitation is a common symptom in patients with schizophrenia or bipolar disorder. Acute agitation can escalate unpredictably and lead to injury and distress in patients and staff. National legislations in Scandinavia require that plan for treatment is developed for all patients admitted to psychiatric departments.

Objective: This study assessed patient experience associated with agitation episodes. Patient perception of the importance of having a plan devel-

oped by the psychiatrist in close collaboration with the patient for an agitation episode is described.

Method: An internet-based survey was implemented in Denmark and Sweden, December 2014 using an existing panel of anonymous respondents (Userneed's panel) of patients >18 years old diagnosed with schizophrenia or bipolar disorder.

Results: In total, 237 respondents completed the survey. Agitation episodes were experienced by 90% of the respondents. In this survey, 35% of the patients reported to have received a treatment plan for agitation episodes. A total of 52% of the respondents with a plan for treatment of an agitation episode reported that the treatment plan was followed to a large or very large degree. In this study 84% of the respondents with schizophrenia and 72% of the respondents with bipolar disorder reported that it was very important or important to have a treatment plan.

Conclusions: The majority of the patients reported that it is important to have a treatment plan for the agitation episode, however; the majority reported to have not received such plan or felt that the plan had not been followed.

P16

Rumination-focused Cognitive Behaviour Therapy vs. Cognitive Behaviour Therapy for Depression: a randomized controlled superiority trial (RuCoD-trial).

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Background: Cognitive Behavioural Therapy (CBT) is an effective treatment for depression. However, one third of the patients do not respond satisfactorily and relapse rates around 30% within the first post-treatment year were reported in a recent meta-analysis. A total of 30-50% of remitted patients present with residual symptoms by the end of treatment. A common residual symptom is rumination; a process of recurrent negative thinking and dwelling on negative affect. Rumination has been demonstrated as a major factor in vulnerability to depression, predicting the onset, severity and duration of future depression. Rumination-focused CBT (RFCBT) is a psychotherapeutic treatment targeting rumination. Because rumination plays a major role in the initiation and maintenance of depression targeting rumination with RFCBT may be more effective in treating depression and reducing relapse than standard CBT.

Method/design: This study is a two-arm pragmatic randomised controlled superiority trial comparing the effectiveness of group based RFCBT to the effectiveness of group based CBT for treatment of depression. 128 patients with depression will be recruited from and treated in an outpatient service. Our primary outcome will be severity of depressive symptoms (HRSD) at completion of treatment. Secondary outcomes will be level of rumination, worry, anxiety, quality of life, behavioural activation, experimental measures of cognitive flexibility and emotional attentional bias. A six-month follow up is planned and will include the primary outcome measure and assessment of relapse.

Discussion: The clinical outcome of this trial may guide clinicians to decide on the merits of including RFCBT in treatment of depression.

P17

Scandinavia's First Crisis Assessment and Treatment (CAT) Team. Preliminary Findings.

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Background: The past four decades have seen a global trend towards the closure of psychiatric in-patient facilities and a rise in out-reach treatment. Such treatment has typically consisted of a combination of medication, counseling and practical assistance with daily living. Initial studies suggested there were many benefits to this approach. But the studies also revealed that a failure to deliver adequate levels of care during acute phases of severe mental illness was resulting in frequent hospital readmissions.

To meet this challenge, various types of crisis resolution (Crisis Assessment and Treatment (CAT)) services have been developed to handle psychiatric crises at home. The Mental Health Centre of Frederiksberg is the first psychiatric facility in Scandinavia to have implemented such a CAT service. The aim of this study is to show how we designed and implemented the CAT service and to investigate whether it reduces the number of acute admissions.

Method: A consumer represented task force studied various CAT services and eventually chose to adopt an Australian model. Following a visit to observe Australian CAT teams at work, the group liaised with domestic pre-hospital services and adapted the Australian model to Danish conditions.

Results: To measure preliminary CAT results, we will compare the rates and durations of in-patient admissions during the post-implementation period 07/04/2015 - 01/08/2015 with equivalent data from the corresponding period in 2014.

Conclusion: More data and further analysis over time is required before firm conclusions can be drawn about the efficacy of the CAT model in Denmark.

P18

Is autonomic nervous system dysfunction present in adolescents with functional somatic syndromes: an explorative pilot study

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Introduction: An increasing number of adolescents report daily physical symptoms not attributable to any known conventionally defined physical disease. Epidemiological studies illustrate that 5 to 10 % experience persistent symptoms with reduced functioning and may receive diagnoses for somatization disorder or functional somatic syndromes (FSS) such as chronic fatigue syndrome, fibromyalgia, irritable bowel syndrome or idiopathic

pain syndrome. The aetiology of FSS is assumed complex, with recent studies suggesting autonomic nervous system (ANS) dysfunction as a potential pathophysiological mechanism in the development and perpetuation of symptoms.

Objective: To present baseline results from a pilot study examining ANS function, assessed by heart rate variability (HRV) in adolescents with severe FSS and to correlate these findings to self-reported physical health and symptom severity.

Method: Thirteen patients aged 15-20 years diagnosed with severe FSS were examined at baseline before attending a group based therapeutic intervention. HRV was assessed in various situations (resting state, standing, slow breathing and valsalva) and physical health and symptom severity were evaluated by self-reported questionnaires (i.e. SF36 and Bodily Distress Symptom-checklist).

Results: Data collection is ongoing and preliminary results will be presented.

Discussion: Measurement of ANS function by HRV can potentially increase our knowledge of FSS. We are currently conducting a randomised controlled trial on the effect of psychological treatment where outcome measures will include self-reported measures as well as objective markers for physiological stress response including HRV.

P19

Self-reported psychopathic traits in Finnish and Dutch samples of non-referred adolescents: exploration of cultural differences

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Introduction: Deficient interpersonal, affective and behavioral characteristics comprise psychopathic character traits. Psychopathic traits are described as relatively stable over time, from childhood through adolescence to adulthood. Culture can influence antisocial behavior and the manifestation of psychopathy. The aim of the present study was to compare psychopathic traits between Finnish and Dutch samples of non-referred youth, separately for boys and girls.

Methods: The participants comprised Finnish (n=372, girls 53.2%) and Dutch (n=474, girls 53.4%) samples of 15- to 16-year-old community youth. The adolescents filled in the Youth Psychopathy Traits Inventory (YPI) during their school lessons. The YPI has three dimensions: The Interpersonal, Affective and the Behavioral. We used the authorized Finnish and Dutch versions of the YPI. To test mean group differences in scores between Finnish and Dutch adolescents we used the Student's test.

Results: The Dutch boys scored significantly higher than the Finnish ones on the total and all dimensional scores, as well as on the majority of sub-dimensional scores. The Dutch girls scored significantly higher than the Finnish ones on the Affective dimension of the YPI.

Discussion: The findings suggest that culture influences the manifestations of psychopathic character traits even between two European countries, and that the influence is more prominent in boys. Future studies in adolescent samples with different age ranges and motherlands are needed to shed light on cultural differences in adolescent psychopathic traits.

P20

Do functional somatic symptoms in 5-7-year old children predict primary health care costs?

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Background and objectives This study aim to assess whether FSS at child age 5-7 years is an independent predictor of future primary health care use after adjusting for relevant covariates including other health problems. Methods 1327 children from the Copenhagen Child Cohort, CCC2000 were assessed at ages 5-7 years for FSS, categorized as either non-impairing or impairing symptoms, and chronic physical diseases by the Soma Assessment Interview. Mental health problems were assessed by the Strengths and Difficulties questionnaire. Information on primary health care use, measured as the price for all doctor services outside the hospital during a 4.5 year follow-up, was obtained from the National Health Insurance Service Register. Results In preliminary analyses the crude association between impairing FSS and primary health care use was statistically significant with accumulated increased costs of 246.0 € (bootstrap bias-corrected and accelerated 95% confidence intervals (BCa95%CI): 67.6 - 494.3). In multivariate regression analysis impairing FSS remained significant with increased costs of 177.8 € (BCa95%CI: 1.3 - 417.0). In addition chronic physical disease and mental problems were found as strong explanatory variables. Final results will be presented at the conference. Conclusions Impairing FSS at child age 5-7 years is a significant predictor for the child's future primary health care use. However, chronic physical diseases and mental problems also characterize children with the highest accumulated health care costs. More research on complex models to provide better estimates of the consequent health care use of child FSS and thus the clinical significance of our results is needed.

P21

Diversity and flexibility: Forensic Assertive Community Treatment (FACT) teams in Capital Region of Denmark

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Background: According to the Danish Penal Code, offenders, who at the time of the crime were psychotic, mentally retarded or mentally disordered in some other way, are not punishable, but instead sentenced to some measure of psychiatric treatment, including outpatient treatment.

The Assertive Community Treatment (ACT) model can also target forensic patients, and the first FACT (Forensic ACT) inspired team in Denmark was established in the Mental Health Centre Sct. Hans in 2006, and the second FACT-inspired team in the Capital Region was established at Mental Health Centre Glostrup in 2011.

Aims: To map the patient populations: Demographic/clinical data, psychiatric/criminal history, rehospitalisation/recidivism during the treatment period.

To analyse the practices in the applied assertive community treatment in the two teams.

To provide better understanding of challenges and obstacles in the forensic assertive outreach community treatment in a Danish context.

Methods: Cohort studies, including data from all clinical pathways, combined with a sociological approach to analyse the daily practices in the teams.

The study includes app. 125 terminated clinical pathways, and app. 130 ongoing clinical pathways.

Preliminary results and discussion: The patients referred to the teams, are considered 'difficult patients', and too 'troublesome' for the general outreach teams. Key characteristics are aggressive behaviour, dual diagnosis, noncompliance, and sentences due to serious crime. The study confirms that the patient population is characterised by *complexity*, but also great *diversity* (i.e. number of previous convictions/number of offences; psychiatric history), and *flexibility* and highly individualised approaches characterises the team's work.

P22

Psychiatry summer school for medical students in Satakunta, Finland

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The idea to arrange a summer school rose from the earlier difficulties in recruiting medical students to work during the summer at the psychiatric units within the Satakunta Hospital District. There was a need to find new ways to raise interest in psychiatry as a specialty and to attract medical students to work as substitutes during the holiday season. The long-term goal was to inspire and motivate students to specialise in psychiatry after their graduation.

Two month summer schools were arranged in 2013 and 2014. The program was designed to include tutoring to guide the substitutes in their daily work, regular teaching sessions with patient case workshops, and leisure activities. The tutors were recruited from the hospital's own staff and they were either specialists or experienced residents. Teaching sessions with lectures were arranged one afternoon per week with themes comprising central topics in psychiatry. Leisure activities and informal program was schemed to enhance team spirit.

The experiences of the summer school have been highly positive; the recruitment process has been successful and there have been altogether over 40 participants. To evaluate the program questionnaires were used to measure students' experience of the learning environment and subjective assessment of their psychiatric knowledge. The students have experienced the learning environment as thoroughly positive and their psychiatric knowledge has increased significantly.

P23

The RENEW model: Implementation of an American educational support model into a Danish intersectional praxis

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Introduction: There are no evidence-based programs targeting young adults in transition to adult life with mental health problems. RENEW [Rehabilitation for Empowerment, Natural Supports, Education, Work], however, is a model showing promising outcomes in an American context. RENEW is an individualised, occupational, and network oriented support model for young people with mental and behavioural difficulties. RENEW has potential to not only help vulnerable youth, but also bridge the cultural gap between the municipal and the regional sector because of a strong focus on community and family network. However the American social and mental health service systems are very different from the Danish, making it important to adjust RENEW to a Danish psychiatric and occupational context.

Purpose: To implement and adjust the RENEW model into a Regional psychiatric out-patient unit and a Municipal vocational centre in Denmark in cooperation with staff, hoping to create an intersectional support model to young adults (age 18-30) with mental health vulnerabilities.

Method: Through an Action Research approach staff members will participate in intersectional dialogue meetings and observations of the praxis of working with RENEW. By discussing the observations staff will reflect on the methodology and their own professional praxis, and make necessary adjustments to RENEW.

Discussion and results: We will present preliminary results of how the involvement of staff through an Action Research approach can ensure development of a context sensitive Danish version of RENEW.

P24

Prevalence of at-risk and problem gambling among Finnish adolescents: a survey of first-year junior high school students

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Background: Adolescent gambling is a public health concern: early onset age of gambling is a known risk factor for developing gambling problems later in life. In order to develop efficient prevention programs more information is needed.

Aims: to study gender differences in gambling participation, at-risk/problem gambling (ARPG) and substance use among adolescents; explored the criteria for ARPG and investigated the association of gender, gambling and gaming participation, substance use and social variables with ARPG.

Methods: This study examined 988 Finnish adolescents (mean age 13.4 years) at public schools in 2013 (response rate 91.6%). Chi-squared test, Fisher's exact test and binary logistic regression analysis were used.

Results: During the previous year, 51.6% of the respondents had gambled and 7.9% were identified as ARPGers. Illegal acts (including unsocial acts) were the most endorsed criteria of the DSM-IV-Multiple Response-Juvenile instrument. Chasing losses, withdrawal and lies indicated ARPG. The odds ratio (95% CI) of being a male past-year ARPGers was 2.27 (1.03-5.01), 5.78 (3.03-11.03) for gambling often or sometimes and 2.42 (1.29-4.52) for video game playing weekly or more often. The odds ratio (95% CI) of being an ARPGers and drinking for intoxication was 2.00 (0.90-4.43), 1.74 (0.76-3.96) for smoking, 0.94 (0.51-1.73) for having family members who gamble and 6.23 (3.78-13.83) for having peer gamblers.

Conclusions: ARPG was relatively common among males. ARPG was as common as drinking alcohol for intoxication and smoking. Peer gambling was strongly associated with ARPG. Future research should examine preventive measures for both substance use and ARPG of adolescents.

P25

Gambling frequency, gambling problems and concerned significant others of problem gamblers among 15-24 year old Finns

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Background: Adolescent problem gambling rates are higher than among the general population. A greater availability is linked to increased problem gambling prevalence. In 2011, the legal age for gambling was raised in Finland from 15 years to 18 years to protect adolescents. It has also been hypothesised that increased availability may lead to a decline due to adaptation to exposure.

Aims: This study compares the past-year gambling frequency, gambling problems and concerned significant others (CSOs) of problem gamblers from 2007 and 2011 among 15-24 year olds.

Methods: From a random sample data, respondents aged 15-24 (N=1260) were selected for this study. Past-year gambling frequency was inquired using categorical variable while gambling severity was measured with the South Oaks Gambling Screen. CSOs were identified with a single question including seven response options. Chi-Squared and Fisher's exact tests were used.

Results: Among 15-17 year old respondents, non-gambling increased and gambling problems decreased between 2007 and 2011. Respectively, gambling participation increased among 18-24 year olds; however, gambling several times per week or more decreased significantly. The proportion of problem gamblers did not change significantly among 18-24 year olds, but the proportion of their close ones with gambling problems was lower in 2011 than in 2007.

Conclusions: The short-term changes in under-age gambling problems were desirable. Reduction in regular gambling is potentially important for reducing gambling-related harm. The increase in gambling participation of 18-24 year olds was mainly explained by infrequent gambling. Future studies should explore the adaptation and access hypotheses alongside gambling problems.

P26

Peculiarities of smoking patients in Lithuanian psychiatric hospitals

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Objectives: To find out smoking patients peculiarities in psychiatric hospitals in Lithuania.

Methods: A quantitative onetime anonymous study of psychiatric inpatients in Vilnius and Šiauliai. 115 patients were interviewed in psychiatric hospitals.

Results: A total of 115 patients were interviewed, 45.1% of whom smoke daily and 3.5% occasionally. Patients with mental disorders had a tendency to smoking 16.3±1.7 cigarettes per day (from 3 to 50 cigarettes per day). The overall smoking period was 20.8±1.7 years. For the most of the patients, smoking is a continuous process, 96.3% of respondents tended to smoke even during their hospitalisation period. More often they smoke outdoors (57.7%), in the toilet (25.0%). 55.6% of mentally ill patients indicated that they would like to quit smoking. Most of the patients pointed that smoking calms them. A rather big part of respondents tried to quit smoking, but they did not succeed (31.5%) and pointed out that smoking improves their mood and relieves disease symptoms.

Conclusions: Smoking in psychiatric hospitals is a relevant problem. Patients do not stop smoking even during their hospitalisation period, although smoking in psychiatric hospitals is prohibited. Smoking calms and relieves them of their disorder symptoms, also patients mentioned that they have tried to quit smoking, but did not succeed. Almost half of the patients marked that they have wanted to quit smoking and that shows the importance of dual diagnosis and assistance needed to treat patients with psychiatric disorders and tobacco dependence.

P27

How to continuously monitor, evaluate and improve the quality of clinical decision-making in a new psychiatric setting?

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Continuously monitor and improve quality of clinical decision-making became of critical importance following a new task: Conducting clinical assessment interviews and clinical decision-making based on only **one** interview with patients referred to hospital based psychiatric treatment/evaluation at the Central Referral Unit (CVI).

Method: a three leveled audit schedule was constructed. First level: Traditional tick in the box checklist-audit according to the schedule for patient records at CVI. Second level: Assessing whether data described in the patient record matches the noted CGI-S score and the short version of the GAF-F score. Third level: Assessing the clinical decision-making and consistency with assessments made in levels one and two.

Preliminary results: Audits on 70 patient records. Level one audit suggests nearly 100% obtaining and recording on all items in the CVI schedule for patient records - except assessment of risk of suicide at only 80%. Second level audit suggest 15% to 25% deviation on CGI-S and GAF-F score in relation to auditor's assessment. Third level the auditors found, that in 2,5% of the clinical decisions on no treatment were incorrect. Actions were initiated to avoid repeating these faults again.

Discussion and Conclusion: Auditing whether data are described in patient records may not in itself be very useful, *unless* it includes a continuous series of comparable re-audits. By *auditing the clinical decision-making itself* audit would include quality improvement in clinical psychiatry.

P28

Randomized, double-blind, active- and placebo-controlled trials of lisdexamfetamine dimesylate in adolescents with attention-deficit/hyperactivity disorder

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Introduction: Lisdexamfetamine dimesylate (LDX) and osmotic controlled-release methylphenidate (OROS-MPH) were compared head-to-head in two phase 4 trials in adolescents with attention-deficit/hyperactivity disorder (ADHD).

Methods: Adolescents (13-17 years) with ADHD Rating Scale IV (ADHD-RS-IV) total score ≥ 28 were randomized 2:2:1 to LDX, OROS-MPH or placebo. Study 1 was an 8-week, flexible-dose (30-70mg LDX; 18-72mg OROS-MPH) design and study 2 was a 6-week, forced-dose titration (70mg LDX; 72mg OROS-MPH) design. The primary efficacy outcome was change from baseline to end of study (EOS) in ADHD-RS-IV total score. Safety assessments included treatment-emergent adverse events (TEAEs) and vital signs.

Results: The full analysis sets comprised 452 (study 1) and 532 (study 2) participants. The difference between LDX and OROS-MPH in LS mean \pm SEM change was statistically significant in favour of LDX in the forced-dose, study 2 (-3.4 \pm 1.04; $p=0.0013$) but not in the flexible-dose, study 1 (-2.1 \pm 1.15; $p=0.0717$). Placebo-adjusted least squares (LS) mean \pm SEM change from baseline to EOS in ADHD-RS-IV total score were statistically significant (unadjusted $p<0.0001$) for both active treatments in study 1 (LDX, -12.2 \pm 1.45; OROS-MPH, -10.1 \pm 1.43) and study 2 (LDX, -8.5 \pm 1.27; OROS-MPH, -5.1 \pm 1.27). TEAEs reported by $\geq 10\%$ of patients were decreased appetite and headaches (LDX and OROS-MPH: both studies), decreased weight (LDX: both studies; OROS-MPH: study 1), and irritability (LDX: study 1).

Conclusions

In two phase 4 trials in adolescents, symptom reduction separated significantly in the forced-dose but not the flexible-dose study. Safety profiles of LDX and OROS-MPH were consistent with previous studies.

Study funded by Shire Development LLC.

P29

Use of primary care during the years before first psychiatric diagnosis

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Objective: Schizophrenia is characterized by slowly progressing symptoms. A long duration of untreated psychosis is associated with unfavorable long-term prognosis. We seek to determine when the possible first symptoms of schizophrenia could be detected in general practice.

Methods: A population-based matched comparative study using nationwide registry data. As cases, all patients in Denmark above 15 years (N = 23.078) diagnosed with schizophrenia disorders (ICD-8 code 295 and ICD-10 code F.20) from January 1st 1998 till June 5th 2014 were included. 20 controls per case were matched on gender and age (N = 461.560). Utilization of primary care services (day time and out-of-hours contacts) during six years preceding diagnosis was measured for cases and controls.

Results:Schizophrenia patients utilized primary care more than the controls during all six years before diagnosis. For daytime contacts the first two months with an IRR = 1.55 (95% CI: 1.50-1.60). This excess use grew steadily towards the time of diagnosis with an IRR = 2.60 (95% CI: 2.55-2.66) during the last two months before diagnosis. Out-of-hours contacts the first two months with an IRR = 1.55 (95% CI: 1.40-1.70) and the last two months before diagnosis 4 fold increased visit rates, IRR = 4.14 (95% CI: 3.90-4.40)

Conclusions:The study shows excess health care use for schizophrenia patients years before established diagnosis, with significant more visits than the controls in all 72 months before diagnosis.

Discussion:More knowledge about the diagnostic pathway for schizophrenia would be clinically relevant. This to ensure a better and faster diagnostic pathway for schizophrenia patients.

P30

Do poor staffing levels and change in shifts contribute to the use of restraint?

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Introduction: The use of coercion raises ethical dilemmas and underlies endless discussions for and against this practice. Therefore it is of interest to obtain more knowledge about the circumstances bound to the use of coercion, in the attempt of reducing it.

Aim: The aim of this study is to investigate if there is a correlation between the amount of restraint used and changes in shifts or times of understaffing at the ward.

Method: A naturalistic descriptive method is used to study cases of restraint in patients admitted in a psychiatric ward. After having identified the time for each case of restraint in the period from July 2013 to June 2014, we investigated the staffing level, and whether or not the restraint happened within a change of shift. We defined the shift change as one hour before and one hour after the actual shift change.

Results: During one year and a total of 1395 shifts, restraint was carried out 114 times and 32 (28 %) were during change in shifts. Understaffing occurred in 509 of shifts (46 %), while 64 of restraint (56 %) is carried out in a vulnerable shift.

Discussion: The results show a correlation between understaffing and an increased use of restraint on the ward. This indicates that the quality of staff affect the use of restraint on the ward. On the contrary there was only a minor increase of restraint during change in shifts.

P31

COMPARATIVE STUDY BETWEEN FAMILY INCOME AND HOPELESSNESS

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Hopelessness is defined as a condition in which a person experiences negative expectations about future associated with symptoms such as motivational deficit, sadness and lack of concentration ultimately resulting in depression and suicide. There are direct and indirect effects of socio-economic conditions on mental health, setting up vicious cycle between poverty and mental disorders. This study demonstrates the vandalization of low socioeconomic status on the mental health of the individuals of underdeveloped countries

Method: A cross-sectional study done in Karachi.Data was collected among people aged 20-50. They were asked to fill Beck's Hopelessness Scale(BHS).

Results: Of 295 individuals,44% males, 56% females. 0-3 was scored by 67.2% individuals, 4-8 by 28.4% individuals, 9-14 by 4% individuals.

When T-test was applied to family income and BHS score,p-value was found to be <0.05. Of those who scored between 0-3 47 %belonged to low socio-economic status, 48.8% to middle socio-economic status, 4% to high socio-economic status. Of people who scored between 4-8, 41.6 % belonged to low socio-economic status, 48.6% to middle socio-economic status, 9.7% to high socio-economic status. Of those who scored between 9-14, 25% belonged to low socio-economic status, 66% to middle socio-economic status, 8.3% to high socio-economic status.

Conclusion: Societies with economic crises are liable to more mental disorders, we highlight the need of proper initiatives towards the quality of life especially in the under developed parts of the world ,to avert the casual of psychiatric illness due to low social economic status & encourages further research in this discipline.

P32

Psychiatric Register Research in Denmark

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Introduction: In Denmark, you have remarkable opportunities for register research because each citizen has a unique personal identification number (CPR-number), used in the Danish Psychiatric Central Research Registry and other registers.

Methods: There are two different approaches to register research in Denmark.

1. The tedious one: you apply "Statens Serum Institut" for an extract of register data for clinical cohorts. You can then merge the data using the CPR-number while securing confidentiality according to legal requirements. Examples: ACT Tønder and ACT North by Aagaard.
2. The expensive one: you use 'Danmarks Statistik' which requires thorough planning. Nielsen and Dinesen established a cohort of psychiatric patients with severe psychiatric disorders admitted to Danish psychiatric hospitals between 1969 and 2007 at 'Danmarks Statistik'. This cohort was merged with several Danish registers: Central Personal Register, Drug Prescription Database, Somatic Register, Causes-of-Death Register among others, and the CPR-numbers were replaced by a unique identification number allowing the researcher to match data for each person from several registers.

Results: From tables:

Table 1. Reduction in Cost per Patient for Psychiatric and Somatic Services in ACT-treatment.

Table 2.1 Cox Regression Showing Variables during Initial Treatment Affecting Time until Onset of Diabetes.

Table 2.2 Risk factors for diagnostic conversion from unipolar depression to bipolar disorder.

Discussion: If you are not a Danish citizen, it is almost impossible to get access to Danish national registers and you should then go for a research stay in Denmark or get a Danish research partner.

P33

Characterization of patients attending treatment for alcohol dependence in Denmark from 1954 to 2009

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A heavy intake of alcohol is a risk factor for disease and mortality. Little is known about changes in characteristics of alcohol dependent persons over time. The aim is to characterize patients attending alcohol treatment over a time period of 55 years, and examine if socio-demographic and alcohol-related issues changes over time.

Method: The authors used data from the Copenhagen Alcohol Cohort, comprising 25,497 alcohol dependent patients (ICD-8, code 303.20; ICD-10, code F10.2-F10.26) receiving treatment at Copenhagen outpatient clinics for alcoholics from 1954 to 2009. Information on alcohol consumption (average number of drinks per week, number of days of alcohol consumption per week, and duration of alcohol misuse), sex, date of birth, as well as social related issues was registered prospectively at time of admission.

Results: The study comprised 22,359 persons (17,018 men and 5,341 women) with a mean age 40.6 years in men and 42.5 years in women. A larger proportion of men, compared with women, had been alcohol dependent for 10 years or more when first entering treatment (men: 31.8% women: 21.2%). Average number of drinks per day was 17.3 in men and 12.3 in women, and 44.1% and 37.0% among men and women respectively drank 7 days per week. More detailed time trends and additional analyses will be presented.

Discussion: Patients entering alcohol treatment comprises a multiform patient group. Also, a large proportion of patients have been alcohol dependent for several years before entering treatment, as well as other patients characteristics vary over time.

P34

Brain drain among Nordic psychiatric trainees: an opportunity or a cause for concern?

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Due to emigration, most low and middle income countries lose from 50 to 88% of their psychiatrist staff to high income countries. This hinders the provision of mental health care and the training of psychiatrists (Jenkins et al, 2010). All of the Finnish participants (n=25) were living and studying in Finland. 21 (84%) were involved with adult psychiatry, 2 (8%) with child and adolescent psychiatry (CAP). 2 (8%) were in the "other" category. Only 2 (8%) had professional travel experiences. Just one (4%) had planned of working outside of Finland after 5 years. 21 participants (84%) were either satisfied or very satisfied with their salary. This, social welfare, culture issues affect immigration. In Sweden, 68 (77%) participants were adult psychiatry trainees while the rest were CAP. 32 participants (36%) were of foreign origin and 7 (8%) had another citizenship. 34 participants (39%) migrated during psychiatry training. 35 of all 39 migrants (90%) were either satisfied or very satisfied. Emigration was influenced by working conditions and education. Immigration was influenced by academic and culture-related reasons. In Denmark, 27 (82%) were adult psychiatry trainees and 6 were CAP. 4 (12%) were from another country. 18 trainees (55%) had migrated for 3 to 12 months. (12%) had migrated for more than a year, mainly due to work, education and/or volunteering. 23 (70%) had ever considered leaving the country. 9 (27%) planned to do so after 5 years. 30 (90%) were satisfied with their income. Social welfare and education also affect immigration.

P35

Melatonin versus placebo for benzodiazepine discontinuation in patients with schizophrenia or bipolar disorder: a randomized, placebo-controlled trial

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Introduction: Prolonged periods of benzodiazepine administration is common in psychiatric populations despite recommendations of only short-term usage. We assessed if melatonin can facilitate withdrawal of long-term benzodiazepine usage in patients with schizophrenia or bipolar disorder.

Methods: Randomized, placebo-controlled, blinded, parallel superiority trial of 24 weeks duration. Participants were randomized to prolonged-release melatonin 2 mg daily versus matching placebo and were continuously guided to gradually reduce their usual benzodiazepine dosage. The primary outcome was mean benzodiazepine daily dosage after 24 weeks. Secondary outcomes included pattern of benzodiazepine dosage over time, benzodiazepine cessation proportion, and benzodiazepine withdrawal symptoms. Results: In total, 86 patients (21-74 years) were enrolled: 42 were randomized to prolonged-release melatonin versus 44 to placebo. We found no significant effect of melatonin on mean benzodiazepine dosage at 24 weeks follow-up. Likewise, there was no effect on melatonin regarding proportion of benzodiazepine cessation at endpoint or benzodiazepine

withdrawal symptoms. Groups were similar regarding frequency of serious and non-serious adverse events.

Discussion: Benzodiazepine dosage was comparably low between groups after 24 weeks of guided gradual dose reduction. In this context, prolonged-release melatonin did not seem to further facilitate benzodiazepine discontinuation.

P36

Psychosis just as Important as Cancer?

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Introduction: In the UK, whilst patients suspected of cancer are to be seen within 2 weeks by secondary-care, there is no such deadline in psychiatry. The government is finally aiming to achieve parity of esteem between mental and physical illness. One of the targets being rolled out is treatment within 2 weeks for more than 50% of people experiencing a first episode psychosis in 2015.

Aims: How long it takes EIP to see patients and commence treatment from point of referral, before the government initiatives had been disseminated. After reviewing the audit results carry out interventions - which will take place with the ring-fenced government funding.

Method: The initial audit collected all consecutive referrals between 23rd-September to 28th-November 2014, amounting to 29 patients.

Results: The initial audit highlighted a number of areas of poor practice and identified specific points for improvement.

One-third of all referrals were inappropriate, mostly because referrers are unaware of the remit of EIP.

Only 25% of accepted referrals are seen within 2 weeks, with the majority (60%) seen between 2-7 weeks. The delays were often due to needing a joint assessment with other professionals and poor patient response.

10% of patients were discharged by EIP without being seen as they were not responding.

Interventions and Re-Audit

changing the EIP team structure

Senior management review pathway to EIP

better documentation by EIP staff members

more structured guidance for EIP staff

improving links with referring teams

attendance at NHS England Workshops

P37

A chronic physiological increase of corticosterone age-dependently reduces DNA/RNA damage from oxidation and improves spatial memory in rats

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Stress and depression are associated with an acceleration of brain and bodily aging; effects which have been attributed to chronic elevations of glucocorticoids. We tested the hypothesis that a three week administration of stress-associated levels of corticosterone (CORT, the principal rodent glucocorticoid) would increase systemic and CNS DNA and RNA damage from oxidation; a phenomenon known to be centrally involved in the aging process. We also hypothesized that older individuals would be more sensitive to this effect and that the chronic CORT administration would exacerbate age-related memory decline. Young and old male Sprague-Dawley rats were non-invasively administered CORT by voluntary ingestion of nut paste containing either CORT (25 mg/kg) or vehicle for a total of 22 days. CORT increased the 24h urinary excretion of the hormone to the levels previously observed after experimental psychological stress. Contrary to our hypothesis, 24h excretion of 8-oxodG/8-oxoGuo (markers of DNA/RNA damage from oxidation) was reduced in CORT-treated young animals, whereas old animals showed no significant differences. In old animals, CORT caused a borderline significant reduction of RNA oxidation in CNS, which was paralleled by a normalization of performance in an object location memory test. To our knowledge, this is the first demonstration that chronic stress-associated levels of CORT can reduce nucleic acid damage from oxidation. These findings contradict the notion of elevated CORT as a mediator of the accelerated aging observed in stress and depression.

P38

National clinical guidelines for patients with schizophrenia and complex mental health needs

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Introduction: The Danish Health and Medicines Authority assembled a group of experts to develop evidence-based national clinical guidelines for patients with schizophrenia and complex mental health needs. Within this context, ten focused questions were formulated, defining the Population, Intervention, Comparison and Outcomes (PICO).

Methods: Systematic literature searches were performed stepwise for each PICO to identify relevant guidelines, systematic reviews/meta-analyses, and randomized clinical trials. At each level, the quality of the retrieved material was systematically evaluated. The quality of the body of evidence for each PICO was finally assessed using Grading of Recommendations Assessment, Development and Evaluation (GRADE). Clinical recommendations were developed based on the quality of the evidence, an assessment of the risk-benefit ratio, and expected patient preferences.

Results: The following interventions were recommended as routine treatment: Antipsychotic maintenance treatment for non-remitted patients with a previous response to antipsychotic drugs, family intervention, and assertive community treatment. The following interventions were recommended as possible treatment options: Antipsychotic long-acting injectables, neurocognitive training, social cognitive training, cognitive behavioral therapy for persistent positive and/or negative symptoms, and motivational interviewing/cognitive behavioral therapy for cannabis or central stimulant abuse. SSRI or SNRI add-on treatment for persistent negative symptoms was recommended only in rare circumstances. Where no evidence was available, the working group agreed on a good clinical practice recommendation.

Discussion: The expert panel identified a range of evidence based interventions for people with schizophrenia and complex mental health needs. The implementation of these guidelines in daily clinical practice can facilitate good treatment outcomes within this population.

P39

Psychopathological differences between Asperger syndrome and schizotypal disorder in an adult sample

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Introduction: Social difficulties, odd but *not psychotic* behaviour and a sense of "not being as everyone else" can be prominent in both schizotypal disorder (SD) and Asperger syndrome (AS). Experience in diagnosing AS in Adult Psychiatry is scarce, and studies suggest that adults with symptoms corresponding to AS are diagnosed within the schizophrenia spectrum. Within the schizophrenia spectrum alterations in self-experience are described, these alterations are not thought to be equally present in AS. The *aim* is to elaborate our understanding of AS and SD in adults, the *objective* is to investigate differences in psychopathology between the two and the *hypotheses* are that the total level of altered experiences is higher in SD, with a different pattern of altered experiences in AS, compared to SD.

Methods: The study will include 100 subjects, 50 with Asperger syndrome (F84.5) and 50 with schizotypal disorder (F21), aged 18-30. Exclusion criteria are non-verbal IQ < 80, psychotic symptoms (> 2 days), severe physical illness, organic brain disorder and/or active heavy substance abuse. All included subjects will be interviewed with SCAN, ADOS module 4 and EASE.

Results: Data are analysed quantitatively, with group wise comparisons between SCAN/ADOS algorithms and EASE outcomes, as well as secondary correlations and cross-diagnostic factor analysis.

Discussion: An examination of anomalous self-experiences will, if the hypothesis is true, aid clinical differentiation between the two disorders. Diagnostic precision is the crucial first step to an optimal treatment for the individual patient, and is also imperative to guide future neuropsychiatric research.

P40

Cerebral blood flow in the thalamus as a potential biological marker for schizophrenia: a twin study

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Introduction: Abnormal glutamate transmission, as observed in schizophrenia, may lead to increased metabolism causing increased regional cerebral blood flow (rCBF) and ultimately cortical atrophy.

Using a twin design we investigate if glutamate availability, rCBF or cortical thickness - or a combination of these three - can serve as endophenotypes (biological markers having a hereditary basis) for schizophrenia. Here we report on initial findings investigating rCBF as a potential biological marker.

Methods: Population: 15 monozygotic, 9 dizygotic twin pairs con- or discordant for schizophrenia (ICD-10, F. 20-29), 14 monozygotic healthy control pairs and 6 dizygotic healthy control pairs. Twelve additional twins were included without their siblings. Noninvasive rCBF measurement: a pCASL sequence, 3 tesla Philips MRI system and phase-contrast mapping for normalization of global flow were used.

ROIs: bilateral thalami, caudate nuclei and anterior cingulate cortices.

Results: Preliminary ROI-based rCBF analysis using two-sided Student's t-test showed higher flow in the thalami in patients (n=33) compared to healthy controls (n= 40) (t=2.7, df=57, p<0.01) and patients compared to their healthy co-twins (n=26) (t=2.3, df=56, p<0.025). No differences were found in rCBF for the other ROIs.

Correlations were found between siblings of the same twin pairs (n=44) in left (p<0.01) and right (p<0.05, corrected for multiple comparisons) caudate nucleus by voxel-based analysis.

Discussion:

This indicates increased perfusion in thalamus of schizophrenic patients which could be a potential biomarker.

Establishing heritability estimates is part of future work and will aid the evaluation of perfusion as a possible endophenotype for schizophrenia.

P41

Improving treatment of patients with schizophrenia - glutamate as a marker for choice of treatment

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Insufficient treatment response to dopaminergic antipsychotics constitutes a major challenge in the treatment of patients with schizophrenia. This might be due to glutamatergic disturbances in a subgroup, since cross-sectional studies have found elevated levels of glutamate in the brain area termed anterior cingulate cortex (ACC) of non-responder patients early in the disease but no dopaminergic dysfunction (Egerton 2012, Demjaha 2014). Thus, non-responders might benefit from agents modulating the glutamatergic system.

Here, we wish to test the hypothesis that glutamate levels in ACC and thalamus are increased in a subgroup of initially antipsychotic naïve patients with poor treatment response after 6 weeks' antipsychotic treatment as compared to responders and healthy controls. Further, we will explore if glutamate levels are associated with symptom severity and functional outcome.

Methods: Longitudinal follow-up study of 60 antipsychotic naïve-patients with schizophrenia and 60 matched healthy controls. Levels of glutamate are measured with proton magnetic resonance imaging (¹H-MRS) before and after 6 weeks' treatment with a partial dopamine agonist (aripiprazole). Clinical and functional outcome are measured with positive and negative symptom scale (PANSS) and personal and social performance scale (PSP).

Results: 9 patients and 4 healthy controls have been recruited. Preliminary analyses show higher levels of glx (glutamate + its metabolite glutamine) at baseline in patients relative to controls. ACC: patients (2,2±0,6), controls (2,0±0,2). Thalamus: patients (2,0±0,3) controls (1,9±0,1).

Discussion: High levels of glutamate in antipsychotic-naïve first-episode patients with schizophrenia might be a marker of poor treatment response to dopaminergic antipsychotics early in the disease.

P42

Anomalous Self-Experience in First Episode Psychosis - A Seven-Year Follow-Up Study

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Seven years ago, the first large scale clinical study of self-disturbances (SDs) was carried out in two counties in Norway. 92 patients referred to their first adequate treatment for a psychotic disorder, were included and assessed with measures of SDs and a comprehensive clinical and neurocognitive assessment battery. The main finding from this study was that level of SDs discriminated between schizophrenia and both bipolar disorders and other psychoses. Among patients with schizophrenia, there was also a significant association between SDs and social dysfunction and between SDs and suicidality. While there is considerable support for the notion that SDs are stable core traits, we do not know if SDs predict clinical trajectories or to what extent they are stable over time. This ongoing study is a seven year follow-up of this representative cohort. The overall aim is to expand our knowledge about the role of SDs in psychotic disorders. The objective of this study is to explore the longitudinal course of self-disturbances (SD) in schizophrenia. The main aim is to investigate a representative sample of patients with first-episode schizophrenia, bipolar disorder and other psychoses: i) To what extent SDs at baseline predicts diagnostic changes from baseline to follow-up ii) To what extent the type and level of SDs are stable over time and iii) To what extent baseline- and follow-up levels of SDs are associated with the course of clinical symptoms, including treatment response, and social- and neurocognitive dysfunction.

P43

Can we predict treatment response? - A [18F]-DOPA PET study measuring dopamine synthesis capacity in antipsychotic naïve first-episode schizophrenia patients.

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Background: Insufficient response to antipsychotics constitutes a challenge in the treatment schizophrenia patients. The aim is to stratify antipsychotic-naïve first-episode patients based on striatal dopamine synthesis capacity (DSC) - & evaluate the prognostic value of stratification in terms of treatment response. The study is the first to combine examination of DSC (PET) with examinations of glutamate levels (MR-spectroscopy) & brain structure (structural & functional MRI). We hypothesize that responders are characterized by DSC-disturbances measurable prior to treatment, while non-responders are characterized by no or minor DSC-disturbances but increased glutamate availability.

Method: A prospective follow up study of 40 patients & 40 matched healthy controls. Subjects are examined at baseline & after 6 weeks treatment with flexible doses of aripiprazole (patients only). DSC will be related to psychopathology & level of functioning before & after 6 weeks of treatment. PET was initiated in March 15. Dynamic scans are performed in an integrated PET-CT scanner using ¹⁸F-DOPA. Premedication is given to minimize peripheral metabolism of ¹⁸F-DOPA. Measures of ¹⁸F-DOPA clearance & the relationship between DSC & the loss of dopamine metabolites are obtained by arterial samples.

Results: Previous studies included only few antipsychotic-naïve first-episode patients. No previous studies examined this patient group before & after first antipsychotic treatment. Data will provide insights into the interaction between dopaminergic- & glutamatergic disturbances, clinical symptoms & level of functioning. Subgrouping patients based on distinct pathophysiological disturbances is crucial, since DSC & glutamate levels may serve as markers for best choice of treatment.

P44

Abnormal striatal reward activity in schizophrenia patients with no improvement of negative symptoms after antipsychotic monotherapy

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Background: Disturbances of the reward system are suggested to be central in the pathogenesis of negative symptoms (NS). Although NS are often treatment resistant, amisulpride has been found to improve NS, at least in a subgroup of patients. Here, we compare reward related brain activity in patients improving and not improving in NS after treatment with amisulpride.

Methods: Forty-one antipsychotic naïve schizophrenia patients and 49 healthy controls went through a functional magnetic resonance imaging while playing a monetary rewarding game at baseline and six weeks follow up. Psychopathology of the patients was characterised before and after treatment with individual doses of amisulpride (mean 269 mg).

Results: During treatment a subgroup of 14 patients had an improvement of >20% on NS score. These patients were older and had a higher baseline PANSS NS score ($p < 0.05$). At baseline, the non-improving patients had a decreased reward anticipation activity in striatal regions compared to healthy controls and the patients improving (one way ANOVA, all regions $p < 0.02$). Further, there was a group*time interaction, with the non-improvers increasing and the healthy controls and improvers decreasing in reward anticipation activity after treatment (repeated measure ANOVA, most pronounced in left caudate, $p = 0.001$).

Conclusion: Patients not improving in NS had the most abnormal function of the reward system at baseline, and these patients tended to improve the reward activity during treatment despite no improvement in NS. This finding could be explained by differences in reward learning in the two groups, with non-improving patients having a delayed reinforcement learning.

P45

Attention to dopamine - Dopaminergic dysfunction, a study on adult ADHD and schizophrenia

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Objectives: ADHD and schizophrenia share certain clinical characteristics, and both disorders have been associated with early neurodevelopmental disturbances in frontal cortical areas of the brain where a dysfunction of the dopaminergic system is assumed. However, this neurotransmitter system appears to be affected in *opposite* directions in the two disorders. Subsequently, the two conditions are treated with opposite medical treatments, i.e. dopamine antagonists (schizophrenia) versus dopamine releasers (ADHD).

Design: The study will include 50 medication naïve adult patients with ADHD and 50 antipsychotic naïve, first episode patients with schizophrenia. The two patient groups will be compared on psychophysiological parameters of basic information processing, at two time points: immediately *before* and *after* a six week period of pharmacological treatment.

Results: We expect that the group of schizophrenia patients will show more severe deficits in psychophysiological parameters compared to ADHD-patients, who will show more specific deficits, which will be equally or less severe to those shown by schizophrenia patients.

Conclusions: This study will provide valuable insight into a broad range of psychophysiological parameters of basic information processing that are generally believed to underlie the pathophysiology and disturbed cognition of both disorders. Furthermore, it will provide important information on how two medical treatments with a predominant opposite effect on one of the brain's major neurotransmitter systems, affects these aberrant functioning information processes in both diseases. The study may indicate if the conditions can be separated at an early stage, and may facilitate development of alternative, more effective, treatments.

P46

Antipsychotic drug use and associations with neuropsychiatric symptoms in persons with impaired cognition

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Introduction: Neuropsychiatric symptoms (NPS) in cognitive disorders impair quality of life, cause distress for patients and their caregiver, and may lead to earlier institutionalization. NPS can be divided into hyperactivity, psychosis, and mood and apathy subgroups. Despite the known risk factors and their modest efficacy, antipsychotics are widely used to treat NPS. The aim of this study was to investigate the use of antipsychotics in persons with cognitive impairment in home care and residential care, and associations with NPS and personal characteristics.

Methods: Data were collected in the South Savo Hospital District (population 105,000), by mailing questionnaires to public and private institutions providing long-term residential care, and municipal home care producers, of which practically all responded. Nurses fulfilled the study questionnaires on the current drug use, activities of daily living, the prevalence of recent NPS and cognitive status.

Results: The study population consisted of 1909 persons with cognitive impairment, of which 563 (29.5%) used antipsychotics and 448 of them lived in residential care and 115 in home care. In multivariate analysis, the use of antipsychotics was associated with agitation/aggression, disinhibition, delusions and hallucinations. Also younger age, living in residential care, low MMSE and use of benzodiazepines were associated with use of antipsychotics.

Conclusions: Antipsychotics were used by one third of participants, and use was associated with suffering from hyperactivity and psychotic symptoms, living in long-term residential care, lower age, lower MMSE and benzodiazepine use.

P47

Clinical characteristics of schizophrenia patients using cannabinoids in Riga, Latvia

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Cannabinoids are the most used illicit drugs among schizophrenia patients. It is important to find out are there any clinical characteristics of patients in Latvia different from those already published in literature. **Methods-**All consecutive schizophrenia spectrum patients, admitted for at least 5 days to "Rigas centre of psychiatry and addiction disorders" during 06.08.2013.-06.09.2013. have been interviewed by questionnaire and M.I.N.I. (J and K modules). Patients were divided in two groups: who have never used cannabinoids (Sch-C) and who reported cannabinoid use (Sch+C). The data was statistically analysed using SPSS,20. **Results-**In Sch-C group (n=78), the mean age was 44,7±13,8; in the Sch+C group (n=34) 33,2±10,8 (p<0,03,t=4,36). Age at the time of the first hospitalization with a schizophrenia spectrum disease in the Sch-C group is 36,3±11,9 years, in the Sch+C group- 27,3±9,0 years, p<0,001. Earlier start of cannabinoid use correlates with earlier first time hospitalization with a schizophrenia spectrum disease (p=0.638, p<0,001). Schizophrenia patients who use cannabinoids had more frequent hospitalizations per year than those who do not (p<0.012). In the Sch-C group, 46,2% of participants smoked nicotine cigarettes in comparison with 85,3% of Sch+C, p<0,001. Heavy alcohol use is reported in 3,8% in the Sch-C group and in 23,5% in the Sch+C group, p<0,001. **Discussion-**Data showed that schizophrenia patients who use cannabinoids are younger and are hospitalized for the first time with schizophrenia spectrum disorders earlier. Although cannabinoids user patients in Latvia are older than in other countries worldwide. Cannabinoid users had more frequent hospitalization and additional alcohol and nicotine addictions.

P48

Searching for footprints of positive selection on schizophrenia associated genes in Danish and worldwide samples of human populations

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Introduction: Schizophrenia is an evolutionary paradox. Heritability is up to 81%, but it shows strongly negative fitness since people suffering have an increased standardized mortality rate and a highly reduced fecundity. Despite these disadvantages schizophrenia is relatively common, with a lifetime risk of around 1% worldwide.

Aim: To investigate whether genes associated with schizophrenia have been subject to positive selection in the evolution of humans.

Methods: Genetic data was drawn from a previous genome-wide association (GWA) analysis of 1770 Danish residents comprised of 888 cases with an ICD-10-DCR diagnosis of schizophrenia identified in the Danish Psychiatric Central Research Register since 1981 as well as 882 matched controls from the same birth cohort and with no history of psychiatric disease.

Gene lists was derived from the most recent results from the Psychiatric Genomics Consortium (PGC), and was compared to the webinterface Haplotter that display results of a scan for positive selection on HapMap data.

To test for signs of positive selection, we used two tests based on extended haplotype homozygosity (EHH). REHH measure EHH, integrated EHH (iHH), and the log-ratio of iHH (iHS). The iHS-score is standardized using the rest of the genome. nSL is also based on the iHS-statistic, but measure the length distance by segregating sites and not recombination distance as REHH does.

Discussion: Identifying genomic regions associated to schizophrenia that are subject to positive selection is one step towards understanding why these regions are conserved in the human lineage despite the apparent negative fitness.

P49

The FOCUS trial: An RCT evaluating the effectiveness of cognitive remediation for patients at ultra-high risk for psychosis

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

Method: The FOCUS trial is a parallel group, observer-blinded clinical trial enrolling 126 patients age 18-40 years meeting the UHR criteria of the instrument CAARMS. Patients are randomised to one of the two treatment arms: cognitive remediation plus standard treatment versus standard treatment. The CR consists of 20 weekly group-based, manualised sessions targeting neurocognition and social cognition. Additionally the patients will be offered 12 individual sessions aiming at transferring the effect of the CR to their everyday lives.

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

Results: The inclusion of patients began in April 2014. By April 2015 39 patients have been enrolled.

Discussion: This is the first trial to evaluate the effects of neurocognitive and social cognitive remediation in UHR patients. The FOCUS trial results will provide evidence on the effect of targeted and comprehensive cognitive rehabilitation on cognition, daily living, symptomatology as well as long-term outcome in preventing transition to psychosis in UHR patients.

P50

Illicit drugs and the risk of developing schizophrenia

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Background: Cannabis is the most frequently used illicit drug in the world. Legalizing the drug has been highly discussed worldwide and is already effectuated in some countries.

Cannabis is known to cause transient psychotic symptoms in healthy people. Together with a high use of cannabis among patients with schizophrenia, this has raised the question to whether cannabis could be a precipitating cause of schizophrenia, an extremely disabling disease with a relatively high prevalence. The hypothesis has been tested in several studies, but uncertainties still remains to whether shared confounders or revers causality could be the real explanations to the found association.

Method: Via a register-based cohort study we will examine whether people with abuse of cannabis and other illicit drugs are at a higher risk of developing schizophrenia in comparison to the background population. The study-population will be all residents in Denmark from 1995 till 2005. We will use Cox-regression to analyze the data from the Danish registers. Adjustment will be made for possible confounders including urbanity, other substance-abuse and parents' psychiatric diagnosis (incl. substance abuse).

To address the issue of revers causality we will exclude every person with a schizophrenia-spectrum diagnosis at baseline, and an analysis of the reverses association will be made.

Expected results: We expect the results to contain sufficient statistical strength to conclude an association between the substances and schizophrenia. The nationwide Danish registers will enable us to evaluate the time factor and avoid selection bias, because of the completeness of the registers.

P51

A cuckoo in the nest? Forensic inpatients in general psychiatry

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Intro: The number of forensic psychiatric patients in Denmark has increased substantially over the last 20 years. The majority of these patients are treated in outpatient services (80 %). The remaining 20 % requiring inpatient treatment and care are treated in either specialised forensic psychiatric units or in general psychiatric units.

Knowledge on nursing practices for mentally disordered offenders is sparse (Gildberg, 2012), especially when cared for in general psychiatry. The purpose of this study was to illuminate if and how taking care of mental disordered offenders is experienced as a burden among staff and managers in general psychiatry.

Methods: Qualitative research methods, i.e. triangulation, content and textual analyses of semi-structured interviews with staff (nurses and social and health assistants), individual interviews with Nursing Heads of Units and questionnaires to Heads of Care and Development.

Results: Caring for forensic inpatients within general psychiatric units is seen as a challenge as well as a burden. This is due to a complex interplay between bottlenecks within and between sectors, poor information exchange, the physical environment of the units; limited possibilities of offering

activities or exercise and risk of reduced levels of functioning, lack of knowledge and competences as well as complex psychopathology further complicated by substance abuse. When categorising forensic patients as “cuckoos”, taking up beds and pushing the general psychiatric population out, there is furthermore a risk of distinguishing between worthy and unworthy patients, less entitled to care and treatment.

P52

Recovery and rehabilitation in forensic psychiatry: Theory and practice

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Intro: Every patient in contact with the mental health services, including compulsory admitted, will receive recovery-orientated treatment and care, according to the political vision and strategy of the Capital Region of Denmark [1].

Aims: Firstly, to provide an overview of recent literature on *recovery* and *rehabilitation*, specifically within forensic psychiatry.

Secondly, to identify how members of staff working in forensic psychiatry perceive these concepts and their implications, and how they are implemented in daily nursing practices.

Method: Systematic literature review combined with semi-structured interviews with members of staff.

Preliminary results: It is an ongoing study. Interviews are currently being analysed and the review will be performed during 2015. Preliminary results seem to indicate two main perceptions about recovery among staff:

1) Skepticism, ambiguity - “I don’t really know what recovery means” or

2) “We are doing this already”

Both positions need further scrutiny;

Members of staff belonging to the first group tend to see the sentences to treatment as limitations and barriers and it seems difficult to keep up hope and spirits on behalf the patients, especially if they recidivate or suffer from substance abuse disorders or other complex psychopathology. When the latter group experiences recovery as already implemented, it seems relevant to scrutinise the understanding of involvement, self-management and patients as experts and decision makers.

[1] Virksomhedsplan 2013 og 2014, Region Hovedstadens Psykiatri.

P53

Promoting Physical Health in Severe Mental Illness: Patient and Staff Perspective

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Introduction: Severe mental illness is associated with increased risk of premature death due to chronic somatic diseases. Patients with severe mental illness receive less medical care than others, regarding these problems, and that it is not well defined with whom the responsibility of treating their physical health lies.

Objectives: There is a need for lifestyle interventions and focus on physical health in patients with severe mental illness. The patients’ and staff’s perspectives upon these problems and possibilities of change are important. This study aims to investigate physical health problems and their causes as well as possibilities for prevention and treatment, as experienced by the staff and patients.

Methods: We conducted six focus groups with patients and staff separately, from three out-patient clinics treating patients with schizophrenia or substance use disorder comorbid to another psychiatric disorder. Focus groups were audio-recorded, transcribed verbatim and analysed using a template approach.

Results: The paramount physical health problems are weight issues, cardiovascular diseases and bad physical shape in general. The main causes are lifestyle, the mental disorder and organisational issues. Possibilities for prevention and treatment includes: a case-manger, binding communities with like-minded, less fragmentation of the treatment system and implementation of focus upon physical health into daily practice in psychiatry.

Conclusions: To prevent and treat physical health problems in patients with severe mental illness, support in daily structure and lifestyle changes is needed. There is a need for a change in clinical practice and implementation of routines regarding physical health, supported by the managements.

P54

Factors associated with cognitive functioning 10 years after first-episode psychosis within the schizophrenia spectrum: The OPUS study

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Objective: Few studies exist on predictors of long-term cognitive functioning in first-episode schizophrenia spectrum disorders. We examined a

range of baseline characteristics in relation to cognitive functioning 10 years after first-episode of psychosis, and investigated relationships between changes in symptomatology and cognition over time.

Method: Participants from the OPUS trial, aged 18-45 years with a baseline ICD-10 schizophrenia spectrum diagnosis, were assessed on psychopathology, social and vocational functioning at baseline, and cognitive functioning 5 (N=298) and 10 years (N=322) after diagnosis. Predictors of the global cognitive score were calculated using multivariate regression analysis. Correlations between longitudinal changes in cognition and symptoms from 5 to 10 years were also assessed.

Results: A longitudinal reduction in negative symptoms was associated with improved speed of processing and executive functions. Symptom scores generally improved with time, while scores for all cognitive tests remained stable. After 10 years, being male, unemployed and having a poor premorbid academic function was associated with impaired global cognitive performance. Having finished high school was positively correlated with global cognitive functioning. Unexpectedly, late age of onset was associated with more severe cognitive deficits. Duration of untreated psychosis, baseline symptomatology and substance abuse were not significantly associated with cognition 10 years later.

Conclusion: Ten-year global cognitive functioning was positively associated with baseline educational and vocational variables, but negatively associated with late age of onset. Longitudinally, reduced negative symptoms were associated with improved cognitive functioning. Our data support a neurodevelopmental model of schizophrenia.

P55

Development and Validation of the Psychotic Depression Assessment Scale (PDAS)

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Introduction: Psychotic depression (PD) is a severe and debilitating condition, which needs intensive treatment and monitoring. However, until recently there was no rating scale dedicated for the assessment of severity in PD. We therefore developed and validated the Psychotic Depression Assessment Scale (PDAS) through a series of studies based on data from North America and Denmark.

Methods: The items included in the PDAS were identified through an item-level analysis of ratings on the 17-item Hamilton Depression Rating Scale (HAM-D17) and the Brief Psychiatric Rating Scale (BPRS) from the 259 patients with PD participating in the Study of Pharmacotherapy of Psychotic Depression (STOP-PD). Subsequently, the validity of the PDAS was tested in an independent Danish sample of 50 patients with PD.

Results: The analysis of the STOP-PD data showed that the PDAS consisting of 11 items, namely 6 items from the Hamilton depression rating scale (depressed mood, guilt feelings, work and activities, psychomotor retardation, psychic anxiety and somatic symptoms (general)), plus five items from the BPRS (hallucinatory behavior, unusual thought content (delusions), suspiciousness, emotional withdrawal and blunted affect) was both clinically valid and unidimensional in the measurement of the severity of PD. The analysis of the Danish data confirmed the clinical validity and the unidimensionality of the PDAS.

Conclusions: We have demonstrated that the PDAS is a valid measure for the severity of PD in both North America and Denmark. Thus, the PDAS should be considered as an outcome measure in future research studies as well as in clinical practice.

P56

Clinically useful predictors for premature mortality among psychiatric patients visiting a psychiatric emergency room

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Objective: To examine changes in the distribution of causes of death and mortality rates among psychiatric patients visiting a Danish psychiatric emergency room (PER), to determine clinically useful predictors for avoiding premature mortality among these patients, and to offer suggestions for possible interventions.

Method: A historical prospective record linkage study. Five consecutive 3 year cohorts of individuals, aged 20< 80, with at least one visit to a PER in 1995-2007 were identified. Data from the Danish Civil Registration System was linked to the Cause of Death Register and the Central Psychiatric Research Register.

Results: The standardized mortality ratio (SMR) of all visitors compared to the general Danish population was approximately 5. Overall, patients with drug and/or alcohol use disorder experienced approximately a 2.5 fold increase in SMR compared to patients without substance use disorder. In the case of patients with schizophrenia and a concurrent substance use disorder the SMR increased considerably. During the period, the predictive power of a diagnosis of substance use disorder for premature death was increased.

Conclusion: An improvement of the systematic identification of substance use and specialized treatment among psychiatric patients with substance use disorders visiting the PER is needed.

P57

Persistence and resolution of suicidal ideation during treatment of depression in patients with significant suicidality at the beginning of treatment: The CRESCEND study

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Introduction: The appropriate length of time for patients who present with significant suicidal ideation in the initial clinic visits to be closely monitored is a critical issue for clinicians. We evaluated the course of suicidal ideation and associated factors for persistent suicidality in patients who entered treatment for depression with significant suicidal ideation.

Methods: A total of 565 patients who had both moderate to severe depression (Hamilton Depression Rating Scale (HAMD) score ≥ 14) and significant suicidal ideation (Beck Scale for Suicide Ideation (SSI-B) score ≥ 6) were recruited from 18 hospitals in South Korea. Participants were assessed using the SSI-B, HAMD, Hamilton Anxiety Rating Scale, and Clinical Global Impression Scale-severity during a 12-week naturalistic treatment with antidepressant intervention. Over the 12-week study period, participants were classified into two groups with resolved suicidality and persistent suicidality according to whether or not their suicidal ideation resolved (SSI-B scores < 6) and sustained resolved for 12 weeks.

Results: During the 12-week treatment period, 359 (63.5%) patients were classified as persistent suicidality group. Persistent suicidality was associated with intervention with SSRIs, higher SSI-B scores at baseline, and no HAMD or HAMA remission. The proportions of participants who had persistent suicidal ideation even with HAMD remission or treatment response were 0.25 and 0.34, respectively.

Discussion: A considerable number of patients had persistent suicidal ideation despite 12 weeks of antidepressant treatment. Close monitoring for suicidal ideation is warranted beyond the initial weeks of treatment and even after a response to antidepressants.

P58

Long-term suicide risk in no, one, or more mental disorders: the Lundby Study 1947-1997.

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Introduction: To investigate long-term (approximately life-time) suicide risk in individuals with no, one, or more mental disorders. **Methods:** In the Lundby Study, involving a total population of 3563 subjects, mental health and suicide risk were monitored over 54-64 years. **Results:** The long-term suicide risk in subjects with no, one, or more mental disorders was 0.3%, 3.4% and 6.2%, respectively. For individuals with only depression, the risk was 6.0%, only alcohol use disorder 4.7%, and only psychosis 3.1%. However, when individuals had additional disorders, the suicide risks were 6.6%, 9.4% and 10.4%, respectively. Each diagnosis per se was significantly related to increased risk of suicide. In men, alcohol use disorders plus depression, and psychosis plus alcohol use disorders, were significantly related to increased risk. Taking the time variable in consideration (Cox regression analyses), at least one mental disorder was associated to markedly increased suicide risk in women. Depression, alcohol use disorder and psychosis showed an increased risk of suicide in the male group. The most striking finding was a higher risk of suicide in men with depression and alcohol use disorders with Hazard Ratio: 24.75. **Discussion:** Long-term suicide risk was increased for depression, psychosis and alcoholism per se, but for the latter probably lower than previously estimated when there is no additional diagnosis. Our results indicate that in men, alcoholism with depression, and psychosis with alcohol use disorders, should be treated vigorously in the work to prevent suicide.

P59

The Amager Project Suicide Prevention IV phase

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Introduction: Through the years up to 2009, we conducted three prevention studies, one descriptive study, one quasi-experimental and one randomized, studying the effect for non-psychotic persons of an assertive psycho-social intervention after a suicide attempt. From autumn 2009 we have established a prevention center, offering a follow-up service for non-psychotic persons after suicide attempt and suicide thoughts.

We want to perform a Phase IV, comparing the permanent service with the three previous research studies.

Method: All persons attending are registered and followed through medical records through the period of intervention and therapy and minimum one year after.

Primary end point registered is new suicidal behavior, such as suicide attempt and suicide. Secondary end point numbers of suicidal acts.

Results: The results from the three research studies have been published. Results from the RCT study: The proportion with a new suicidal act after 1 year was in the intervention group 9%, and in the control group 25%. Similar was the total number of suicidal acts significantly reduced.

From the new prevention center, the help seeking group will be describes according to age, gender and social events and compared to the study groups after 1 year and the trajectories related to suicidal behavior will be described.

Discussion: The period of implementing research results, the IV phase, is often skipped or neglected, but is of utmost importance for any prevention effort.

We are presenting results from a IV phase of prevention, implementing and following the clinical program, compared to the preceding research phases.

P60

Attempted suicide by quetiapine intoxications: a retrospective study

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Introduction The second generation antipsychotic drug quetiapine is a serotonin and dopamine antagonist with a potent alpha-adrenergic and histaminergic

mine receptor blockade.

Methods The retrospective investigation was conducted in eight patients with acute quetiapine overdoses admitted to the University Hospital, Göttingen, Germany (UMG).

Results: Six female, 2 male patients (median age: 52.9 years) were investigated. The ingested dose of quetiapine ranged between 2200 to 10100 mg (median dosage: 4450 mg) with quetiapine serum levels between from 2.1 to 9.1 mg/L. Most frequent clinical findings were somnolence (n=6 patients), headache (6), tachycardia (4), orthostatic hypotension (3) and prolonged QTc intervals (2). One seizure occurred in one patient. No severe cardiac arrhythmias and no fatal cases occurred.

Discussion. The severity of clinical effects and manifestations of intoxications was associated with sex, age and comorbidity of patients, estimated time after ingestion of quetiapine in overdose and admission, but not with levels of quetiapine serum concentrations.

P61

Loneliness and mortality among Swedish adults.

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Introduction Loneliness exist in western communities with a prevalence between 15-30 %. Previous studies suggest, that the feeling of loneliness affect the mortality, other have shown an association to e.g. hypertension, coronary heart disease, and metabolic syndrome. No study has been able to explain the higher mortality among lonely, but health behavior and concomitant diseases might be involved.

We aimed to assess if loneliness is associated to higher mortality, and if so, if health indicators as tobacco use, alcohol consumption, diabetes, obesity, and hypertension mediate the higher mortality among lonely.

Methods This longitudinal cohort-study is based on data from the Lundby Study, a Swedish database comprising 3563 subjects followed from 1947-1997. Loneliness is measured in 1997 with a single question asking if the subject feel lonely, 1365 adults (>40 years) replied. The subjects are followed until death or at the endpoint in 2010. 297 cases of loneliness is identified, and difference in mortality between lonely and non-lonely will be studied using Cox regression models.

Discussion The results are not yet present, since the statistical analysis is still in progress. However, we expect to find a positive correlation between loneliness and mortality corresponding to previous studies, and hopefully to reveal some health indicators to be more frequent in lonely. The strengths of this study will be the 13-year long follow up of mortality and the well-described cohort from the Lundby Study. With high prevalence, potential health consequences, and a neglected role in the society, loneliness is an important area of research.

P62

Infections as Risk Factors for Suicide: A Nationwide Register-Based Cohort Study

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Introduction: Infections are one of the most common causes of illness in the world. Recent findings have linked infections to mental disorders and infectious diseases have been associated with suicidal behavior. Inflammation has been linked to suicide risk and it is known that the immunological response during an infection can affect the brain which might increase the risk of suicidal behavior. The aim of the study is to investigate whether individuals diagnosed with infectious diseases are at higher risk of dying by suicide even when adjusting for mental disorders.

Method: Based on individual data drawn from Danish registers we performed survival analyses to examine the risk of dying by suicide among persons aged 15 years and older diagnosed with infection and we estimated changes in risk according to site of infection. Multivariate analyses were adjusted for gender, calendar period, age, living status, socio-economic status, presence of comorbidity, mental disorders, previous self-harm and prescription of antidepressants.

Results: With a study population of 7.2 million people we found that any history of hospitalization for infection increased the risk of suicide by 7% (IRR, 1.07; 95% CI, 1.04-1.10) compared to individuals with no infection. Further analysis showed that people diagnosed with a respiratory, urological, or sepsis infection had an even higher risk of dying by suicide.

Conclusion: A significantly elevated risk of suicide in individuals diagnosed with infection was found even when adjusting for mental disorders. In on-going analysis, we examine changes in risk according to number of infections and time since infection.

P63

Incidence rates of patients recorded in hospitals with suicide attempt in Denmark during 1994-2011.

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Introduction: WHO states have agreed to endeavor better figures of suicide and suicide attempt. The reliability of statistics has been questioned. Registration is important for surveying changes and assessing impact of interventions. The objective was to present rates and trends of suicide attempts in Denmark.

Method and materials: A register study on all individuals recorded with a suicide attempt or 'probable suicide attempt' harm in nationwide registers

during 1994-2011.

Results: The average incidence rate of suicide attempts for women and men was 129.7 (95 % CI 128.7-130.8) per 100,000, and 85.7 per 100,000 (95 % CI 84.9-86.6), respectively. The rates of suicide attempts for women increased from 133.6 (95 % CI 128.9-138.3) per 100,000 in 1994 to 151.1 (95 % CI 146.3-155.9) in 2011. A similar increase was observed for the rates of 'probable' suicide attempts, albeit at a higher level. For a subgroup of younger women aged 15-24 years, an almost 3 fold increase was observed in the period, IRR 2.5 (95 % CI 2.4-2.6). Most frequently used method was self-poising.

Discussion and conclusion: A large difference in the absolute rates of suicide attempt and 'probable suicide attempts' was noted. Nevertheless, an increased incidence of suicide attempts among young Danish women over recent years was observed, despite the risk of detection bias. The need for improvement of the registration procedures of suicidal behavior in Denmark is emphasized.

P64

The long-term effect of treatment of traumatised refugees with cognitive behavioral therapy and antidepressants - a 6- and 18 month follow-up of an RCT

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Aims: To estimate the long-term treatment effect of cognitive behavioral therapy and antidepressants (Sertraline and Mianserin) in traumatized refugees.

Methods: 6- and 18-month follow-up after randomized controlled clinical trial. Patients included were refugees with war-related traumatic experiences from their country of origin, PTSD and without a psychotic disorder. The treatment consisted of weekly sessions with a physician and/or psychologist over a period of 6 months. The treatment effect was evaluated with a combination of blinded and un-blinded observer ratings and self-ratings.

Results: 217 patients completed treatment. Of these, 145 patients were seen at 6-month follow-up and 118 patients were seen at 18 month follow up. We found a significant decrease in no. of patients with a diagnosis of PTSD and depression at follow up. Compared with pre-treatment baseline scores, significantly lower scores were observed on observer-rated depression and anxiety symptoms (Ham-D, Ham-A) and self-rated PTSD-symptoms (HTQ) and quality of life (WHO-5) at both follow-ups. The scores on self-rated somatization symptoms (SCL-90), depression symptoms (HSCL-25) and level of functioning (SDS) were significantly lower at 18-month follow up. There were no significant changes in self-rated pain on VAS scales. None of the changes seemed to be associated with a specific treatment modality (psychotherapy or antidepressants).

Conclusion: Despite a limited treatment effect immediately after treatment, the condition of the treated traumatized refugees was significantly improved 6 and 18 months after treatment.

P65

The use of cyproterone acetate and its effect on sexual activity and sexual functioning of male sex offenders in a forensic psychiatric cohort

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Introduction: Seventy-six forensic psychiatric patients from Weskoppies Hospital in Pretoria, South Africa, participated in the study which measured their sexual functioning. The use of cyproterone acetate (CA) was studied and the sexual functioning of patients on the drug was compared to those not on the drug.

Methods: A specifically designed questionnaire was used to capture relevant background information. The Changes in Sexual Functioning Questionnaire, Male Clinical Version (CSFQ-M-C) was used to measure sexual functioning of participants. The CSFQ-M-C scores, and those of all its subscales, of participants on CA were compared to those not on the drug. Relevant statistical analyses were performed.

Results: Thirteen out of the 76 participants were being treated with CA (17.11%). 65.08% of the participants on CA and 53.85 % not on CA had scores indicating the presence of sexual dysfunction. The mean total CSFQ-M-C scores for participants on CA (40.46) were lower than those on the drug (41.22) - this difference was not statistically significant. More notable is that the use of CA in this population was associated with lower levels of desire/frequency of and pleasure from sexual activity. There was an association between having intellectual disability and being treated with CA.

Discussion: The fact that all the participants were being treated with psychotropic medication could account for the high percentage of sexual dysfunction and contribute to the small difference in CSFQ-M-C scores between the 2 groups. The need for the use of CA in this population needs to be individualized according to risk assessment

P66

The extent and impact of post-migration stressors during treatment of traumatized refugees

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Introduction: Traumatized refugees often experience post-migration stressors (PMS). These are likely to enhance the present emotional distress and thereby act as a contributing factor to patients' difficulties of fully focusing on and engaging in treatment. This could in part explain the lack

of positive treatment outcome in some patients. The aim of this study is to document the extent of PMS interfering with treatment of traumatized refugees, as well as studying the association with demographic factors and treatment outcome.

Methods: Participants were refugees with PTSD attending 6 months of multidisciplinary treatment at Competence Center for Transcultural Psychiatry, Psychiatric Center Ballerup. Treatment included 10 sessions with a medical doctor. At each session the clinician noted if there were any social problems spontaneously emerging from the patient during the sessions, thereby playing a role in obstructing the core treatment from being implemented. The social problems were divided into the following categories: Dwelling; work/economy; family; residence permit; none. It is important to emphasize that these were *not* questions that the clinicians posed to the patients, but were systematically noted if the patients raised them spontaneously.

Results: 116 patients completed the trial. At least one PMS was seen in 38.3% of the sessions. Work/economy and family were the most frequent stressors. Male gender was significantly associated with stressor frequency. Data is currently being analyzed further and the complete results from the study will be presented at the conference.

P67

The neurobiology of traumatized refugees

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Introduction: Refugees victims of severe interpersonal traumas may develop a complex form of Post Traumatic Stress Disorder that may encompass persistent and pervasive impairments in affective, self and relational functioning as well as psychotic-like symptoms. The neural underpinnings to these clinical conditions are not understood.

Method: 20 healthy controls, 20 patients with PTSD and 20 patients with PTSD plus psychotic like symptoms will be subjected to 3 days interview and 1 day of MRI. Level of dissociation, psychotic symptoms, anxiety and emotional disturbances will be assessed using various psychometric instruments. Functional MR images will be obtained while participants view similar emotional events in movies, while in resting state and while playing a variant of the monetary incentive delay task.

Primary hypothesis:

- 1) PTSD patients will have an attenuated BOLD response during reward anticipation in the striatum, and this attenuation will correlate with the degree of psychotic symptoms.
- 2) During outcome evaluation of a reward, patients will have an attenuated pleasure-related BOLD response in the medial PFC when receiving a reward and this attenuation will correlate with the degree of emotional numbness.
- 3) During emotional stimuli viewing, PTSD subjects will display attenuated activity in brain areas that have a key role in social perception and cognition
- 4) An interaction effect between high vs. low dissociative trait scorers will be found in the amygdala and medial prefrontal cortex during neutrally-primed emotional stimuli viewing.

The study will commence the 1th of July 2015. Data from the pilot study will be presented and discussed

P68

Treating traumatised refugees: the effect of Basic Body Awareness Therapy versus mixed physical activity as add-on treatment. A Randomised Controlled Trial.

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Background: Treatment of traumatised refugees is a field in psychiatry with little scientific knowledge. Evidence based treatment and knowledge on the efficiency of the treatment for this complex patient group is therefore scarce.

Chronic pain is very common among traumatised refugees and it is believed to maintain the mental symptoms of trauma. Hence, treating chronic pain is believed to be of high clinical value.

In clinical studies, physical activity has shown a positive effect on psychiatric illnesses such as depression and anxiety and for patients with chronic pain. However, evidence about physical activity as part of the treatment for traumatised refugees is very limited and no guidelines exist on this topic.

Design: 250 patients will be randomised into 3 groups. All 3 groups receive psychiatric treatment as usual. One group only receives treatment as usual; the two other groups additionally participate in Basic Body Awareness Therapy or mixed physical activity individually for 20 weeks, 1 hour pr. week.

The study is being conducted at the Competence Centre for Transcultural Psychiatry, at Psychiatric Centre Ballerup in the Capital Region of Denmark. The primary endpoint of the study will be symptoms of PTSD, secondary endpoints will include depression and anxiety.

Discussion: This study will examine the effect of physical activity for traumatised refugees in a randomised controlled setting in a scale not seen before. The results are expected to be used in future clinical guidelines.

Evidence of ICD-11's Complex Posttraumatic Stress Disorder (CPTSD) across a spectrum of prolonged trauma exposure with different ages of onset and interpersonal intensitySabina Palic-Kapic¹, Zahava Solomon², Ask Elklit³, Mark Shevlin⁴¹Competencecenter for Transcultural Psychiatry, Ballerup, Denmark²Bob Shapell School of Social Work, Tel Aviv University, Tel Aviv, Israel³National Centre of Psychotraumatology, University of Southern Denmark, Odense, Denmark⁴Psychology Research Institute, University of Ulster, Ulster, Northern Ireland

Introduction: New stress and trauma-related diagnoses have been proposed for the ICD-11, including two hierarchical diagnoses - PTSD and complex PTSD (CPTSD). Despite the proposal naming different types of repeated trauma as risk factors for CPTSD, its construct validity has only been examined in childhood abuse samples. Thus, the extent to which the proposed hierarchical PTSD and CPTSD apply to other repeatedly traumatized populations is unknown.

Methods: Using Latent Class Analysis, this study (N = 820) examined the construct validity of ICD-11's PTSD and CPTSD across a spectrum of repeated trauma with differing exposure in terms of 1) *age of onset* and 2) *interpersonal intensity* of the trauma. Thus, exposure to childhood sexual abuse, refugee trauma, torture, imprisonment, military combat, and repeated bombardment threat was represented in the sample.

Results: A 4-class solution was identified, representing the hierarchical "PTSD" and "CPTSD", a "non-pathological" class, and a "selected PTSD+CPTSD symptoms" class. CPTSD was not exclusively associated with childhood abuse, but also with exposure to adulthood trauma of "high" interpersonal intensity (e.g. torture and imprisonment). All types of repeated trauma were equally strongly associated with the "selected PTSD+CPTSD symptoms" class, which could be indicative of other trauma-related disorders (e.g. adjustment disorder), at the milder end of the trauma-related diagnoses continuum.

Discussion: The treatment implications of the proposed CPTSD diagnosis need to be further explored, in order to properly acknowledge the severity, longevity, and impairment related to trauma reactions, caused by acts of gross human right violations - and provide adequate treatment.